DRE

Drug Recognition Expert 7-Day School

PARTICIPANT MANUAL

INTERNATIONAL ASSOCIATION OF CHIEFS OF POLICE
POLICE
SINCE 1893

NHTSA

TSI
Transportation Safety Institute

ACKNOWLEDGEMENTS

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PREFACE

The DRE course is a series of three training phases that, collectively, prepare police officers and other qualified persons to serve as DREs. Throughout this manual, the terms “drug recognition expert” and “DRE” are used to designate an individual who is specially trained and has continued training to conduct examinations of suspected drug-impaired drivers. This training, developed as part of the Drug Evaluation and Classification (DEC) Program under the auspices and direction of NHTSA and IACP has experienced remarkable success since its inception in the 1980s.

As in any educational training program, an instruction manual is considered a “living document” that is subject to updates and changes based on advances in technology and science. A thorough review is made of information by the IACP Technical Advisory Panel (TAP) with contributions from many sources in health care science, toxicology, optometry, jurisprudence, and law enforcement. Based on this information, any appropriate revisions and modifications in background theory, facts, examination, and decision-making methods are made to improve the quality of the instruction as well as the standardization of guidelines for the implementation of the DRE training curriculum. The reorganized manuals are then prepared and disseminated, both domestically and internationally, to the DEC Program State Coordinators. Changes will take effect after approval by TAP, unless otherwise specified or when so designated.

The material in this curriculum is to help DREs interpret what is most likely to be seen when performing a drug influence evaluation. When it comes to the signs and symptoms of drug impairment, what is expected to be seen does not guarantee every indicator will be present during each drug influence evaluation. There may be variations due to individual reaction, dose taken, and drug interactions.

Prior to initiating training, all States and equivalents must ensure they comply with DRE section six in the International Standards of Impaired Driving Programs.

1 DRE

INTRODUCTION AND OVERVIEW

LEARNING OBJECTIVES

- State the objectives and goals of the course
- Outline the major course content
- Outline the schedule of major course activities
- Outline the participant guide content and organization
- Recognize course administrative matters

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A. Welcoming Remarks and Goals

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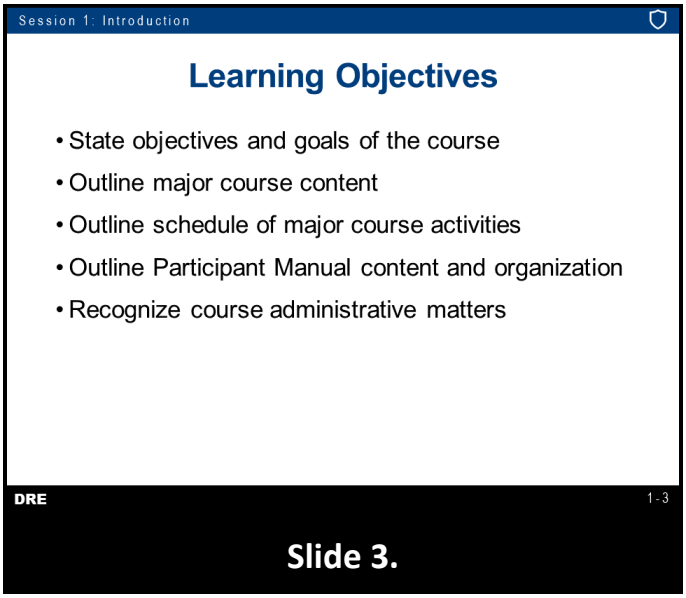

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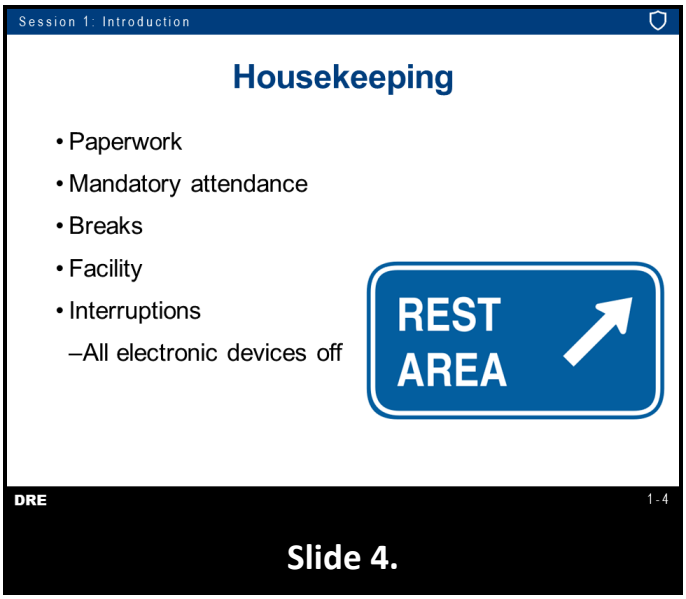
B. Housekeeping



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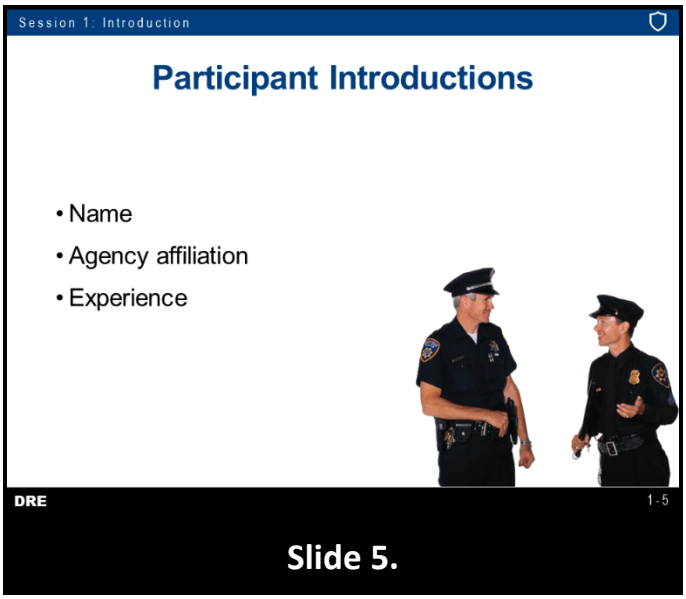
Attendance is mandatory at all sessions of this school.

C. Participant Introductions



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Slide 6.

You have all completed the DRE Pre-School and we look forward to working with you to successfully complete phase two of the certification process. Upon completion of this course, you will be fully proficient in checking vital signs, conducting careful examinations of the eyes, administering divided attention tests, and, in general, carrying out the procedural steps of the DRE's job.

There is one essential learning experience this classroom training cannot provide – the opportunity to practice examining subjects who are under the influence of drugs other than alcohol. For this reason, this classroom training only constitutes Phase II in the process of developing DRE skills. Phase III of the training (which commences upon the successful completion of this course) involves hands-on practice of examining persons who are under the influence of drugs.

Although this DRE School will not conclude with the participant's immediate certification as a DRE, successful completion of this classroom training is highly important. No one can advance to Certification Training until they demonstrate a mastery of basic knowledge of drug categories and their effects on the human mind and body and of the basic skills in administering and interpreting the examinations in the DEC Program process.

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The ultimate goal of the DEC Program and of this course of instruction is to "help you prevent crashes, deaths, and injuries caused by drug-impaired drivers." No one knows precisely how many people operate motor vehicles while under the influence of drugs or how many crashes, deaths, and injuries these people cause. But even the most conservative estimates suggest drug-impaired drivers kill thousands of people each year and seriously injure tens of thousands of others.

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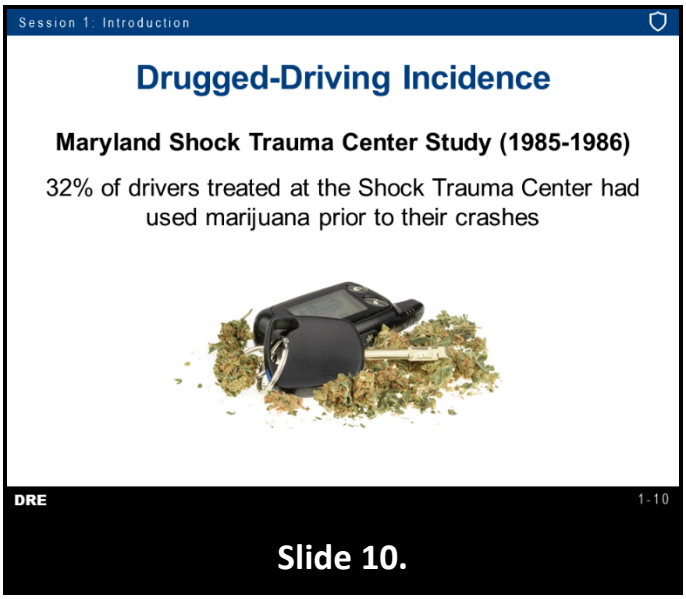
A study in California of young (15-34 years old) male drivers killed in crashes in the early 1980's revealed more than half (51%) tested positive for drugs other than alcohol. The most prevalent drug (other than alcohol) was Cannabis at 37%. 30 percent of all cases had both alcohol and Cannabis.



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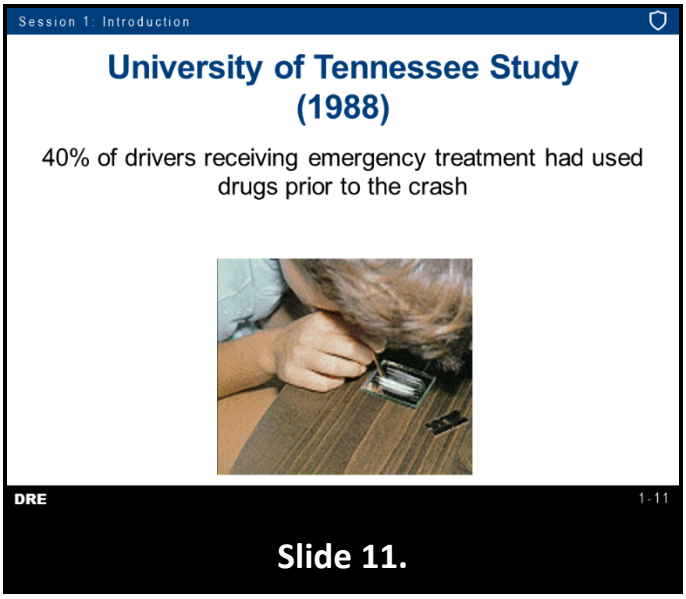
Maryland Shock Trauma Center study (1985 – 1986) states that 32% of drivers treated at the Shock Trauma Center had used marijuana prior to their crashes.



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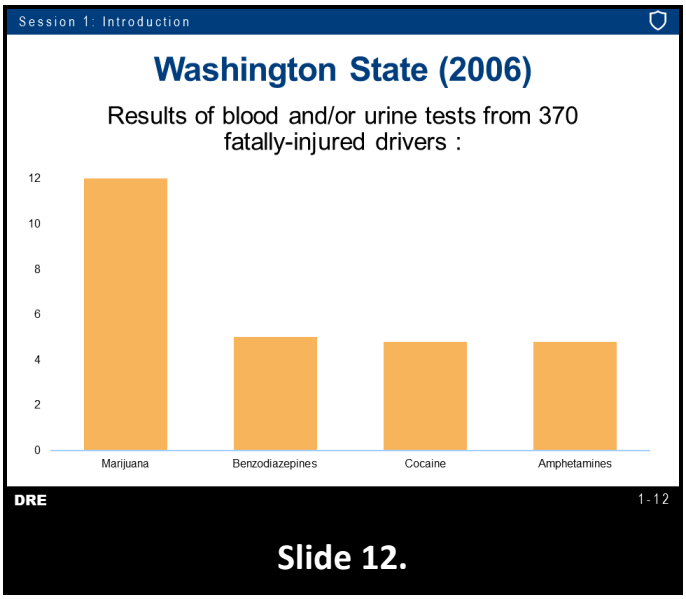
University of Tennessee study (1988) states that 40% of drivers treated at Trauma Center for crash injuries had drugs other than alcohol in them.



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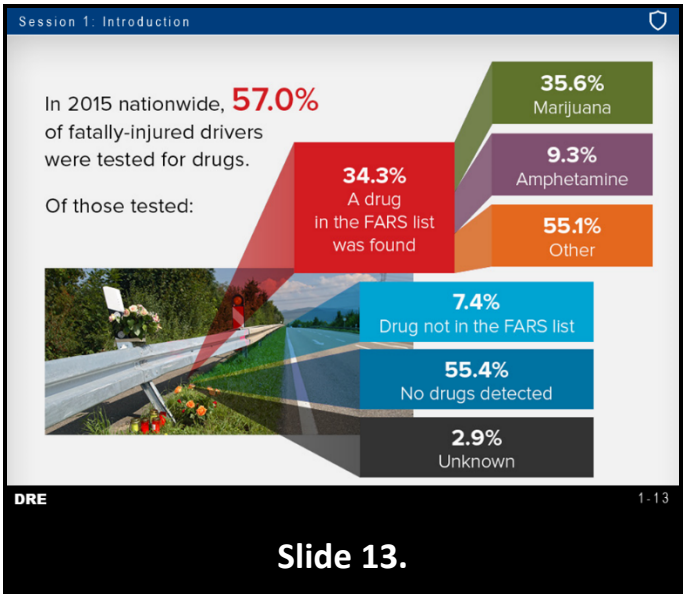
According to Washington State (Schwilke, et al., 2006), the results of tests of blood and/or urine from 370 fatally injured drivers revealed Marijuana was the most encountered drug (12 %) followed by Benzodiazepines (5%), Cocaine (4.8%), and Amphetamines (4.8%)



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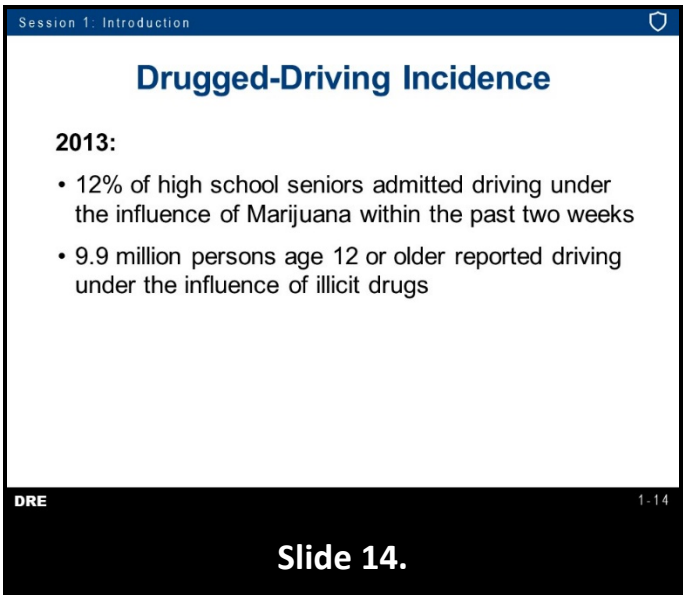
In 2015 nationwide Fatality Analysis Reporting System (FARS) annual report file, 57.0% of the fatally injured drivers were tested for drugs.

Of those tested, no drugs were detected in 55.4%, a drug in the FARS list was found in 34.3%, some other drug in 7.4%, and test results were unknown for 2.9%. Over one-third – 35.6% – of the identified drugs were Marijuana in some form, followed by amphetamine at 9.3%.



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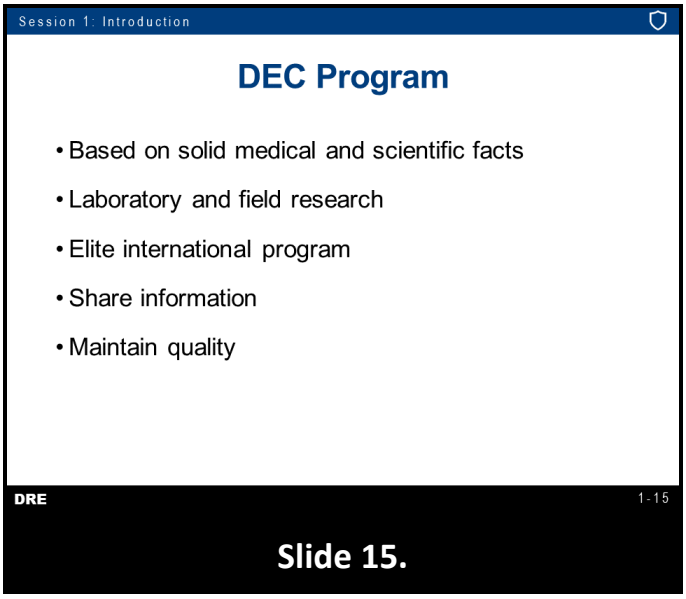
In 2013, 12% of high school seniors admitted driving under the influence of marijuana within the past two weeks and 9.9 million persons age 12 or older reported driving under the influence of illicit drugs.



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The DEC Program is based on solid medical and scientific facts. The validity of the DEC Program has been tested in carefully controlled research in both the laboratory and the field. By enrolling in DRE training, you have become part of an elite international program. DREs form one of the tightest knit fraternities in law enforcement. DREs from many agencies and from many parts of the country work closely together to share information and other resources and to maintain the highest standards of quality. Each of you have been selected to receive this training because you were recognized by your department as a skilled and dedicated law enforcement professional. Your instructors welcome you to this school and are proud to have you here and we're sure you are proud to be here.

D. Training Goals

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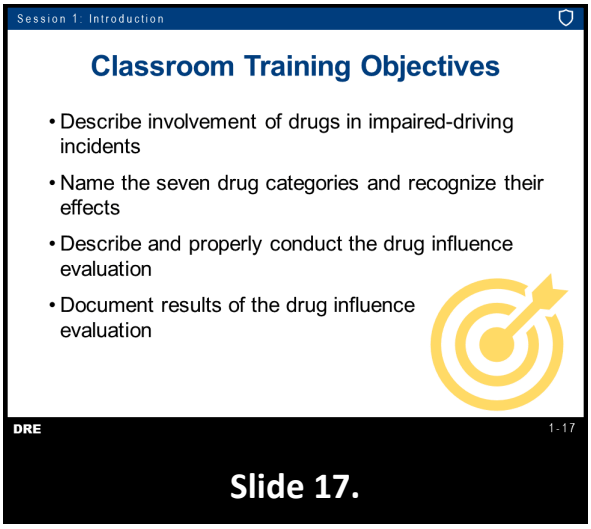
The goals of the classroom training, from the viewpoint of the law enforcement agencies participating in it, are threefold: 1) To help police officers acquire the knowledge and skills

needed to distinguish individuals under the influence of alcohol, other drugs, combinations of alcohol and other drugs, or who are suffering from an injury or illness; 2) To enable police officers to identify the broad category or categories of drugs inducing the observable signs of impairment manifested by an individual; and, 3) To qualify police officers to progress to Certification Training.

E. Training Objectives



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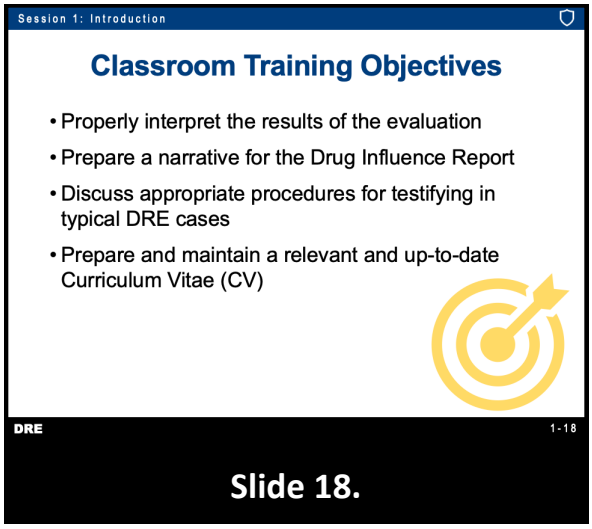

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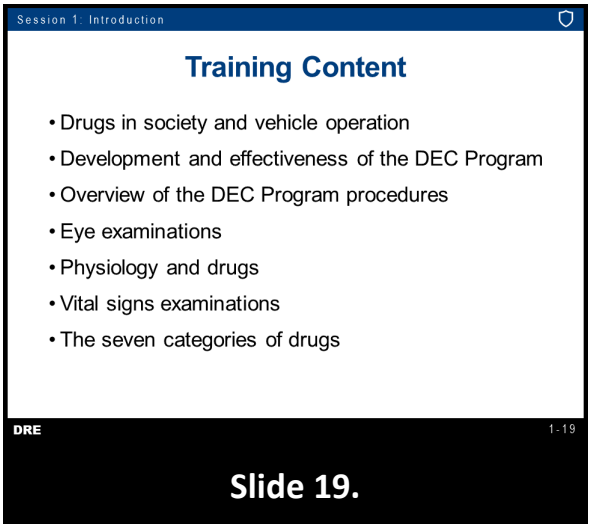
When you successfully complete this training, you will be able to:

- Describe the involvement of drugs in impaired-driving incidents
- Name the seven categories of drugs and recognize their effects
- Describe and properly conduct the drug influence evaluation
- Document the results of the drug influence evaluation
- Properly interpret the results of the evaluation
- Prepare a narrative for the Drug Influence Report
- Discuss appropriate procedures for testifying in typical DRE cases
- Prepare and maintain a relevant and up-to-date Curriculum Vitae (CV).

Before you can be certified as a DRE, you will have to demonstrate that you can do each of these things.

F. Overview of Course Content and Schedule



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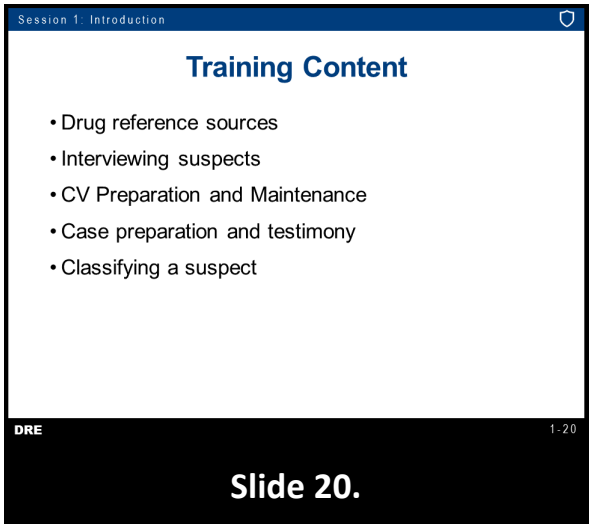

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The course will cover the following topics:

- Drugs in Society and in Vehicle Operation
- Development and Effectiveness of the DEC Program
- Overview of the DEC Program Procedures
- Eye Examinations (a major component of the DEC Program procedures)
- Physiology and Drugs
- Vital Signs Examinations (a major component of the DEC Program procedures)
- The Seven Categories of Drugs
- Drug Reference Sources
- Interviewing Suspects (a major component of the DEC Program procedures)
- CV Preparation and Maintenance
- Case Preparation and Testimony
- Classifying a Suspect (interpreting and documenting the results of an evaluation)

G. Course Activities

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Hands-on practice is the principal learning activity of the course.

Eye Examinations Practice: Horizontal Gaze Nystagmus (HGN), Vertical Gaze Nystagmus (VGN), Lack of Convergence (LOC), Pupil Size, and Reaction to Light.

Alcohol Workshop: Psychophysical testing practice and Volunteer drinkers from outside the class will be recruited for this session.

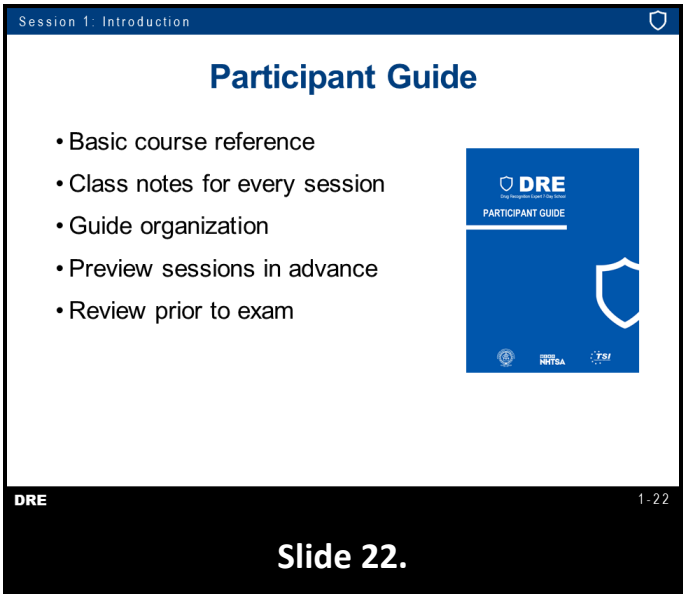
Practicing interpretation of the examination results: Several sessions will be devoted to this allowing the participants to review drug evaluation reports and identify the probable drug category or combinations of categories.

Vital signs examinations: Pulse, Blood Pressure, Body Temperature.

Practicing administration of the drug influence evaluation process: Several sessions will be devoted to this. In each, participants will practice administering the drug influence examinations to each other. No hands-on practice with actual drugged subjects is included in the classroom portion of DRE training.

Simulated drug-impaired subject examinations: Participants will work in teams to conduct and document examinations of instructors who will be simulating the indicators of drug-impaired subjects.

H. Overview of Participant Guide



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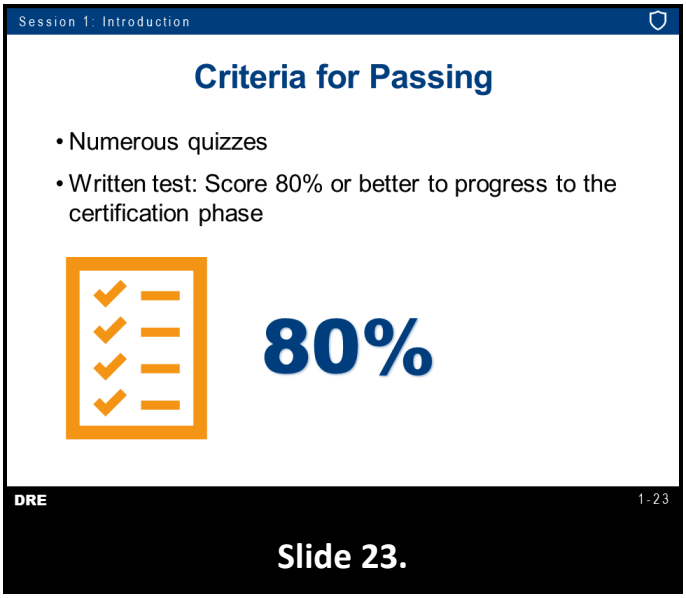
The participant guide is the basic reference document for this course. The guide contains thumbnails of each instructor presentation per session that includes key messages for each slide.

Read each session prior to each day's classes. Use the guide to review the material prior to taking the final exam.



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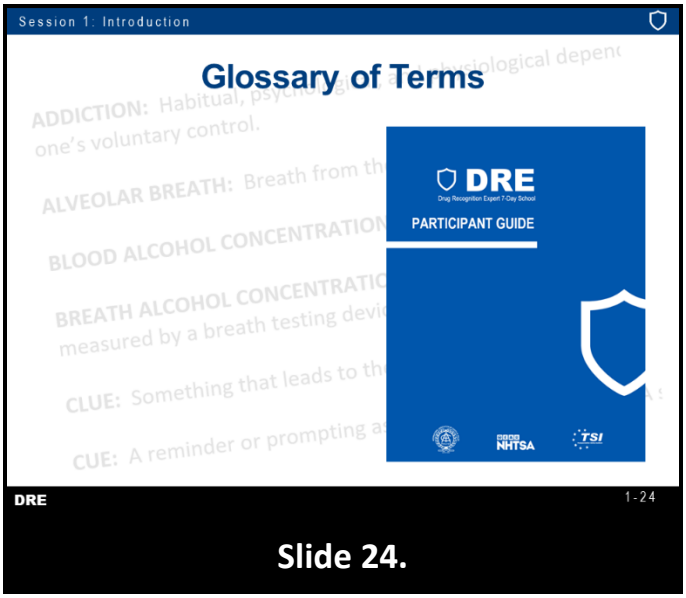
By taking good notes and by studying the guide carefully, participants should have no trouble in passing the course. There will be numerous quizzes during the class.

I. Glossary of Terms



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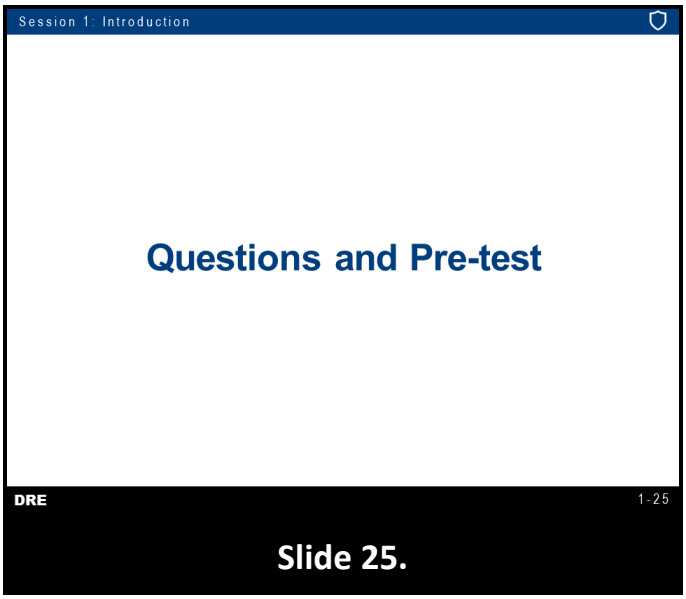
The Glossary of Terms used in the course is located in the Participant Manual. It is recommended participants be familiar with the terms and definitions in the Glossary of Terms.

J. Course Pre-Test Administration



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ACCOMMODATION REFLEX: The adjustment of the eyes for viewing at various distances. Meaning the pupils will automatically constrict as objects move closer and dilate as objects move further away.

ADDICTION: Habitual, psychological, and physiological dependence on a substance beyond one's voluntary control.

ADDITIVE EFFECT: Occurs when the drugs independently affect some indicator in the same way and their use in combination will also affect the indicator and the effect may be reinforced.

AFFERENT NERVES: See: "Sensory Nerves."

ALKALOID: A chemical that is found in, and can be physically extracted from, some substance. For example, Morphine is a natural alkaloid of Opium. It does not require a chemical reaction to produce Morphine from Opium.

ANALGESIC: A drug that relieves or allays pain.

ANALOG (of a drug): A chemical that is very similar to the drug, both in terms of molecular structure and in terms of psychoactive effects. For example, the drug Ketamine is an analog of PCP.

ANESTHETIC: A drug that produces a general or local insensibility to pain and other sensation.

ANTAGONISTIC EFFECT: Occurs when a drug causes an action and another drug causes an opposite action, the effect cannot be predicted.

ARRHYTHMIA: An abnormal heart rhythm.

ARTERY: The strong, elastic blood vessels that carry blood away from the heart.

AUTONOMIC NERVE: A motor nerve that carries messages to the muscles and organs that we do not consciously control. There are two kinds of autonomic nerves, the sympathetic nerves and parasympathetic nerves.

AXON: The part of a neuron (nerve cell) that sends out a neurotransmitter.

BAD TRIP: A hallucination where the user becomes panic-stricken by what he/she is seeing or hearing, and may become uncontrollably excited, or even try to flee from the terror.

BLOOD ALCOHOL CONCENTRATION (BAC): The percentage of alcohol in a person's blood.

BREATH ALCOHOL CONCENTRATION (BrAC): The percentage of alcohol in a person's blood as measured by a breath testing device.

BIPOLAR DISORDER: A condition characterized by the alteration of manic and depressive states.

BLOOD PRESSURE: The force exerted by blood on the walls of the arteries. Blood pressure changes continuously, as the heart cycles between contraction and expansion.

BRADYCARDIA: Abnormally slow heart rate.

BRADYPNEA: Abnormally slow rate of breathing.

BRUXISM: Grinding the teeth. This behavior is often seen in persons who are under the influence of Cocaine or other CNS Stimulants.

CANNABIS: This is the drug category that includes Marijuana. Marijuana comes primarily from the leaves of certain species of Cannabis plants that grow readily all over the temperate zones of the earth. Hashish is another drug in this category and consists of the compressed leaves from female Cannabis plants. The active ingredient in both Marijuana and Hashish is a chemical called delta-9 tetrahydrocannabinol, usually abbreviated THC.

CARBOXY THC: A metabolite of THC (tetrahydrocannabinol).

CENTRAL NERVOUS SYSTEM (CNS): A system within the body consisting of the brain, the brain stem, and the spinal cord.

CHEYNE-STOKES RESPIRATION: Abnormal pattern of breathing. Marked by breathlessness and deep, fast breathing.

CNS DEPRESSANTS: One of the seven drug categories. CNS Depressants include alcohol, barbiturates, anti-anxiety tranquilizers, and numerous other drugs.

CNS STIMULANTS: One of the seven drug categories. CNS Stimulants include Cocaine, the Amphetamines, Ritalin, Desoxyn, and numerous other drugs.

CONJUNCTIVITIS: An inflammation of the mucous membrane that lines the inner surface of the eyelids caused by infection, allergy, or outside factors. May be bacterial or viral. Persons suffering from conjunctivitis may show symptoms in one eye only. This condition is commonly referred to as "pink eye", a condition that could be mistaken for the bloodshot eyes produced by alcohol or Cannabis.

CONVERGENCE: The "crossing" of the eyes that occurs when a person is able to focus on a stimulus as it is pushed slowly toward the bridge of their nose. (See, also, "Lack of Convergence".)

CRACK/ROCK: Cocaine base, appears as a hard chunk form resembling pebbles or small rocks. It produces a very intense, but relatively short duration "high".

CURRICULUM VITAE (CV): A written summary of a person's education, training, experience, noteworthy achievements and other relevant information about a particular topic.

CYCLIC BEHAVIOR: A manifestation of impairment due to certain drugs, in which the person alternates between periods (or cycles) of intense agitation and relative calm. Cyclic behavior, for example, sometimes will be observed in persons under the influence of PCP.

DELIRIUM: A brief state characterized by incoherent excitement, confused speech, restlessness, and possible hallucinations.

DENDRITE: The part of a neuron (nerve cell) that receives a neurotransmitter.

DIABETES: A condition that can result in insulin shock (taking too much insulin) which may produce tremors, increased blood pressure, rapid respiration, lack of coordination, headache, confusion, and seizures.

DIACETYL MORPHINE: The chemical name for Heroin.

DIPLOPIA: Double vision.

DIASTOLIC: The lowest value of blood pressure. The blood pressure reaches its diastolic value when the heart is fully expanded, or relaxed (Diastole).

DISSOCIATIVE ANESTHETICS: One of the seven drug categories. Includes drugs that inhibits pain by cutting off or disassociating the brain's perception of pain. PCP and its analogs are considered Dissociative Anesthetics.

DIVIDED ATTENTION: Concentrating on more than one thing at a time. The four psychophysical tests used by DREs require the suspect to divide their attention.

DOWNSIDE EFFECT: An effect that may occur when the body reacts to the presence of a drug by producing hormones or neurotransmitters to counteract the effects of the drug consumed.

DRUG: Any substance that, when taken into the human body, can impair the ability of the person to operate a vehicle safely.

DRUG RECOGNITION EXPERT (DRE): An individual who successfully completed all phases of the DRE training requirements for certification established by the IACP and NHTSA. The word "evaluator," "technician," or similar words may be used as a substitute for "expert," depending upon locale or jurisdiction.

DYSARTHIA: Slurred speech. Difficult, poorly articulated speech.

DYSMETRIA: An abnormal condition that prevents the affected person from properly estimating distances linked to muscular movements.

DYSPHORIA: A disorder of mood. Feelings of depression and anguish.

DYSPNEA: Shortness of breath.

EFFERENT NERVES: See: "Motor Nerves".

ENDOCRINE SYSTEM: The network of glands that do not have ducts and other structures. They secrete hormones into the blood stream to affect a number of functions in the body.

EXPERT WITNESS: A person skilled in some art, trade, science or profession, having knowledge of matters not within the knowledge of persons of average education, learning and experience, who may assist a jury in arriving at a verdict by expressing an opinion on a state of facts shown by the evidence and based upon his or her special knowledge. (NOTE: Only the court can determine whether a witness is qualified to testify as an expert.)

FLASHBACK: A vivid recollection of a portion of a hallucinogenic experience. Essentially, it is a very intense daydream. There are three types: (1) emotional -- feelings of panic, fear, etc.; (2) somatic -- altered body sensations, tremors, dizziness, etc.; and (3) perceptual -- distortions of vision, hearing, smell, etc.

GAIT ATAXIA: An unsteady, staggering gait (walk) in which walking is uncoordinated and appears to be "not ordered."

GARRULITY: Chatter, rambling or pointless speech. Talkative.

GENERAL INDICATOR: Behavior or observations of the subject that are observed and not specifically tested for. (Observational and Behavioral Indicators)

HALLUCINATION: A sensory experience of something that does not exist outside the mind, e.g., seeing, hearing, smelling, or feeling something that isn't really there. Also, having a distorted sensory perception, so that things appear differently than they are.

HALLUCINOGENS: One of the seven drug categories. Hallucinogens include LSD, MDMA, Peyote, Psilocybin, and numerous other drugs.

HASH OIL: Sometimes referred to as “marijuana oil” it is a highly concentrated syrup-like oil extracted from marijuana. It is normally produced by soaking marijuana in a container of solvent, such as acetone or alcohol for several hours and after the solvent has evaporated, a thick syrup-like oil is produced with a high THC content.

HASHISH: A form of cannabis made from the dried and pressed resin of a marijuana plant.

HEAD TRAUMA: A blow or bump to the head that injures the brain and may cause observable signs and symptoms which may mimic drug and alcohol impairment.

HEROIN: A powerful and widely abused narcotic analgesic that is chemically derived from morphine. The chemical, or generic name of heroin is "diacetyl morphine".

HOMEOSTASIS: Dynamic, self-regulating process by which the body maintains a balanced or constant state while adjusting to internal and external conditions.

HORIZONTAL GAZE NYSTAGMUS (HGN): Involuntary jerking of the eyes occurring as the eyes gaze to the side.

HORMONES: Chemicals produced by the body's endocrine system that are carried through the blood stream to the target organ. They exert great influence on the growth and development of the individual, and that aid in the regulation of numerous body processes.

HYDROXY THC: A metabolite of THC (tetrahydrocannabinol).

HYPERFLEXIA: Exaggerated or over extended motions.

HYPERGLYCEMIA: Excess sugar in the blood.

HYPERPNEA: A deep, rapid or labored breathing.

HYPERPYREXIA: Extremely high body temperature.

HYPERREFLEXIA: A neurological condition marked by increased reflex reactions.

HYPERTENSION: Abnormally high blood pressure. Do not confuse this with hypotension.

HYPERTHERMIA: Increased body temperature.

HYPOGLYCEMIA: An abnormal decrease of blood sugar levels.

HYPOPNEA: Shallow or slow breathing.

HYPOTENSION: Abnormally low blood pressure. Do not confuse this with hypertension.

HYPOTHERMIA: Decreased body temperature.

ICE: A crystalline form of methamphetamine that produces a very intense and fairly long-lasting "high".

IMPAIRMENT: One of the several items used to describe the degradation of mental and/or physical abilities necessary for safely operating a vehicle.

INHALANTS: One of the seven drug categories. The inhalants include volatile solvents (such as glue and gasoline), aerosols (such as hair spray and insecticides) and anesthetic gases (such as nitrous oxide).

INSUFFLATION: One method of administering certain drugs. Insufflation requires that the drug be in powdered form. The user rapidly draws the drug up into the nostril, usually via a paper or glass tube. Insufflation is also known as snorting.

INTEGUMENTARY SYSTEM: The skin and accessory structures, hair and nails. Functions include protection, maintenance of body temperature, excretion of waste, and sensory perceptions.

INTRAOCULAR: "Within the eyeball".

KOROTKOFF SOUNDS: A series of distinct sounds produced by blood passing through an artery, as the external pressure on the artery drops from the systolic value to the diastolic value.

LACK OF CONVERGENCE (LOC): The inability of a person's eyes to converge, or "cross" as the person attempts to focus on a stimulus as it is pushed slowly toward the bridge of his or her nose.

MAJOR INDICATORS: Physiological signs that are specifically assessed and are, for the most part, involuntary reflecting the status of the central nervous system (CNS) homeostasis (Physiological Indicators).

MARIJUANA: Common term for the Cannabis Sativa plant. Usually refers to the dried leaves of the plant. This is the most common form of the cannabis category.

MARINOL: A drug containing a synthetic form of THC (tetrahydrocannabinol). Marinol belongs to the cannabis category of drugs, but Marinol is not produced from any species of cannabis plant.

MEDICAL IMPAIRMENT: An opinion made by a DRE based on the evaluation that the condition of a suspected impaired driver is more likely related to a medical impairment that has affected the subject's ability to operate a vehicle safely.

METABOLISM: The combined chemical and physical processes that take place in the body involving the distribution of nutrients and resulting in growth, energy production, the elimination of wastes, and other body functions. There are two basic phases of metabolism: anabolism, the constructive phase during which molecules resulting from the digestive process are built up into complex compounds that form the tissues and organs of the body; and catabolism, the destructive phase during which larger molecules are broken down into simpler substances with the release of energy.

METABOLITE: A chemical product formed by the reaction of a drug with oxygen and/or other substances in the body.

MIOSIS: Abnormally small (constricted) pupils.

MOTOR NERVES: Nerves that carry messages away from the brain, to the body's muscles, tissues, and organs. Motor nerves are also known as efferent nerves.

MULTIPLE SCLEROSIS: A degenerative muscular disorder.

MUSCULAR HYPERTONICITY: Rigid muscle tone.

MYDRIASIS: Abnormally large (dilated) pupils.

NARCOTIC ANALGESICS: One of the seven drug categories. Narcotic analgesics include opium, the natural alkaloids of opium (such as morphine, codeine and thebaine), the derivatives of opium (such as Heroin, Dilaudid, Oxycodone and Percodan), and the synthetic narcotics.

NEGATIVE FEEDBACK: A condition following chronic administration of a drug where the body may decrease or cease its natural actions through hormone and neurotransmitter receptors such that if the drug is not taken, the user does not return to a normal, non-drug-using state and may instead feel much worse in the opposite direction of the substance used.

NERVE: A cord-like fiber that carries messages either to or from the brain. For drug evaluation and classification purposes, a nerve can be pictured as a series of "wire-like" segments, with small spaces or gaps between the segments.

NEURON: A nerve cell. The basic functional unit of a nerve. It contains a nucleus within a cell body with one or more axons and dendrites.

NEUROTRANSMITTER: Chemicals that pass from the axon of one nerve cell to the dendrite of the next cell, and that carry messages across the gap between the two nerve cells.

NULL EFFECT: Occurs when neither drug affects a particular indicator of impairment, and their combination also will not affect that indicator.

NYSTAGMUS: An involuntary jerking of the eyes.

"ON THE NOD": A semi-conscious state of deep relaxation. Typically induced by impairment due to Heroin or other narcotic analgesics. The suspect's eyelids droop, and chin rests on the chest. Suspect may appear to be asleep but can be easily aroused and will respond to questions.

OVERLAPPING EFFECT: Occurs when one drug causes an effect, and the other drug does not.

PALLOR: An abnormal paleness or lack of color in the skin.

PARANOIA: Mental disorder characterized by delusions and the projection of personal conflicts that are ascribed to the supposed hostility of others.

PARAPHERNALIA: Drug paraphernalia are the various kinds of tools and other equipment used to store, transport or administer a drug. Hypodermic needles, small pipes, bent spoons, etc., are examples of drug paraphernalia.

PARASYMPATHETIC NERVE: An autonomic nerve that commands the body to relax and to carry out tranquil activities. The brain uses parasympathetic nerves to send "at ease" commands to the muscles, tissues, and organs.

PARASYMPATHOMIMETIC DRUGS: Drugs that mimic neurotransmitter associated with the parasympathetic nerves. These drugs artificially cause the transmission of messages that produce lower blood pressure, drowsiness, etc.

PHENCYCLIDINE: A contraction of PHENYL CYCLOHEXYL PIPERIDINE, or PCP. Formerly used as a surgical anesthetic, however, it has no current legitimate medical use in humans.

PHENYL CYCLOHEXYL PIPERIDINE (PCP): Often called "phencyclidine" or “PCP”, it is a specific drug belonging to the Dissociative Anesthetics category.

PHYSICIAN'S DESK REFERENCE (PDR): A basic reference source for drug recognition experts. The PDR provides detailed information on the physical appearance and psychoactive effects of licitly manufactured drugs.

PHYSIOLOGY: Physiology is the branch of biology that deals with the functions and activities of life or living matter and the physical and chemical phenomena involved.

PILOERECTION: Literally, "hair standing up", or goose bumps. This condition of the skin is often observed in persons who are under the influence of LSD.

POLYCATEGORY IMPAIRMENT: Being under the combined influence of drugs from two or more drug categories.

POLYDRUG IMPAIRMENT: Being under the combined influence of two or more different drugs, which may be in the same or different categories.

PSYCHEDELIC: A mental state characterized by a profound sense of intensified or altered sensory perception sometimes accompanied by hallucinations.

PSYCHOPHYSICAL TESTS: Methods of investigating the mental (psycho-) and physical characteristics of a person suspected of alcohol or drug impairment. Most psychophysical tests employ the concept of divided attention to assess a suspect's impairment.

PSYCHOTOGENIC: Literally, "creating psychosis" or "giving birth to insanity". A drug is considered to be psychotogenic if persons who are under the influence of the drug become insane and remain so after the drug wears off.

PSYCHOTOMIMETIC: Literally, "mimicking psychosis" or "impersonating insanity". A drug is considered to be psychotomimetic if persons who are under the influence of the drug look and act insane while they are under the influence.

PTOSIS: Droopy eyelids.

PULSE: The rhythmic dilation and relaxation of an artery that results from the beating of the heart.

PULSE RATE: The number of expansions of an artery per minute.

PUPILLARY LIGHT REFLEX: The pupils of the eyes will constrict and dilate depending on changes in lighting.

PUPILLARY UNREST: The continuous, irregular change in the size of the pupils that may be observed under room or steady light conditions.

REBOUND DILATION: A period of pupillary constriction followed by a period of pupillary dilation where the pupil steadily increases in size and the range between minimum and maximum is equal to or greater than 1mm and does not return to its original constricted size.

RESTING NYSTAGMUS: Jerking of the eyes as they look straight ahead.

SCLERA: A dense white fibrous membrane that, with the cornea, forms the external covering of the eyeball (i.e., the white part of the eye).

SENSORY NERVES: Nerves that carry messages to the brain, from the various parts of the body, including notably the sense organs (eyes, ears, etc.). Sensory nerves are also known as afferent nerves.

SINSEMILLA: The unpollinated female cannabis plant, with a relatively high concentration of THC.

SNORTING (See Insufflation): One method of administering certain drugs. Snorting requires that the drug be in powdered form. The user rapidly draws the drug up into the nostril, usually via a paper or glass tube. Snorting is also known as insufflation.

SPHYGMOMANOMETER: A medical device used to measure blood pressure. It consists of an arm or leg cuff with an air bag attached to a tube and a bulb for pumping air into the bag, and a gauge for showing the amount of air pressure being pressed against the artery.

STANDARDIZED: Conforming to a model in comparative applications.

STANDARDIZED FIELD SOBRIETY TESTING (SFST): There are three NHTSA/IACP-approved SFSTs, namely Horizontal Gaze Nystagmus (HGN), Walk and Turn (WAT), and One Leg Stand (OLS). Based on a series of controlled laboratory and field studies, scientifically validated clues of impairment have been identified for each of these three tests. They are the only NHTSA/IACP-approved Standardized Field Sobriety Tests for which validated clues have been identified for DWI investigations.

STETHOSCOPE: A medical instrument used, for drug evaluation and classification purposes, to listen to the sounds produced by blood passing through an artery.

STROKE: A medical condition that occurs when a blood vessel that carries oxygen and nutrients to the brain is either blocked by a clot or a burst and may cause observable signs and symptoms which may mimic drug and alcohol impairment.

SYMPATHETIC NERVE: An autonomic nerve that commands the body to react in response to excitement, stress, fear, etc. The brain uses sympathetic nerves to send "wake up calls" and "fire alarms" to the muscles, tissues and organs.

SYMPATHOMIMETIC DRUGS: Drugs that mimic the neurotransmitter associated with the sympathetic nerves. These drugs artificially cause the transmission of messages that produce elevated blood pressure, dilated pupils, etc.

SYNAPSE (or Synaptic Gap): The gap or space between two neurons (nerve cells).

SYNESTHESIA: A sensory perception disorder, in which an input via one sense is perceived by the brain as an input via another sense. In its simplest terms, it is the transposition of the senses. An example of this would be a person “hearing” a phone ring and “seeing” the sound as a flash of light. Synesthesia sometimes occurs with persons under the influence of hallucinogens.

SYSTEMATIC: Done or acting according to a fixed plan or system; methodical.

SYSTOLIC: The highest value of blood pressure. The blood pressure reaches its systolic value when the heart is fully contracted (systole), and blood is sent surging into the arteries.

TACHYCARDIA: Abnormally rapid heart rate.

TACHYPNEA: Abnormally rapid rate of breathing.

TETRAHYDROCANNABINOL (THC): The principal psychoactive ingredient in drugs belonging to the cannabis category.

THERAPEUTIC DOSE: The amount of a drug needed to treat a disease or condition.

TOLERANCE: An adjustment of the drug user's body and brain to the repeated presence of a drug. As tolerance develops, the user will experience diminishing psychoactive effects from the same dose of the drug. As a result, the user typically will steadily increase the dose he or she takes, in an effort to achieve the same psychoactive effect.

TRACKS: Scar tissue usually produced by repeated injection of drugs, via hypodermic needle, along a segment of a vein.

VEIN: A blood vessel that carries blood back to the heart from the body tissues

VERTICAL GAZE NYSTAGMUS (VGN): An involuntary jerking of the eyes (up-and-down) which occurs as the eyes are held at maximum elevation. The jerking should be distinct and sustained.

VOIR DIRE: A French expression literally meaning “to see, to say.” Loosely, this would be rendered in English as “To seek the truth,” or “to call it as you see it.” In a law or court context, one application of voir dire is to question a witness to assess his or her qualifications to be considered an expert in some matter pending before the court.

VOLUNTARY NERVE: A motor nerve that carries messages to a muscle that we consciously control.

WITHDRAWAL: This occurs in someone who is physically addicted to a drug when he or she is deprived of the drug. If the craving is sufficiently intense, the person may become extremely agitated, and even physically ill.

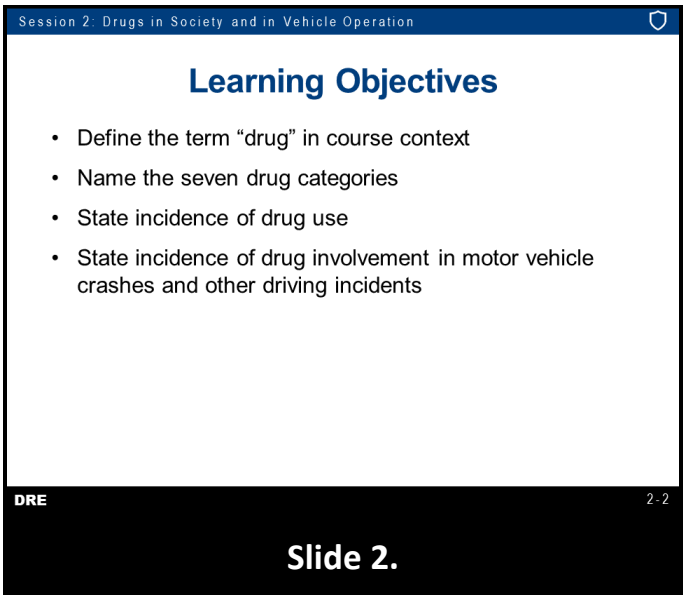
2 DRE

DRUGS IN SOCIETY AND IN VEHICLE OPERATION

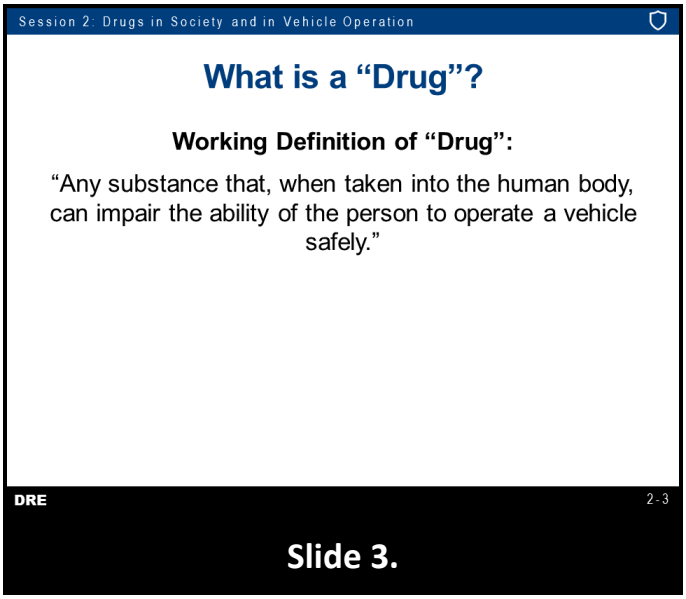
LEARNING OBJECTIVES

- Define the term "drug" in the context of this course
- Name the seven drug categories relevant to the Drug Evaluation and Classification (DEC) Program
- State in approximate, quantitative terms the incidence of drug use among various segments of the American public
- State in approximate, quantitative terms the incidence of drug involvement in motor vehicle crashes and other driving incidents

CONTENTS



A. Definition and Categories of Drugs



What is a Drug?

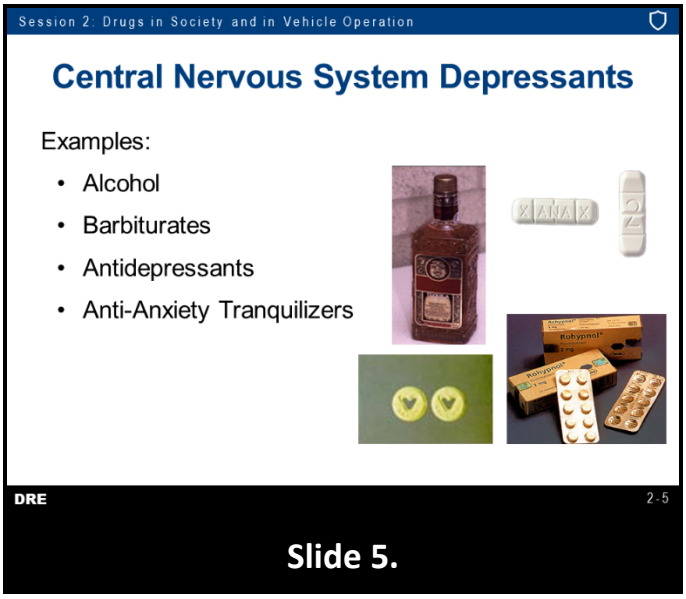
- Medicines? Are all drugs medicines? Are all medicines drugs?
- Narcotics? Are all drugs Narcotics?
- Habit forming substances. Are all drugs habit forming? Are all habit-forming substances drugs?
- A simple, law enforcement-oriented definition
- This definition is derived from the California Vehicle Code

Slide 4.

Within this simple, law enforcement-oriented definition, there are seven categories of drugs. Each category consists of substances that impair a person's ability to drive. The categories differ from one another in terms of how they impair driving ability and in terms of the kinds of impairment they cause. Because the categories produce different types of impairment, they generate different signs and symptoms. With training and practice, you will be able to recognize the different signs of drug influence and determine which category is causing the impairment you observe in a subject.

Drug manufacturers are continuously developing new drugs and evaluating the need to continue production of current drugs. For this reason, some brand names or chemical compounds may change, or the drug may become distributed in generic forms only. Some prescription drugs encountered by the DRE may not be FDA approved for use in the United States but are still prescribed or available in other countries.

Illicit drug producers often slightly alter the chemical structure of a legally manufactured drug to avoid legal restrictions. These may be referred to as designer or novel substances.



Slide 5.

The category of CNS Depressants includes some of the most commonly abused drugs.

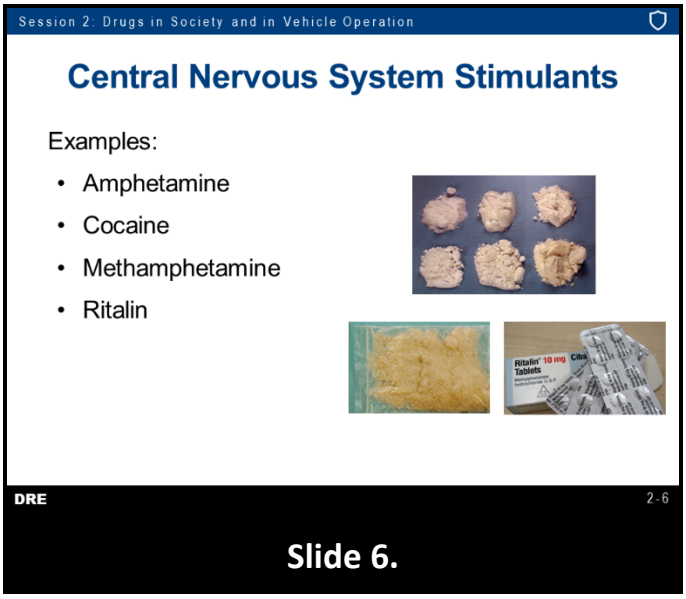
Alcohol remains the most familiar drug. In 2020, 138.5 million persons aged 12 and older were current drinkers of alcohol. 17.7 million classified themselves as heavy drinkers.

CNS Depressants slow down the operation of the central nervous system (i.e., brain, brain stem, and spinal cord), cause the user to react more slowly, cause the user to process information more slowly, relieve anxiety and tension, and induce sedation, drowsiness, and sleep.

In high doses, CNS Depressants will produce general anesthesia (i.e., depress the brain's ability to sense pain). In very high doses, induce coma and death.

Source:

Substance Abuse and Mental Health Services Administration. (2021). Key Substance Use and Mental Health Indicators in the United States: Results from the 2020 National Survey on Drug Use and Health. (HHS Publication No. PEP21-07-01-003, NSDUH Series H-56). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/



Slide 6.

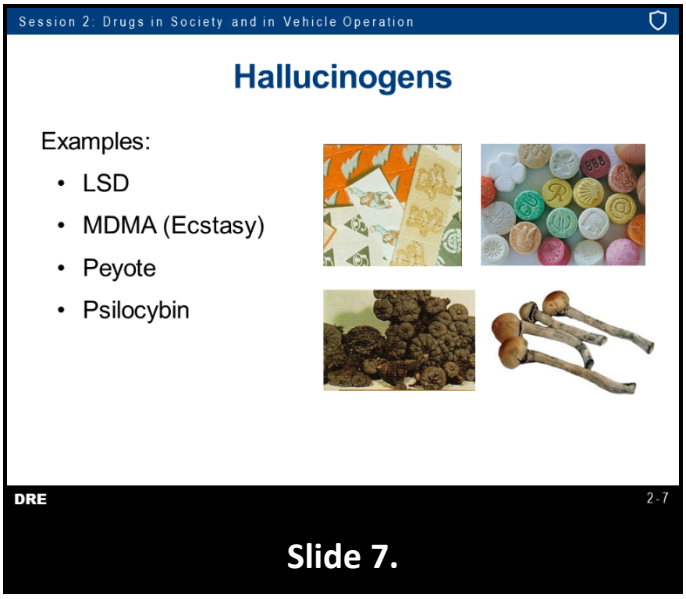
CNS Stimulants constitute another widely abused category of drugs.

According to the 2020 National Survey on Drug Use and Health, of users 12 or older, there appears to be approximately 5.2 million current (within the last month) Cocaine users aged 12 and older in the U.S. Additionally, 5.1 million persons reported non-medical use of prescription stimulants, and 2.5 million reported using Methamphetamine.

CNS Stimulants speed up the operation of the central nervous system and of the various bodily functions controlled by the central nervous system and cause the user to become hyperactive and/or extremely talkative. The user's speech may become rapid and repetitive, heart rate increases, blood pressure increases, body temperature rises, and the user may become excessively sweaty. CNS Stimulants induce emotional excitement, restlessness, irritability and can induce cardiac arrhythmia (abnormal beating of the heart), cardiac seizures, and death.

Source:

Substance Abuse and Mental Health Services Administration. (2021). Key Substance Use and Mental Health Indicators in the United States: Results from the 2020 National Survey on Drug Use and Health. (HHS Publication No. PEP21-07-01-003, NSDUH Series H-56). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/



Slide 7.

Hallucinogens are also widely abused.

LSD and Peyote are only two examples of Hallucinogens. There are many other Hallucinogens.

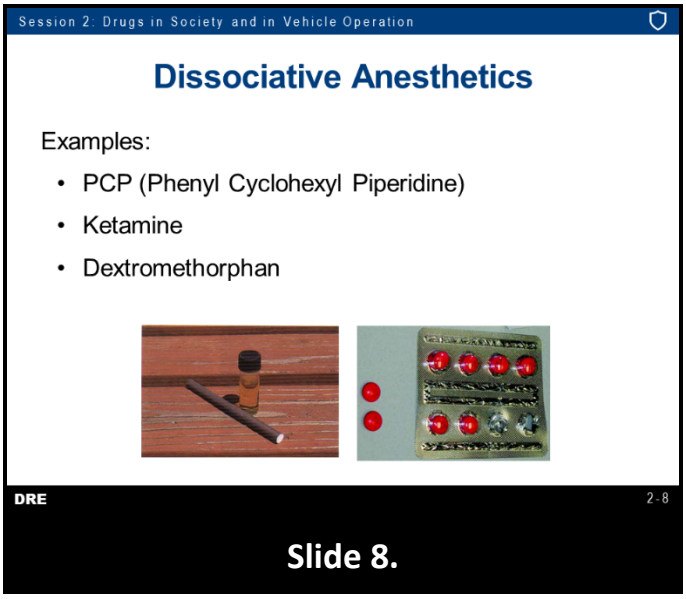
In recent years, significant increases in the abuse of both LSD and "Ecstasy" (MDMA) have been reported. In 2020, an estimated 7.1 million reported using Hallucinogens within the last year.

Hallucinogens create perceptions that differ from reality. These perceptions are often very distorted, so the user sees, hears, and smells things in a way quite different from how they really look, sound, and smell. Hallucinogens cause the nervous system to send strange or false signals to the brain. Clarification: Hallucinogens confuse the Central Nervous System (as well as speeding it up, like CNS Stimulants).

Hallucinogens produce sights, sounds, odors, feelings, and tastes that aren't real, induce a temporary condition very much like psychosis or insanity, and can create a "mixing" of sensory modalities, so the user "hears colors," "sees music". This mixing of the senses is called Synesthesia. With all of these false and distorted perceptions a person under the influence of hallucinogens would be a very unsafe driver.

Source:

Substance Abuse and Mental Health Services Administration. (2021). Key Substance Use and Mental Health Indicators in the United States: Results from the 2020 National Survey on Drug Use and Health. (HHS Publication No. PEP21-07-01-003, NSDUH Series H-56). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/

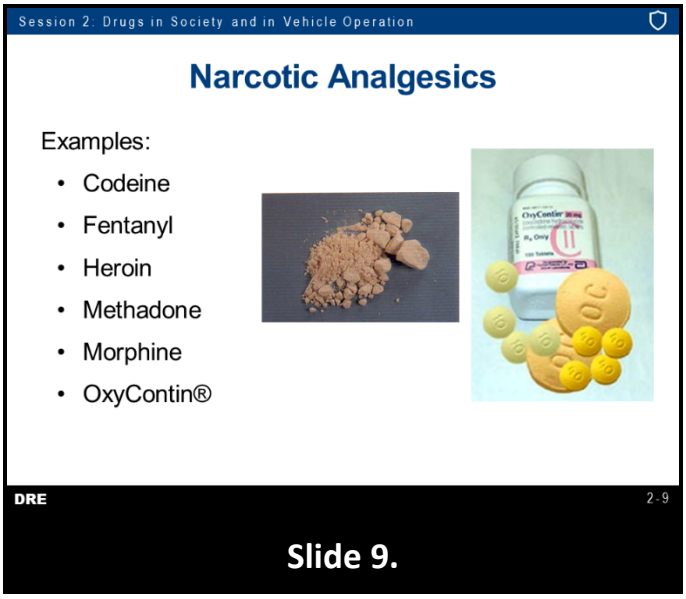


Slide 8.

PCP, its analogs, and Dextromethorphan are examples of Dissociative Anesthetics. PCP is considered by the medical community to be a Hallucinogen. However, because of the symptomatology it presents, it is in a separate category.

Phencyclidine is a short form of the chemical name Phenyl Cyclohexyl Piperidine, from which we get the abbreviation “PCP”. PCP is a synthetic drug, i.e., it does not occur naturally but must be produced in a laboratory-like setting. PCP has many analogs, or “chemical cousins,” very similar to PCP in chemical structure and produce essentially the same effects. Analogs of PCP include Ketamine, Ketalar and Ketajet. PCP is also a very powerful pain killer, or anesthetic.

Dextromethorphan (DXM) is found in many over-the-counter antitussive cold medications such as Robitussin, Coricidin Cough and Cold, and Dimetapp. DXM is typically abused by school age children, teenagers, or young adults to achieve impairment. DXM is normally used in liquid or pill form. In high doses, DXM impairment is similar to the effects of PCP or Hallucinogens.



Slide 9.

In 2020, there was an estimated 2.5 million current abusers of prescription Narcotic Analgesics and over half a million Heroin users.

There are two subcategories of Narcotic Analgesics:

1. Natural Opiates are derivatives of Opium

2. Synthetics are produced chemically in the laboratory. The synthetics are not derived in any way from Opium but produce similar effects.

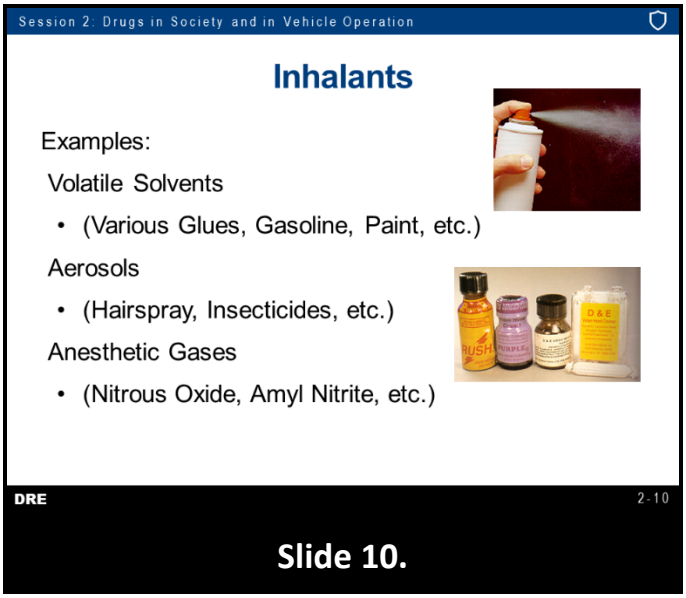
The word "analgesic" means pain reliever. All of the drugs in this category reduce the person's reaction to pain. Heroin is one of the most-commonly abused of the Narcotic Analgesics. Heroin is highly addictive.

In addition to reducing pain, Narcotic Analgesics produce euphoria, drowsiness, apathy, lessened physical activity, and sometimes impaired vision.

Persons under the influence of Narcotic Analgesics often pass into a semi-conscious type of sleep or near-sleep. This condition is often called being "on the nod." They often are sufficiently alert to respond to questions effectively. Higher doses of Narcotic Analgesics can induce coma, respiratory failure, and death.

Source:

Substance Abuse and Mental Health Services Administration. (2021). Key Substance Use and Mental Health Indicators in the United States: Results from the 2020 National Survey on Drug Use and Health. (HHS Publication No. PEP21-07-01-003, NSDUH Series H-56). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.



Slide 10.

In 2020, nearly 1 million persons reported abusing Inhalants within the past month.

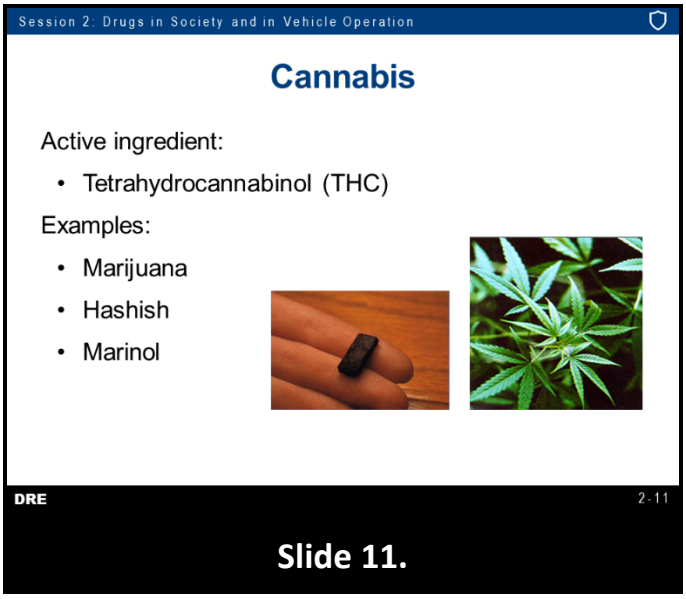
Inhalants are the fumes of certain substances. These substances are found in many common products such as gasoline, oil-based paints, various glues, aerosol cans, varnish remover, cleaning fluids, etc. Examples: Volatile Solvents (Various Glues, Gasoline, Paint, etc.); Aerosols (Hairspray, Insecticides, etc.); Anesthetic Gases (Nitrous Oxide, Amyl Nitrite, etc.).

Different Inhalants produce different effects. Many produce effects similar to those of CNS Depressants. A few produce stimulant-like effects. Some produce hallucinogenic effects.

The Inhalant abuser's attitude and demeanor can vary from inattentive, stuporous and passive, to irritable, violent, and dangerous. The abuser's speech will often be slow, thick, and slurred.

Source:

Substance Abuse and Mental Health Services Administration. (2021). Key Substance Use and Mental Health Indicators in the United States: Results from the 2020 National Survey on Drug Use and Health. (HHS Publication No. PEP21-07-01-003, NSDUH Series H-56). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/



Slide 11.

The category "Cannabis" includes the various forms and products of the Cannabis Sativa plant and other species of Cannabis plants.

The primary active ingredient in Cannabis products is the substance known as "Delta-9 Tetrahydrocannabinol" or "THC."

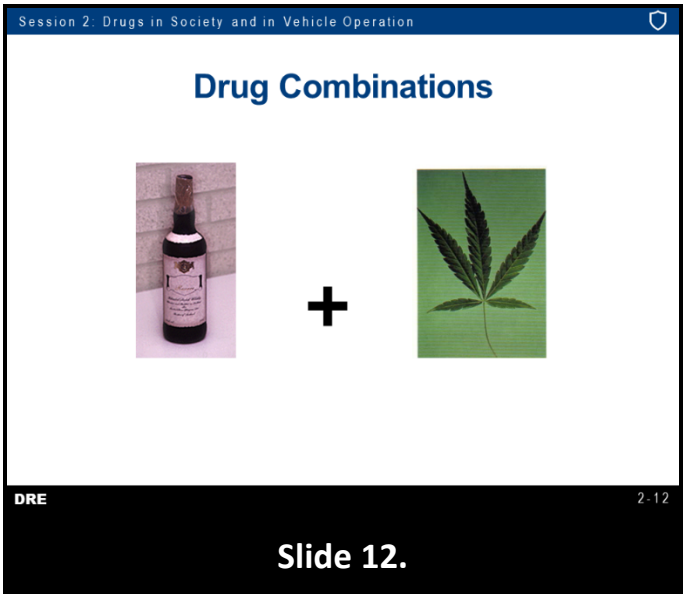
Apart from alcohol, Marijuana is the most commonly abused drug in this country. According to the 2020 National Survey on Drug Use and Health, Marijuana was listed as the most common illicit drug used in the U.S. There were 32.8 million Americans over the age of 12 reporting use in the past month.

Cannabis appears to interfere with the attention process. Drivers under the influence of Marijuana often do not pay attention to their driving.

Cannabis also produces a distortion of the user's perception of time, an increased heart rate (often over 100 beats per minute) and reddening of the eyes.

Source:

Substance Abuse and Mental Health Services Administration. (2021). Key Substance Use and Mental Health Indicators in the United States: Results from the 2020 National Survey on Drug Use and Health. (HHS Publication No. PEP21-07-01-003, NSDUH Series H-56). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration.



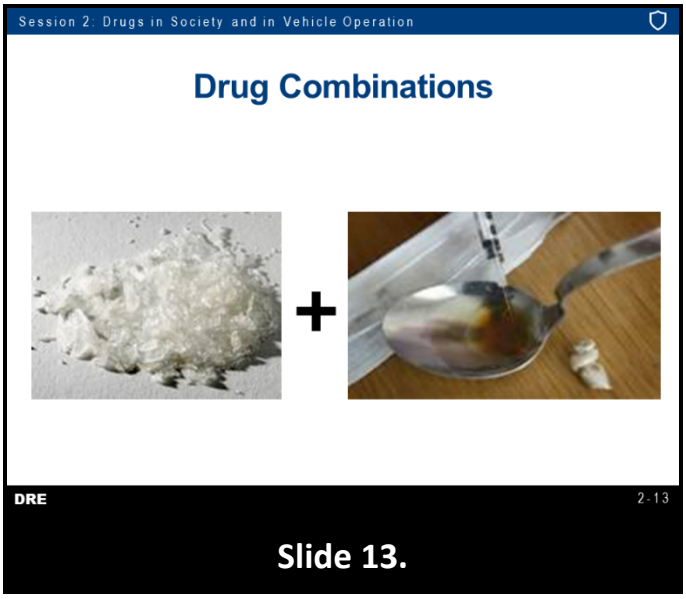
Slide 12.

Many drug users appear to be "chemical gluttons." They often are under the combined influence of two or more different drugs. The term for this is "polydrug use."

When drug users are under the combined influence of drugs from two or more drug categories, this is termed "polycategory use."

Some very common examples of polydrug or polycategory use include:

- Alcohol with virtually any other drug
- Marijuana and PCP - A common way to use PCP is to sprinkle it on a Marijuana "joint" and smoke it
- Cocaine and Heroin, sometimes called a "speedball"
- Heroin and Amphetamine, sometimes called a "poor man's speedball"
- Heroin and PCP, sometimes called a "fireball"
- "Crack" Cocaine and PCP, sometimes called "space base"
- "Crack" Cocaine and Marijuana, sometimes called "primo"
- "Crack" and Methamphetamine, sometimes called "croak"

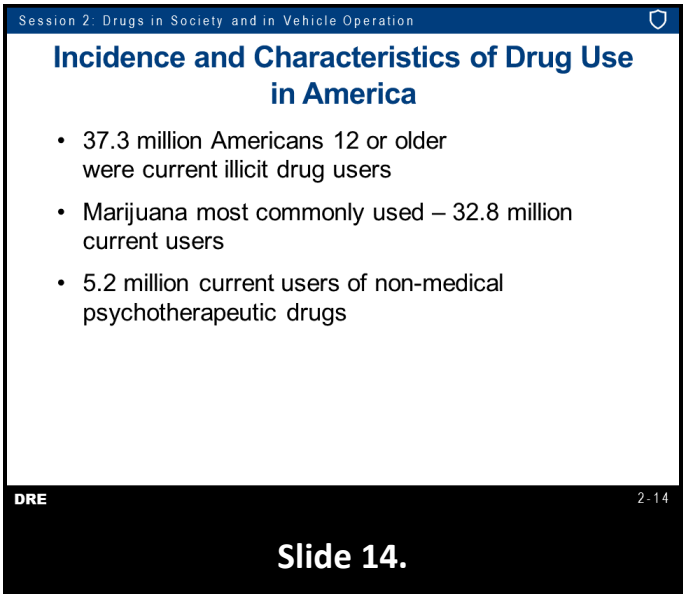


Slide 13.

Sometimes, people take two different drugs (such as Heroin and Cocaine) that produce some opposite effects. For example, Heroin tends to lower blood pressure and Cocaine tends to elevate blood pressure.

Different drug combinations may produce unique, interactive effects. When a person has used multiple drugs, that person will experience multiple drug effects. Under proper medical supervision, specific drugs often are used to reverse overdose conditions. However, in a polydrug or polycategory situation, some of the signs of a particular drug may not be evident even though the person is under the influence of that drug.

B. Incidence and Characteristics of Drug Use in America



Slide 14.

In 2020, 37.3 million Americans aged 12 years or older were current illicit drug users. Marijuana was the most commonly used illicit drug in 2020, with 32.8 million users reporting use in the

past month. In 2020, there were 5.2 million current users of non-medical psychotherapeutic drugs. These include pain relievers, tranquilizers, stimulants, and sedatives.

Source:

Substance Abuse and Mental Health Services Administration. (2021). Key Substance Use and Mental Health Indicators in the United States: Results from the 2020 National Survey on Drug Use and Health. (HHS Publication No. PEP21-07-01-003, NSDUH Series H-56). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/

C. Incidence of Drug-Impaired Driving

Slide 15.

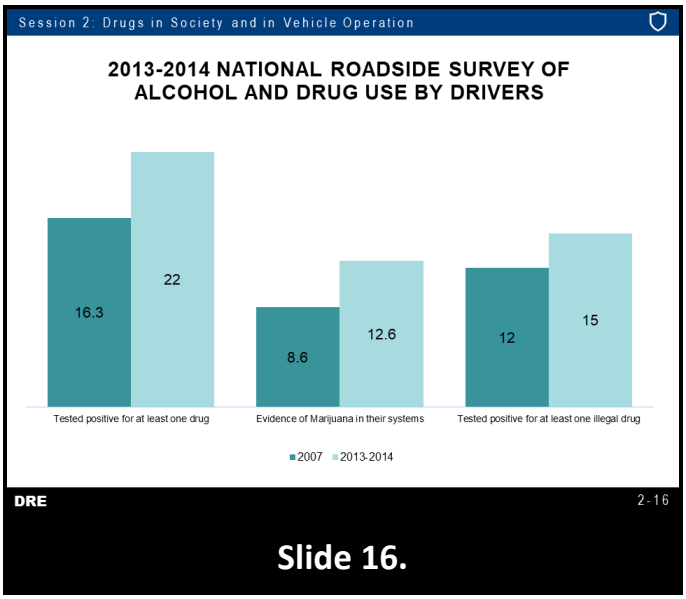
Accurate data on the frequency with which people drive while under the influence of drugs is somewhat limited. This is due to the various reasons that include: Many impaired drivers are never detected, and many drug users also consume alcohol. When they are stopped for impaired driving they may be arrested (and tabulated in statistics) as alcohol-impaired drivers only. Fact: About 11.8 million people aged 12 years and older admitted driving under the influence of illicit drugs in the past year.

When they are involved in crashes, they may not be tested for drugs.

Source:

Substance Abuse and Mental Health Services Administration. (2017). Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health. (HHS Publication No. SMA 18-5068, NSDUH Series H-53). Rockville, MD:: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental

Health Services Administration. Retrieved from Retrieved from https://www.samhsa.gov/data/



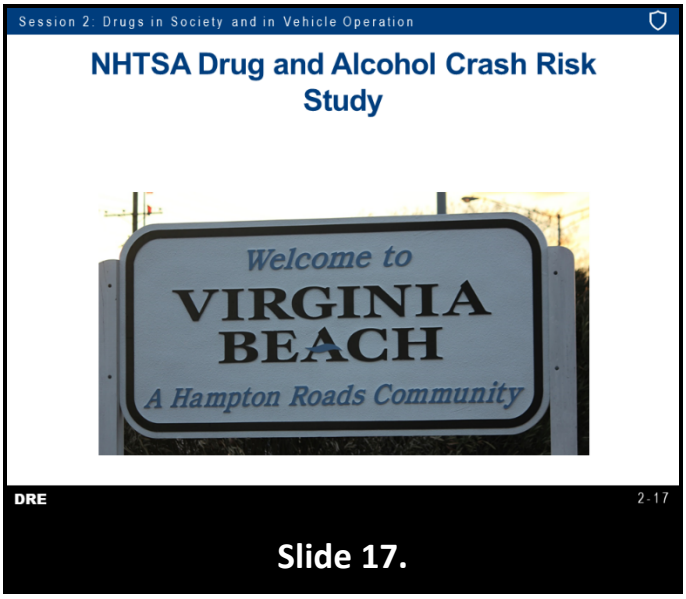
Slide 16.

The National Highway Traffic Safety Administration (NHTSA) undertook a comprehensive study of the prevalence of potentially impairing drug use by drivers in 2013 and 2014. Over 30,000 drivers over 40 years, were asked to provide an oral fluid or blood sample. Samples were tested for illegal drugs, prescription medicines, and over-the-counter drugs. Twenty-two percent of drivers tested positive for at least one drug, up from 16.3% in the 2007 Roadside Study. 12.6% of the drivers had evidence of Marijuana use in their systems, up from 8.6% in the 2007 Roadside Study. Fifteen percent of drivers tested positive for at least one illegal drug, up from 12% in 2007.

The facts are unmistakable: Drug use is common among many people. So is drug-impaired driving.

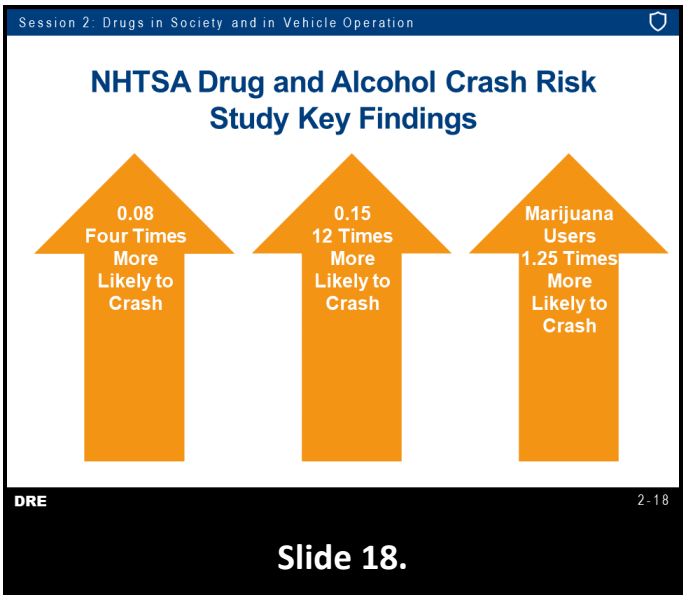
Source:

Berning, A., Compton, R., & Wochinger, K. (2015). Results of the 2013–2014 National Roadside Survey of Alcohol and Drug Use by Drivers. (Traffic Safety Facts Research Note. Report No. DOT HS 812 118). Washington, DC: National Highway Traffic Safety Administration.



Slide 17.

The largest such study ever conducted to assess the comparative risk of drunk- and drugged-driving was conducted in Virginia Beach, VA over a 20-month period. It collected data from more than 3,000 drivers involved in a crash and more than 6,000 non-crash drivers for comparison. Drivers were tested for a wide range of drugs, but marijuana was the only drug found in large enough numbers for statistically significant findings.



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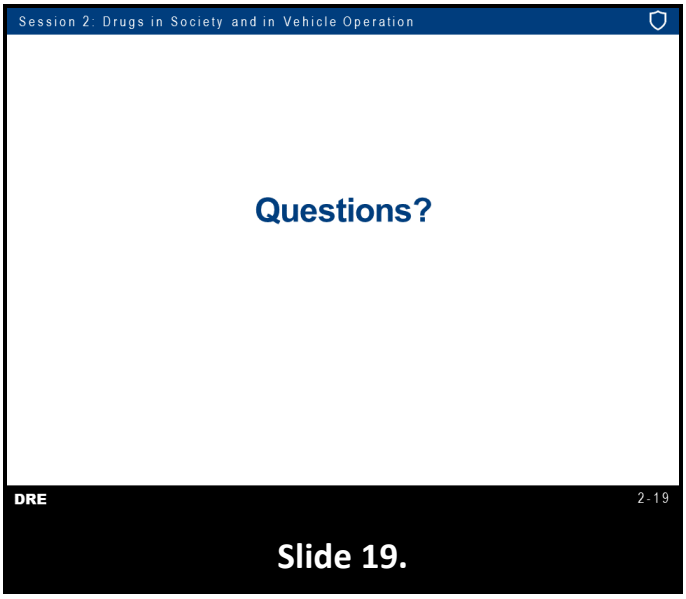
Drivers at a BAC level of 0.08 percent were about four times more likely to crash than sober drivers. Drivers with a BAC level of 0.15 percent were 12 times more likely to crash than sober drivers. Marijuana users were about 25% more likely to be involved in a crash than drivers with no evidence of Marijuana use.



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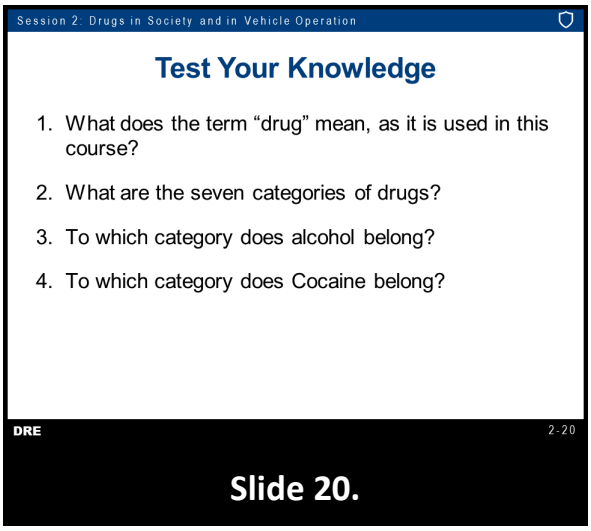

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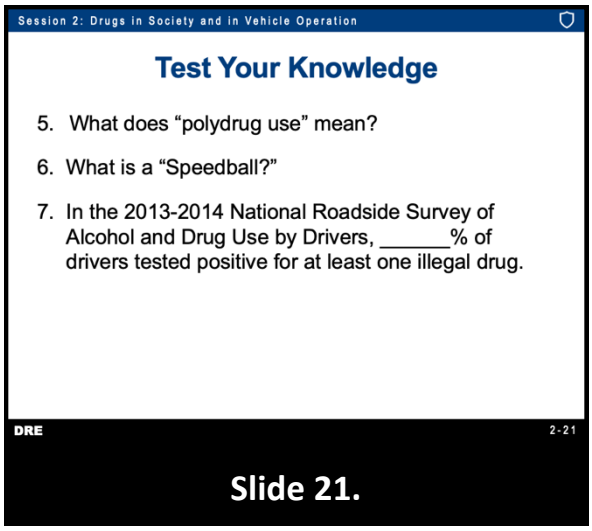

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Test Your Knowledge

1. What does the term "drug" mean, as it is used in this course?
2. What are the seven categories of drugs?
3. To which category does alcohol belong?
4. To which category does Cocaine belong?
5. What does "polydrug use" mean?
6. What is a "Speedball?"
7. In the 2013-2014 National Roadside Survey of Alcohol and Drug Use by Drivers, ____ % of drivers tested positive for at least one **illegal** drug.

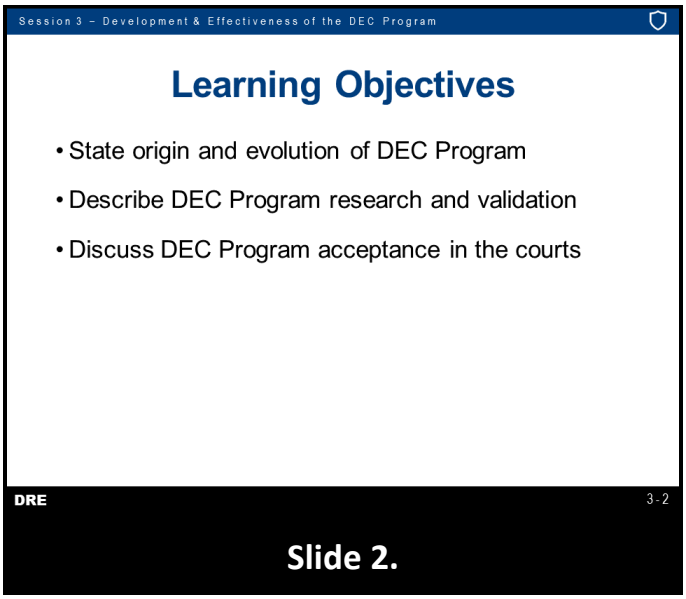
3 DRE

DEVELOPMENT AND EFFECTIVENESS OF THE DRUG EVALUATION AND CLASSIFICATION PROGRAM

LEARNING OBJECTIVES

- State the origin and evolution of the Drug Evaluation and Classification (DEC) Program
- Describe research and demonstration project results that validate the effectiveness of the program
- State the impact of legal precedents established by case law

CONTENTS



Slide 2.

A. Origin and Evolution of the Drug Evaluation and Classification (DEC) Program

Slide 3.

The DEC Program was developed by personnel of the Los Angeles Police Department (LAPD).

Development of the DEC Program began in the early 1970's in response to a growing awareness that many people apprehended for impaired driving were under the influence of drugs rather than alcohol.

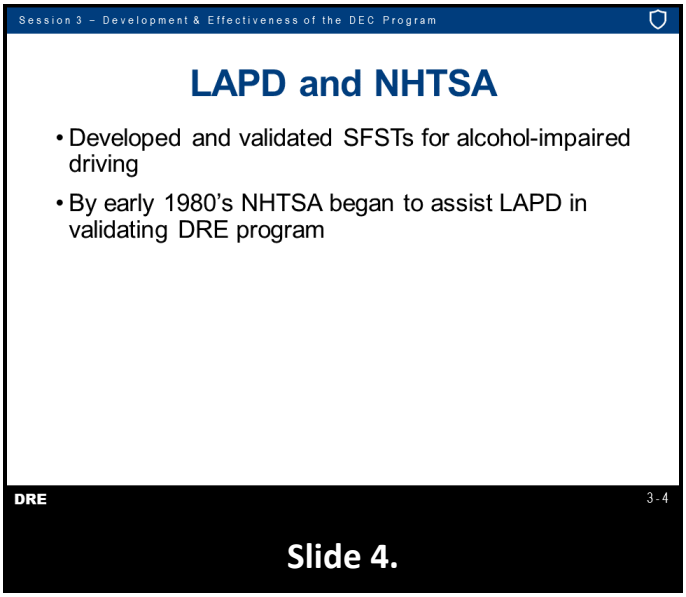
Sergeant Dick Studdard (Traffic Officer) retired from the LAPD in June 1990. Sergeant Studdard and his fellow officers often encountered many impaired drivers whose blood alcohol concentrations (BACs) were zero or very low. They occasionally succeeded in having physicians examine some of these low BAC subjects, resulting in diagnosis of drug influence.

There are some reasons why doctors may be reluctant. They typically receive little training in the recognition of specific signs of drug impairment, particularly at street-level doses. They may not see the subject until hours after the drugs were used, by which time the signs and symptoms often have changed.

As a result, some drivers whom Studdard and other officers were certain were impaired by drugs were not prosecuted or convicted for DWI. Studdard concluded it was essential to develop appropriate procedures officers could use when confronted with persons suspected of drug impairment.

Len Leeds, former LAPD narcotics officer, was approached by Sergeant Studdard and asked to collaborate in the development of a program to help identify drug-impaired subjects. They initiated some independent research by consulting with physicians, enrolling in relevant classes, studying textbooks, technical articles, etc. and secured management-level support within the department to continue research and program development. As time went on, many other key persons both within and outside LAPD contributed to the development and refinement of the program. In 1979, the program was officially recognized by LAPD.

B. Evidence of Program Effectiveness



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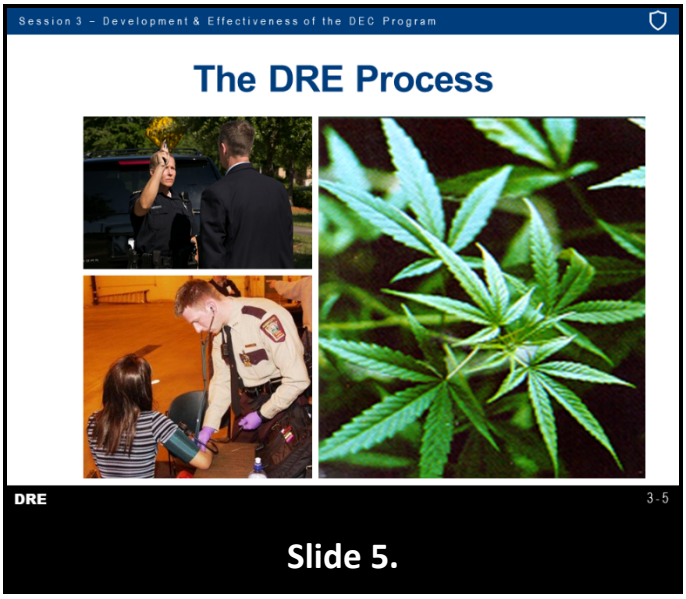
LAPD and the National Highway Traffic Safety Administration (NHTSA) worked together to develop the Drug Recognition Expert (DRE) training as we know it today. The first step was to develop and validate standardized field sobriety tests (SFSTs) for investigating alcohol-impaired driving. LAPD personnel played a major role in the research that led to the widespread use of Horizontal Gaze Nystagmus (HGN), the Walk and Turn (WAT) test, and the One Leg Stand (OLS) test. By the early 1980's, NHTSA completed its validation of the standardized tests for DWI enforcement. At this time, NHTSA began to assist LAPD in validating the DRE program.



Slide 5.

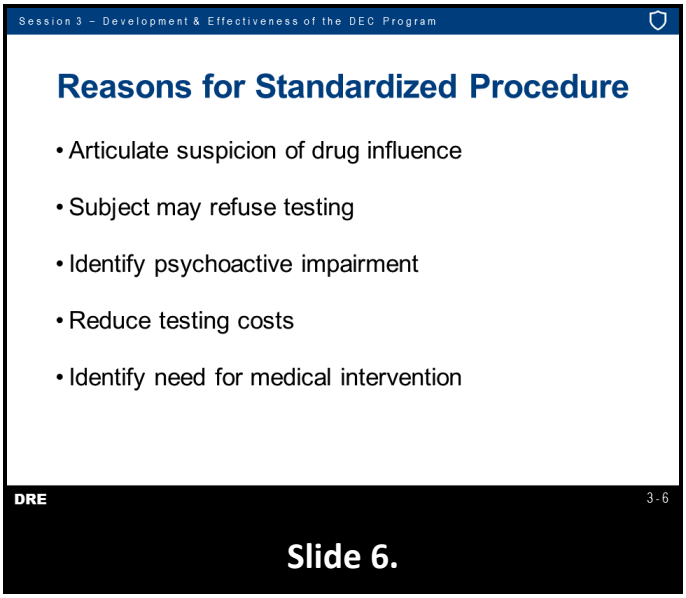
The DRE process evolved into what is essentially a three-part determination. First, it establishes the subject is impaired and verifies his or her alcohol level is not consistent with the degree of impairment that is evident.

Inconsistency between the observed impairment and the BAC suggests the presence of some other drug(s) or some other complicating factor such as an illness or injury.

Second, it uses evaluation procedures to determine whether the impairment may stem from illness or injury requiring medical attention or is drug related.

Third, it uses evaluation procedures to determine what category (or categories) of drugs are the likely cause of the impairment.

Key Point: The entire evaluation process is standardized which means it is administered the same way to all subjects and administered the same way by all officers.



Slide 6.

One reason for needing a reliable standardized assessment procedure is we may be called upon to submit evidence of an articulable suspicion of drug influence to support our request for a chemical test of the subject. Some courts or motor vehicle hearings officers may find a low BAC result, by itself, does not provide adequate basis for requesting the subject to submit to a second chemical test.

Another reason is the subject may refuse to submit to the chemical test, denying us of scientific evidence of drug influence. In that case, conviction or acquittal may hinge on the officer's observations and expertise as a DRE.

A third reason is chemical tests usually disclose only that the subject has used a particular drug recently. The chemical test usually does not indicate whether the drug is psychoactive at the present time. Thus, the DRE procedures are needed to establish the subject not only has used the drug, but also that he or she is under the influence.

A fourth reason is it can be expensive and require a large sample of blood or urine to perform a broad analysis for any or all drugs. Practical constraints require we be able to point the laboratory technician toward those types of drugs most likely to be found in the sample. It is always possible that a person suspected of drug impairment is actually suffering from some medical problem. If a sample is collected and the subject is not examined by someone who is qualified, evidence of medical problems may not come to light until it is too late.

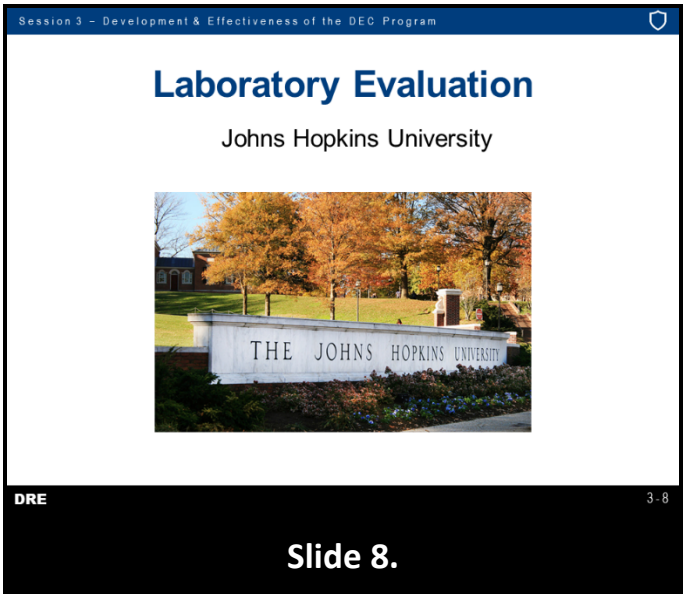
Slide 7.

NHTSA assisted LAPD in a two-phase study. There was laboratory evaluation, using volunteers who administered selected drugs which was the Johns Hopkins study conducted in 1984. There was also a field evaluation, using persons actually arrested in Los Angeles on suspicion of drug influence which was the LAPD Field Study conducted in 1985.

The research studies and their titles were:

- Identifying Types of Drug Intoxication: Laboratory Evaluation of a Subject Examination Procedure, May 1984 Final Report. George E. Bigelow, Ph.D. et al. Behavioral Pharmacology Research Unit, Department of Psychiatry and Behavioral Sciences. Funded by the U.S. Department of Transportation's NHTSA and the National Institute of Drug Abuse.

- Field Evaluation of the Los Angeles Police Department Drug Detection Procedure, February 1986, DOT HS 807 012, A NHTSA Technical Report, National Highway Traffic Safety Administration. Richard P. Compton. (Commonly referred to as the 173 Case Study)



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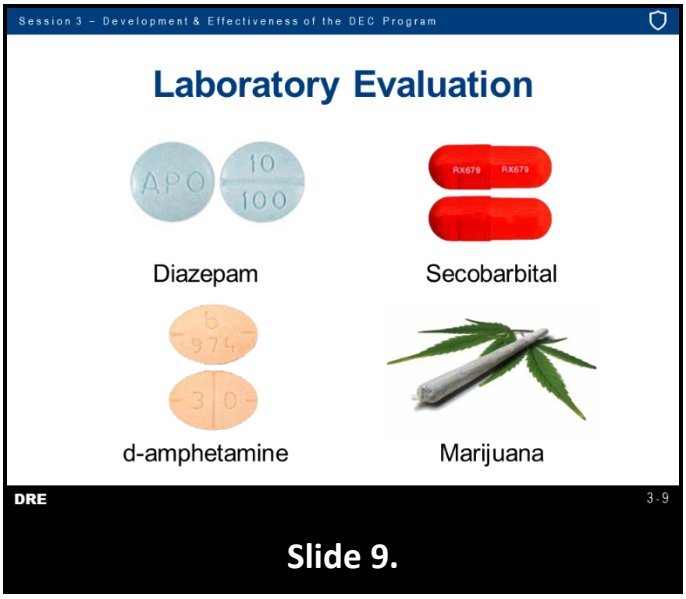
The Laboratory Evaluation took place at Johns Hopkins University in Maryland. The drug examiners were senior DREs from LAPD. The LAPD participants were Dick Studdard, Jerry Powell, Pat Russell, and Doug Laird. The laboratory experiments were planned and conducted by researchers from Johns Hopkins. Volunteers each took a "pill" and smoked a "cigarette". The "pill" contained either no drug (placebo) or one of the following drugs:

- Secobarbital (CNS Depressant)
- Valium (i.e., Diazepam – CNS Depressant)
- d-amphetamine (CNS Stimulant)

A common brand name for Secobarbital is Seconal; a common brand name for Diazepam is Valium and a common brand name for d-amphetamine is Dexedrine. The "cigarette" contained either THC or no drug (placebo). Neither the volunteers nor the LAPD officers knew what the volunteers had taken.

Two different dose levels of Marijuana, Diazepam, and d-amphetamine were used. Clarification: some of the Diazepam and d-amphetamine pills were "weak," some were "strong." Similarly, some of the Marijuana cigarettes were "weak," some "strong." All of the Secobarbital pills were "strong."



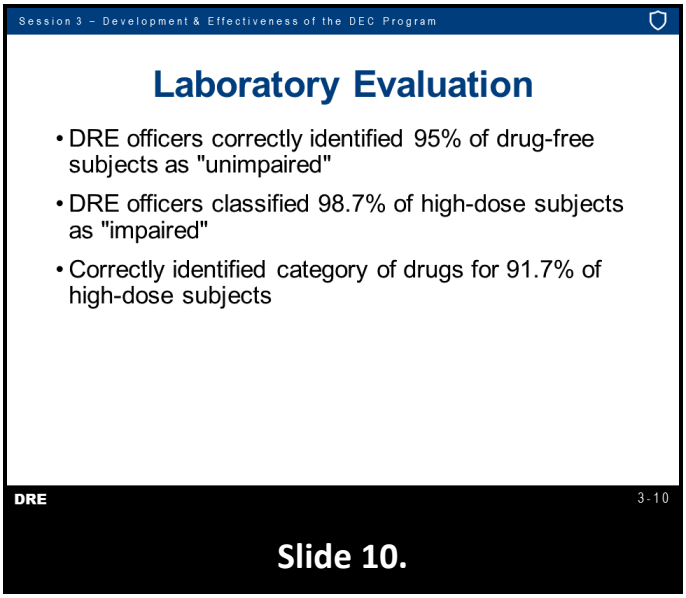
Slide 9.

Normal daily dose for therapeutic purposes:

- Diazepam: 4-40 mg
- Secobarbital: approx. 100 mg
- d-amphetamine: 15 mg

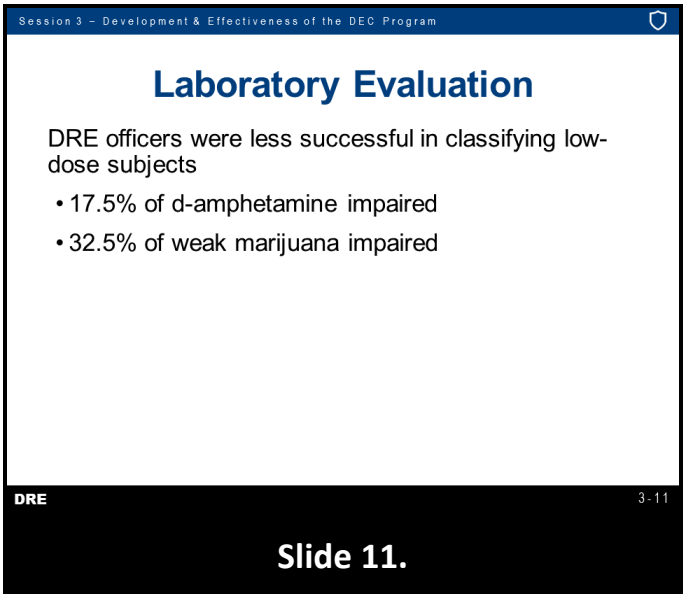
Doses administered for this study:

- Diazepam: weak – 15mg, strong – 30mg
- Secobarbital: 300 mg
- d-amphetamine: weak – 15 mg, strong – 30 mg
- Marijuana: weak – 12 puffs of 1.3% THC cigarettes, strong – 12 puffs of 2.8% THC cigarettes



Slide 10.

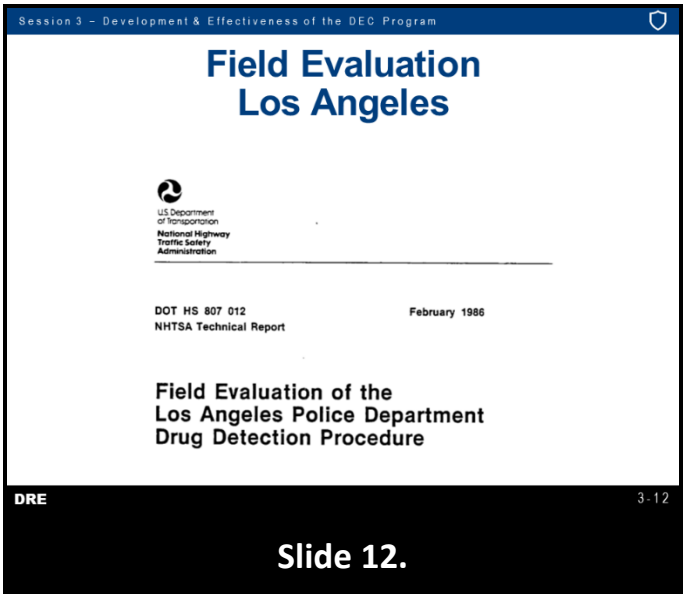
The results of the laboratory evaluation showed the DREs were excellent in identifying subjects who received only placebo doses: they classified 95% of the drug-free subjects as “not impaired”. Similarly, they were excellent in identifying the high-dose subjects. They classified as “impaired” 98.7% of the subjects who received Secobarbital or strong doses of Marijuana, Diazepam, or d-amphetamine. They correctly identified the category of drug for 91.7% of those strong dose subjects.



Slide 11.

The DREs were less successful in identifying the weak dose subjects. Only 17.5% of the subjects who received the weak dose of d-amphetamine were classified as "impaired". Only 32.5% of the subjects who smoked the "weak" Marijuana cigarettes were classified as "impaired".

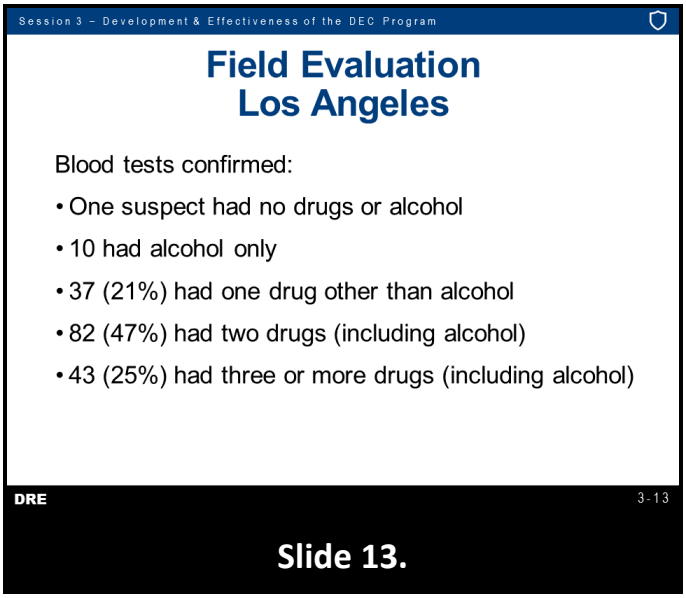
The results of the laboratory validation study were considered to be extremely positive. The DRE procedures correctly identified the category of drugs in more than 90% of the subjects who were impaired. The procedures only rarely indicated that unimpaired subjects were under the influence of drugs. Laboratory studies can only allow certain dose levels of drugs, which are much lower than those seen at street levels. Therefore, participants in laboratory studies may not show many of the signs of impairment that are seen with subjects administering street-level doses of drugs.



Slide 12.

The field validation study was based on 173 people actually arrested on suspicion of driving under the influence of drugs.

None of the 173 cases involved a crash. In all of the cases, the arrested subjects agreed to submit to a blood test. Twenty-eight different DREs from LAPD and the Los Angeles area participated in the examinations of these 173 subjects. The researchers excluded all cases where the subjects refused to give blood since it would have been impossible to check the DREs accuracy in those cases. Similarly, they excluded all cases that involved crashes since the subjects' injuries could have confounded the drug examination. Also excluded were subjects who were found in possession of drugs or had any charges other than the drugged driving charge.



Slide 13.

Based on the independent blood tests, only one of the 173 subjects was found to have no alcohol or other drugs. Another ten subjects were found to have only alcohol in them.

Thirty-seven (21%) of the subjects were found to have only one drug other than alcohol. Eighty-two had two drugs (including alcohol) (47%) and forty-three (25%) had three or more drugs (including alcohol).

This means 125 of the 173 subjects had used two or more drugs: that is more than 72% of the subjects.

PCP was the drug most often found among these 173 subjects: more than half of them (56%) had used PCP. The key finding of this study was that for more than nine out of ten of the subjects (92.5%), the blood test confirmed the presence of at least one drug category “opined” by the DREs.

Slide 14.

Below are the toxicology results for specific categories:

- PCP: blood tests supported DREs' opinions in 92% of the cases
- Narcotic Analgesics: blood tests supported 85% of the DREs' opinions
- Cannabis: blood tests supported 78% of DREs' opinions
- Central Nervous System (CNS) Depressants: blood tests supported 50% of DREs' opinions
- CNS Stimulants: blood tests supported 33% of DREs' opinions

Numerous States have conducted comparisons of laboratory analysis and DRE opinions. The correlation rates exceeded 80% in those studies.

A study conducted in 1990 by the Arizona Department of Public Safety Central Regional Crime Laboratory compiled records of the toxicological analysis corresponding to Arizona DREs were analyzed showing a laboratory corroboration rate of 86.5% had been achieved.

The overall conclusion of the laboratory and field studies is the DEC Program is an effective tool for law enforcement.

Source:

Adler, E. V., & Burns, M. (1994). Drug Recognition Expert (DRE) Validation Study. AZ: Arizona Governor's Office of Highway Safety.

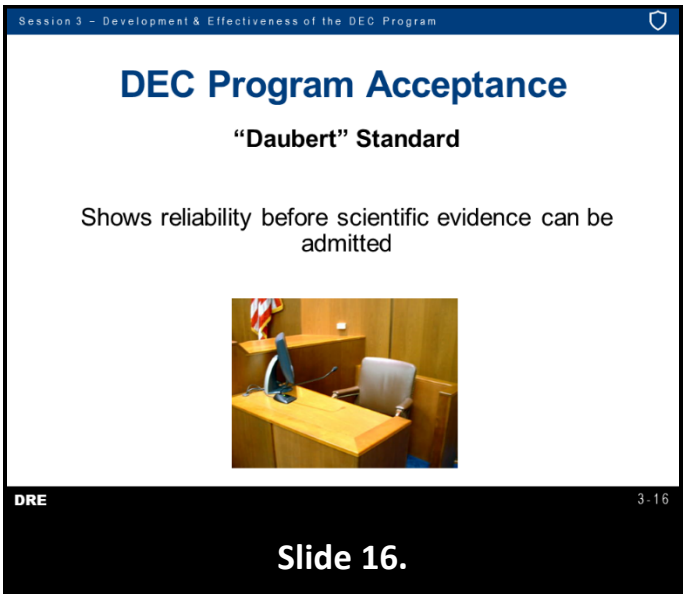
C. DEC Program Acceptance

Slide 15.

The DEC Program has also been effective in the court room.

Favorable Court Rulings on DEC Procedures: Courts in various States have ruled favorably on the DEC Program. Most American courts employ either the Frye or Daubert Standard for determining the admissibility of scientific evidence. The Frye standard is the traditional test for admissibility of "new" scientific evidence.

The Frye standard: "Is the procedure or principle espoused, accepted by the relevant scientific community?" Frye standard was set by the Washington D.C. Court in 1923.



Slide 16.

In Daubert, courts serve as a gatekeeper for all scientific evidence.

The Daubert Standard (Daubert v. Merrell Dow Pharmaceuticals, 509 U.S. 579, 1993) requires the court to assess "whether reasoning or methodology underlying the testimony is scientifically valid and if whether that reasoning or methodology properly can be applied to the facts in issue". The court's focus "must be solely on principles and methodology, not on the conclusions that they generate" and the court must screen such evidence to "ensure that any scientific testimony or evidence admitted is not only relevant, but reliable" thus a "gate-keeping" role.

Factors to be considered for admissibility under the Daubert Standard include; 1) Whether the theory or technique can be and has been tested; 2) Whether the theory or technique has been subjected to peer-review and publication; 3) The known or potential rate of error for the theory or technique; 4) The existence and maintenance of standards controlling the operation of the technique or test, and 5) Whether the theory or technique has been generally or widely accepted in the relevant scientific community.

Daubert standard requires a showing of reliability before scientific evidence can be admitted.

Courts assess evidence by considering four factors:

- Opinions are testable
- Methods/principles have been subject to peer review
- Known error rate can be identified
- Opinions rest on methodology that is generally accepted within the relevant scientific/technical community

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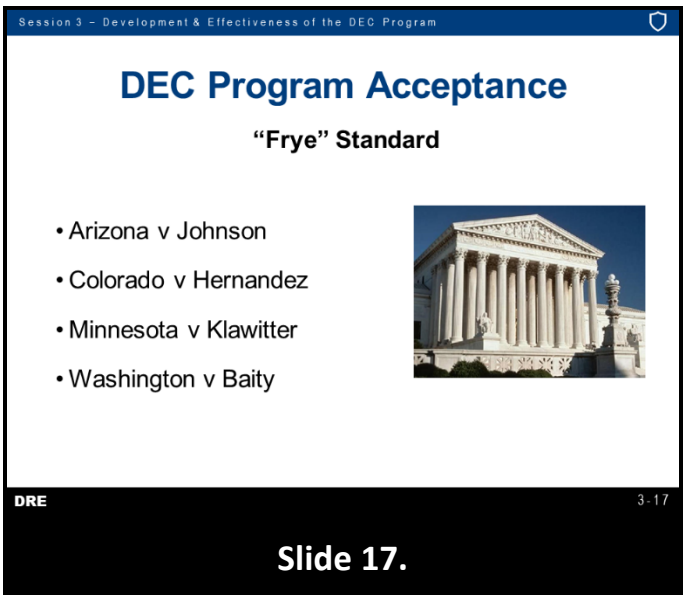

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The traditional standard for scientific admissibility of evidence was the Frye Standard.

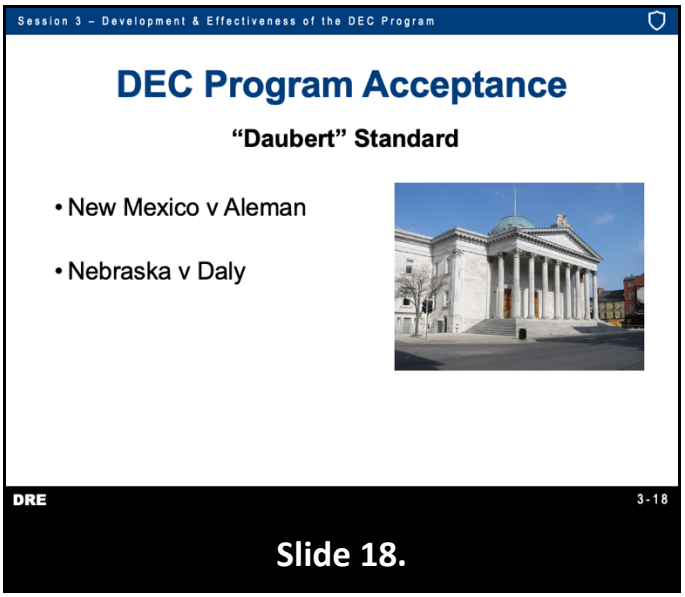
State of Arizona v. Dayton Johnson and Samuel Rodriguez, et al, NOS 90056865 and 90035883, (1990): An Arizona court (Tucson Municipal Court) ruled the Frye Standard was met. However,

upon appeal, the Arizona State Supreme Court ruled the Frye Standard did not apply to the DEC Program.

State of Colorado v. Daniel Hernandez, 92M 181, (1992): A Colorado Court (Boulder County Court) ruled the procedures used by DREs are not new or novel and the Frye Standard did not apply.

State of Minnesota, City of Minneapolis v. Larry Michael Klawitter, 518 N.W.2d 577, (1993): A Minnesota Court (City of Minneapolis) ruled that outside of nystagmus, the DEC Program is not subject to the Frye Standard.

Washington v. Baity, 991P.2d, 1151, 140 Wn. 2d 1 (2000): A Washington Supreme Court ruled the DRE protocols are the application of traditional techniques.



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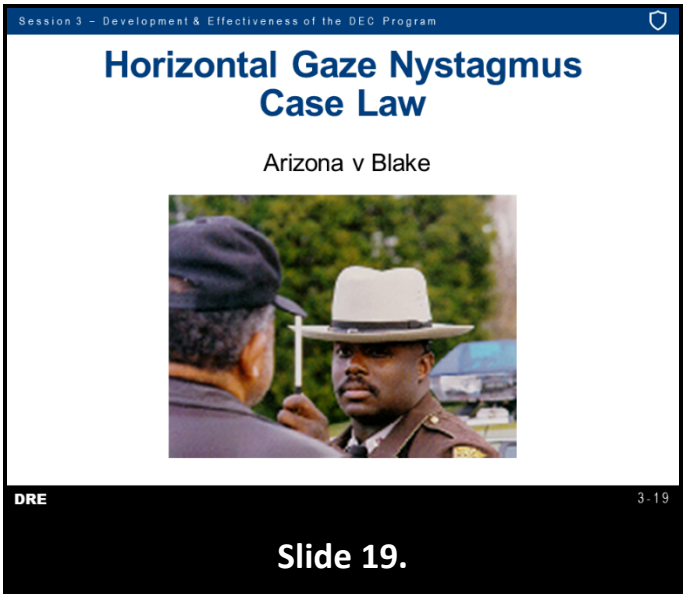
New Mexico v. Mariam Aleman, Dona Ana County, 3rd District (2003): A New Mexico Court ruled the DRE's opinion was correct and the DRE protocol is admissible.

State (Nebraska) v Daly 775 N.W.2d 47 Nebraska Supreme Court, (2009): "A law enforcement officer with the training and experience offered by 'drug recognition expert' certification is sufficiently qualified to testify, based on his or her evaluation, that a suspect was under the influence of drugs."

In many jurisdictions, it will not be necessary to have expert scientific testimony to secure admissibility of a DRE's examination of a subject. The DEC Program is gaining acceptance in many courts. In fact, testimony based on DRE investigation have been accepted by courts for years. Expert testimony regarding drug influence has long been accepted by numerous courts. The components of DRE evaluation are generally accepted in the scientific community. The DEC Program simply combined those components into a systematic and standardized procedure. Thus, many prosecutors believe FRYE standards do not apply to DRE evaluations and testimony.

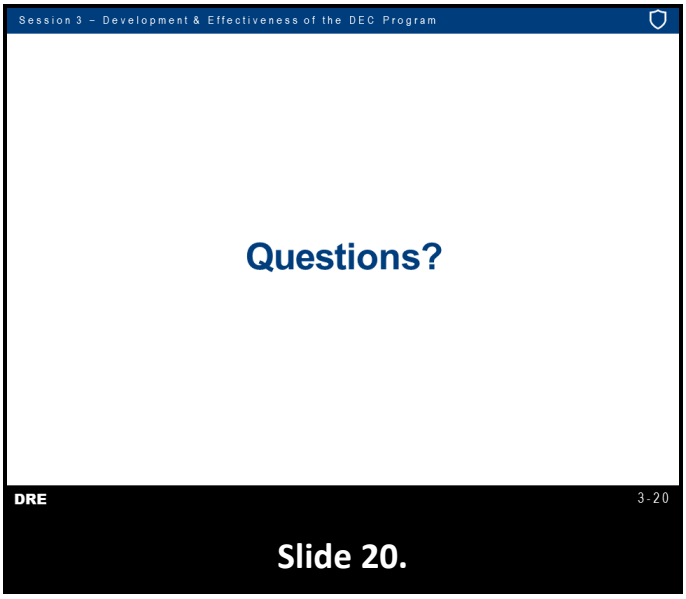


Slide 19.

HGN, one key element of the DEC Program, has been recognized as meeting the Frye standard by several State Supreme Courts. The first to do so was Arizona, in the case known as State vs. Blake.

Summary of HGN Case Law: The American Prosecutor's Research Institute HGN State Case Law Summary is available at the end of this session. The prevailing trend is for courts to admit HGN as evidence of impairment, with the proper scientific foundation. But courts consistently reject all attempts to introduce HGN as evidence of a quantitative BAC.

The court ruled in cases where there is no chemical test to determine a BAC level, HGN test results can be admitted the same as of SFSTs to show a "neurological malfunction," one cause of which could be the administration of alcohol.



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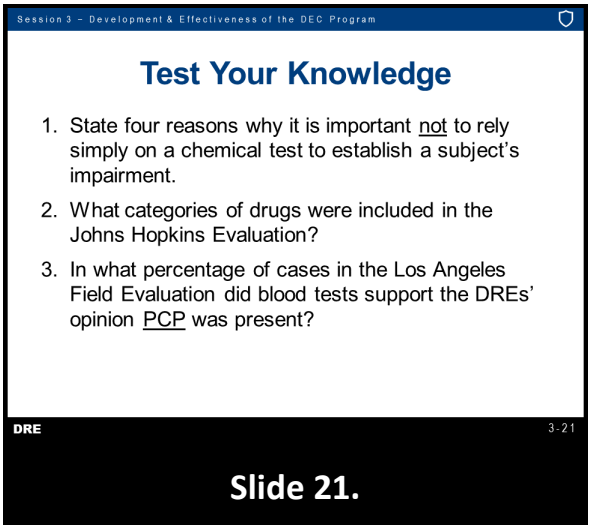

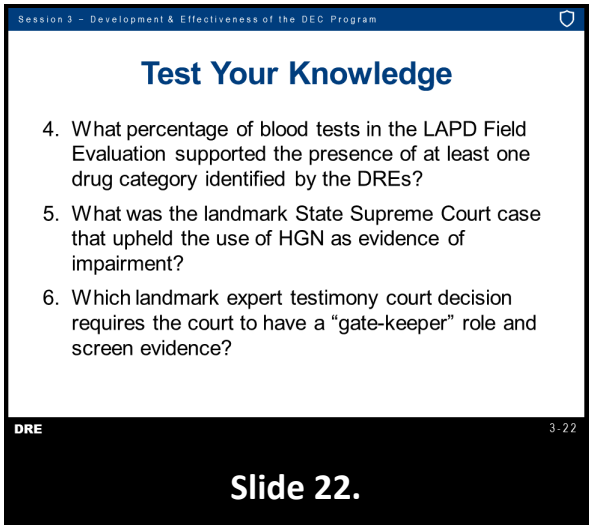

Test Your Knowledge

1. State four reasons why it is important not to rely simply on a chemical test to establish a subject's drug impairment.
2. What categories of drugs were included in the Johns Hopkins Evaluation?
3. In what percentage of cases in the Los Angeles Field Evaluation did blood tests support the DREs' opinion PCP was present?
4. What percentage of blood tests in the LAPD Field Evaluation supported the presence of at least one drug category identified by the DRE's?
5. What was the landmark State Supreme Court case that upheld the use of HGN as evidence of impairment?
6. Which landmark expert testimony court decision requires the court to have a "gate-keeper" role and screen evidence?

4 DRE

OVERVIEW OF DRUG RECOGNITION EXPERT PROCEDURES

LEARNING OBJECTIVES

- Name the components of the Drug Evaluation and Classification (DEC) Program drug influence evaluation
- State the purpose of each component
- Describe the activities performed during each component

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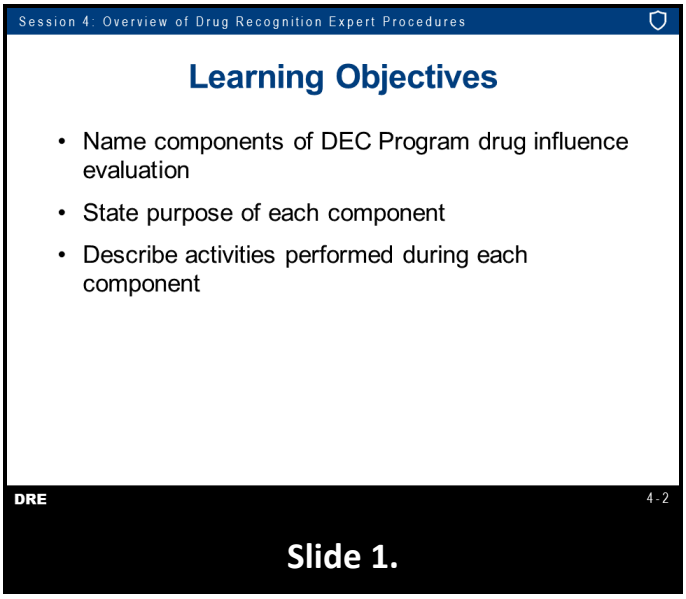
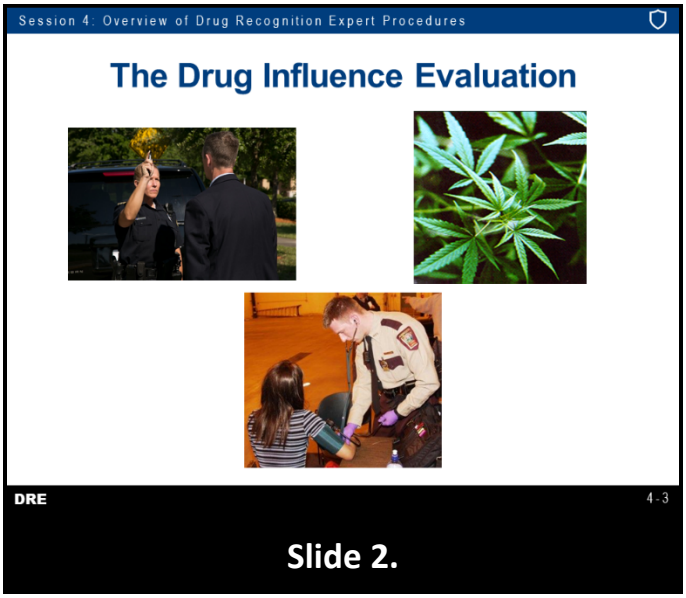


Slide 1.

A. Components of the Drug Evaluation and Classification Process



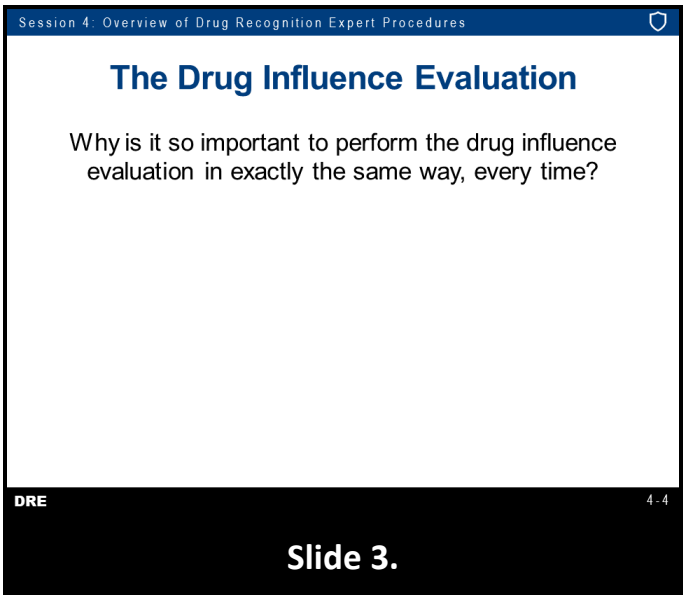
Slide 2.

The DEC Program Process is a systematic and standardized method to establish the subject is impaired and verifies his or her alcohol level is not consistent with the degree of impairment that is evident. Inconsistency between the observed impairment and the blood alcohol concentration (BAC) suggests the presence of some other drug(s) or some other complicating factor such as an illness or injury. The DEC Program Process is to determine whether the impairment may stem from illness or injury requiring medical attention or is drug related. And, the DEC Program Process is to determine what category (or categories) of drugs are the likely cause of the impairment.

Some of these observable signs and symptoms relate to the subject's appearance.

Some of these observable signs and symptoms relate to the subject's behavior.

Some relate to the subject's performance of carefully administered psychophysical tests.



Slide 3.

Drugs impair the subject's ability to control his or her mind and body. Psychophysical tests can disclose the subject's ability to control mind and body is impaired. The specific manner in which the subject performs the psychophysical tests may help indicate the category or categories of drugs causing the impairment. Some of the observable signs and symptoms relate to the subject's automatic responses to the specific drugs that are present. All of these reliable indicators are examined and carefully considered before an opinion is made concerning what categories of drugs are affecting the subject.

DREs should always try to conduct the 12-step process in the same manner each time. If there is deviation from the 12-step process, it should be noted in the narrative report. DREs should make every effort to conduct a complete post arrest drug influence evaluation for every drug impaired driver, whether they are the arresting officer or not. However, there may be times when DREs begin the 12-step process, but are unable to complete it (for example, uncooperative subject, equipment failure, or refusals). DREs should document all available evidence and observations in their report.

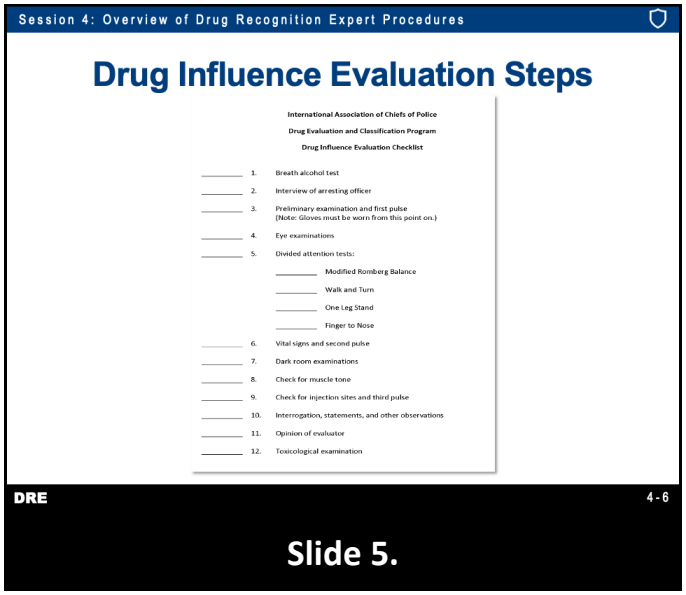
Whenever possible, DREs should conduct the entire drug influence evaluation in accordance with DEC Program training.

Slide 4.

Standardization helps to ensure no mistakes are made. There are no steps omitted and no extraneous or unreliable "indicators" are included. Standardization helps to promote professionalism among Drug Recognition Experts (DREs). Standardization helps to secure acceptance in court.

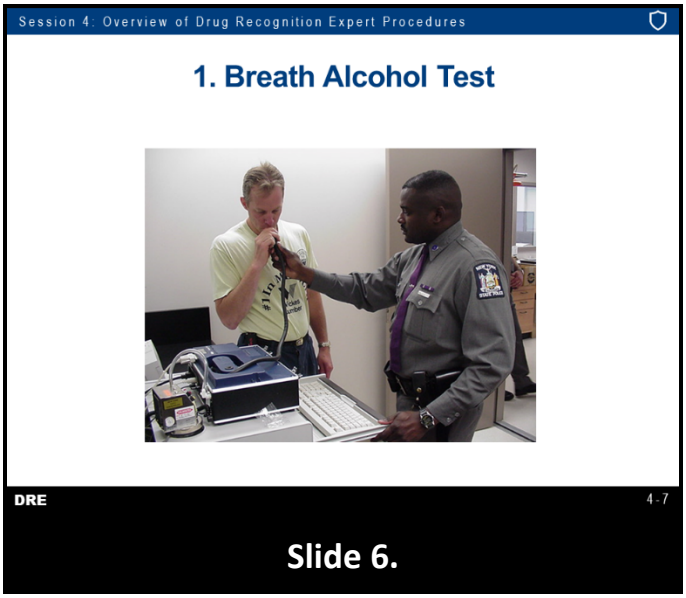
Circumstances may warrant a DRE to perform a step out of sequence or the suspect may be unable, or refuses, to perform part of the evaluation. If this occurs, the DRE should document the circumstances in their narrative report.

In such cases, the DRE may still be able to form an opinion based upon the evidence obtained. State v. Cammack, 1997 WL 104913 (Minnesota Ct. Appeals, 1997) ruled a DRE need not complete the entire 12-step evaluation for an opinion to be admissible so long as there is sufficient admissible evidence.



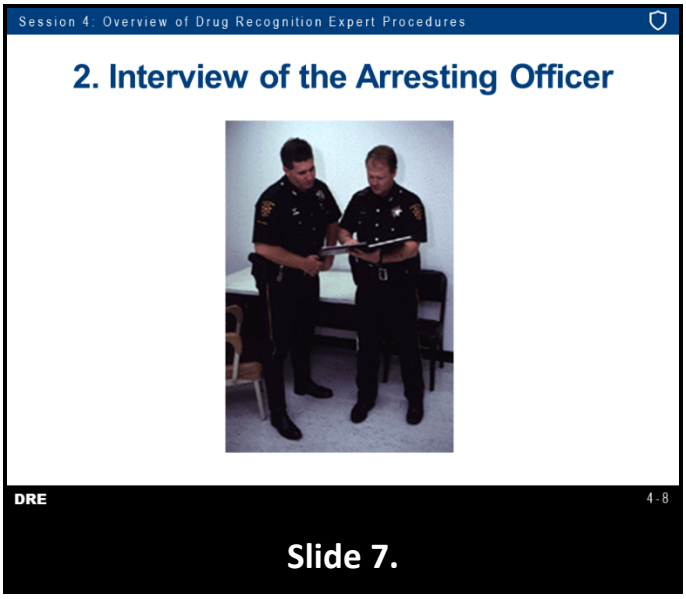
Slide 5.

The DEC Program drug influence evaluation has twelve components or steps.



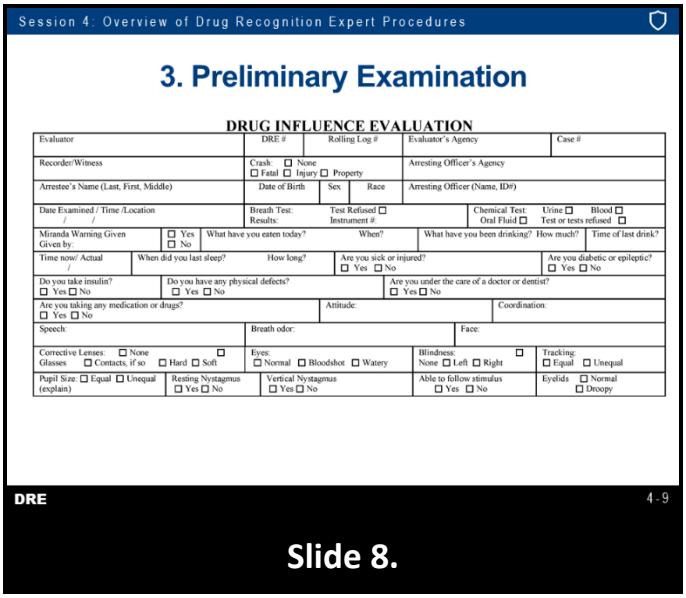
Slide 6.

The Breath Alcohol Test is needed to determine BAC. The purpose of the breath test is to determine whether the specific drug, alcohol, may be contributing to the impairment observed in the subject. Obtaining an accurate measurement of BAC enables the DRE to assess whether alcohol may be the sole cause of the observable impairment or whether it is likely some other drug or drugs, or other complicating factors, are contributing to the impairment.



Slide 7.

If the DRE is the arresting officer, the information gained from this step will already be known. Even when the DRE is the arresting officer, every effort should be made to conduct a complete post arrest drug influence evaluation on the subject. In most cases, the subjects you will examine will not be people you arrested. The arresting officer may have seen or heard things that would be valuable indicators of the kinds of drugs the subject has administered. The arresting officer, in searching the subject, may have uncovered drug-related paraphernalia or even drugs themselves. The arresting officer also may be able to alert you to important information about the subject's behavior that could be very valuable for your own safety. Document if the arresting officer has been trained in ARIDE.

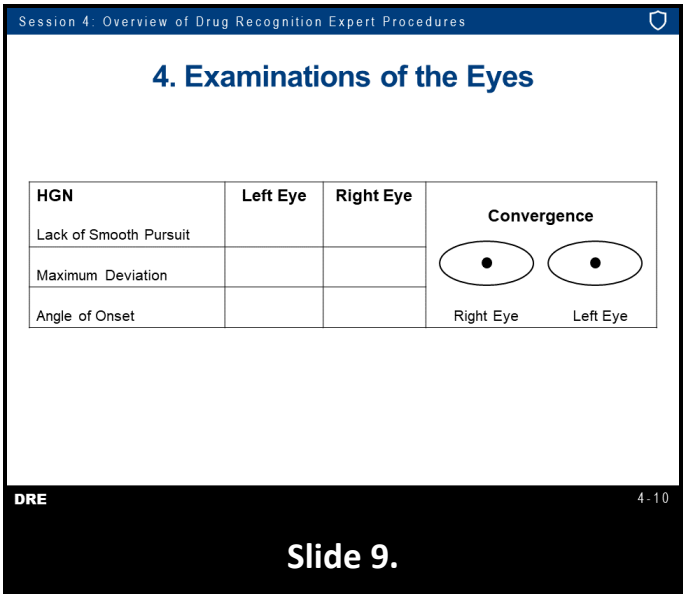


Slide 8.

The purpose of the preliminary examination is to help you decide whether to continue with the drug influence evaluation, pursue a possible medical complication, or proceed with a DWI (alcohol) case. The preliminary examination is your first opportunity to observe the subject closely and directly. Another purpose of the preliminary examination is to begin systematically assessing the subject's appearance, behavior, and automatic bodily responses for signs of drug-induced impairment.

The preliminary examination consists of a series of questions and observations dealing with possible injuries or medical problems, the subject's face, speech, breath, pupil size and tracking ability, initial check for estimation of an angle of onset of nystagmus, and initial examination of the subject's pulse.

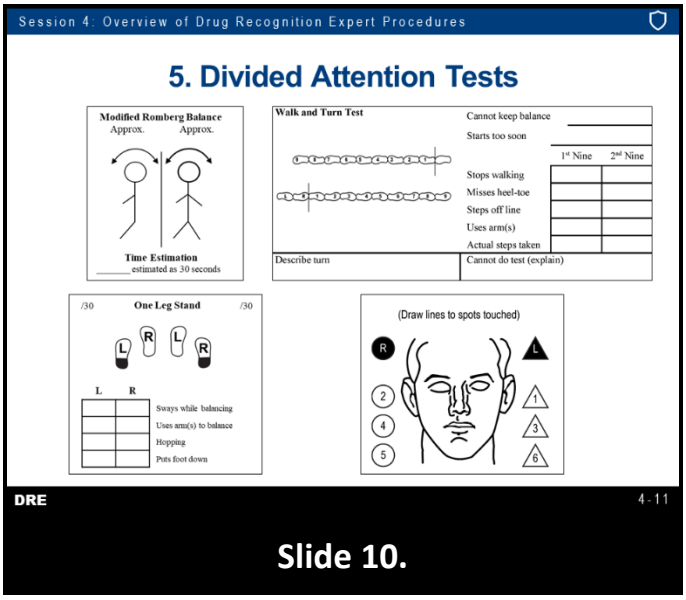
While you are assessing the subject's tracking ability, you also perform a preliminary assessment of whether nystagmus is present in the subject's eyes. In particular, if the nystagmus or "jerking" is observed, an initial estimation of the angle of onset should be made. The approximate angle of onset may help to determine whether the subject has consumed some drug other than alcohol. **This is not a complete Horizontal Gaze Nystagmus (HGN) test at this time. An entire HGN test will be conducted in the next step.**



Slide 9.

Certain drugs produce very easily observable effects on the eyes.

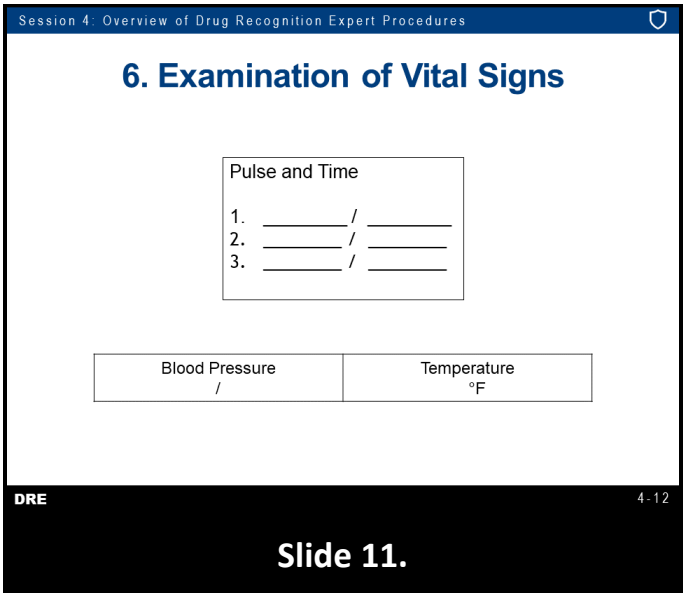
One of the most dramatic of these effects is nystagmus, which means an involuntary jerking of the eyes. Persons under the influence of alcohol usually will exhibit HGN, which is an involuntary jerking of the eyes occurring as the eyes gaze to the side. Alcohol is not the only drug that causes HGN. HGN is not the only observable effect on the eyes that will be caused by various drugs.



Slide 10.

All drugs that impair driving ability will also impair the subject's ability to perform divided attention tests. These tests are familiar to you in the context of examining alcohol-impaired subjects. The same tests are very valuable for disclosing evidence of impairment due to drugs other than alcohol.

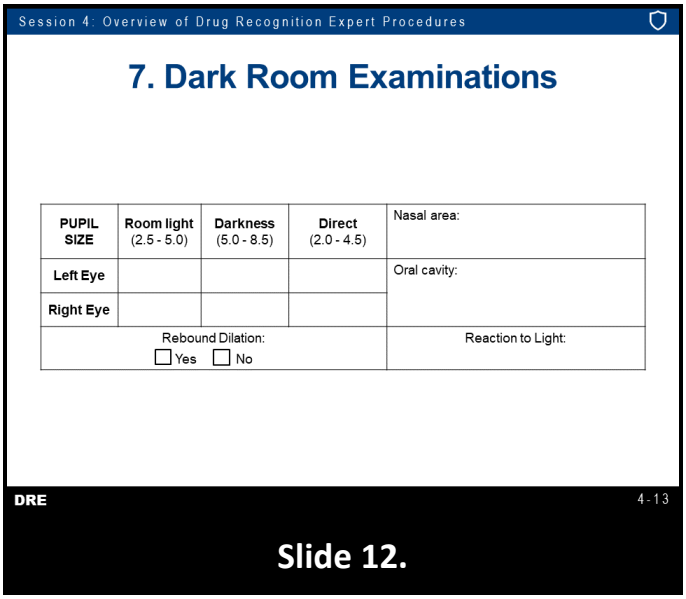
The divided attention tests used in the DRE examination include: Modified Romberg Balance (MRB); Walk and Turn (WAT); One Leg Stand (OLS); and Finger to Nose (FTN).



Slide 11.

Drugs affect the operation of the heart, lungs, and other major organs of the body. These effects show up during examination of the subject's vital signs.

The vital signs that are reliable indicators of drug influence include blood pressure, pulse, and temperature.



Slide 12.

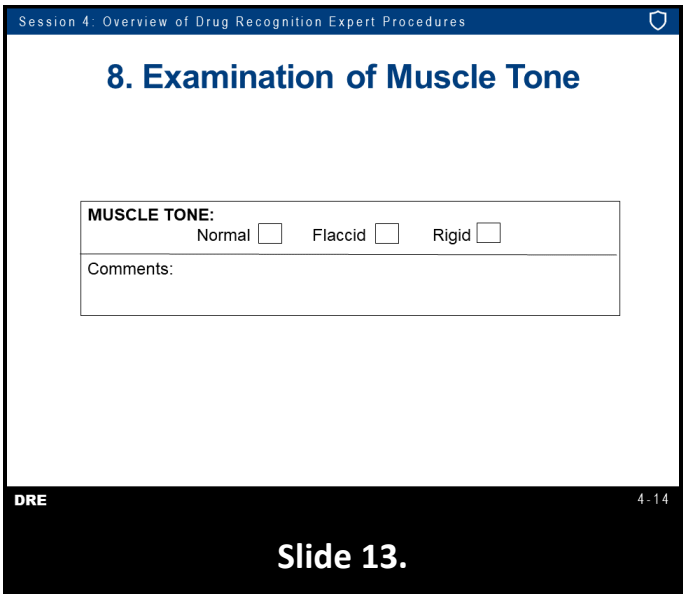
Many categories of drugs affect how the pupils will appear and how they respond to light.

Certain kinds of drugs will cause the pupils to become larger or dilate. Some other drugs cause the pupils to become smaller or constrict. By systematically changing the amount of light entering the subject's eyes, we can observe the pupils' appearance and reaction under controlled conditions. We carry out these examinations in a dark room, using a penlight to control the amount of illumination entering the subject's eyes.

We use a device called a pupillometer to estimate the size of the subject's pupils.

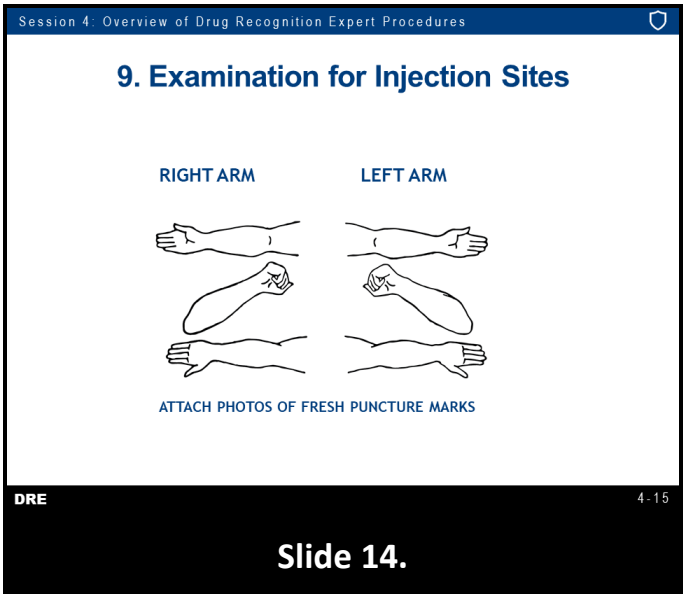
By lining the circles up alongside the subject's pupil, the pupil's size can be determined.

Other examinations are also conducted in the darkroom, using the penlight, i.e., examination of the nasal area and mouth for signs of drug use and for concealed contraband.



Slide 13.

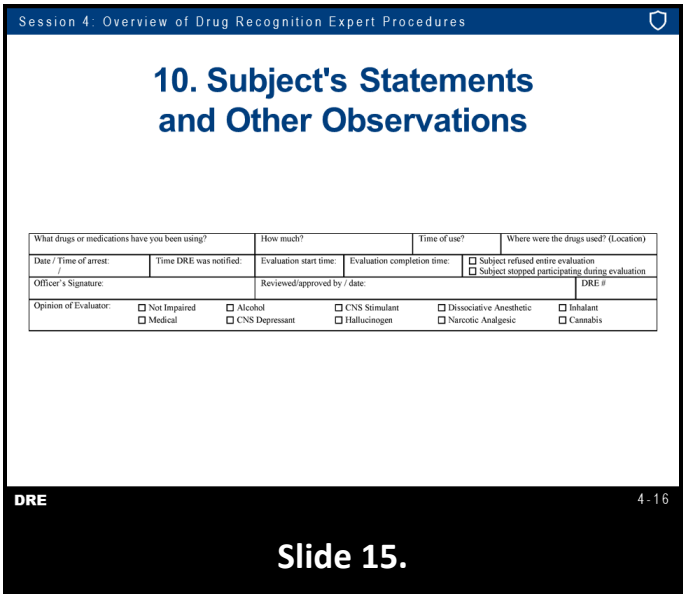
Certain categories of drugs may cause the user's muscles to become noticeably tense and rigid. Others may cause the muscle tone to be flaccid or soft. Evidence of muscle tone may be apparent when the subject attempts to perform the divided attention tests. It may also be observed when taking the subject's pulse, blood pressure, or while examining for injection sites.



Slide 14.

Certain drugs are commonly injected by users via hypodermic needles.

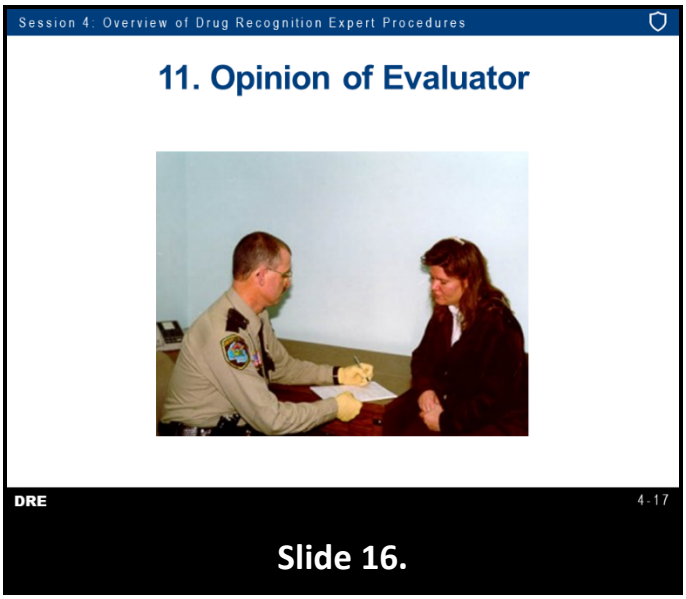
Heroin is probably most commonly associated with injection, but several other types of drugs also are injected by many users. Locating injection sites on a subject provides evidence of possible drug use.



Slide 15.

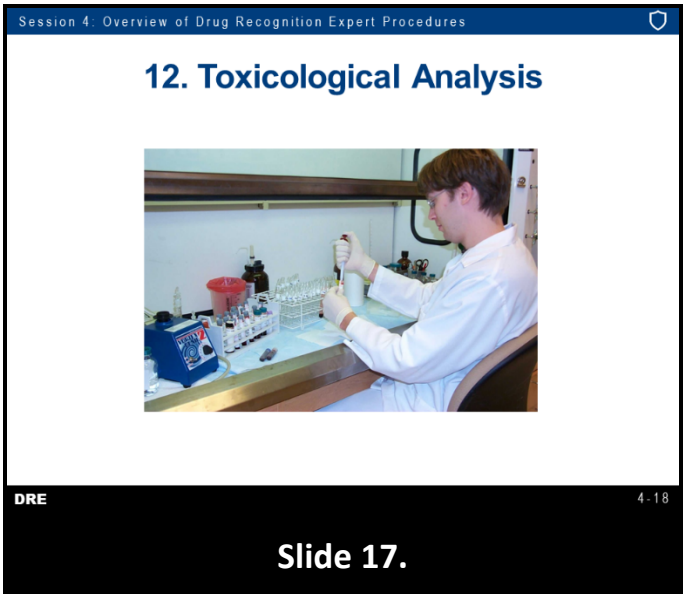
At this point in the evaluation, the DRE may have reasonable grounds to believe the subject is under the influence of a drug or drugs. The DRE may also have at least an articulable suspicion as to the category or categories of drugs causing the impairment. The DRE should proceed to interview the subject to support their opinion concerning the drug category or categories involved.

The DRE must carefully record the subject's statements and any other observations that may constitute relevant evidence of drug-induced impairment.



Slide 16.

Based on all of the evidence and observations collected from the preceding steps, the DRE should be able to reach an informed opinion as to whether the subject is under the influence of a drug or drugs, and if so the probable category or categories of drugs causing impairment. The DRE must record a narrative summary of the facts forming the basis for their opinion.



Slide 17.

The toxicological analysis of the sample is designed to obtain scientific, admissible evidence to support the DRE's opinion. This step is the analysis of the collected specimen. Specimen collection may have occurred earlier in the arrest process or evaluation. If not, it should be collected now. Proper Department policy and procedures should be followed in requesting, obtaining, and handling the toxicological sample. In some cases the arresting officer may have already obtained the specimen prior to the DRE's arrival. Just because the subject refuses or is unable to provide a specimen for analysis, the DRE should continue with an evaluation and form an opinion.

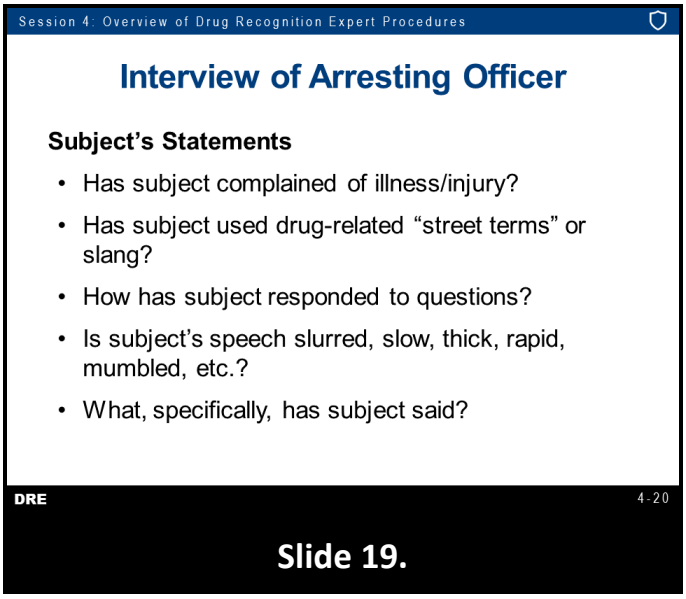
B. Interview of the Arresting Officer

Slide 18.

The purpose of the interview of the arresting officer is to obtain a summary of the subject's actions, behaviors, etc., that led to the arrest and the suspicion that drugs other than alcohol may be involved. If the arresting officer is ARIDE trained, they may have additional observations that are helpful in identifying drug impairment. The DRE should elicit this information during this interview.

Interview Behavior: Examples of questions DREs could ask during the interview include:

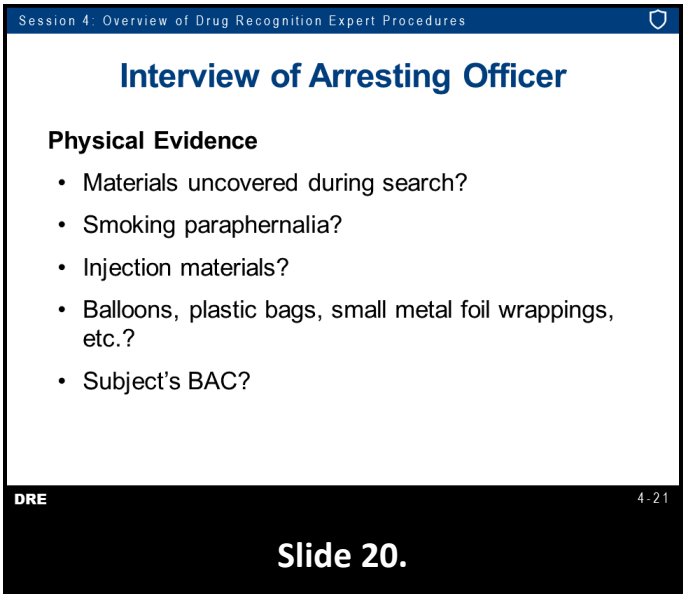
- Was the subject operating a vehicle?
- What actions, maneuvers, etc. were observed?
- Was there a crash?
    - If yes, was the subject injured?
- Was the subject observed smoking, drinking or eating?
- Was the subject apparently inhaling any substance?
- How did the subject respond to the arresting officer's stop?
- Did the subject attempt to conceal or throw away any items or materials?
- What has been the subject's attitude and demeanor during contact with the arresting officer and have there been any changes?
- Describe the subject's performance on roadside field sobriety tests.



Slide 19.

Interview Concerning Subject's Statements

- Has the subject complained of an illness or injury?
- Has the subject used any "street terms" or slang associated with drugs or drug paraphernalia?
- How has the subject responded to the arresting officer's questions?
- Was the subject's speech slurred, slow, rapid, thick, mumbled, etc.?
- What, specifically, has the subject said to the arresting officer?



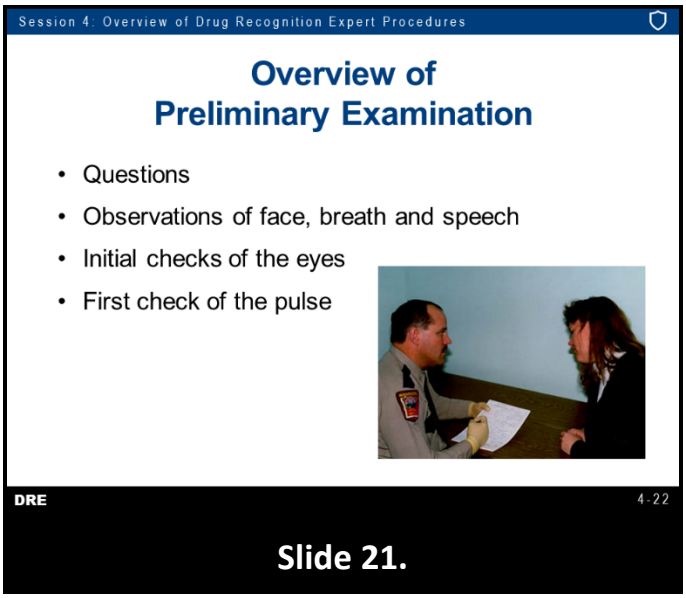
Slide 20.

Interview: Physical Evidence: Issues concerning physical evidence include:

- What items or materials were uncovered during the search of the subject or vehicle?
- Were any smoking paraphernalia uncovered?

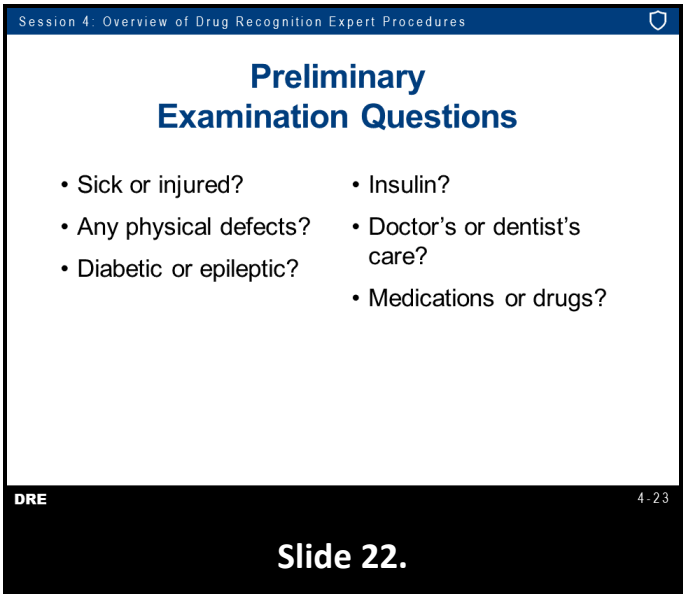
- Were any injection materials, i.e., needles, syringes, leather straps, rubber tubes, spoons, bottle caps, etc. found
- Were there any balloons, plastic bags, small metal foil wrappings, etc. found?
- What was the subject's blood alcohol concentration?

C. Overview of the Preliminary Examination



Slide 21.

The preliminary examination consists of questions, observations of face, breath, and speech, initial checks of the eyes, and the initial check of the subject's pulse.

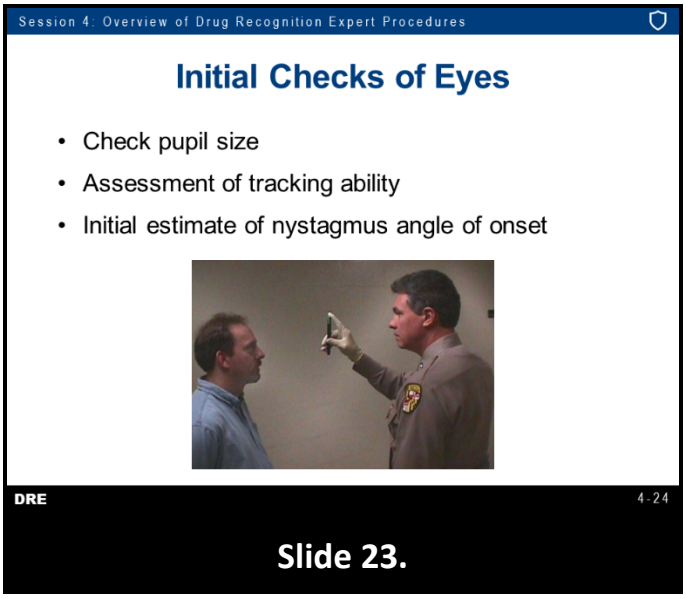


Slide 22.

The questions deal with injuries or medical problems the subject may have. They include:

- Are you sick or injured?
- Do you have any physical defects?
- Are you diabetic or epileptic?
- Do you take insulin?
- Are you under a doctor or dentist's care?
- Are you taking any medications or drugs?

If the subject responds in the affirmative to any of the above questions, ask follow-up questions to gather more information.



Slide 23.

The initial checks of the subject's eyes include several important steps.

Check of the Size of Each Pupil: The initial examination of the eyes may reveal signs of injury or illness. A difference in pupil size of greater than 0.5 mm may indicate an injury or existing medical condition.

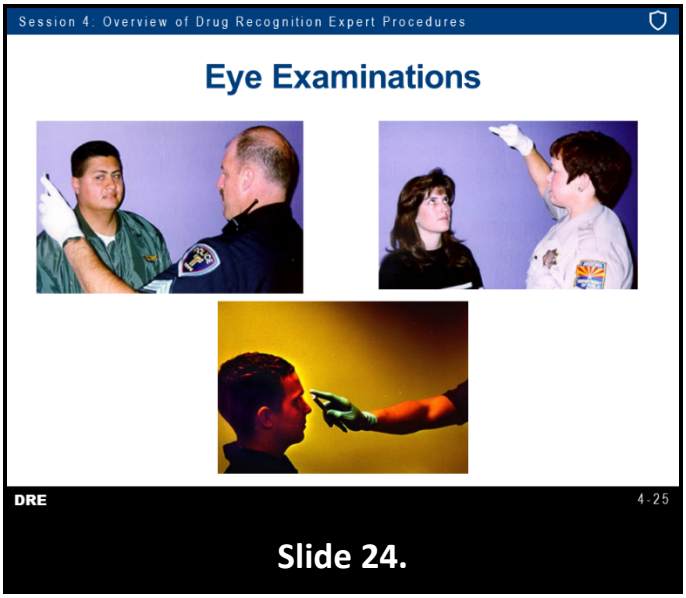
Assessment of the Ability of the Eyes to Track a Moving Object: While you are assessing the subject's tracking ability, you can also perform a preliminary assessment of whether nystagmus is present in the subject's eyes. The presence of nystagmus may indicate the presence of certain categories of drugs or medical conditions.

Initial Estimation of the Angle of Onset of HGN: If the nystagmus or "jerking" is observed, an initial estimation of the angle of onset can be made. The approximate angle of onset may help to determine whether the subject has consumed some drug other than alcohol.

If the subject has also used some other drug that also causes nystagmus, the angle of onset may occur even earlier than the BAC would indicate. Example: Suppose you are examining a subject who has an angle of onset at 40 degrees. Based on that alone, you would expect the person's BAC to be in the .08 - .10 percent range. But if that subject has also administered a Dissociative Anesthetic, the onset could occur much earlier, perhaps as soon as the eyes start to move to the side.

For example: Cannabis, Narcotic Analgesics, CNS Stimulants, and Hallucinogens do not cause nystagmus and will not affect the angle of onset.

D. Examinations of the Eyes



Slide 24.

The Examinations of the Eyes consist of three tests.

HGN: The HGN test includes three clues; Lack of Smooth Pursuit, Distinct and Sustained Nystagmus at Maximum Deviation, and Angle of Onset.

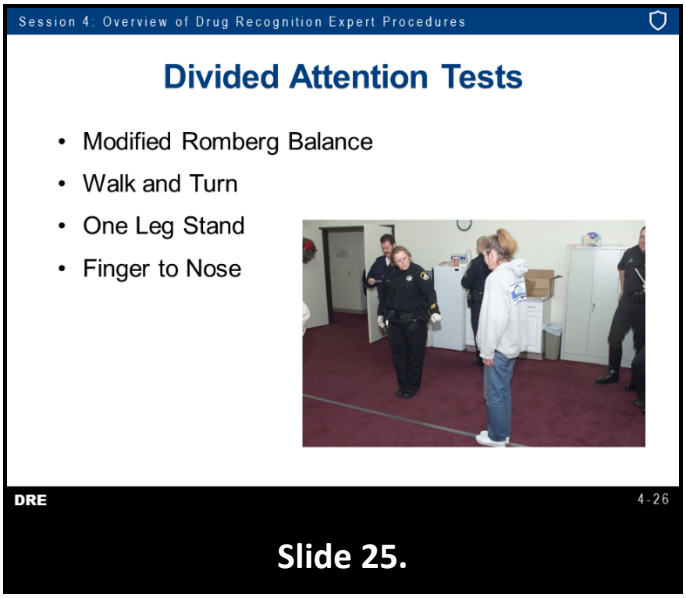
Vertical Gaze Nystagmus (VGN): VGN is an involuntary jerking of the eyes (up-and-down) which occurs when the eyes gaze upward at maximum elevation. Certain types of drugs tend to cause VGN, while others do not.

Lack of Convergence (LOC): LOC is the inability of the eyes to draw in toward the center (cross) while fixating on a stimulus being moved in toward the bridge of the nose. LOC is checked by first getting the subject to focus on and track the stimulus as it slowly moves in a circle in front of the subject's face.

Then, the stimulus is slowly pushed in toward the bridge of the subject's nose, stopping at a distance approximately, but no closer than, 2 inches, and held for approximately one (1) second.

Under the influence of certain types of drugs, the eyes may not be able to converge.

E. Divided Attention Tests

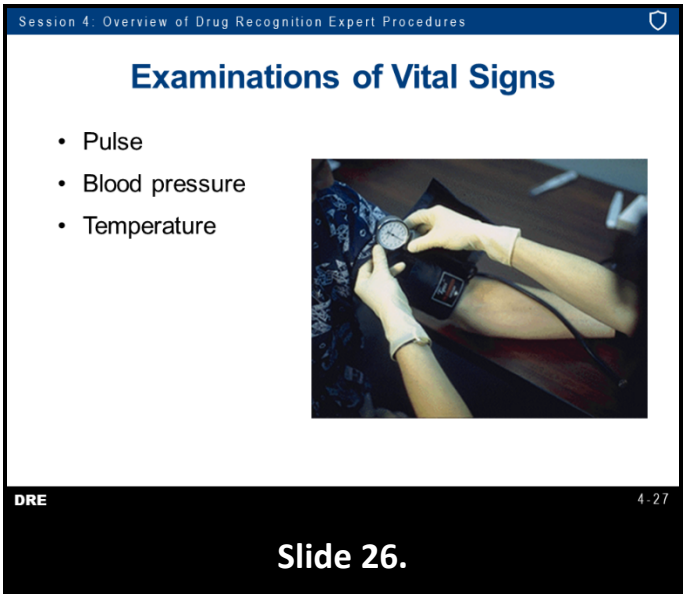


Slide 25.

Several Divided Attention tests used for drug examinations are the same familiar tests used for examining alcohol-impaired subjects.

- Modified Romberg Balance (MRB)
- Walk and Turn (WAT)
- One Leg Stand (OLS)
- Finger to Nose (FTN)

F. Examinations of Vital Signs



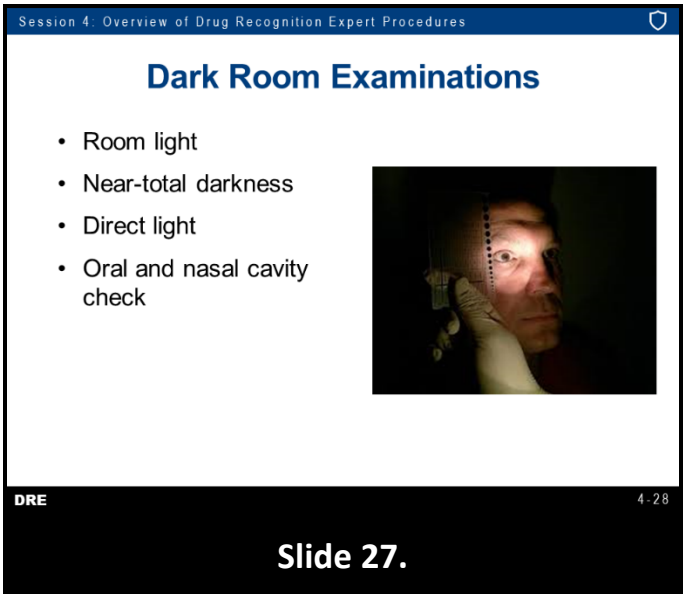
Slide 26.

The vital signs consist of three things routinely measured in basic physical examinations: Pulse; Blood Pressure; and Temperature.

These measurements require some familiar instruments: stethoscope; manual blood pressure cuff and gauge (sphygmomanometer); and oral thermometer with disposable mouthpieces. A time piece capable of measuring in seconds is also required.

Any other equipment must be approved by the Technical Advisory Panel (TAP) of the International Association of Chiefs of Police (IACP).

G. Dark Room Examinations



Slide 27.

The principal activity that takes place during the dark room examinations is the estimation of pupil size under three lighting conditions, or levels. Those levels are: Room light; Near total darkness; and Direct light.

The room light estimation is conducted prior to darkening the room lights. Whenever possible, the room light estimation should be conducted in the same room where the other pupil estimations are conducted. This helps ensure the same focal point and light intensity.

For safety reasons, whenever possible, another officer should always accompany you and the subject into the dark room.

Room Light: Before turning off the lights, you will estimate the size of the subject's pupils under room light.

You must always first estimate the left pupil, then the right.

You must position the pupillometer alongside the eye to ensure an accurate estimation. After you have completed the room light estimations, turn off the lights and wait at least 90 seconds to allow your eyes and the subject's eyes to adapt to the darkness.

Near Total Darkness: The next check will be of pupil size under near total darkness. You will need the bare minimum amount of light necessary to see the subject's pupils and the pupillometer.

You can create the necessary light by covering the tip of the penlight with your finger or thumb or by using a dim red light.

The light is then moved near the subjects left eye just until it is possible to distinguish the colored portion of the eye (Iris). Hold the pupillometer alongside the eye and locate the circle or semi-circle closest in size to the pupil.

Direct Light: The third and final check will be of the pupil size under direct light. You will shine the full strength of the penlight directly into the subject's eye for a minimum of 15 seconds.

Do this by activating the penlight pre-positioned in front of the eye.

The penlight should be held close enough to the subject's eye so its beam fills the eye socket.

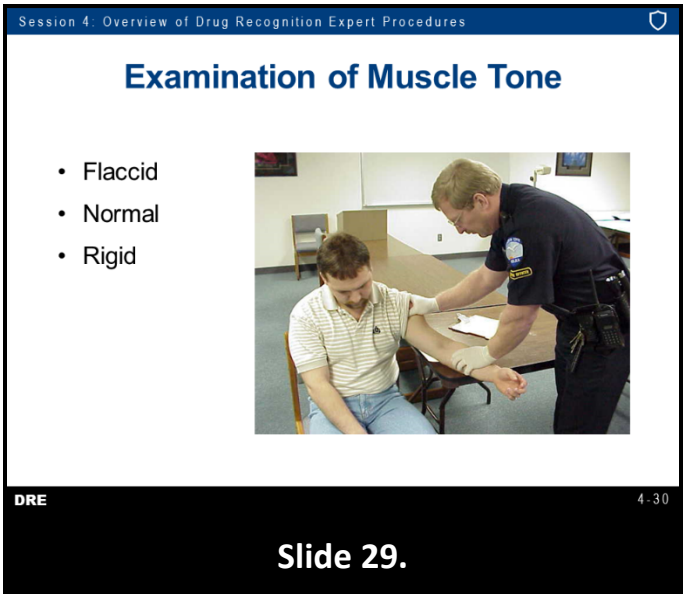
When the light is initially shown into the eye, you will check for the pupil's reaction to light. Then immediately estimate the pupil size under direct light at the end of the 15-second period.

Other Activities: Two other activities are conducted while in the darkroom. They are examination of the nasal area and examination of the oral cavity.

Slide 28.

For the purpose of this training we will use the term methods of administration to describe any manner by which a drug or alcohol enters the human body whether it be orally or otherwise. In the dark room, DREs may observe evidence that drugs were administered through the nose or the mouth. If administered through the nose, observations may include powder in the nasal area, redness in the nasal area, and others. If administered through the mouth, observations may include coating on the tongue, blisters/burns, debris in the mouth, and others.

H. Examination of Muscle Tone

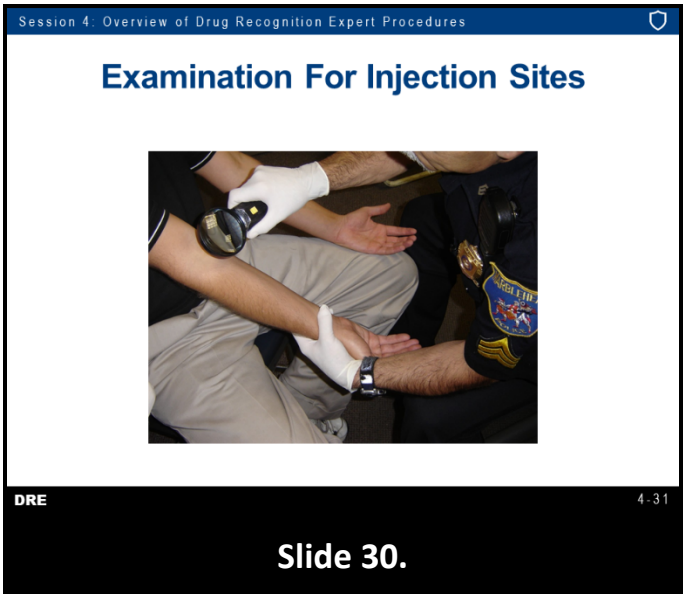


Slide 29.

*S*tarting with the subject's left arm, examine the arm muscles. Firmly grasp the upper arm and slowly move down to determine muscle tone. The muscles should appear flaccid, normal, or rigid to the touch.

Examine the right arm in the same manner.

I. Examination for Injection Sites



Slide 30.

Some injection sites may be relatively easy to notice. Persons who frequently inject certain drugs develop lengthy scars, commonly referred to as “tracks,” from repeated injections in the same veins. Injection of certain drugs may result in severe caustic action against the skin and flesh producing easily observable sores. A fresh injection site may not be readily observable.

Frequently, a DRE will locate the injection site initially by touch, running the fingers along such commonly used locations as the neck, forearms, wrists, back of hand, etc.

When the DRE locates a possible injection site, a light magnifying lens, commonly known as a “ski light,” can be used to provide a magnified visual examination. “Ski” – short for schematic.

During this step, the third pulse is taken.

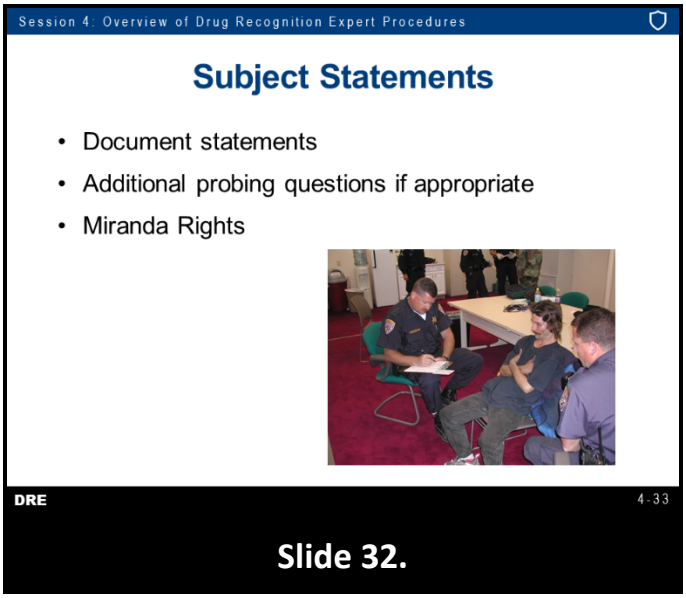
Slide 31.

While conducting the examination for injection sites, DREs may observe evidence that drugs were administered through injection or transdermally.

In addition to injecting drugs into the veins in the arms, since needles typically leave marks which can be difficult to conceal, users will find more creative and less conspicuous areas on the body to administer a substance.

Drugs which are able to be administered transdermally can be administered accidentally through contact. Some selected Hallucinogens, Dissociative Anesthetics, and Narcotic Analgesics can be administered transdermally. Cannabis can also be administered transdermally.

J. Subject Statements



Slide 32.

All spontaneous statements and subject's response to questions should be documented. Ask additional probing questions as appropriate.

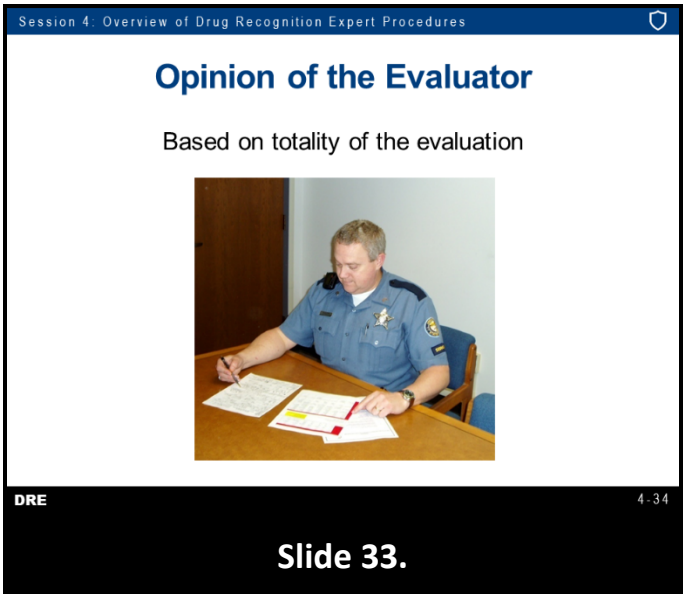
Drug Influence Form Questions:

- What medication or drug have you been using? How much?
- Time of use?
- Where were the drugs used? (location)

Be Sure to Record:

- Date/Time of Arrest
- Time DRE Notified
- Evaluation Start Time
- Time Completed
- DRE signature (Include rank)
- ID #
- Reviewed by

K. Opinion of the Evaluator

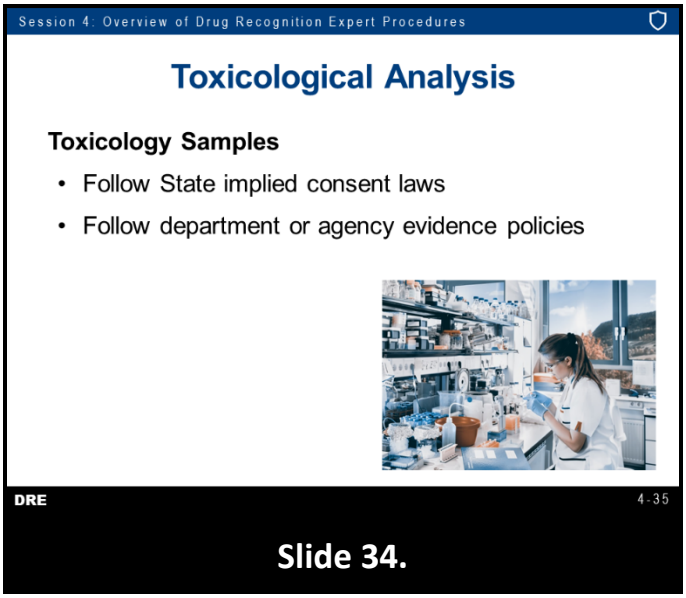


Slide 33.

Based on the totality of the evaluation, the DRE should form an opinion of the subject's impairment and, if impaired, the drug category or categories responsible. Anytime there is a positive BAC reading during an evaluation, the DRE must list alcohol (ETOH) as part of their opinion.

The DRE should not base their opinion on just one thing, i.e., admissions, drugs and/or contraband, etc. All the facts and context must be considered and a conclusion made from the whole picture regarding the subject's impairment and its cause.

L. Toxicological Examination



Slide 34.

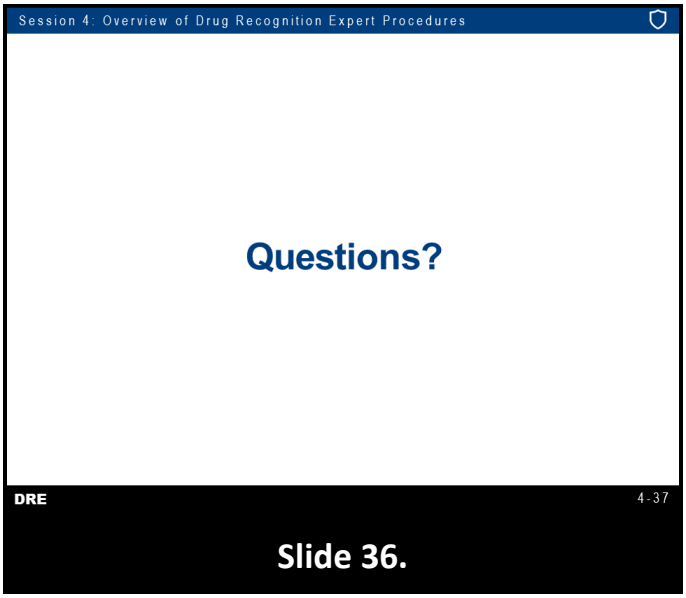
The toxicological examination is a chemical analysis of the subject's blood, urine, or oral fluid by an approved toxicology laboratory. This is not to be confused with the collection of the toxicology sample. A specimen should be collected at some point during the investigation.

Collecting Toxicology Samples: Your State's implied consent statues will dictate the type of sample you can obtain; urine, blood, breath, or oral fluid. Departmental policy, State laboratory guidelines, and procedures should be followed in requesting, obtaining, and handling the toxicology sample. There may be times when the toxicology sample was obtained prior to Step 12 of the DRE protocol. If the toxicology sample has not been collected prior to Step 12, it should be collected now. The DRE should document the details of collecting the evidentiary toxicological sample regardless of when it was obtained.

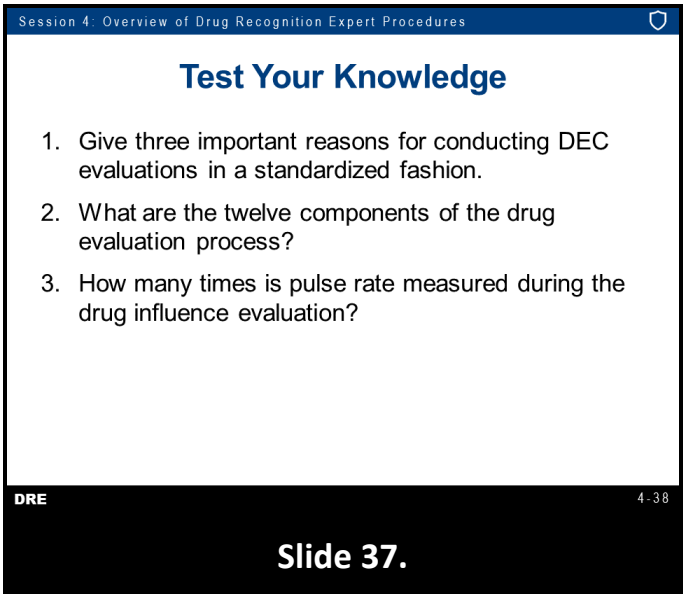
Specimen Containers: The type of container for collecting the sample will be dictated by the type of sample taken and the laboratory requirements where it will be tested. Containers should be sterile and have a lid that will seal tightly to prevent leaks.

M. Video Demonstrations (Optional)

Slide 35.



Slide 36.



Test Your Knowledge

1. Give three important reasons for conducting DEC evaluations in a standardized fashion.
2. What are the twelve components of the drug evaluation process?
3. How many times is pulse rate measured during the drug influence evaluation?

International Association of Chiefs of Police

Drug Evaluation and Classification Program

Drug Influence Evaluation Checklist

_____ 1. Breath alcohol test

_____ 2. Interview of arresting officer

_____ 3. Preliminary examination and first pulse
(Note: Gloves must be worn from this point on.)

_____ 4. Eye examinations

_____ 5. Divided attention tests:

- _____ Modified Romberg Balance
- _____ Walk and Turn
- _____ One Leg Stand
- _____ Finger to Nose

_____ 6. Vital signs and second pulse

_____ 7. Dark room examinations

_____ 8. Check for muscle tone

_____ 9. Check for injection sites and third pulse

_____ 10. Interrogation, statements, and other observations

_____ 11. Opinion of evaluator

_____ 12. Toxicological examination

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case #

Recorder/Witness	Crash: ☐ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)

Date Examined / Time /Location / /	Breath Test: Test Refused ☐ Results: Instrument #:	Chemical Test: Urine ☐ Blood ☐ Oral Fluid ☐ Test or tests refused ☐

Miranda Warning Given Given by:	☐ Yes ☐ No	What have you eaten today? When?	What have you been drinking? How much?	Time of last drink?

Time now/ Actual /	When did you last sleep? How long?	Are you sick or injured? ☐ Yes ☐ No	Are you diabetic or epileptic? ☐ Yes ☐ No

Do you take insulin? ☐ Yes ☐ No	Do you have any physical defects? ☐ Yes ☐ No	Are you under the care of a doctor or dentist? ☐ Yes ☐ No

Are you taking any medication or drugs? ☐ Yes ☐ No	Attitude:	Coordination:

Speech:	Breath odor:	Face:

Corrective Lenses: ☐ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☐ Bloodshot ☐ Watery	Blindness: ☐ None ☐ Left ☐ Right	Tracking: ☐ Equal ☐ Unequal

Pupil Size: ☐ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☐ No	Vertical Nystagmus ☐ Yes ☐ No	Able to follow stimulus ☐ Yes ☐ No	Eyelids ☐ Normal ☐ Droopy

Pulse and Time	HGN	Left Eye	Right Eye	**Convergence**
1. ____ / ____	Lack of Smooth Pursuit			
2. ____ / ____	Maximum Deviation			
3. ____ /	Angle of Onset			

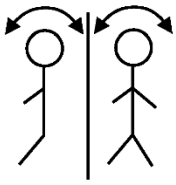
Right eye Left eye

/30 **One Leg Stand** /30

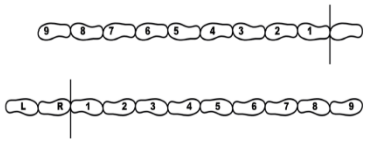
L R L R

L	R	
		Sways while balancing
		Uses arm(s) to balance
		Hopping
		Puts foot down

Modified Romberg Balance
Approx. Approx.



Walk and Turn Test

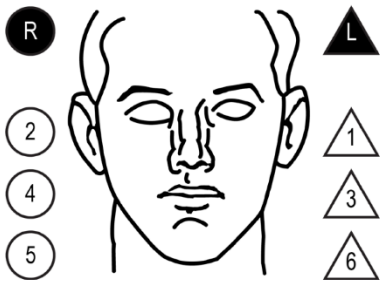


Cannot keep balance _____
Starts too soon _____

	1st Nine	2nd Nine
Stops walking		
Misses heel-toe		
Steps off line		
Uses arm(s)		
Actual steps taken		

Time Estimation _____estimated as 30 seconds	Describe turn	Cannot do test (explain)	Type of footwear:

Finger to Nose
(Draw lines to spots touched)



PUPIL SIZE	**Room light (2.5 – 5.0)**	**Darkness (5.0 – 8.5)**	**Direct (2.0 – 4.5)**
Left Eye			
Right Eye			

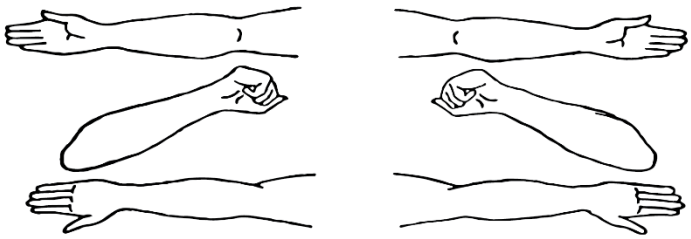
Nasal area:

Oral cavity:

Rebound Dilation: ☐ Yes ☐ No

Reaction to Light:

RIGHT ARM **LEFT ARM**



Blood Pressure /	Temperature °F

Muscle Tone: ☐ Normal ☐ Flaccid ☐ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)

Date / Time of arrest: /	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

Officer's Signature:	Reviewed/approved by / date:	DRE #

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant
☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

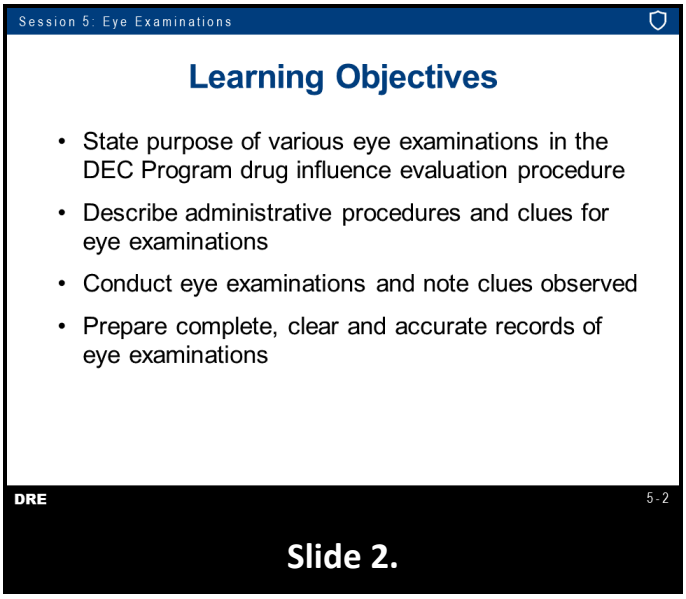
5 DRE

EYE EXAMINATIONS

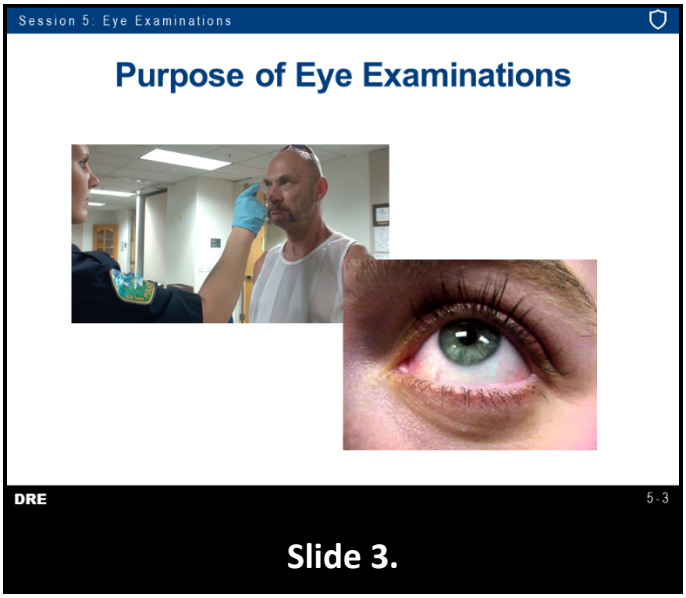
LEARNING OBJECTIVES

- State the purpose of various eye examinations in the Drug Evaluation and Classification (DEC) Program drug influence evaluation procedure
- Describe the administrative procedures for the eye examinations
- Describe the clues for each eye examination
- Conduct the eye examinations and note the clues observed
- Prepare complete, clear, and accurate records of the eye examinations

CONTENTS



A. Purpose of the Eye Examinations



The principal purpose of the eye examinations is to obtain articulable facts indicating the presence or absence of specific categories of drugs. Certain drug categories usually cause the eyes to react in specific ways. Other drug categories usually do not cause those reactions. The tests of Horizontal Gaze Nystagmus (HGN) and Vertical Gaze Nystagmus (VGN) provide important indicators of the drug categories that may or may not be present.

If HGN is observed, it is likely the subject may have administered alcohol or another CNS Depressant, an Inhalant, a Dissociative Anesthetic, or a combination of those. If VGN is observed, the implication may be the subject administered a large dose of alcohol for that individual, a Dissociative Anesthetic, such as PCP, or high doses of other Depressants or Inhalants.

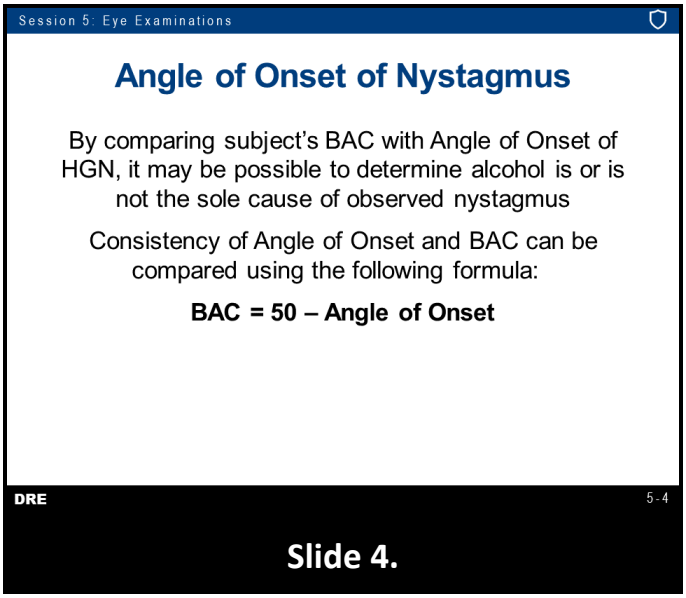
Any deficiency in eye movement or pupil response, especially if it is acquired or of recent onset, can impair a person's ability to see properly. Drug impairment, including from alcohol, can affect eye movements in several ways, depending on the nature of the intoxicant used. Drug use, including alcohol, is understood to cause physiological changes that are of recent onset and acquired:

1. Lack of smooth pursuit can impair the ability to see details (such as when reading a sign) or make accurate observations (as of the direction and speed of another vehicle) when there is relative motion between the observer and the target (one or the other is moving, or both are moving but at different speeds and/or different directions);
2. Acquired nystagmus (either at or before maximum deviation) causes a reduction of visual acuity, primarily because of the suppression of visual processing during the fast phase of the nystagmus; and
3. Lack of convergence can cause double vision (diplopia) when looking at objects up close or when frequently or repeatedly changing viewing distance between far and near (such as when looking back and forth from the road to the car's dashboard).

Individuals with long-standing abnormality or deficiency often learn to compensate in some manner. One example includes making a head movement rather than an eye movement when someone has a natural lack of smooth pursuit, not due to intoxication, illness, or trauma. Likewise, someone who has a constant and long-standing nystagmus may be able to detect and extract visual information between successive eye movements. Therefore, while the appearance to the officer may be abnormal, the person is not necessarily impaired.

Source:

Leigh, R. and Zee, D. (2015) The Neurology of Eye Movements, Fifth Edition. Oxford University Press.



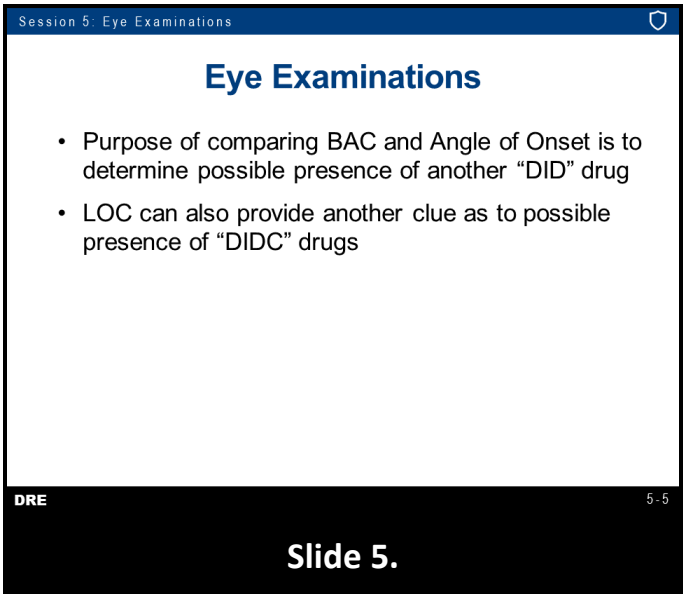
Slide 4.

By comparing the subject's blood alcohol concentration (BAC) with the Angle of Onset of HGN, it may be possible to determine that alcohol is or is not the sole cause of the observed nystagmus.

Clarification: If the angle of onset is significantly inconsistent with the BAC, the implication may be the subject has also taken a Dissociative Anesthetic, such as PCP, an Inhalant, or some CNS Depressant other than alcohol.

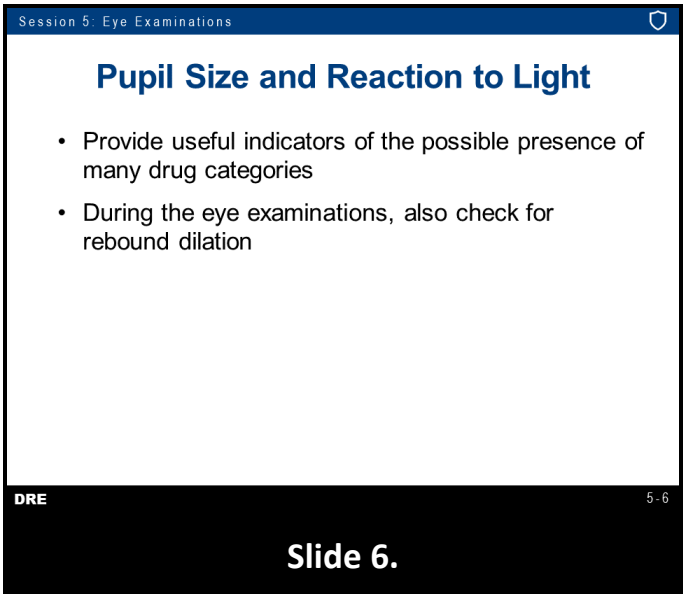
The consistency of the Angle of Onset and BAC can be compared using the following formula: BAC = 50 – Angle of Onset.

Explanation: BAC = 100 x blood alcohol (i.e., if blood alcohol is 0.10, BAC = 10). Example: If onset angle is 35 degrees, then: BAC = 50 – 35 = 15. The corresponding BAC would be approximately 0.15. Keep in mind this formula is only a statistical approximation. It is not an exact relationship for all subjects at all times. The formula can easily be "off" by 0.05 or more even though the subject has consumed no drug other than alcohol.



Slide 5.

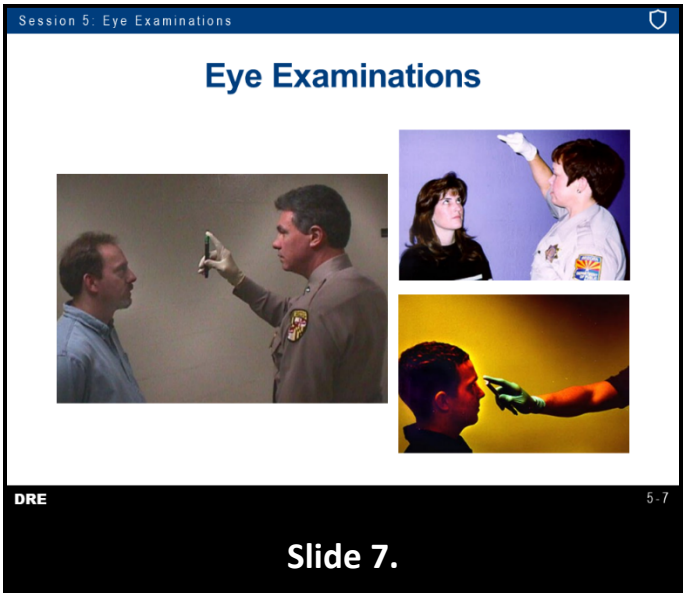
The purpose of comparing BAC and Angle of Onset is to obtain a general indication of the possible presence of another CNS Depressant, a Dissociative Anesthetic, or an Inhalant. The check for Lack of Convergence (LOC) can provide another clue as to the possible presence of Depressants, Inhalants, Dissociative Anesthetics, or Cannabis ("DIDC" drugs). LOC is also an indicator of the possible presence of Cannabis.



Slide 6.

The checks of pupil size and Reaction to Light provide useful indicators of the possible presence of many drug categories. CNS Depressants, CNS Stimulants, and Inhalants will normally cause the pupils to react slowly. There will generally be little movement with Narcotic Analgesics. CNS Stimulants and Hallucinogens normally will cause the pupils to dilate. Cannabis normally causes dilation of the pupils, although this isn't always observed.

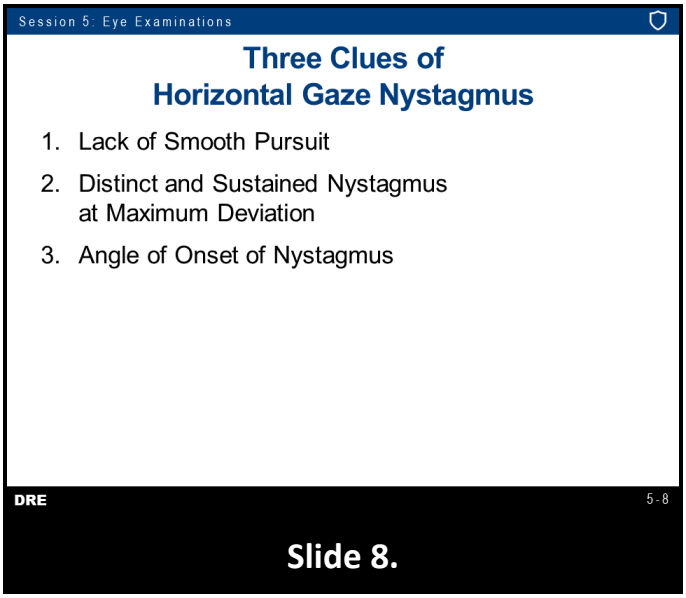
Some specific Inhalants may cause pupil dilation. Narcotic Analgesics will normally cause observable constriction of the pupils. During the eye examinations you will also check for rebound dilation.



Slide 7.

To review, the Eye Examinations consists of: HGN; VGN; and LOC.

B. Procedures and Clues



Slide 8.

HGN test consists of three separate checks, administered independently to each eye. There are three clues of HGN: Lack of Smooth Pursuit; Distinct and Sustained Nystagmus at Maximum Deviation; and Angle of Onset of Nystagmus. Prior to checking for the three clues of nystagmus, check for Equal Pupil Size, Equal Tracking, and Resting Nystagmus. There should be a noticeable break between equal tracking and lack of smooth pursuit.

First Clue: Lack of Smooth Pursuit

If the subject is wearing contact lenses, note that fact on the report but don't have the subject remove them.

If the subject is wearing eyeglasses, have him or her remove them.

Position the stimulus approximately 12 – 15 inches in front of the subject's nose.

Hold the tip of the stimulus slightly above the level of the subject's eye.

Instruct the subject to hold the head still and follow the stimulus with their eyes and to keep looking at the stimulus until told the test is over.

The first check is for "Lack of Smooth Pursuit." Move the stimulus smoothly all the way to the subject's left side and back all the way to the right side.

Make at least two complete passes of the stimulus: to the left side, to the right side, back to the left side, and finally back to the right side. When doing this, don't pause at the center of the subject's face; move all the way to the left, then all the way to the right, then again, all the way to the left and back all the way to the right, in a smooth, continuous motion. While the eye is moving, examine it for evidence of a Lack of Smooth Pursuit.

Second Clue: Distinct and Sustained Nystagmus at Maximum Deviation. The second check is for "Distinct and Sustained Nystagmus at Maximum Deviation."

Again, position the stimulus as before.

Move the stimulus all the way to the subject's left side and hold it there so the subject's eye is turned as far to the side as possible.

Hold the eye at that position for a minimum of 4 seconds, to check carefully for jerking that may be present and is distinct.

When you have completed this check for the left eye, repeat the process for the right eye. Then, do it once again for the left eye, and again for the right, to verify distinct and sustained nystagmus is or is not present.

A slight or barely visible tremor is not sufficient to consider this clue present. A definite, sustained jerking must be seen.

Third Clue: Angle of Onset of Nystagmus: The final check is for the "Angle of Onset of Nystagmus."

Position the stimulus as before.

Slowly move the stimulus to the subject's left side, carefully watching the eye for the first sign of jerking. The stimulus should be moved at a speed that takes approximately four seconds or more to move from center to approximately 45 degrees. Moving the stimulus at a slower speed aids the officer in observing when the eye first begins to jerk.

When you see the eye jerk, stop moving the stimulus, hold it at that position, and verify the jerking continues. If jerking is not evident with the stimulus held steady, you have not located the point of onset. Therefore, resume moving the stimulus slowly toward the side until you notice the jerking again.

When you locate the point of onset nystagmus, stop moving the stimulus and estimate the angle of onset. If the nystagmus is not observed prior to approximately 45 degrees, stop and hold the stimulus at a 45-degree angle to verify the nystagmus is not present.

Then, repeat the process for the right eye.

Then, again check onset for the left eye, and again for the right.

- 30 degrees
- 35 degrees
- 40 degrees
- 45 degrees

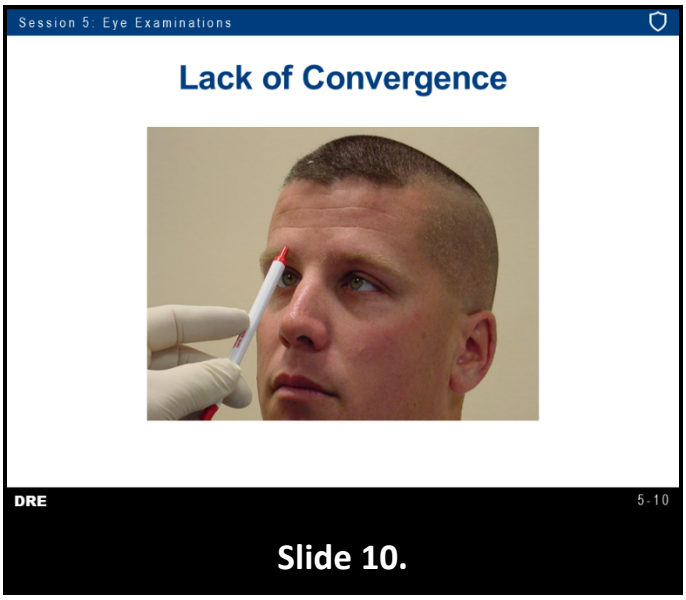
Slide 9.

Position the stimulus horizontally, approximately 12 – 15 inches in front of the subject's nose.

Instruct the subject to hold the head still and follow the stimulus with the eyes only.

Raise the stimulus until the subject's eyes are elevated as far as possible.

Watch closely for evidence of the eyes jerking upward.



Slide 10.

The test for LOC determines whether the subject is able to cross his or her eyes.

Lack of Convergence (LOC) means an inability to cross the eyes. If the subject to be tested routinely wears eyeglasses during reading and near visual tasks, the eyeglasses should be worn for the LOC check if they are readily available.

If the subject's eyeglasses are not readily available, the DRE should still conduct the test.

Position the stimulus approximately 12-15 inches in front of the subject's face.

Instruct the subject to hold their head still and follow the stimulus with the eyes only.

Keep the object 12-15 inches away from the subject's nose and start to move the stimulus slowly in a circle approximately the same size as the subject's face.

Once you have verified the subject is tracking the stimulus, stop moving in a circular manner with the stimulus above eye level, pause and then move it down slowly and steadily toward the bridge of the nose.

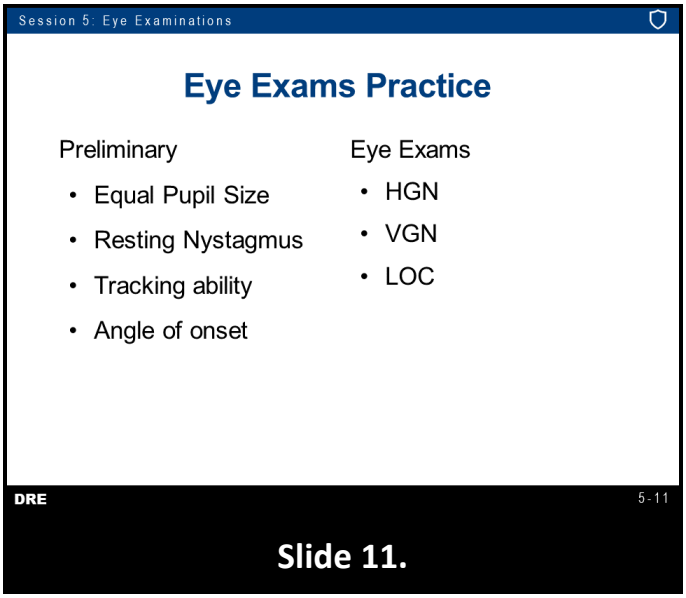
Hold the stimulus near the bridge of the nose for approximately one (1) second. The stimulus should not come any closer than approximately two (2) inches from the bridge of the nose. Carefully observe the subject's eyes to determine whether both eyes converge.

Repeat.

Sources for clinical use of testing with subject wearing eyeglasses for LOC:

Carlson, N., & Kurtz D. (2003). *Clinical Procedures for Ocular Examination.* McGraw-Hill, 3rd edition, Sept. 26, 2003

Borsting, E., Cooper, J., Cotter, S., Kulp, M., London, R., Mitchell, G.L., Rouse, M., Scheiman, M., & Wensveen, J. (2005). A randomized clinical trial of treatments for convergence insufficiency in children. *Arch Ophthalmol, 123*(1), 14-24. 10.1001/archopht.123.1.14



Slide 11.

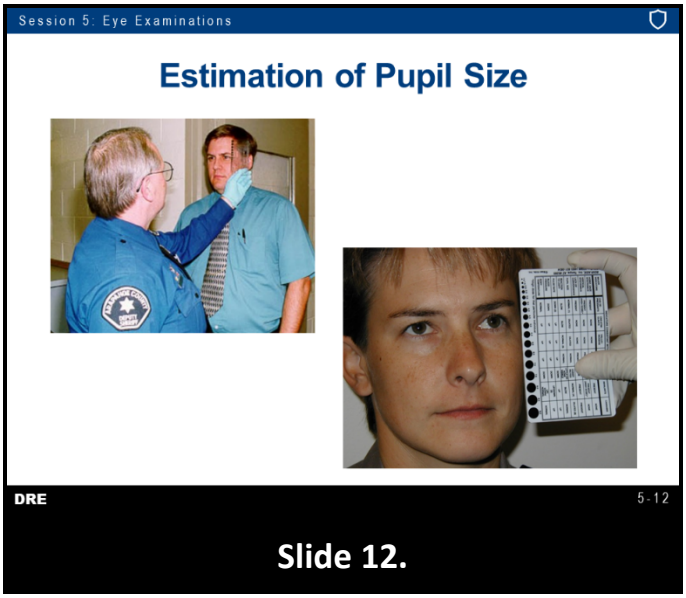
Preliminary Eye Exams: The following checks are conducted in the preliminary examination.

- Check for Equal Pupil Size
- Check for Resting Nystagmus

- Assessment of tracking ability
- Initial estimation of nystagmus angle of onset

Eye Exams: These eye exams are conducted in the following step.

- HGN
- VGN
- LOC

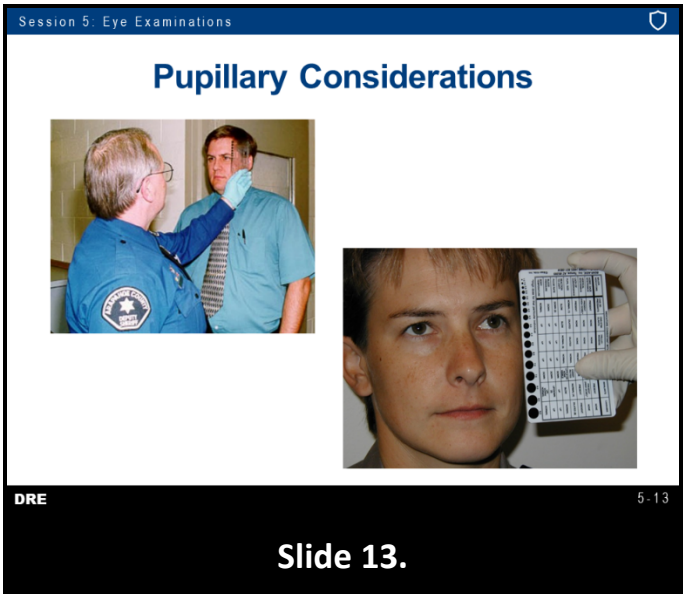


Slide 12.

The pupils of our eyes continually adjust in size to accommodate different lighting conditions.

We use a device called a pupillometer to estimate the size of the subject's pupils. The pupillometer is held alongside the subject's eye, moved up and down until the circle or semi-circle closest in size to the pupil is located.

Pupil size estimations are recorded as the numeric value that corresponds to the diameter of the circle or semi-circle that is closest in size to the subject's pupil in each lighting condition.

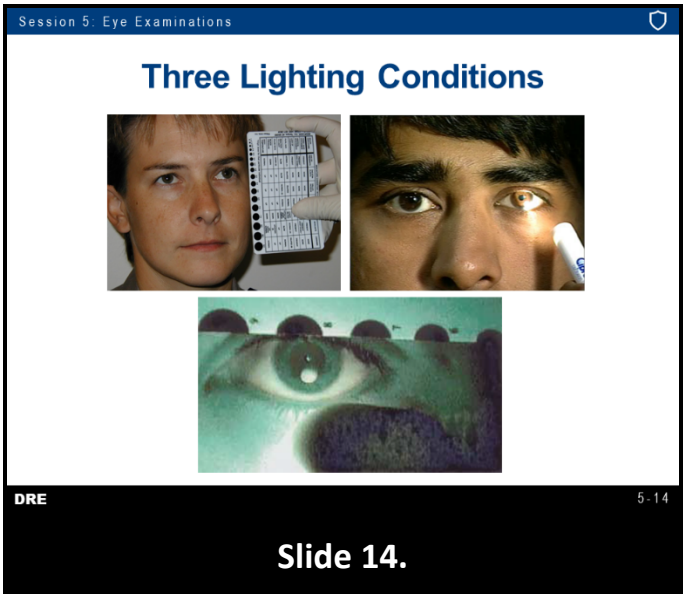


Slide 13.

Another eye sign that may be observed by the DRE is Pupillary Unrest. Pupillary Unrest is defined as the continuous, irregular change in the size of the pupils that may be observed under room or steady light conditions. Pupillary Unrest is not abnormal or a sign of impairment. If observed, it is most likely not related to drug or medical impairment. Its presence can be due to various reasons, e.g., light source fluctuations in focusing and attention issues of the subject being tested. Pupillary Unrest is seen as natural pupillary movements that are active in the presence of light, focusing, and maintaining alertness in normal people.

"Accommodation Reflex" is an adjustment of the eyes for viewing at various distances, meaning the pupils will automatically constrict as objects move closer and dilate as objects move farther away.

This should not be confused with Pupillary Unrest, the continuous, irregular change in the size of the pupils that may be observed under room or steady light conditions or with pupillary light reflex which is the pupil's normal reaction to the changes in light. To avoid the possibility of causing accommodation reflex, have the subject maintain his/her eyes fixated on a stationary object greater than six feet away.



Slide 14.

Pupil sizes are estimated under three different lighting conditions: Room Light; Near Total Darkness; and Direct Light.

Estimation of Pupil Size under Room Light: The pupils are examined in room light prior to darkening the room.

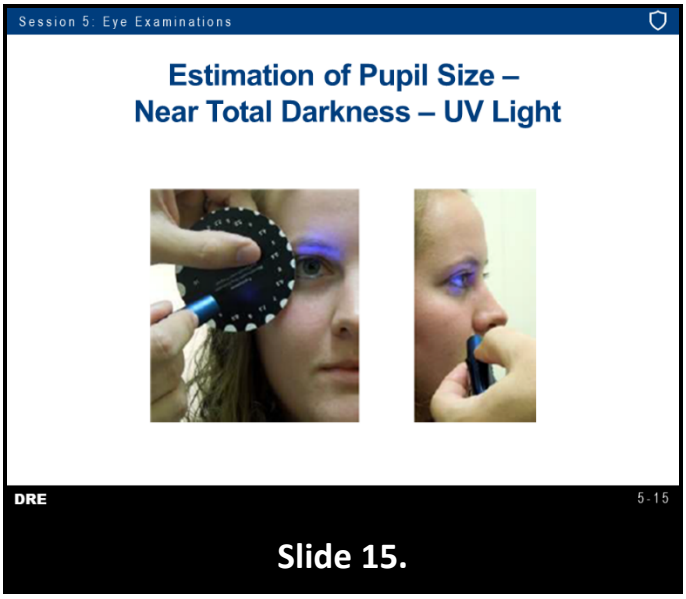
After you have completed the pupil size estimations in room light, you must darken the room, wait approximately 90 seconds (for eyes to adjust to the light), and then proceed with the dark room exam.

Estimation of Pupil Size under Near Total Darkness: For the check under near total darkness completely cover the tip of the penlight with your finger or thumb, so only a slight glow is exhibited and no white light emerges or use a dim red light.

Bring the light source up toward the subject's left eye until you can just distinguish the pupil from the colored portion of the eye (iris).

Continue to hold the light source in that position and bring the pupillometer up alongside the subject's left eye and locate the circle or semi-circle that is closest in size to the pupil.

Repeat this procedure for the subject's right eye.



Slide 15.

Ultraviolet (UV) light is an approved additional technique for use at the discretion of the State coordinator. The UV light is primarily to be used for the Near Total Darkness pupil size estimation only. The UV light does not replace using a pen light with a tip of a light cover with the finger or a thumb. The UV light procedure may be used by a DRE trained in its use, if the result using the standard procedure is in question or an accurate result cannot be obtained due to extreme darkness of the subject's iris.

Independent research has demonstrated UV lights are effective tools for assessing pupil size in near total darkness, giving essentially identical results to the standard evaluation regardless of subject eye color. Evaluators found the UV light easier to use, especially when assessing subjects with dark eyes. If the UV light is used, it should be used after pupil size estimations have been attempted with the appropriate light source.

"Position the UV light near the subject's face along the cheek just below the eye, starting with the subject's left eye first." If the light is held along the cheek, it can be used to illuminate the pupilometer.

"Start with the light about parallel to the subject's face and slowly increase the angle outward away from the subject's face until the light passes through the cornea (the clear window at the front of the eye) keep moving the light until the yellow-green glow of the crystalline lens is evident."

When using a UV light to assess pupil size, avoid shining the light directly into the subject's eye. In low dosages and for short exposure times, the UV light is not harmful to the subject's eye. However, the light does emit visible wavelengths in the blue-violet region of the spectrum, otherwise the evaluator would not be able to see the light is on. Consequently, shining the light directly into the subject's eye can unintentionally cause the pupil to constrict.

"For certain individuals, the UV light may not work as intended. Contact lens wearers whose contact lenses absorb UV will not exhibit fluorescence of the crystalline lens. Some subjects who have had cataract surgery may also not exhibit fluorescence. When the crystalline lens inside the eye develops a cataract, it is usually removed surgically. If the lens is not replaced, the individual often will need to wear very high-power spectacle or contact lenses in order to see clearly. In this case, there is no longer any structure behind the pupil and thus no fluorescence occurs. Even if the lens is replaced with an artificial lens, the artificial lens typically will not exhibit fluorescence."

Using a DRE pupilometer, estimate the size of the glowing pupil in near total darkness.

Conduct the same procedure for the right eye.

Source:

Citek, K. (2014). Using a UV Light for Near Total Darkness Eye Exam. DECP Technical Advisory Panel

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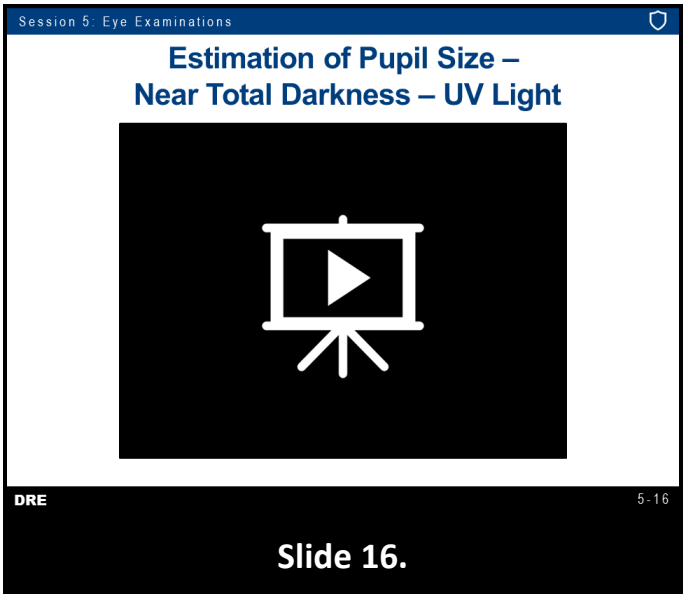
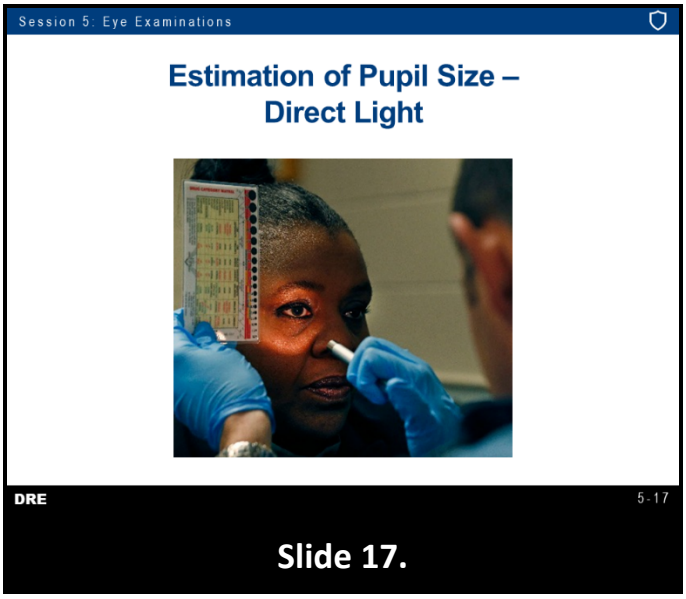


Slide 16.

Using a UV light to estimate pupil size in the near total darkness lighting condition is an easy, safe, and effective evaluation, especially when assessing subjects with dark eyes. Used properly, there is no potential harm to the subject or the DRE.

Use of the UV light for the near total darkness pupil estimation is not mandatory and does not replace the current near total darkness penlight procedure. If a DRE uses the UV light for the near total darkness estimation, it shall be documented in the narrative report.



Slide 17.

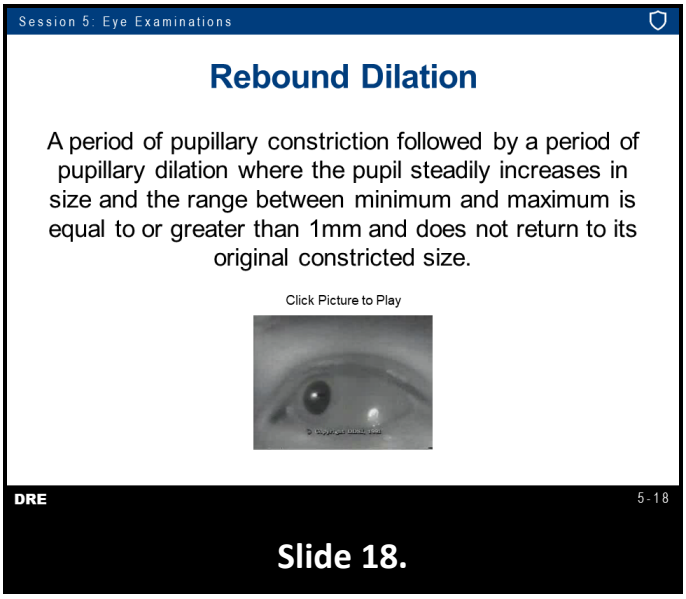
From a darkened environment, quickly illuminate the left eye. This can be accomplished by activating the penlight pre-positioned in front of the eye, or by activating the penlight with the light covered and positioned in front of the eye. The objective is to capture an accurate assessment of the reaction to light by minimizing the pupil's exposure to light before the penlight can be directed solely into the eye.

Position the penlight so it illuminates and approximately fills the subject's eye socket.

Hold the penlight in that position for 15 seconds. During the 15 seconds, bring the pupilometer up alongside the left eye.

Find the circle or semi-circle that is closest in size to the pupil.

Repeat this procedure for the subject's right eye.



Rebound dilation is defined as a period of pupillary constriction followed by a period of pupillary dilation where the pupil steadily increases in size and the range between minimum and maximum is equal to or greater than 1mm and does not return to its original constricted size.

Medical research indicates fluctuations under 1mm are relatively common for reasons unrelated to drug impairment (Bergamin et al. 2002).

Example: The pupil is estimated at 8.5 mm in near total darkness. Once the penlight is shined into the pupil it constricts to 4.0 mm then steadily dilates to 6.0 mm and remains that diameter while the direct light is shined into the eye.

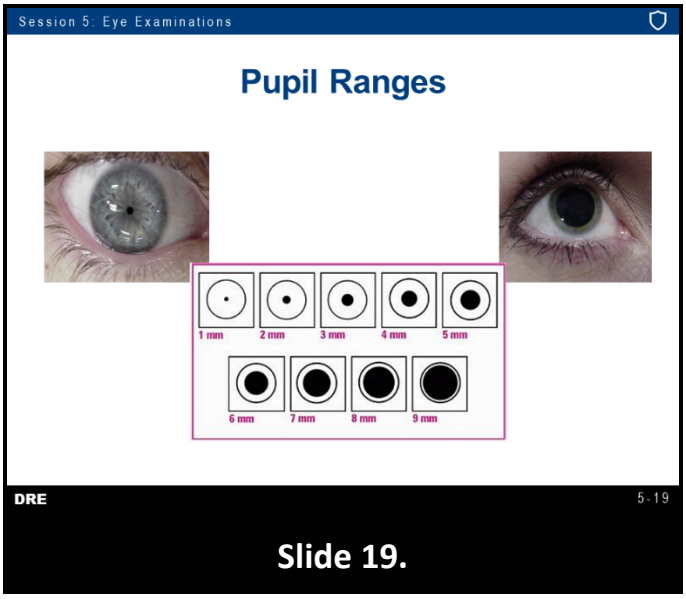
Rebound dilation has been reported with persons impaired by drugs that cause pupillary dilation. Cannabis is most common. In a 2016 study, nearly 71% of Cannabis-impaired subjects displayed rebound dilation. In another study (Declues, et. al), nearly 51% of Cannabis-impaired subjects displayed rebound dilation.

Rebound dilation is termed "pupillary escape" in medical literature.

Sources:

Hartman, R., Heustis, M., Hayes, C., & Richman, J. (2016). Drug Recognition Expert (DRE) examination characteristics of cannabis impairment. Accident Analysis and Prevention, 92, 219-229. http://dx.doi.org/10.1016/j.aap.2016.04.012

Declues, K., Figueroa, A., & Perez, S. (2016). A Two-Year Study of Delta 9-Tetrahydrocannabinol Concentrations in Drivers; Part 2: Physiological Signs on Drug Recognition Expert (DRE) and Non-DRE Examinations. *Journal of Forensic Sciences, 61*(6), 1664-1670. 10.1111/1556-4029.13168



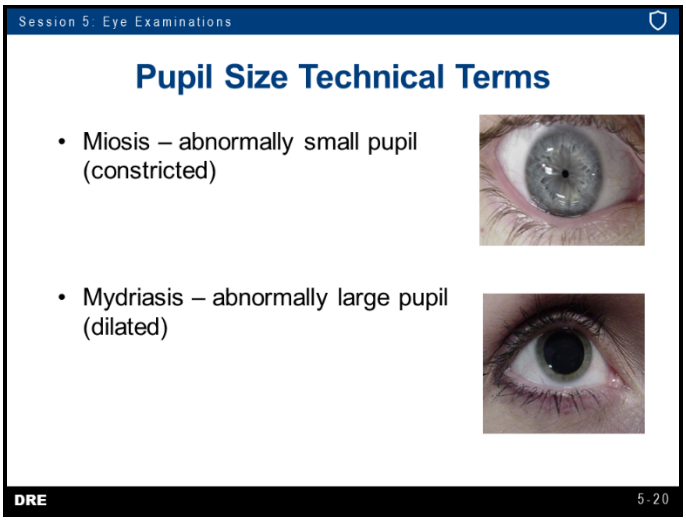
Slide 19.

For most people, even under very bright light the pupils will not constrict much below a diameter of 2.0 millimeters (mm) or dilate to a diameter of more than 8.5 mm in near total darkness conditions.

Consequently, the use of three distinct pupil size ranges for each of the different testing conditions may be considered more useful in the evaluation to determine impairment vs. non-impairment.

Source:

Decker, D., McAndrew, K.G., Mullaney, S., & Richman, J. (2004). An evaluation of pupil size standards used by police officers for detecting drug impairment. *Journal of the American Optometric Association, 75*(3), 175-182. https://doi.org/10.1016/S1529-1839(04)70037-8



Slide 20.

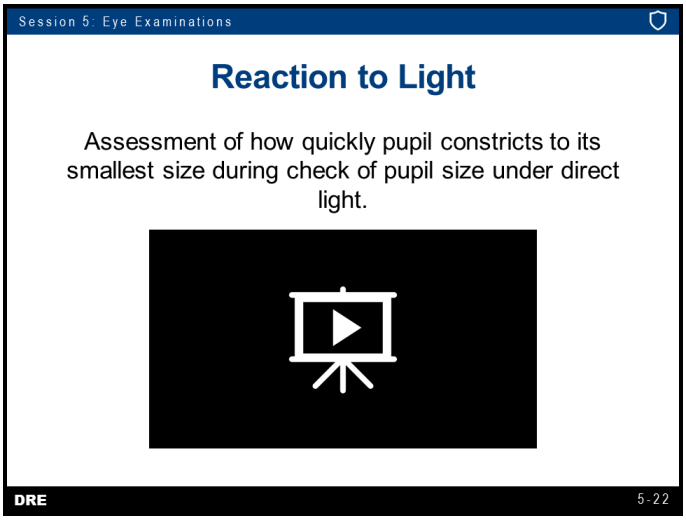
Two key technical terms regarding pupil sizes are: Miosis – abnormally small pupil, i.e., constricted; Mydriasis – an abnormally large pupil, i.e., dilated.

Slide 21.

Room Light: For a non-impaired person, the average pupil size and range for room light is approximately 4.0 mm with pupil sizes ranging from 2.5 to 5.0 mm.

Near Total Darkness: For a non-impaired person, the average pupil size and range for near total darkness is approximately 6.5 mm with pupil sizes ranging from 5.0 to 8.5 mm.

Direct Light: For a non-impaired person, the average pupil size and range for direct light is approximately 3.0 mm with pupil sizes ranging from 2.0 to 4.5 mm.



Slide 22.

Assessment of how quickly the pupil constricts to its smallest size during the check of pupil size under direct light when the light is first introduced into the subject's eye.

As you introduce the beam of light directly into the subject's eye, note how the pupil reacts.

Under ordinary conditions, the pupil should react very quickly and constrict noticeably when the light beam strikes the eye.

Under the influence of certain categories of drugs, the pupil's reaction may be slow or there may be no visible reaction at all. CNS Depressants, CNS Stimulants, and Inhalants will usually cause the pupils to react slowly to light. Narcotic Analgesics may have little or no visible reaction to light.

For DRE purposes, we consider the pupil's reaction to be slow if it takes more than one second to reach its smallest size.

Hold the direct light on the subject's eye for a minimum of 15 seconds to assess pupil reaction.

Also check for Rebound Dilation during this 15-second period. Caution should be used so as not to move the light beam or allow the bulb to change in light intensity.

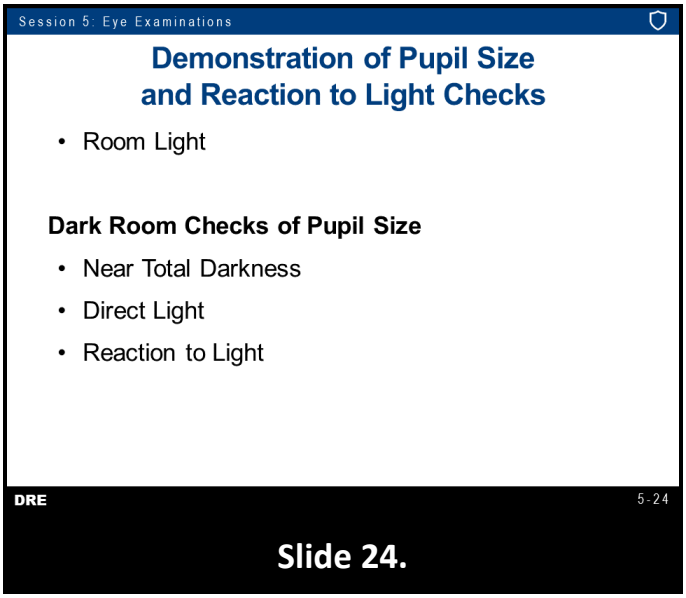
When you have completed this process for the left eye, repeat it for the right eye.

C. Demonstrations

Slide 23.

- Check for Lack of Smooth Pursuit
- Check for Distinct and Sustained Nystagmus at Maximum Deviation

- Check for an Angle of Onset of Nystagmus



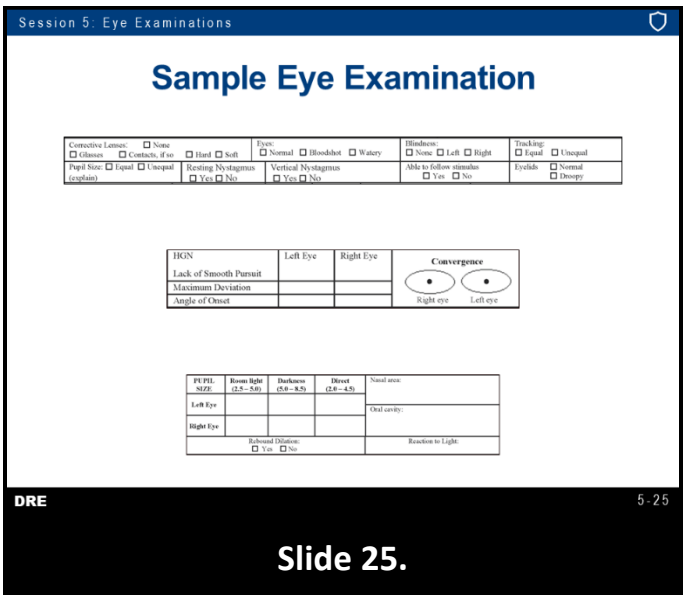
Slide 24.

- Room Light

Dark Room checks of pupil size:

- Near Total Darkness
- Direct Light
- Reaction to Light

D. Documentation Procedures



Slide 25.

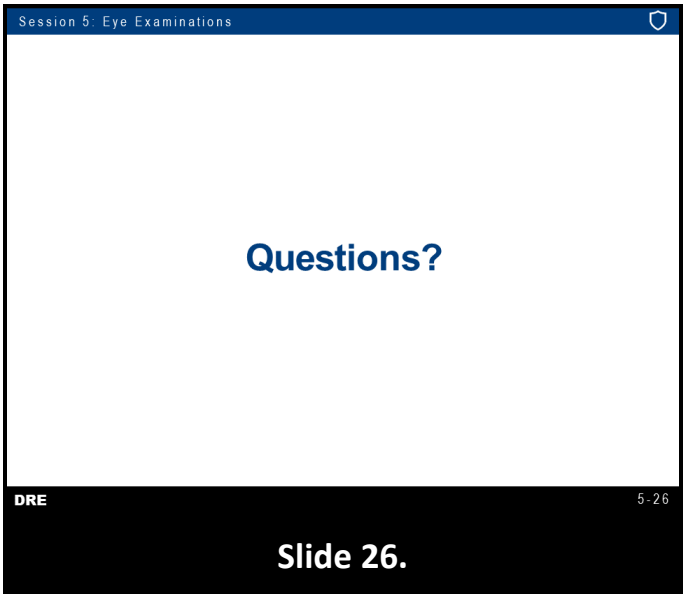
A brief examination of the eyes is made during the Preliminary Examination.

- Check for Equal Pupil Size
- Check for Resting Nystagmus
- Assessment of tracking ability
- Initial assessment of nystagmus angle of onset

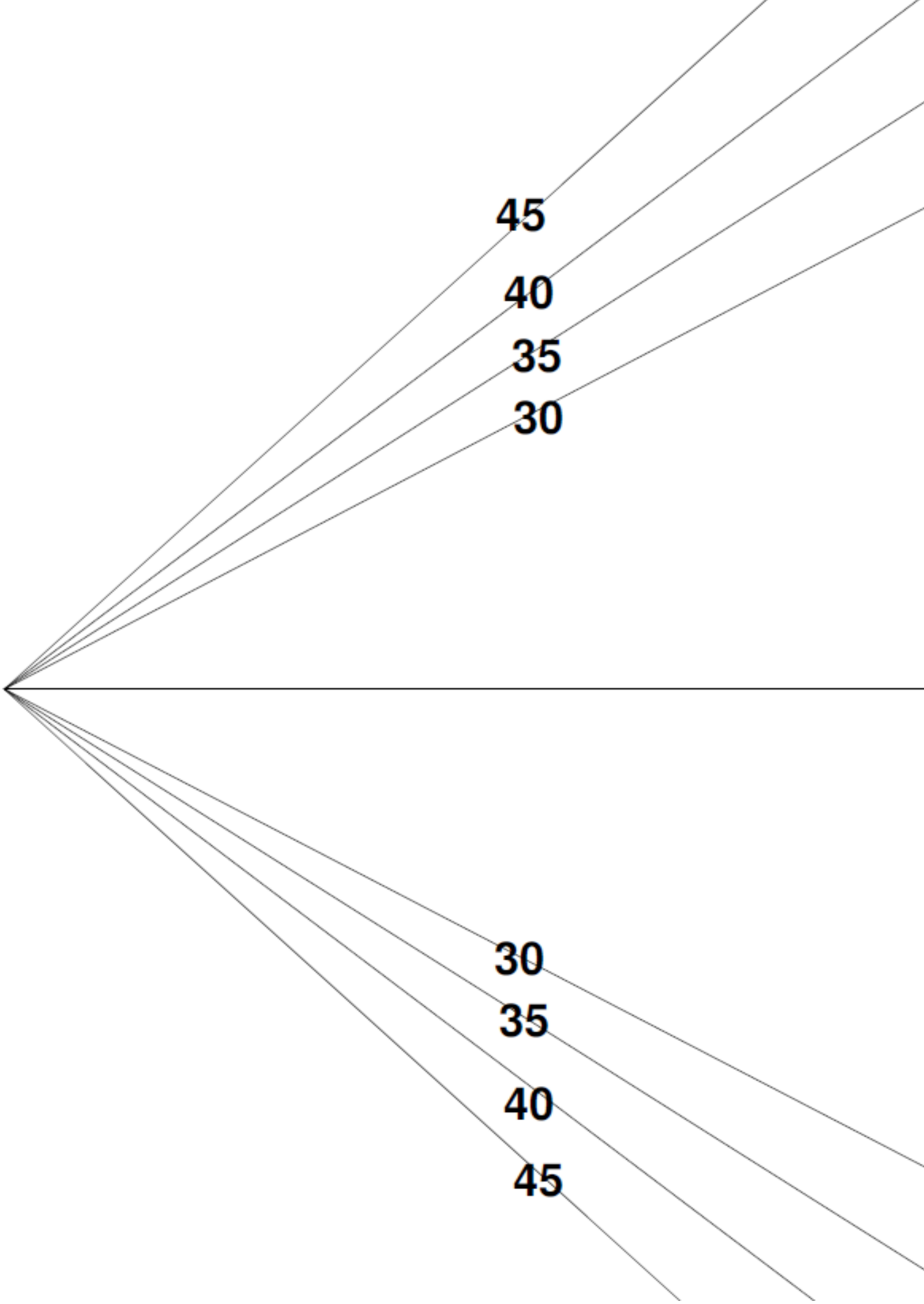
For VGN, “Yes” implies VGN was present, “No” implies it was not present.

For LOC, it will be necessary to diagram the movement of the eyes. The dark room eye examinations are documented in a subsequent section of the form.

Pupil Size Estimations: Room Light; Near Total Darkness; and Direct Light.



Slide 26.


45
40
35
30
30
35
40
45

Pupil Size Chart

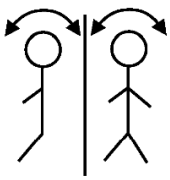
Pupil Size	Room Light	Near Total Darkness	Direct Light
2.0 mm			
2.5 mm			
3.0 mm			
3.5 mm			
4.0 mm			
4.5 mm			
5.0 mm			
5.5 mm			
6.0 mm			
6.5 mm			
7.0 mm			
7.5 mm			
8.0 mm and above			

DRUG INFLUENCE EVALUATION

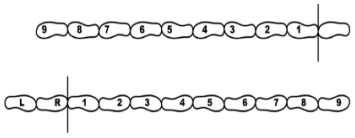
Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case #
Recorder/Witness	Crash: ☐ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency	
Arrestee's Name (Last, First, Middle)	Date of Birth	Sex / Race	Arresting Officer (Name, ID#)	
Date Examined / Time /Location / /	Breath Test: Results:	Test Refused ☐ Instrument #:	Chemical Test: Urine ☐ Blood ☐ Oral Fluid ☐	Test or tests refused ☐
Miranda Warning Given Given by:	☐ Yes ☐ No	What have you eaten today? When?	What have you been drinking? How much?	Time of last drink?
Time now/ Actual /	When did you last sleep? How long?	Are you sick or injured? ☐ Yes ☐ No	Are you diabetic or epileptic? ☐ Yes ☐ No	
Do you take insulin? ☐ Yes ☐ No	Do you have any physical defects? ☐ Yes ☐ No	Are you under the care of a doctor or dentist? ☐ Yes ☐ No		
Are you taking any medication or drugs? ☐ Yes ☐ No	Attitude:	Coordination:		
Speech:	Breath odor:	Face:		
Corrective Lenses: ☐ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☐ Bloodshot ☐ Watery	Blindness: ☐ None ☐ Left ☐ Right	Tracking: ☐ Equal ☐ Unequal	
Pupil Size: ☐ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☐ No	Vertical Nystagmus ☐ Yes ☐ No	Able to follow stimulus ☐ Yes ☐ No	Eyelids ☐ Normal ☐ Droopy

Pulse and Time 1. ____ / ____ 2. ____ / ____ 3. /	HGN	Left Eye	Right Eye	**Convergence** Right eye Left eye	/30	**One Leg Stand** /30
	Lack of Smooth Pursuit					
	Maximum Deviation					
	Angle of Onset					

Modified Romberg Balance
Approx. Approx.



Walk and Turn Test



Cannot keep balance ____

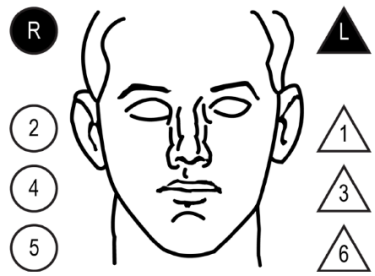
Starts too soon ____

	1st Nine	2nd Nine
Stops walking		
Misses heel-toe		
Steps off line		
Uses arm(s)		
Actual steps taken		

L	R	
		Sways while balancing
		Uses arm(s) to balance
		Hopping
		Puts foot down

Time Estimation _____estimated as 30 seconds	Describe turn	Cannot do test (explain)	Type of footwear:

Finger to Nose
(Draw lines to spots touched)



PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye			
Right Eye			

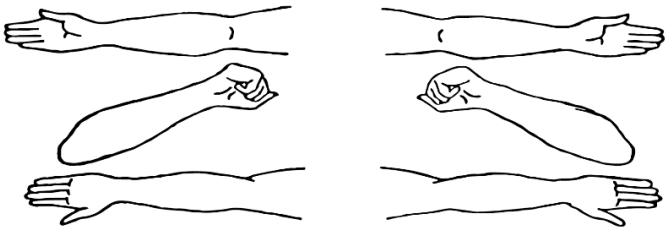
Nasal area:

Oral cavity:

Rebound Dilation: ☐ Yes ☐ No

Reaction to Light:

RIGHT ARM **LEFT ARM**



Blood Pressure /	Temperature °F

Muscle Tone: ☐ Normal ☐ Flaccid ☐ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
Date / Time of arrest: /	Time DRE was notified:	Evaluation start time:	Evaluation completion time: ☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
Officer's Signature:	Reviewed/approved by / date:		DRE #

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

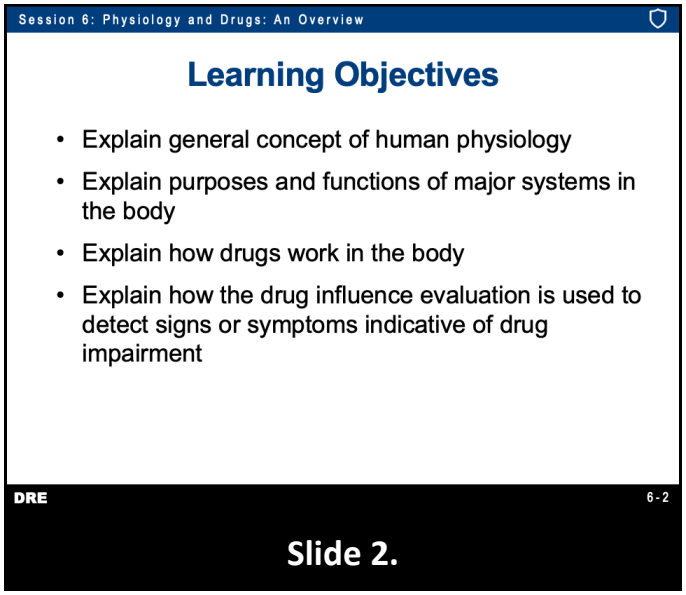
6 DRE

PHYSIOLOGY AND DRUGS: AN OVERVIEW

LEARNING OBJECTIVES

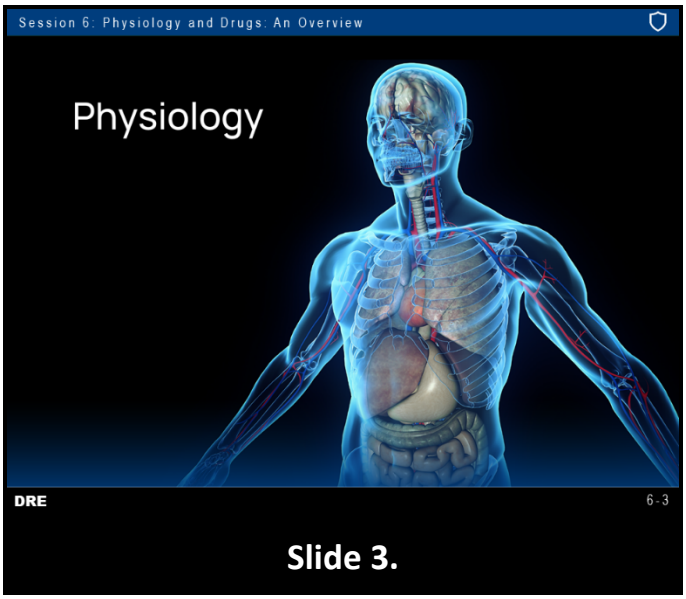
- Explain the general concept of human physiology
- Explain the purposes and functions of major systems in the body (nervous system, circulatory system, respiratory system, etc.)
- Explain how drugs work in the body
- Explain how the drug influence evaluation is used to detect signs and symptoms indicative of drug impairment

CONTENTS



Slide 2.

A. Physiology and Drugs: An Overview

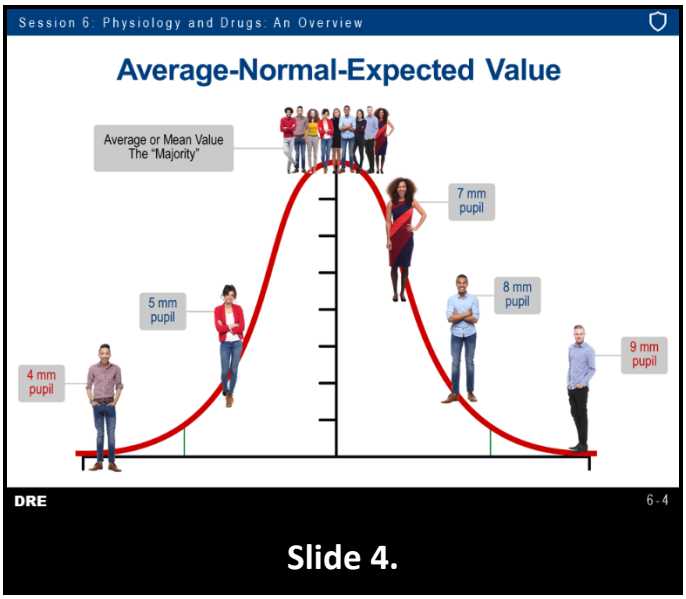


Slide 3.

For the purposes of this training, physiology is the study of the functions of living organisms and their parts. Before we can understand how drugs work, we must have a basic understanding of how the body works. It is not necessary to have detailed knowledge of specific functions or medical terminology. DREs will not become medical specialists as a result of this limited overview; however, they are encouraged to learn as much as possible about human physiology through additional instruction and independent reading.

We will review general concepts of how the body functions in a “normal” or “standard” human.

All human beings are different, and a “normal” or “standard” human does not exist. However, experience and scientific studies have produced an average range of values, or expected values, of non-impaired people that can be used for comparison purposes.



Slide 4.

In the Drug Evaluation and Classification (DEC) Program we use the terms Average Value or Expected Range.

- **Average Value** is a single value that represents the middle of the range that the majority of healthy, non-impaired people would exhibit. For example, the average for pupil size in near total darkness is 6.5 mm. This means when ALL the sizes were measured using the DRE protocol in a large number of pupils in healthy, non-impaired adults, the average pupil size was approximately 6.5 mm.
- **Expected Range** describes a range of values above or below the average for the majority of healthy non-impaired people. The average pupil size in near-total darkness is 6.5 mm, but the "Expected" range is 5.0-8.5 mm for healthy or non-impaired person.

Normal can be used to describe conditions that are not measured numerically such as muscle tone, etc.

For DREs, the closer the finding is to the average value, the more likely the person is not exhibiting impairment in that function. The farther away from the average value and nearer the edge of the expected range, the more likely the person is exhibiting impairment in that function.

For example: If the average value for life expectancy of males in the U.S. is 76 years old, we would expect someone to live between 70 and 80 years old. If someone dies at age 60 or at age 90, we may consider that outside of the expected range.

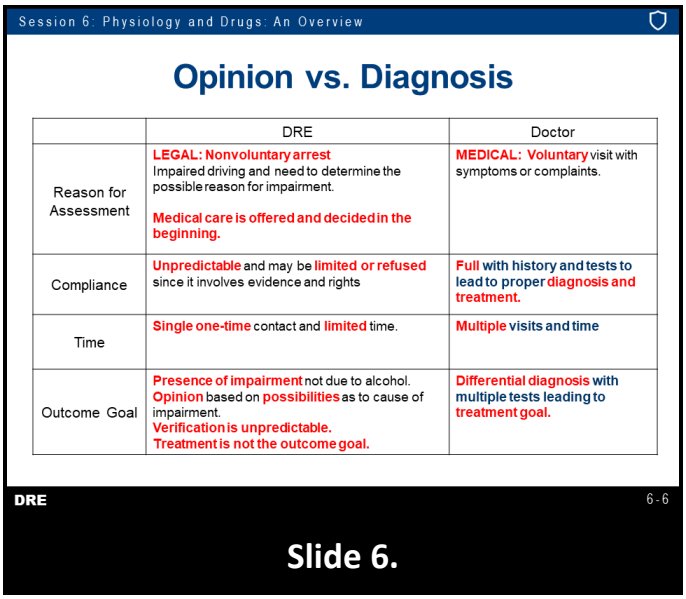
The defense may ask "what is normal for my client?" A DRE needs to be prepared to explain the meanings of the terms average value and expected range and how it relates to the drug influence evaluation.

Slide 5.

The DRE's goal is to determine if impairment is present and the probable cause(s) of observed impairment.

A diagnosis is a medical conclusion reached by someone with medical experience and expertise. DREs do not make a diagnosis.

An opinion is a determination based on special knowledge, experience, and articulable facts. As a DRE, when you complete a drug influence evaluation, you are rendering an opinion that the impairment is a result of a medical issue(s) and/or drugs.



Slide 6.

REASON FOR ASSESSMENT

DRE: Non voluntary arrest: Impaired driving and need to determine possible reason for impairment. Medical care is offered and decided in beginning.

Doctor: Voluntary visit with symptoms or complaints.

COMPLIANCE

DRE: Unpredictable compliance and may be limited or the subject may simply refuse, since it involves rights and evidence.

Doctor: Doctor or medical personnel generally get full compliance, a full history, order tests in order to receive the proper diagnosis and treatment. DREs do not provide treatment in regard to the evaluation.

TIME

DRE: A single, one-time contact with limited time.

Doctor: May involve multiple visits and time.

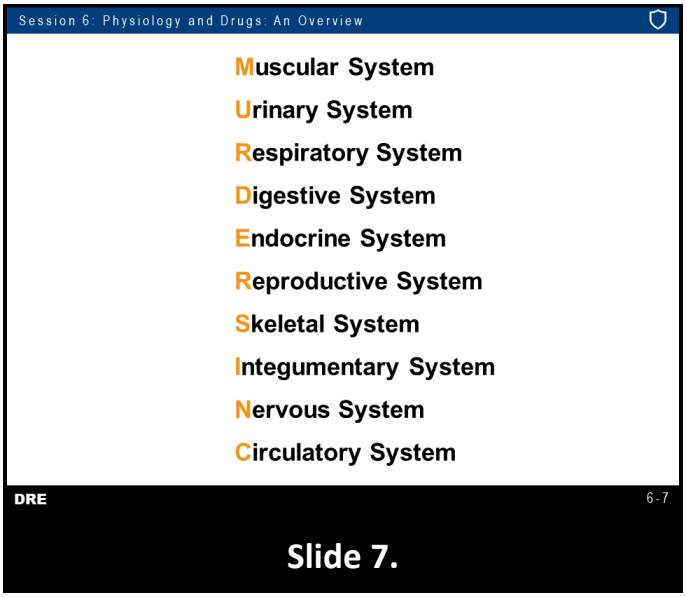
OUTCOME GOAL

DRE: Presence of impairment, and inconsistent with BAC, the opinion is based on probabilities as to the cause of impairment. Treatment is not the outcome goal.

Doctor: Differential diagnosis leading to multiple tests, leading to the treatment goal(s).

The DRE DOES NOT make a diagnosis, he/she forms an opinion.

B. Body Systems



Slide 7.

A convenient way of discussing human physiology is to list the ten major systems of the body. The acronym "MURDERS INC" helps us remember the names of the ten systems. Each letter stands for the name of one system. Changes in these systems act as the basis for determining impairment.

M is for the **Muscular System**. We assess the muscular system in the drug influence evaluation when we test coordination and balance by administering divided attention tests and when we check for muscle rigidity. The body has three different kinds of muscles. All three types of muscles are examined at various stages of the drug influence evaluation. The heart or cardiac muscle. Smooth muscles, which control the body's involuntary operations. Examples: Smooth muscles control breathing, the operation of the pyloric valve (a muscle located at the base of the stomach), dilation and constriction of pupils, and all other things we do not consciously control. Striated muscles, which carry out our voluntary movements.

U is for the **Urinary System**. The system consists of two kidneys, the bladder, ureters connecting the kidneys to the bladder, and the urethra which transports the urine out of the body. Kidneys filter waste or harmful products, such as drugs and their metabolites, from the blood and these waste products are collected in the bladder. Drugs can usually be detected in the urine and collection of a urine specimen, in many jurisdictions, is an important part of the drug influence evaluation.

The first **R** in "MURDERS INC" stands for the **Respiratory System**. Some drugs cause the user to breathe slowly and shallowly, while others cause rapid breathing. The major parts of the Respiratory System are the lungs and the diaphragm. The diaphragm is a smooth muscle that draws the air into the lungs and forces it out. Lungs take in oxygen and transfer it to the blood and remove carbon dioxide and some other waste products from the blood and expel them into the outside air. Important clues of drug use, i.e., odors of alcoholic beverages, marijuana, chemicals, etc. may be present on a suspect's breath.

D is for the **Digestive System**. Major components of this system are the tongue, teeth, esophagus, stomach, intestines, liver, and pancreas. The Digestive System breaks down large particles of food until they are of a size and chemical composition that can be absorbed in the blood. When drugs are taken orally, they might be retained in the stomach for a while until any food there has been broken down sufficiently to allow passage into the small intestine.

E is for the **Endocrine System**. The Endocrine System is made up of a number of different glands that secrete hormones. The glands that make up the Endocrine System include: Thyroid, Parathyroid, Pituitary and Adrenal glands, as well as portions of the pancreas, testes and ovaries. Hormones are complex chemicals that travel through the blood stream and control or regulate certain body processes. Some drugs can mimic the effects of certain hormones or can react with the hormones in ways that alter the hormones' effects.

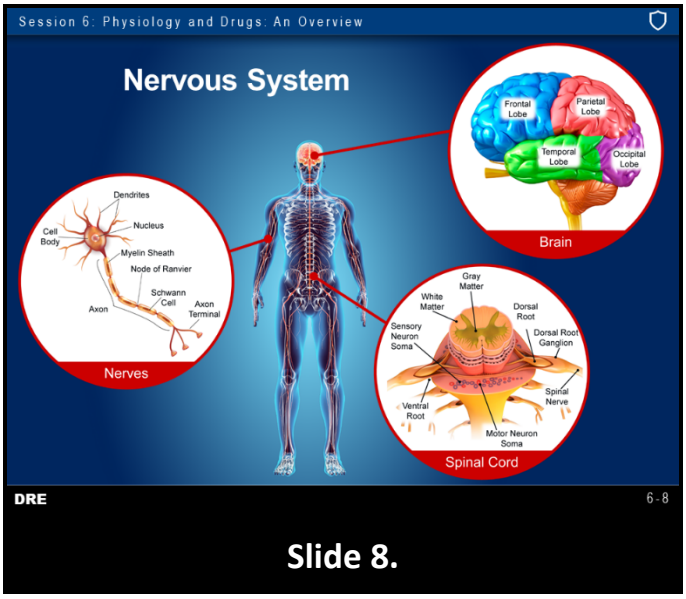
The second **R** in "MURDERS INC" stands for the **Reproductive System**. The functions of the reproductive system fall into two categories: self-producing (cytogenic) and hormone producing (endocrinic). We are primarily concerned with hormone production since the hormones produced by the reproductive system aid the nervous system in its regulatory role.

S is for the **Skeletal System**. This consists of bones, cartilage, and ligaments. The Skeletal System provides support to the body, permits movement, and forms blood cells. The Reproductive and Skeletal Systems are the only major components of physiology and are not directly involved in the drug influence evaluation.

The **I** in "INC" stands for the **Integumentary System**. This consists of the skin, hair, fingernails and toe nails, and accessory structures. DREs examine the skin for hypodermic injection sites and for sweating, clamminess, and temperature. The chief functions of the Integumentary System include protection of the body, control of the body temperature, excretion of wastes (i.e., through sweat) and sensory perception.

N is for the **Nervous System**. The Nervous System is one of the most important components of physiology as far as the drug influence evaluation is concerned. This system consists of the brain, the brain stem, the spinal cord, and the nerves. Nerves keep the brain informed of changes in the body's external and internal environments. Clarification: Nerves carry messages to the brain from the sense organs (eyes, ears, nose, etc., and from pain sensors). Nerves also carry messages from the brain to the body's muscles, tissues, and organs. Clarification: The brain uses nerves to send messages commanding the heart to beat, the fingers to move, the pupils to dilate, etc. The nervous system controls, coordinates, and integrates all physiological processes, so normal body functions can be maintained.

C is for the **Circulatory System**. This is another very important component of physiology, as far as the drug influence evaluation is concerned. For our purposes, the most important parts of the Circulatory System are the heart, the blood vessels (e.g., arteries, veins, capillaries, etc.), and the blood. Blood is the body's primary transport mechanism: it carries food, water, oxygen, hormones, antibodies, etc. to the body's tissues and organs. Blood is also primarily responsible for carrying heat throughout the body. Blood is the main transport mechanism for bringing drugs to the brain. The heart, of course, pumps the blood and causes it to circulate throughout the body.

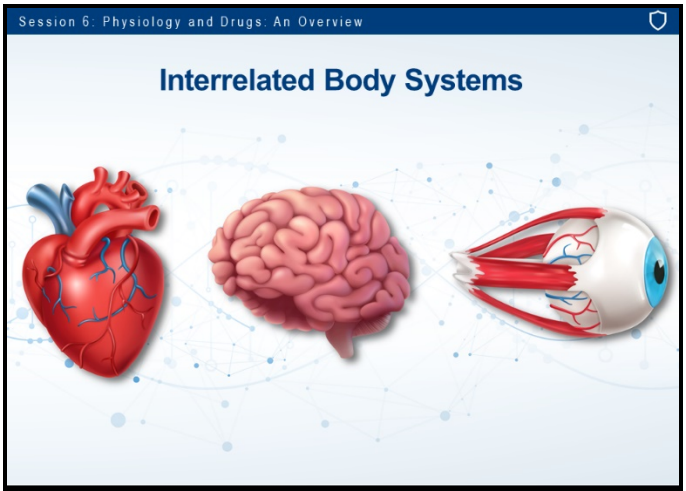


Slide 8.

Nervous System

The nervous system keeps the body apprised of changes in the environment by enabling sight, hearing, smell, taste, and touch. It also keeps the body apprised through sensations of temperature, pressure, pleasure, and pain. The nervous system also enables reasoning, memory, and emotions.

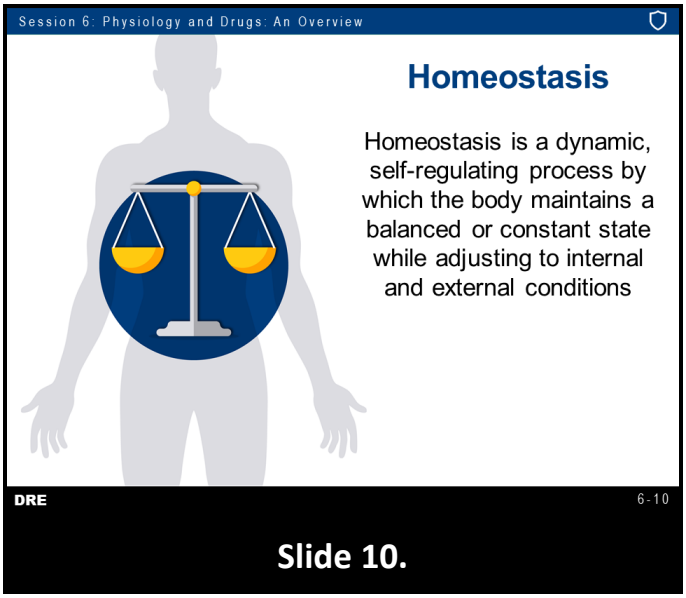
The Central Nervous System (CNS) sends impulses that cause muscles to contract and glands to secrete and it works with all body systems to integrate all physiological processes so normal functions can be maintained. Much of the activity of the nervous system is involuntary and therefore it is carried out below the level of consciousness. The CNS is one of the body's major control systems and the brain is the center of that system.



Slide 9.

All these systems need to work together to maintain a functioning, non-impaired person. This leads to understanding the term “homeostasis”, which will be covered in this Session. The primary focus will be on the Central Nervous System (CNS) and the effects it exhibits on other components examined during the drug influence evaluation. These include eyes, blood pressure and pulse, balance and coordination, and body temperature.

C. The Concept of Homeostasis



Slide 10.

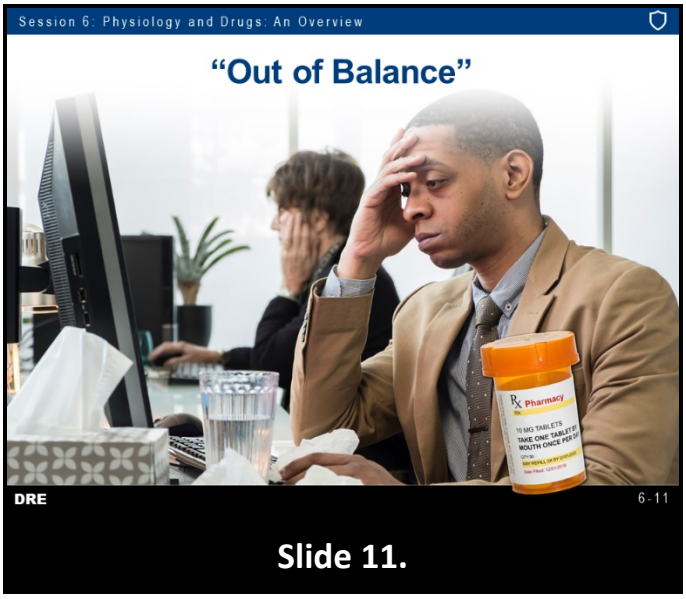
Homeostasis is "a dynamic, self-regulating process by which the body maintains a balanced or constant state while adjusting to internal and external conditions" (Britannica, T. Editors of Encyclopaedia, 2020). "Homeo" means similar or the same elements and "stasis" means balance. The rhythm of the heart, breathing, constancy of body temperature, and the steady level of blood pressure under specific circumstances or conditions are all manifestations of homeostatic mechanisms at work within the body. This balance impacts physiological and psychological functions via the central and peripheral nervous systems and neurotransmitters.

The human body is exposed to a constantly changing external environment, which influences the internal environment. Changes are neutralized by the internal environment – the blood. Oxygen, foods, water, and other substances are constantly leaving bodily fluids to enter cells, while carbon dioxide and other wastes are leaving the cells to enter these fluids. Yet, the chemical composition of these fluids remains within very narrow limits. This phenomenon is called homeostasis. This involves message sending and actions triggered by the balance within the autonomic nervous system (sympathetic and parasympathetic), hormones, and neurotransmitters.

Drugs interfere with the homeostatic mechanisms and produce signs and symptoms that can be recognized by a trained DRE.

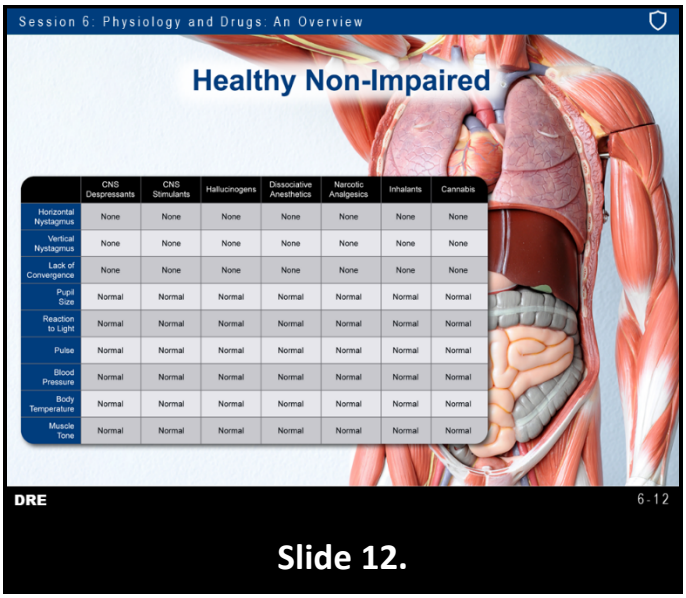
Source:

Britannica, T. Editors of Encyclopaedia. (2020, May 27). *homeostasis*. Retrieved from Encyclopedia Britannica: https://www.britannica.com/science/homeostasis



Slide 11.

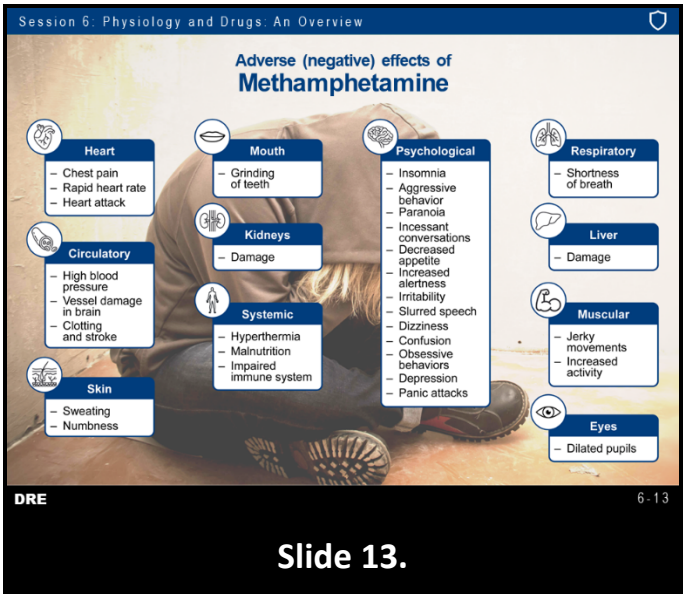
Non-substance-abusing people who are sick have signs and symptoms of being "out of balance." In other words, their homeostasis is "out of balance", and they do not want to experience these effects. They want to get their homeostasis back "in balance" to feel better ("like usual"), so physicians may prescribe them drugs or medications to help put them in balance.



	CNS Despressants	CNS Stimulants	Hallucinogens	Dissociative Anesthetics	Narcotic Analgesics	Inhalants	Cannabis
Horizontal Nystagmus	None	None	None	None	None	None	None
Vertical Nystagmus	None	None	None	None	None	None	None
Lack of Convergence	None	None	None	None	None	None	None
Pupil Size	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Reaction to Light	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Pulse	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Blood Pressure	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Body Temperature	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Muscle Tone	Normal	Normal	Normal	Normal	Normal	Normal	Normal

Slide 12.

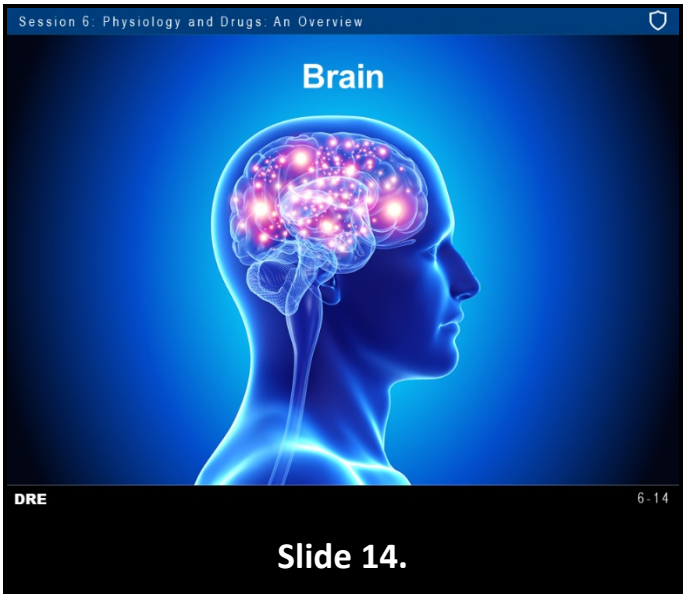
Homeostasis is indicated in the above slide. It represents average (expected) values for the clinical indicators used by the DRE to assist in making an opinion of impairment and medical drug related causes.



Slide 13.

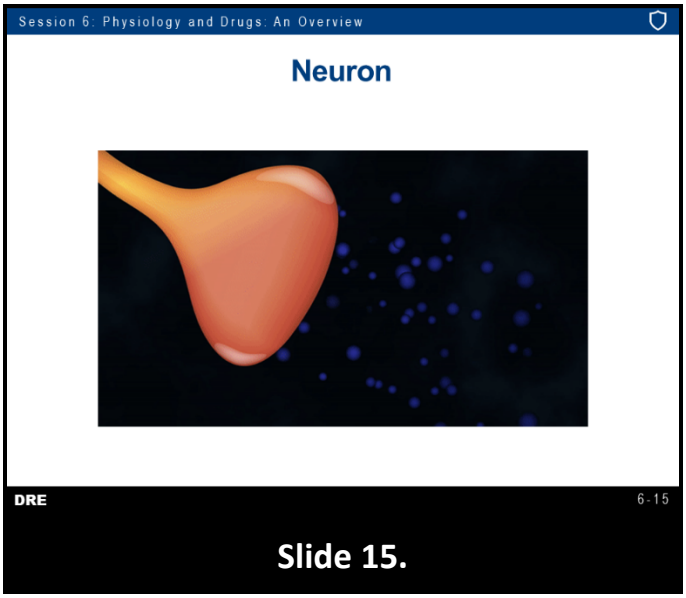
In the above slide, the indicators listed are common with persons impaired by a drug category or categories, in this case CNS Stimulants, or perhaps someone experiencing an immediate medical emergency. Medical conditions will be discussed later in this session.

Whatever the case, they usually will exhibit indicators of impairment. Individuals that are impaired exhibit numerous indicators of impairment. In other words, they generally do not exhibit the DRE average range or expected values for the related indicators.



Slide 14.

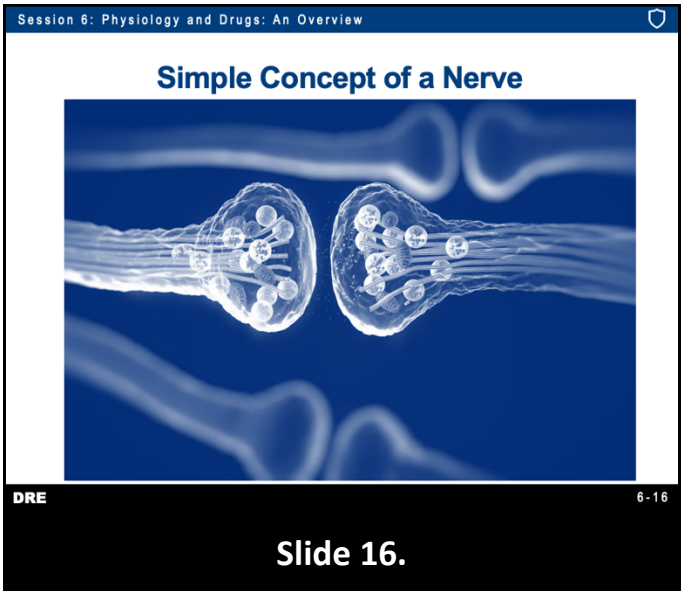
The brain is made up of billions of nerve cells, also known as neurons. Nerve cells communicate by transferring chemical substances between each other. When a message is sent from one neuron (transmitter), it triggers the release of neurotransmitters and sends the message to another nerve cell which is called the receptor. This is the way nerve cells share information. There are many different types of neurotransmitters and each one has a specific role to play in how the brain and the CNS functions. Some drugs affect the brain because their chemical makeup is similar to the neurotransmitters which occur in the body naturally. In the appropriate dose amount, drugs have a positive influence on how the neurons function. However, in some cases, drugs can cause the release of large amounts of a similar neurotransmitter while others can block the receptors and have a negative influence.



Slide 15.

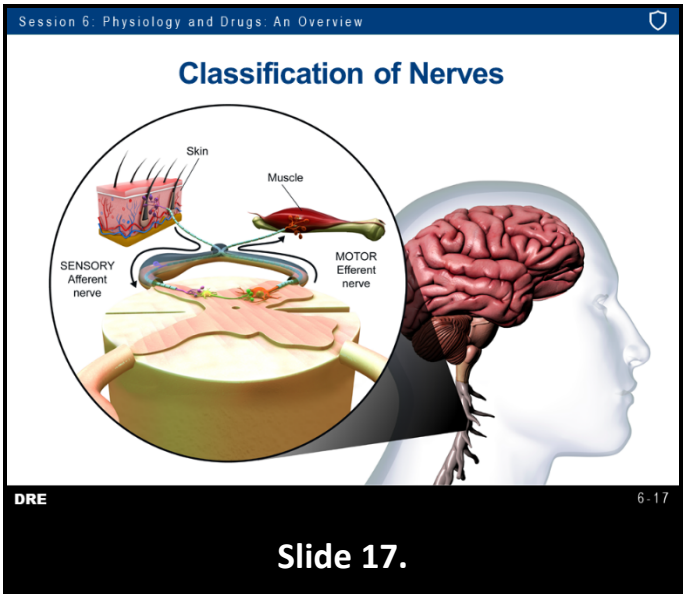
Each neuron, or “wire segment” has three main parts: the cell body, the axon, and the dendrite. The cell body contains the nucleus, which contains the cell's DNA and is responsible for protein production and packaging. The axon is the part of the neuron that sends out the neurotransmitter, or chemical messenger.

The dendrite is the part that receives the neurotransmitter. The gap between two neurons is called a synapse, or synaptic gap.



Slide 16.

We can imagine messages running along the “wire segments” in much the same manner electrical impulses run along electrical wires. When the message reaches the end of the “wire segment,” it triggers the release of chemicals that flow across the gap and contact the next “wire segment.” When the chemical contacts the next wire segment, it generates an electrical impulse which runs along the wire until it reaches the next gap. At that gap, the message again triggers the release of chemicals that flow across to the next “wire segment” and the process continues.

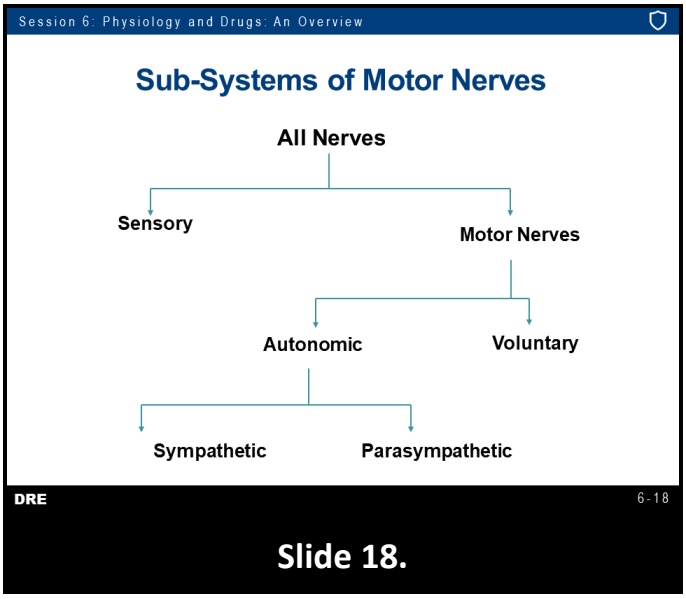


Slide 17.

Some nerves carry messages away from the brain to the body's muscles and organs. These are called motor, or efferent nerves. The brain uses motor nerves to send commands to the heart to beat, the lungs to breathe, the muscles to contract or expand, and so forth.

Other nerves carry messages to the brain, i.e., from the eyes, ears, and other senses, from the muscles, etc. These are called Sensory, or Afferent nerves. The brain decodes the messages that come along the sensory nerves to monitor the condition of the body and of the outside world.

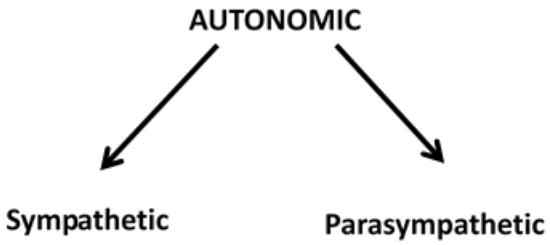
A fundamental notion: If something interferes with the messages the brain sends along the motor nerves, the brain's control over the heart, the lungs, the muscles, and other organs will be distorted. Another fundamental notion: if something interferes with the messages the brain receives from the sensory nerves, the brain's perception of the outside world and of the body's status will be distorted. This is basically how drugs work: They interfere with transmission or reception of the messages that travel along nerves.



Slide 18.

There are two sub-systems of motor nerves. The first is the voluntary nerves, which send messages to the striated muscles that we consciously control. The second is the autonomic nerves, which send messages to the muscles and organs that we do not consciously control, i.e., smooth muscle and cardiac muscle.

The Autonomic sub-system is divided into two groups.



The Sympathetic nerves command the body to react in response to fear, stress, excitement, etc.

Clarification: **Sympathetic nerves control the body's "fight or flight" responses.** Examples: Sympathetic nerves carry the messages that cause the blood pressure to elevate, pupils to dilate, sweat glands to activate, hair to stand on end, heartbeat to increase and strengthen, and blood vessels of the skin to constrict.

Parasympathetic nerves carry messages that produce relaxed and tranquil activities. Examples: Parasympathetic nerves carry messages that cause the pupils to constrict, heartbeat to slow, peripheral blood vessels to dilate, blood pressure to decrease. Certain neurotransmitters (i.e., chemical messengers) aid in the transmission of messages along sympathetic and parasympathetic nerves. Drugs that mimic the neurotransmitter associated with sympathetic nerves are called sympathomimetic drugs.

Drugs that mimic neurotransmitters associated with parasympathetic nerves are called parasympathomimetic drugs.

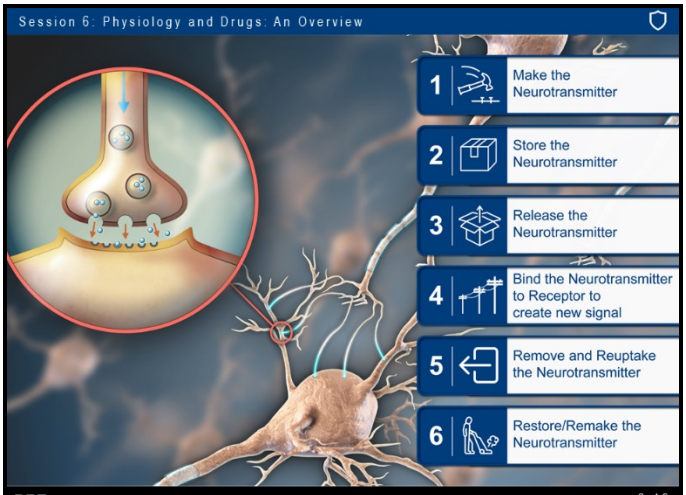
Write "Parasympathomimetic" on the dry erase board or easel/easel pad.

Some drugs mimic the action of these neurotransmitters: When taken into the body. These drugs artificially cause the transmission of messages along sympathetic or parasympathetic nerves.

Sympathomimetic drugs artificially cause the transmission of messages that produce elevated blood pressure, dilated pupils, etc.

The Sympathetic subsystem of the autonomic nervous system controls the stimulating type effects of the body. This process is automatic. We can relate this to "adrenaline" as a hormone or "norepinephrine" as a neurotransmitter that tends to speed up the body's processes. Some of the sympathetic responses include pupil dilation, inhibits the flow of saliva (dry mouth), increased heartbeat, dilates bronchial tubes.

The Parasympathetic subsystem of the autonomic nervous system controls the calming-type effects of the body. This results in the transmission of messages that produce lowered blood pressure, drowsiness, etc. Like the Sympathetic subsystem, this process is also automatic. Some of the Parasympathetic responses include stimulating the flow of saliva, slowing heartbeat, and constricting bronchial tubes (slows breathing).



Slide 19.

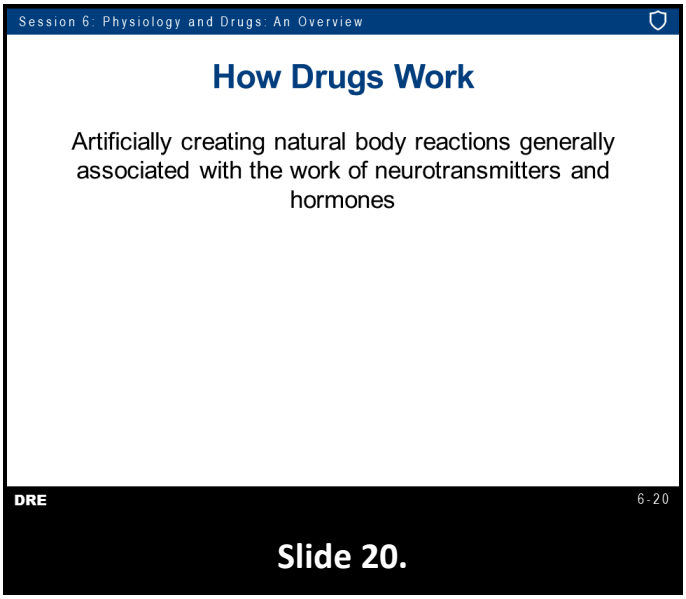
In our simple model of nerves, each "wire segment" corresponds to a nerve cell, called a neuron. The chemical that flows across the gaps separating neurons is called a neurotransmitter. Clarification: neurotransmitters are the body's chemical messengers.

The body has a number of different neurotransmitters; each carries a different chemical message. The sequence of how a neurotransmitter works is:

1. The neuron makes a neurotransmitter

2. Synaptic vesicles are small membrane bound structures in the axon terminals of nerve cells that contain neurotransmitters for storage
3. These vesicles release neurotransmitters into the synaptic gap
4. The neurotransmitter crosses the synaptic gap and binds to a receptor site on the adjacent neuron to cause the receptor to perform a function, usually generating an electrical impulse to continue onward through that neuron
5. Removal and Reuptake—the neurotransmitter is either broken down or taken back up into the originating neuron
6. Restore or Remake—for future reuse

D. How Drugs Work

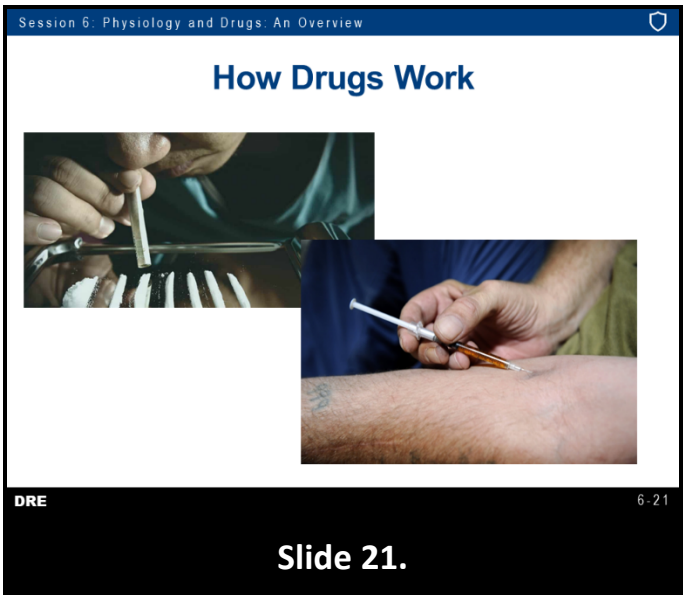


In very simple terms, drugs work by artificially creating natural body reactions generally associated with the work of neurotransmitters and hormones. Therapeutic doses of legitimate prescription and over-the-counter drugs are designed to produce mild and carefully controlled simulations of the natural action of neurotransmitters and hormones.

Large, abusive doses of drugs may produce greatly exaggerated simulations of the natural action of hormones and neurotransmitters, sometimes with disastrous results. Example: Cocaine (a sympathomimetic drug) may artificially create a message commanding the heart to beat so rapidly cardiac arrest results.

When a person administers a drug and artificially simulates the natural action of hormones and neurotransmitters, the body's dynamic balance is disrupted.

The body automatically responds to the presence of the drug by producing other hormones and chemicals that can oppose the drug's effects and bring the body back into balance.

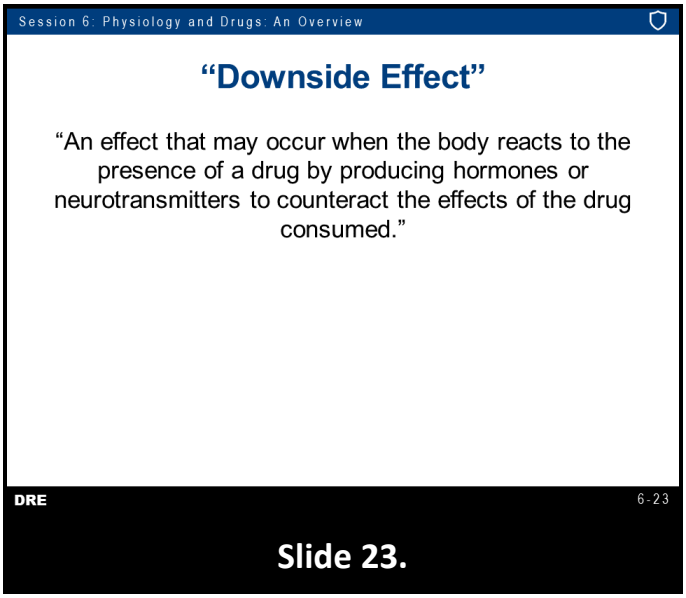


Slide 21.

Example Number One: If a person administers a stimulant drug that mimics neurotransmitters associated with the sympathetic nerves, the body may react by excreting hormones that depress the bodily functions the drug is exciting. If a person administers Cocaine, for example, the Cocaine would artificially stimulate the body functions. The body would then produce hormones and neurotransmitters to slow down the body functions to try to maintain homeostasis.

Example Number Two: If a person administers a drug that depresses some bodily function, the body may pour out one of its natural chemicals that stimulate that same function. An interesting situation can occur when the drug is no longer psychoactive. The chemicals produced by the body in an effort to counteract the drug may still be active. These natural chemicals have exactly the opposite effect on the body the drug had: after all, that is precisely why the body produced those chemicals. As a result, the person may feel, appear and act in a manner exactly opposite to the way he or she would feel, appear and act when under the influence of the drug.

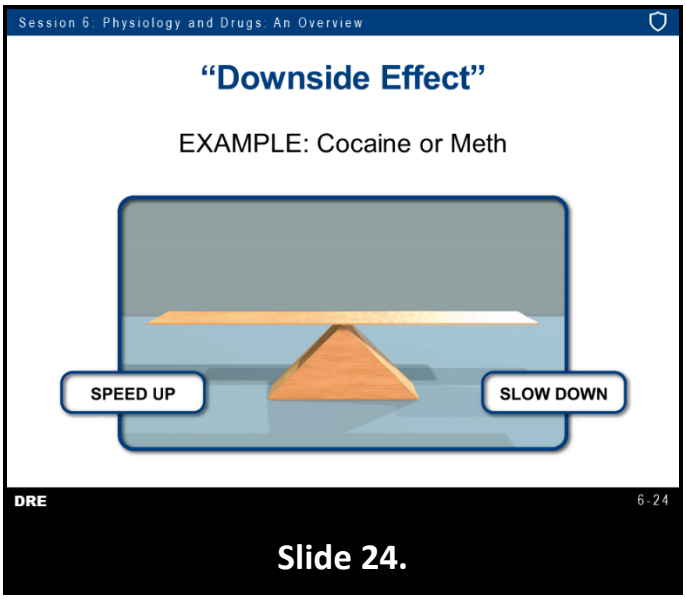
Slide 22.



Slide 23.

It is not uncommon for a DRE to encounter someone on the "downside" as a result of drug administration. The definition of downside is "an effect that may occur when the body reacts to the presence of a drug by producing hormones or neurotransmitters to counteract the effects of the drug consumed."

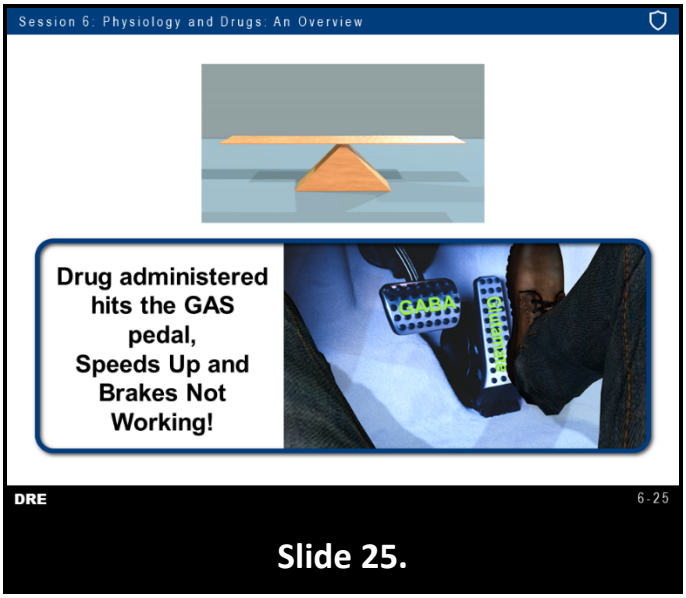
The neurotransmitters and hormones persist in the body longer than the drug they are responding to, resulting in the demonstration of opposite findings after the drug is gone from the body until the hormones and neurotransmitters are eliminated. In other words, after drinking several drinks, a person may become drowsy, go to bed, and fall asleep quickly. But, after a few hours, when it is still the middle of the night, they suddenly awaken and are wide awake, unable to fall asleep again. What has happened is the alcohol has worn off, but the natural CNS Stimulants the body produced to counteract the alcohol are still around. We call this situation being on the "downside" of the drug.



Slide 24.

One example of the downside effect can be seen with an individual abusing Stimulant drugs, such as Cocaine or Methamphetamine. Example: with Cocaine (a drug metabolized or broken down by the body fairly quickly) the user may be exhibiting drowsiness and general depression by the time the DRE is called to the scene. The concept of "downside" will be especially important to us when we discuss the effects of CNS Stimulants and drug combinations.

An example is the body attempts to "counteract" the stimulant effects. When the effects of the drug diminish, the results may mimic a Narcotic Analgesic. This is the body's efforts to return to homeostasis.



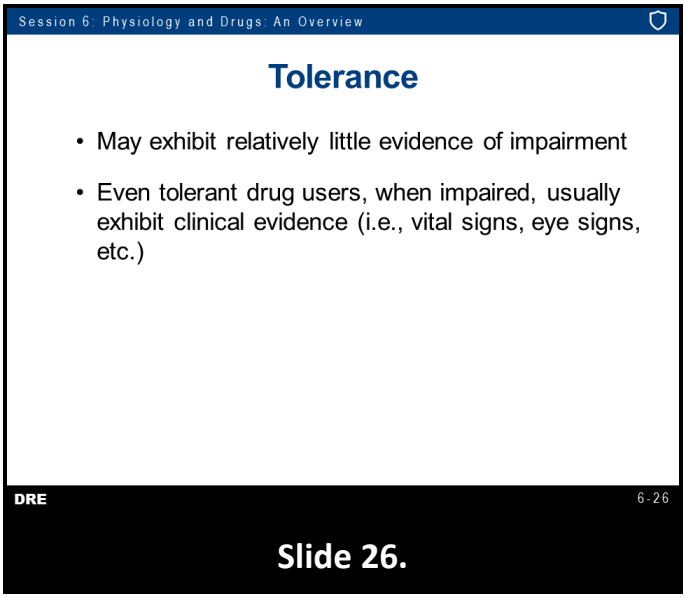
Slide 25.

A simple analogy is using a vehicle's gas pedal and brake. While the drug is present and active in the body—applying the gas pedal in this Stimulant example—the body triggers its systems to apply the brakes to try to regain homeostasis. This involves engagement of the parasympathetic nervous system to attempt to regulate and slow the sympathetic system, as well as release of inhibitory neurotransmitters and hormones into the blood stream. The hormone system is the slowest to engage and the slowest to disengage.

As time passes, the (Stimulant) drug ingested "wears off" by metabolism to inactivate the foreign chemical and prepare it for elimination from the body. This results in a reduced pressure on the gas pedal. While this is occurring, the body's effort at "braking" to counter the Stimulant's pressure on the gas pedal is still ramping up and engaging to try to regain homeostasis.

The Stimulant drug ingested is now essentially eliminated, or its effect has worn off, so there is no pressure on the gas pedal.

The body's attempt at braking to regain homeostasis is now in full swing and is UNOPPOSED, so effects the OPPOSITE of the original drug ingested (Stimulant) can be seen on evaluation (Narcotic Analgesic).



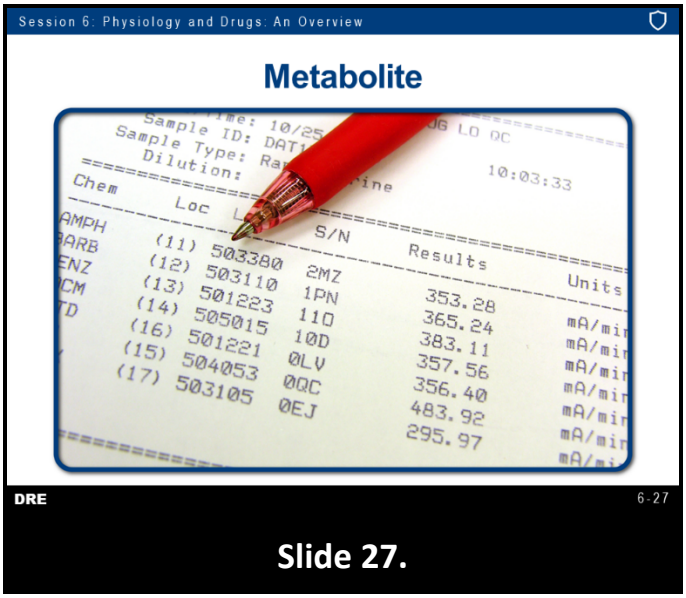
Slide 26.

Habitual users of drugs may develop tolerance to the drug. As a result, they may exhibit relatively little evidence of impairment on the psychophysical tests. “Tolerance” means the same dose of the drug will produce diminishing effects or conversely a steadily larger dose is needed to produce the same effects.

As with nearly all drugs of abuse, the effects produced depend on the tolerance the user has developed for the drug. A user who has developed tolerance and who is using his or her “normal” dose of the drug may exhibit little or no evidence of intellectual or physical impairment. As a result, they may exhibit relatively little evidence of impairment on the psychophysical tests. Even tolerant drug users, when impaired, usually exhibit clinical evidence (i.e., in the vital signs and eye signs). Impairment is more evident with new users and with tolerant users who exceed their “normal” doses.

Another result may be physical dependence, or addiction.

In simplest terms, people take drugs because they like the feelings the drugs produce. The artificial simulation of the natural action of hormones and neurotransmitters appears to permit the user to create any feeling or mood he or she desires. As time goes on, negative feedback may develop. The body may cease producing the natural chemicals that the drug simulates, and if the drug is not taken, the user does not return to a normal, non-drug-using state. He/she feels much worse in the opposite direction of the substance used. So, one additional reason for physical dependence or addiction is to PREVENT WITHDRAWAL SYMPTOMS and ALLOW “NORMAL” FUNCTIONING. The habitual user must externally supply some of the drug just to feel like a typical, non-drug-using person would.



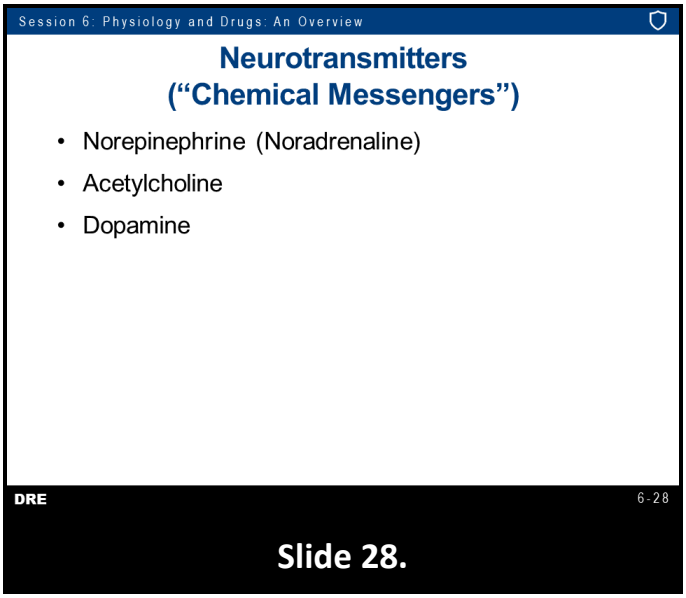
Slide 27.

One final concept is important for an understanding of how drugs work. A metabolite is a product of metabolism which is the chemical changes that take place when the drug reacts with enzymes and other substances in the body.

Metabolism is defined as the combined chemical and physical processes that take place in the body involving the distribution of nutrients and resulting in growth, energy production, the elimination of wastes, and other body functions. There are two basic phases of metabolism: anabolism, the constructive phase during which molecules resulting from the digestive process are built up into complex compounds that form the tissues and organs of the body; and catabolism, the destructive phase during which larger molecules are broken down into simpler substances with the release of energy.

The body uses chemical reactions to break down the drug, and ultimately to eliminate it.

Example: when we drink alcohol, we initiate a series of chemical reactions that ultimately transform the alcohol into harmless carbon dioxide and water. Sometimes, metabolites of the original drug are themselves drugs, and cause impairment. For example, the body quickly metabolizes Heroin into morphine and it is the morphine that actually produces the effects the heroin user experiences.



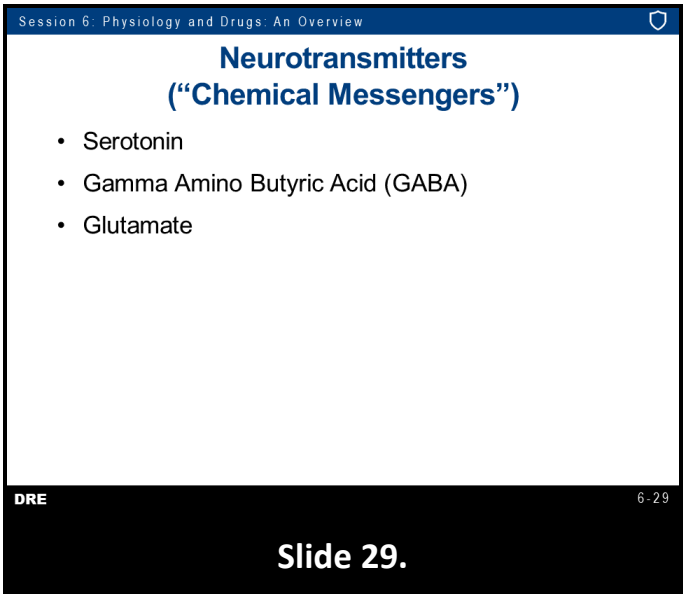
Slide 28.

Although there are more than 100 chemicals in the brain, only about two dozen probably are true neurotransmitters. The primary neurotransmitters identified are listed below.

Norepinephrine (also called Noradrenaline).

Acetylcholine – Plays an important role in muscle control and affects neuromuscular or myoneural junctions. Acetylcholine also plays an important role in learning and memory.

Dopamine – Plays a role in mood control. It is necessary for mental concentration, alertness, high energy, motivation, hunger regulation, and sex drive. Dopamine functions in the brain's reward pathway, release making you feel good. It is an EXCITATORY neurotransmitter and acts like the "gas pedal" in a car.

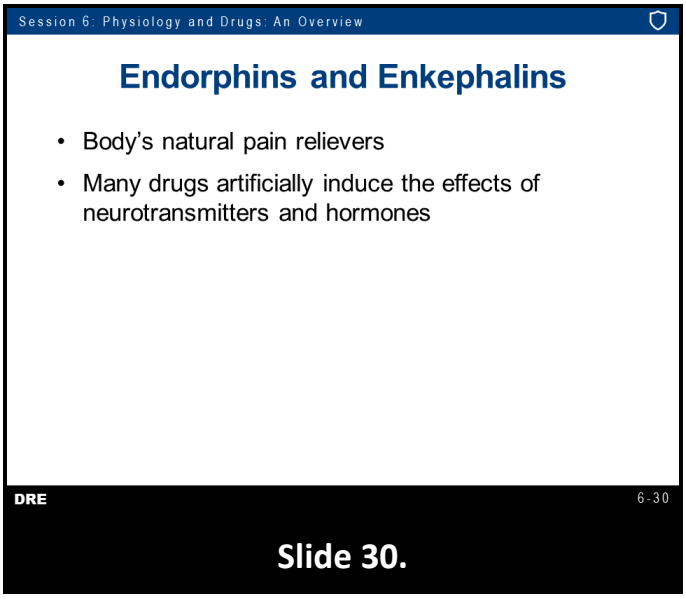


Slide 29.

Serotonin – A vasoconstrictor, thought to be involved in sleep, wakefulness, and sensory perception. Tryptophan is a precursor to Serotonin and has been used to treat insomnia. Serotonin is strongly associated with mood — overall state of mind — and deficiency is associated with depression.

Gamma Amino Butyric Acid (GABA) – Inhibits various neurotransmitters and also causes a release of growth hormones. GABA is the major INHIBITORY neurotransmitter in the brain and acts like the "brake pedal" in a car.

Glutamate – Functions as an "on switch" in the brain and is classified as an excitatory neurotransmitter. Glutamate is the most common EXCITATORY neurotransmitter in the brain.



Slide 30.

These are the body's natural pain relievers. They may be released in response to influences that may cause pain to the person. There are many drugs that artificially induce the effects of neurotransmitters and hormones.

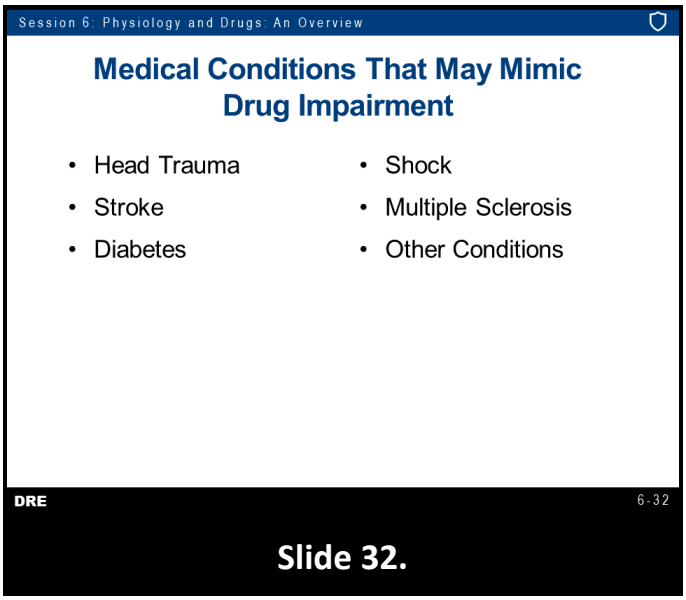
E. Medical Conditions That May Mimic Drug Impairment

Slide 31.

Certain medical conditions or injuries may cause signs and symptoms similar to those of drug impairment.

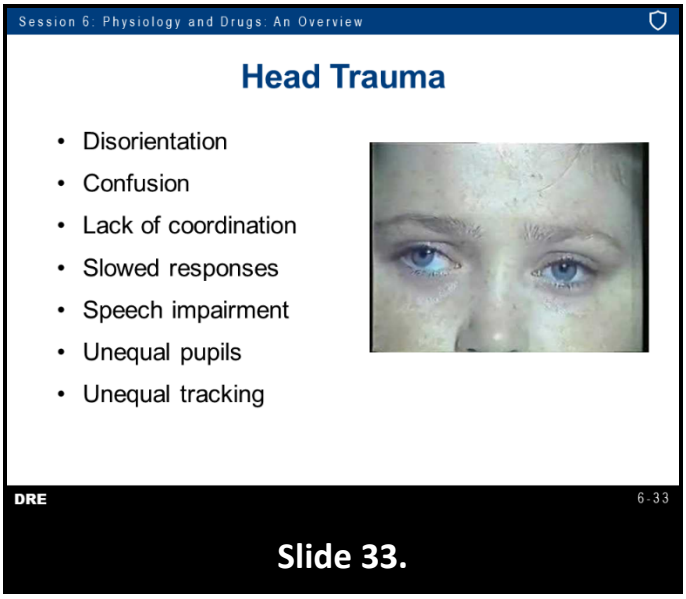
There are times when a DRE may encounter situations where a subject arrested for drugged driving may be suffering from a medical condition that has affected the subject's ability to operate a vehicle safely. If the DRE makes the determination that a possible medical issue is the likely cause of impairment (observable signs and symptoms), the DRE should consider taking the appropriate steps to ensure the subject is referred to the proper medical personnel.

In such cases, the DRE should prepare the drug influence evaluation report documenting his or her findings and indicating in their opinion they suspect medical impairment as the cause of the impairment that has affected the subject's ability to operate a vehicle safely. Appropriate discretion should be applied by the arresting officer whether or not an impaired driving charge is relevant, but the person should receive prompt, formal medical attention, as necessary.



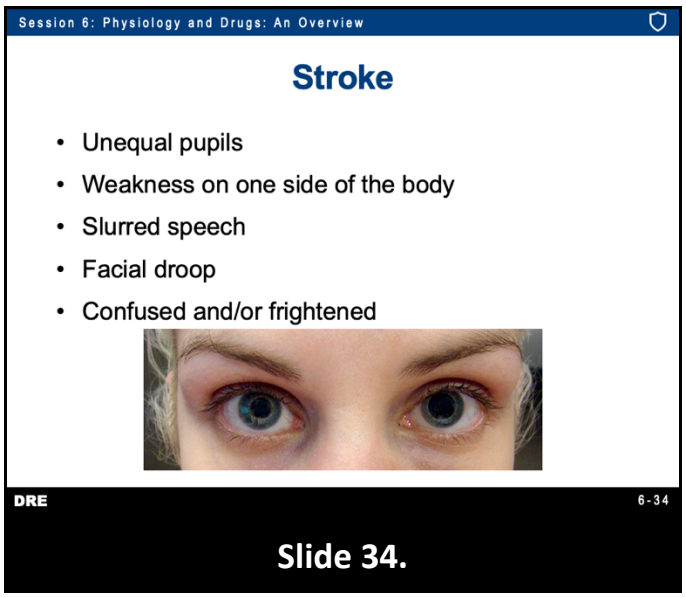
Slide 32.

There are various medical conditions and injuries that may cause subjects to appear to be impaired by alcohol and/or other drugs. Some of the more common medical conditions that may mimic drug impairment include head trauma, stroke, diabetes, shock, Multiple Sclerosis, and other conditions.



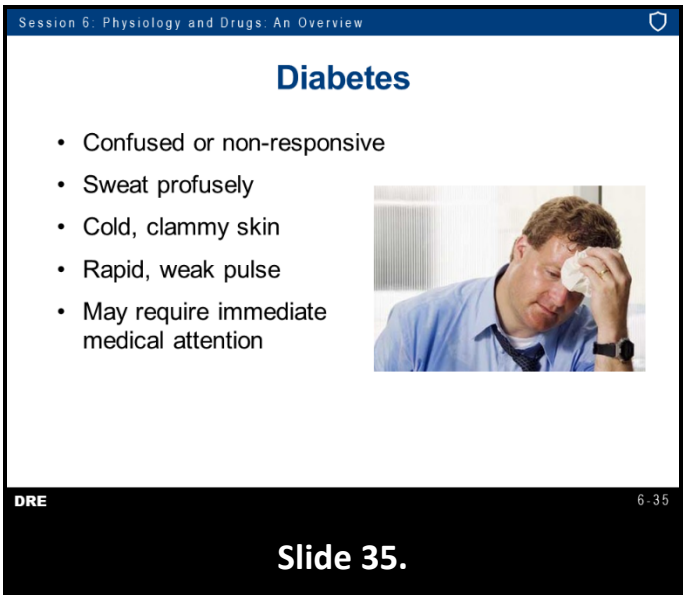
Slide 33.

A severe blow or bump to the head may injure the brain and create disorientation, confusion, lack of coordination, slowed responses, speech impairment, unequal pupil size, and eyes do not track equally. Because the injury usually affects one side of the brain more than the other, disparities usually will be evident in the subject's eyes. Sometimes the pupils will be noticeably different in size or one eyelid may droop while the other appears normal. Additionally, the eyes may not be able to track equally while following a stimulus.



Slide 34.

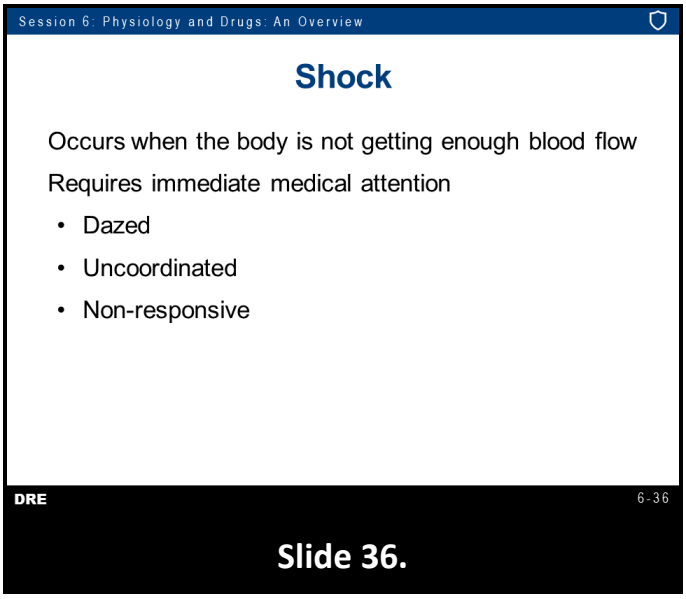
A medical condition caused by a rupture or obstruction (as if by clot) of an artery of the brain. A stroke will usually produce many of the same effects and indicators associated with head trauma. Stroke victims often will have pupils noticeably different in size. One pupil may remain fixed and exhibit no visible reaction to light, while the other reacts normally. Paralysis, physical weakness, and other observable signs are often more predominant on one side of the body than the other. Additionally, subjects suffering from a stroke will often have a dazed appearance and be confused and/or frightened.



Slide 35.

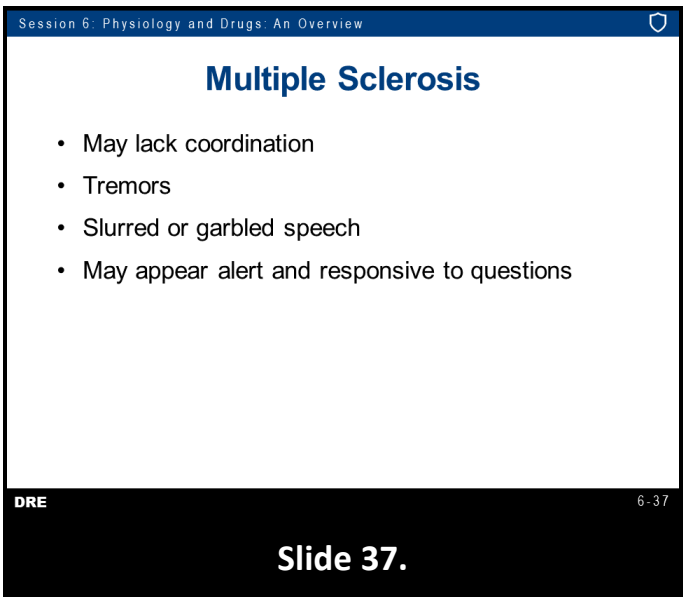
Diabetes is an endocrine disorder where the pancreas fails to properly produce a sufficient amount of insulin. A diabetic is most likely to be mistaken for a person impaired by alcohol and/or drugs when they have too much insulin, causing the blood sugar level to become dangerously low. This low blood sugar condition is referred to as insulin shock, or hypoglycemia. A diabetic in insulin shock may appear very confused, be non-responsive, sweat profusely, have an elevated pulse, and elevated blood pressure. Their speech may be slurred, and they may be non-communicative.

Another diabetic condition is hyperglycemia, or high blood sugar. This condition is where a person has not enough insulin or too much blood sugar. A person in this condition may appear flushed, dry skinned, irritable, confused, and may have a sweet, fruity breath odor known as acetone breath. Symptoms may include headaches and blurred vision.



Slide 36.

Shock is a life-threatening condition that occurs when the body is not getting proper blood flow. This can damage multiple organs and lead to death. Subjects in shock may have a dazed appearance, be uncoordinated, and non-responsive. Other indicators include extremely low blood pressure, fast but weak pulse, dizziness, cold clammy skin, profuse sweating, rapid shallow breathing, blue lips and fingernails. Shock requires IMMEDIATE medical treatment and can get worse very rapidly.



Slide 37.

Multiple Sclerosis (MS)is a progressive disease in which the nerve fibers of the brain and spinal cord lose their protective cover. Some signs and symptoms are abnormal sensations in the face or extremities, weakness, double vision, etc. Victims of MS and other degenerative neurological disorders may lack coordination, have tremors, slurred or garbled speech, and many of the other gross motor indicators of intoxication. Unlike subjects impaired by alcohol and/or drugs, MS sufferers usually appear alert.

Slide 38.

There are some mental health conditions that may affect vital signs such as Anxiety (panic disorder), Depression, Bipolar Disorder, Schizophrenia, and flashbacks.

Panic disorder is a type of anxiety. The subject may also have physical symptoms such as fast heartbeat (tachycardia), chest pain, breathing difficulty, weakness or dizziness, sweating and/or feeling hot or cold chill.

Depression is a disorder of the brain and can be a serious mental illness. There are a variety of causes including genetic, biological, environmental, and psychological factors. Symptoms can include feeling sad or empty, loss of interest in favorite activities, not being able to sleep or sleeping too much, feeling very tired, feeling hopeless, irritable, anxious, or guilty, aches or pains, headaches, and thoughts of death or suicide.

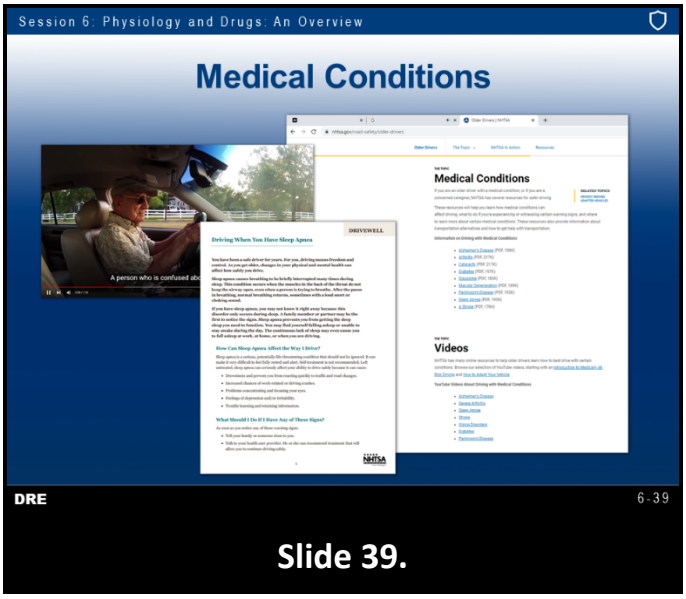
Symptoms of a Manic Episode	Symptoms of a Depressive Episode
Feeling very up, high, elated, or extremely irritable or touchy	Feeling very down or sad, or anxious
Feeling jumpy or wired, more active than usual	Feeling slowed down or restless
Racing thoughts	Trouble concentrating or making decisions
Decreased need for sleep	Trouble falling asleep, waking up too early, or sleeping too much
Talking fast about a lot of different things (“flight of ideas”)	Talking very slowly, feeling like you have nothing to say, or forgetting a lot

Bipolar disorder is a serious mental illness. People who have it go through unusual mood changes. They go from very happy and active (manic) to very sad, hopeless and inactive (depressive), and then back again.

Schizophrenia is a chronic and severe mental disorder that affects how a person thinks, feels, and behaves. People with schizophrenia may seem like they have lost touch with reality. Symptoms may include hallucinations, delusions, thought disorders (unusual or dysfunctional ways of thinking), movement disorders (agitated body movements), reduced speaking, difficulty understanding information and using it to make decisions, difficulty focusing or paying attention, and impaired short-term memory.

A person who has previously used a hallucinogen may experience a flashback, which is a portion of a prior hallucinogenic experience. Flashbacks do not cause all the signs and symptoms expected from an evaluation of a subject under the influence of a hallucinogen. A flashback does not occur because of a residual quantity of drug in the user's body. Instead, a flashback essentially is a very intense daydream. There are three types of flashbacks:

- Emotional: most dangerous - feelings of panic, fear, etc.; the sensations of a "bad trip"
- Somatic: Altered body sensations, tremors, weakness, dizziness, crawly, tingly feelings on the skin
- Perceptual: Distortions of vision, hearing, smell, taste, and touch (associated with original "trip" least harmful, unless driving a motor vehicle)
- ***Source:***
- National Institute of Mental Health. (2020, May). Schizophrenia. Retrieved March 30, 2022, from National Institute of Mental Health: https://www.nimh.nih.gov/health/topics/schizophrenia



Slide 39.

How many different medical conditions are there? Depending on source, from about 2,500 to 12,000 diseases and conditions!! An excellent source for medical conditions that impair driving is: Medical Conditions and Driving: A Review of the Literature (1960-2000). The National Highway Traffic Safety Administration (NHTSA) has produced this excellent guide reviewing numerous articles and studies on medical conditions and their effects on driving.

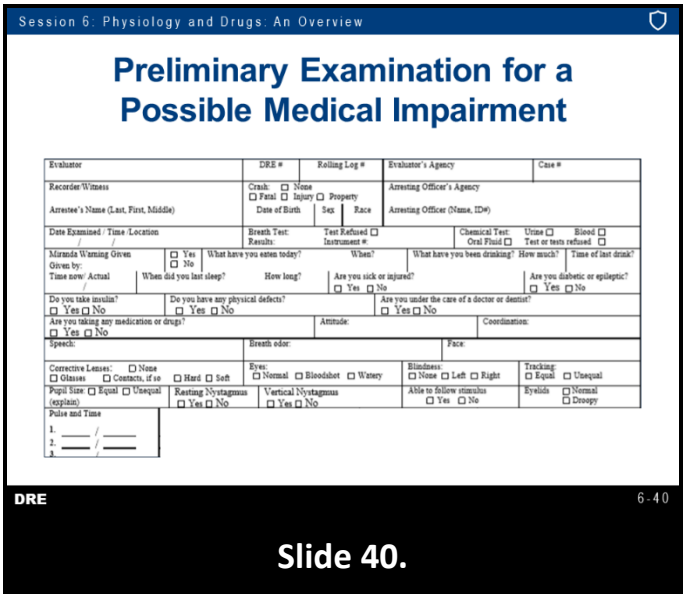
Although this reference will not allow you to make a determination of which medical condition may be affecting a person, it will give you a good reference for understanding how many medical conditions adversely affect driving.

It is recommended the DRE get as much detail when you interview the subject about their medical conditions, the stage of their condition(s), whether it is treated or untreated, if it is in later stages, remission, or under control with medications.

The location of the injury or disease will determine the signs and symptoms — for this reason, we CANNOT generalize a set of specific signs and symptoms for a condition as we do with the drug categories. In many injuries or diseases, the effects will be seen primarily on ONE SIDE of the body. This is the ONE-SIDED (Lateralized) SIGN. Impairment due to drugs will be seen on BOTH sides.

A medical condition will usually not go away in 24 hours as with a drug. It will be present well after the initial stop and arrest. The condition may include conflicting signs in the DRE evaluation.

The DRE may evaluate a subject in which there is a COMBINED medical condition and drug abuse. People with medical conditions also use drugs, both legally and illegally. BOTH situations can have impairing effects and can be present at the time of the DRE evaluation.



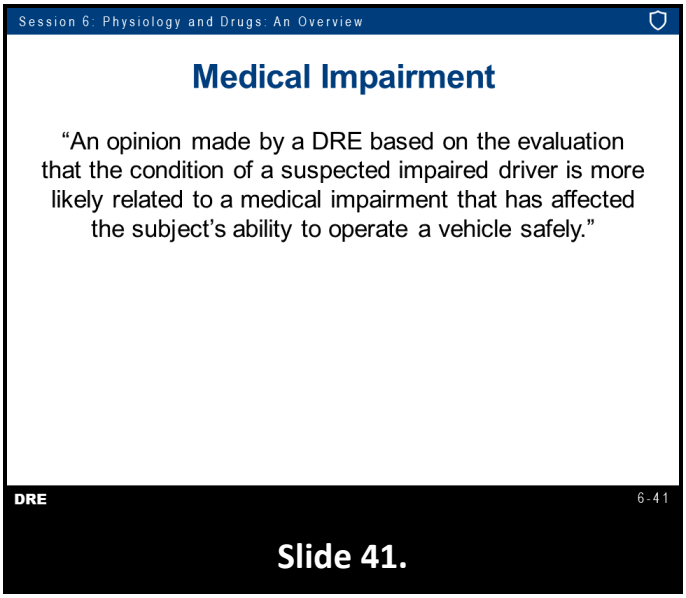
The preliminary examination consists of questions, observations of face, breath, and speech, initial checks of the eyes, and the initial check of the subject's pulse.

The pulse check is part of the examination of the subject's vital signs. Pulse is checked three times during the drug influence evaluation for many reasons, including to exclude nervousness as a factor of elevated pulse. This gives a more accurate and reliable pulse.

Preliminary examination questions deal with injuries or medical problems the subject may have. They include:

- Are you sick or injured?
- Do you have any physical defects?
- Are you diabetic or epileptic?
- Do you take insulin?
- Are you under a doctor or dentist's care?
- Are you taking any medications or drugs?

It is not only allowable, but recommended the DRE ask more questions related to these areas. This is especially true if the subject answers any of these questions in the affirmative.



Slide 41.

There are times when a DRE may encounter situations where a subject arrested for drugged driving may be suffering from a medical condition that has affected the subject's ability to operate a vehicle safely. In other words, the DRE, through his or her evaluation, has eliminated impairing substances as the probable cause of impairment, and while doing so, identified signs and symptoms consistent with a medical issue. Once the DRE makes the determination, the DRE should consider taking appropriate steps to ensure the subject is referred to the proper medical personnel. In such cases, the DRE should prepare the drug influence report documenting his or her findings that support an opinion of a DRE medical impairment.

For purposes of DRE and the DEC Program, medical impairment is defined as, **"An opinion made by a DRE based on the evaluation that the condition of a suspected impaired driver is more likely related to a medical impairment that has affected the subject's ability to operate a vehicle safely."**

The suggested way to document this type of opinion in Step 11 of the DRE report would be: "It is my opinion as a certified Drug Recognition Expert, that (Subject's name) is unable to operate a vehicle safely due to medical impairment."

DREs and other police officers will at times encounter individuals with mental illness or intellectual/developmental disabilities. These individuals may exhibit signs and symptoms very similar to those of an individual impaired by drugs and/or alcohol. These individuals may also be experiencing coexisting conditions of mental illness with drug impairment. It is important for DREs to make every effort to prevent violent interactions using an array of tools and resources necessary for positive, successful outcomes.

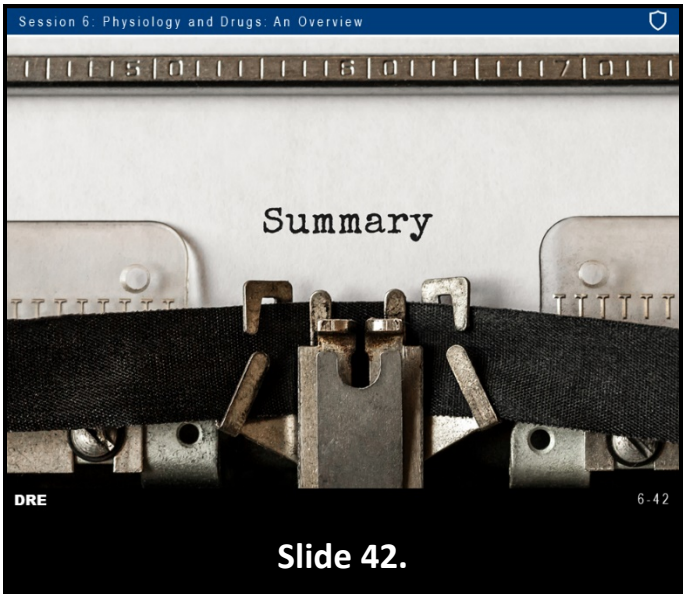
Using a strategic approach to interactions with individuals with suspected mental health problems or intellectual/developmental disabilities can ensure officer safety through the DRE interaction.

IACP has resources to respond to people in crisis and mental health disorders. This is titled the One Mind Campaign and can be found on the IACP website.

Other recommended Web sites and links for further information that may be beneficial for DREs and other police officers include:

- Substance Abuse and Mental Health Services Administration - www.samhsa.gov
- National Alliance on Mental Illness – www.nami.org
- National Council for Mental Wellbeing - Mental Health First Aid - www.mentalhealthfirstaid.org
- National Coalition for Mental Health Recovery - www.ncmhr.org

F. Summary



Slide 42.

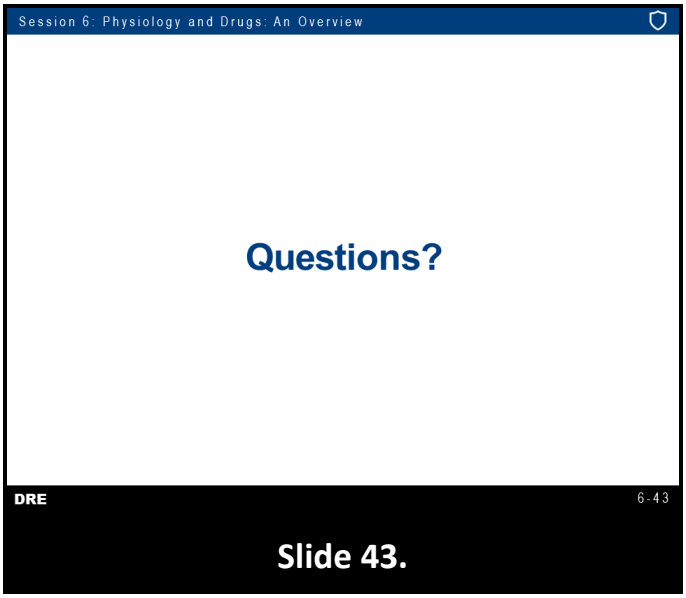
A basic understanding of how the body works is necessary to understand the general concept of human physiology and understand purposes and functions of major systems in the body (nervous system, circulatory system, respiratory system, etc.).

This limited overview will not qualify participants as medical specialists. The knowledge gained during this session must be supplemented by additional reading and/or instruction. The body of knowledge in this area is being constantly expanded.

The body maintains homeostasis (equilibrium) by constantly adjusting to changes in the external and internal environment.

When drugs are introduced into the body this process comes into play. When drugs interact in the body they tend to speed things up, or slow things down, or confuse signals, or block signals, or some combination of the above.

The effects of drugs can be detected and/or observed in the drug influence evaluation.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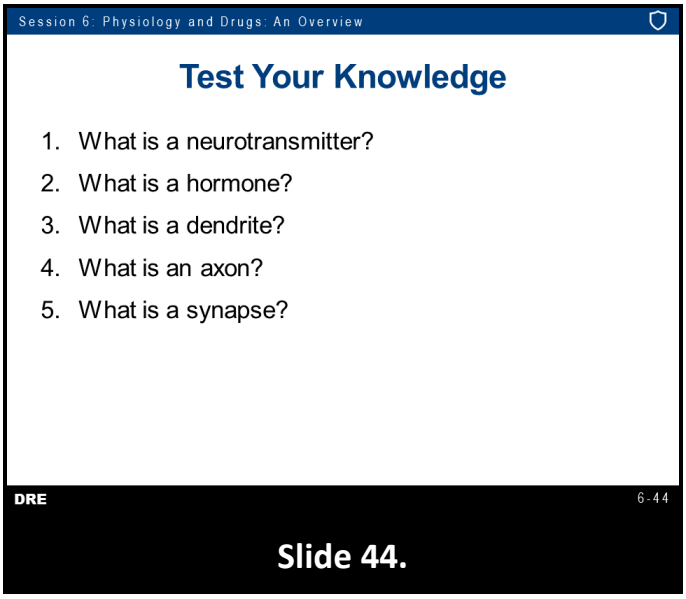
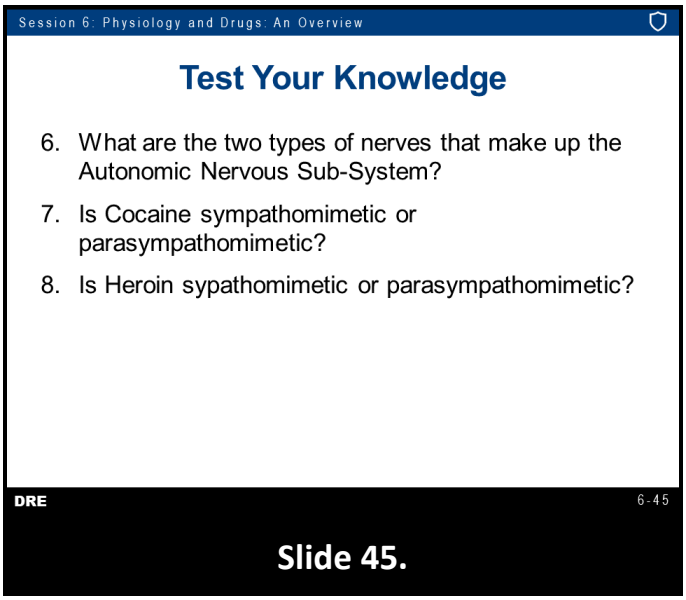


Slide 44.

Test Your Knowledge

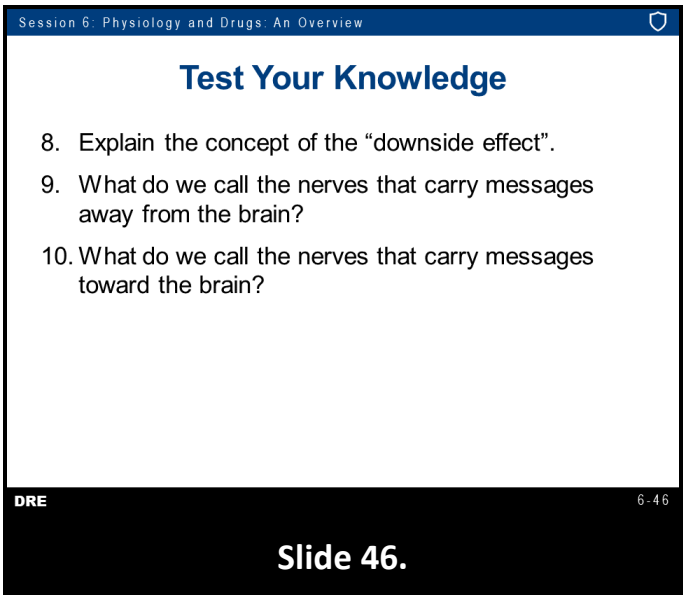
1. What is a neurotransmitter?
2. What is a hormone?
3. What is a dendrite?
4. What is an axon?
5. What is a synapse?



Slide 45.

Test Your Knowledge

6. What are the two types of nerves that make up the Autonomic Nervous Sub-System?
7. Is Cocaine sympathomimetic or parasympathomimetic?
8. Is Heroin sympathomimetic or parasympathomimetic?



Slide 46.

Test Your Knowledge

9. Explain the concept of the “downside effect.”
10. What do we call the nerves that carry messages away from the brain?
11. What do we call the nerves that carry messages toward the brain?

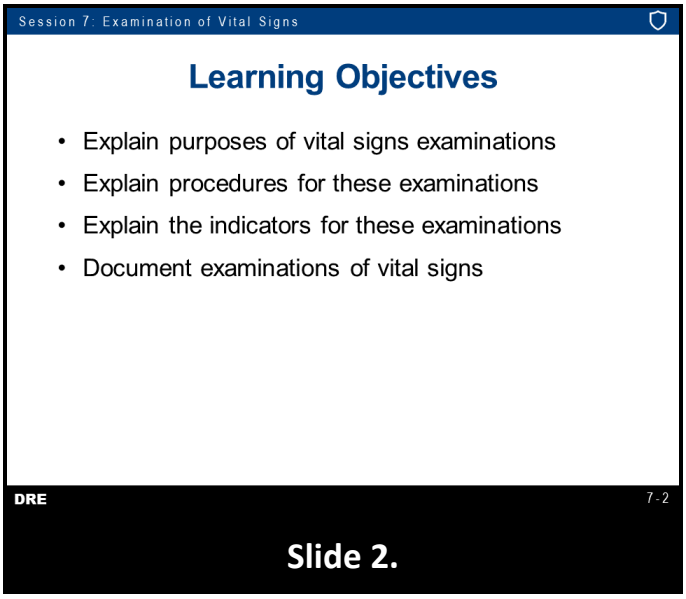
7 DRE

EXAMINATION OF VITAL SIGNS

LEARNING OBJECTIVES

- Explain the purposes of the various vital signs examinations in the drug influence evaluation procedure
- Explain the administrative procedures for these examinations
- Explain the indicators obtained from these examinations
- Document the examinations of vital signs accurately and completely

CONTENTS



Slide 2.

A. Purposes of the Examination

Slide 3.

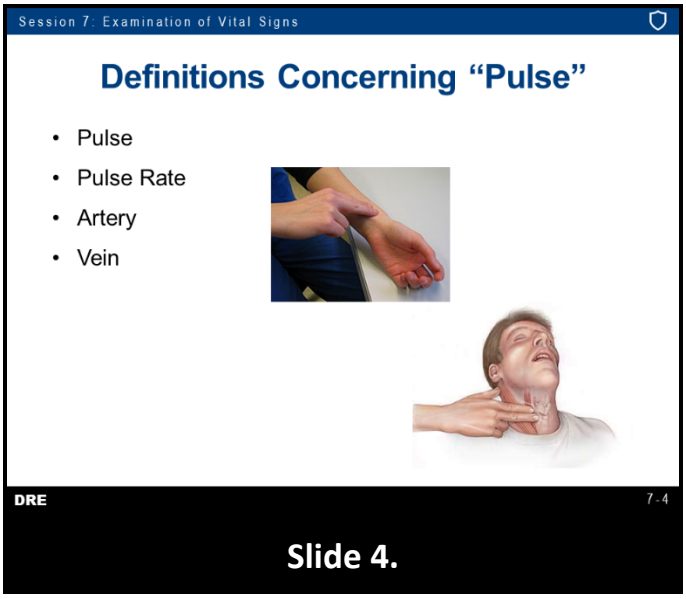
The vital signs relevant to the drug influence evaluation include: Pulse Rate; Blood Pressure; and, Temperature.

Different types of drugs affect these vital signs in different ways. Certain drugs tend to "speed up" the body and elevate these vital signs. Clarification: Pulse may quicken; Blood pressure may rise; Temperature may rise.

Other drugs tend to "slow down" the body and lower these vital signs. Clarification: Pulse may slow; Blood pressure may drop; Temperature may drop.

Systematic examination of the vital signs gives us much useful information concerning the possible presence or absence of various categories of drugs.

B. Procedures and Clues



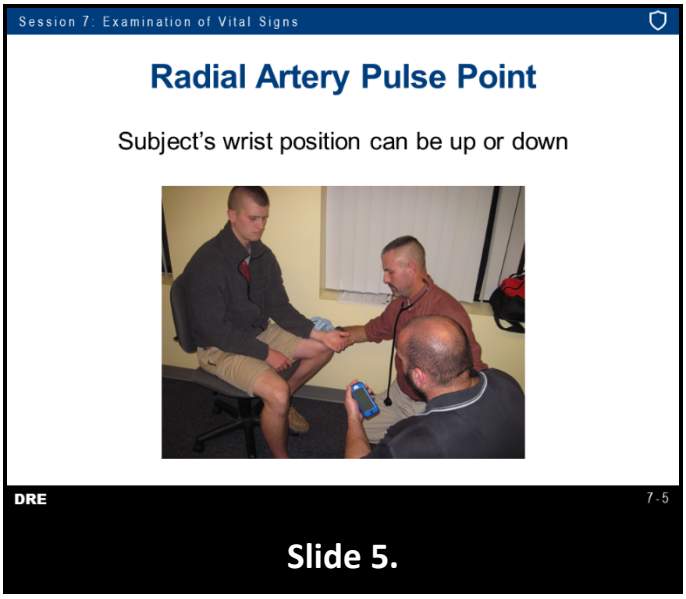
Slide 4.

Pulse is the rhythmic dilation and relaxation of an artery that results from the beating of the heart. Pulse Rate is the number of pulsations in an artery per minute. The Artery is a strong, elastic blood vessel that carries blood from the heart to the body tissues. A Vein is a blood vessel that carries blood back to the heart from the body tissues.

As stated above, an artery is a strong, elastic blood vessel that carries blood from the heart to the body tissues and a vein is a blood vessel that carries blood back to the heart from the body tissues. When the heart contracts, it squeezes blood out of its chambers into the arteries. The surging blood causes the arteries to expand. By placing your fingers on the skin next to an artery and pressing down, you can feel the artery expand as the blood surges through.

By keeping your fingers on the artery and counting the number of pulses that occur in thirty seconds and doubling that value, you will determine the pulse rate.

Pulse is easy to measure once you locate an artery close to the surface of the skin.

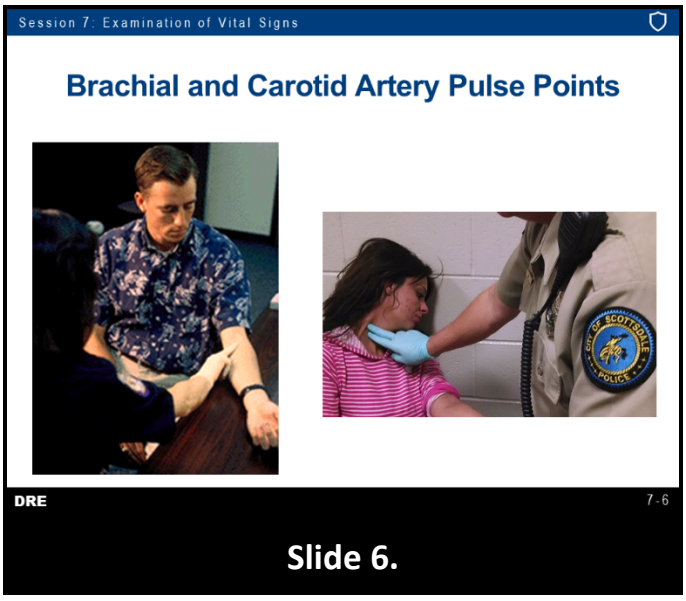


Slide 5.

One convenient pulse point involves the radial artery. The radial artery can be located in or near the natural crease of the wrist on the side of the wrist next to the thumb.

Place the tips of your right hand's index finger and middle finger into the crease of your wrist and exert a slight pressure.

You should be able to feel the pulse in your radial artery.



Slide 6.

Another pulse point involves the brachial artery. The brachial artery can be located in the crook of the arm, halfway between the center of the arm and the side of the arm closest to the body.

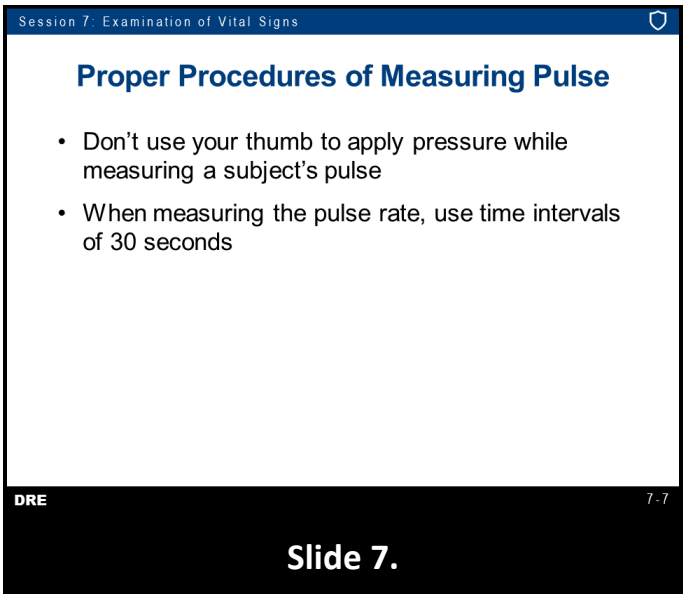
Place the tips of your right hand's index and middle fingers into the crook of your left arm and exert a slight pressure.

You should be able to feel the pulse in your brachial artery.

Carotid Artery Pulse Point: Another pulse point involves the carotid artery. The carotid artery can be located in the neck, on either side of the center of the throat.

Place the tips of your right hand's index and middle fingers alongside the right side of the center of your throat.

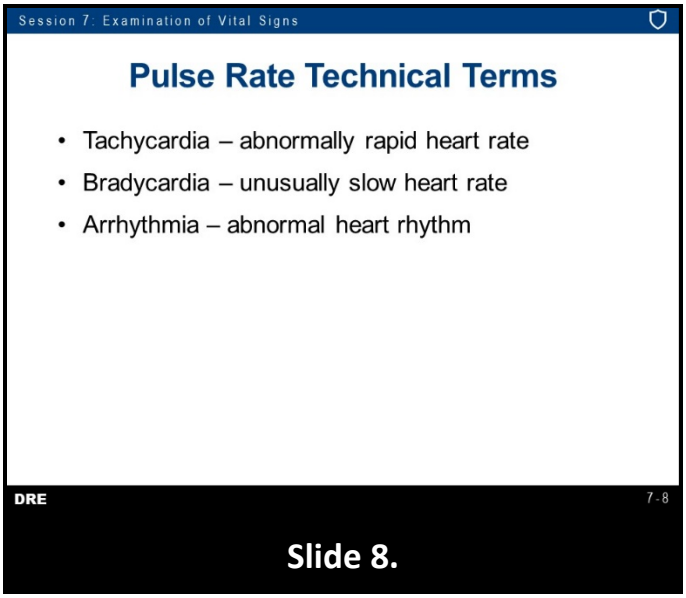
You should be able to feel the pulse in your carotid artery.



Slide 7.

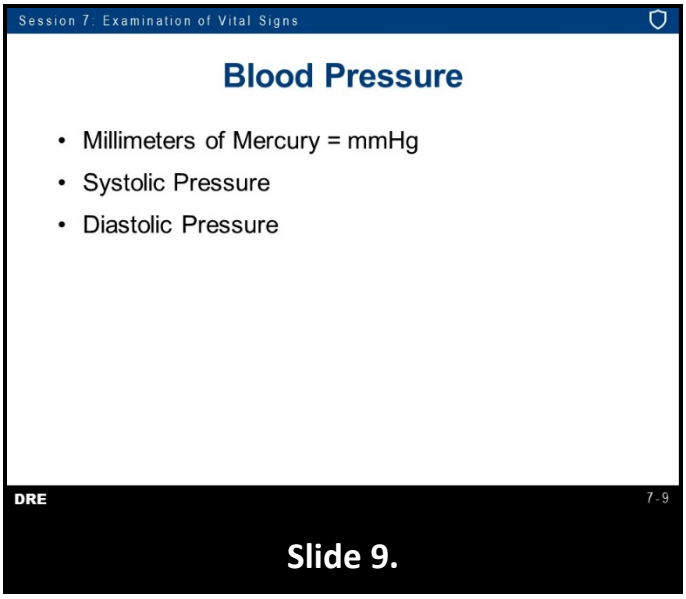
Don't use your thumb to apply pressure while measuring a subject's pulse.

If you use the carotid artery pulse point, don't apply pressure to both sides of the center of the throat as this can cut off the supply of blood to the brain. When measuring the pulse rate, use time intervals of 30 seconds. The DRE average range or expected range for pulse rate is 60-90 beats per minute.



Slide 8.

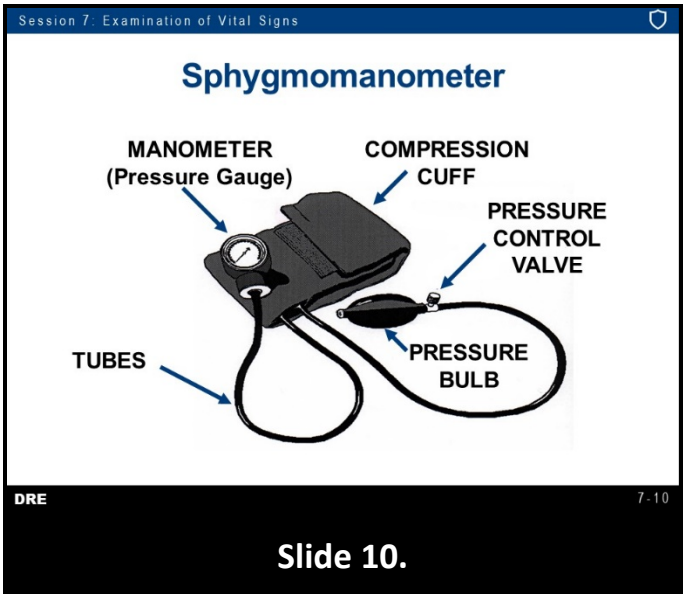
Tachycardia is abnormally rapid heart rate. Bradycardia is unusually slow heart rate. Arrhythmia is abnormal heart rhythm.



Slide 9.

Blood Pressure is the force the circulating blood exerts on the walls of the arteries. Blood pressure is measured in millimeters of mercury. Example: a blood pressure of 120 means the blood is pressing on the walls of the artery with enough force to push liquid mercury 120 millimeters (mm) up a glass tube. We commonly abbreviate “millimeters of mercury” as mmHg.

Blood Pressure changes constantly as the heart contracts and relaxes. Blood Pressure reaches its maximum as the heart contracts and sends the blood surging through the arteries. This is called the systolic pressure. Blood Pressure reaches its minimum when the heart is fully expanded. This is called the diastolic pressure. It is always necessary to measure and record both the systolic and diastolic blood pressure. As a memory aid, Systolic: “S” for “Superior” and Diastolic: “D” for “Down”. Systolic is the higher number and diastolic is the lower number.



Slide 10.

The device used for measuring blood pressure is called a sphygmomanometer. The sphygmomanometer has a special cuff that can be wrapped around the subject's arm and inflated with air pressure.
As the pressure in the cuff increases, the cuff squeezes tightly on the arm. When the pressure gets high enough, it will squeeze the artery completely shut.

Blood will cease flowing through the brachial artery. And, since the brachial artery "feeds" the radial artery, blood will also cease flowing through the radial artery.

The compression cuff contains an inflatable rubber bladder.

A tube connects the bladder to the manometer, or pressure gauge. **The manometer displays the air pressure inside the bladder. In the DEC Program, an aneroid (without fluid) pressure gauge is used. Only manual blood pressure cuffs with stethoscopes are approved for DRE evaluations.**

Another tube connects the bladder to the pressure bulb, which can be squeezed to inflate the bladder.

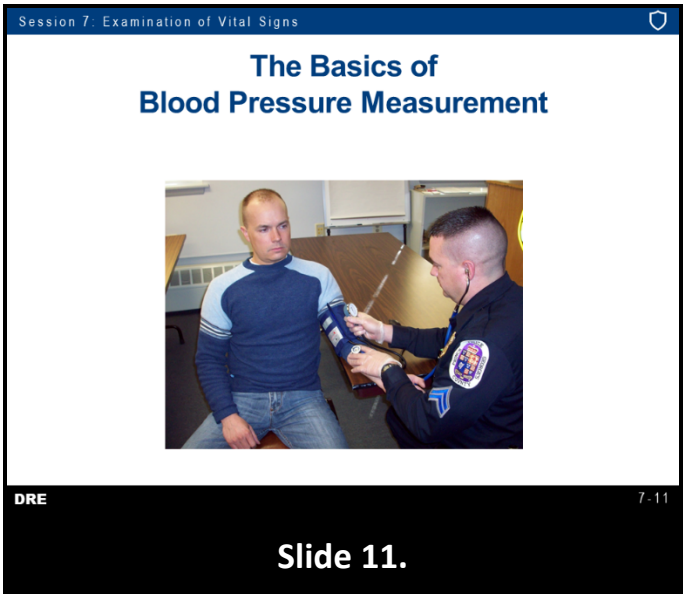
The pressure control valve permits inflation of the bladder and regulates the rate at which the bladder is deflated. To inflate the bladder, the pressure control valve must be twisted all the way to the right.

When the valve is twisted all the way to the right, air can be pumped into the bladder, but no air can escape from the bladder. To deflate the bladder, twist the valve to the left. The more the valve is twisted to the left, the faster the bladder will deflate.

If we slowly release the air in the cuff, the pressure on the arm and on the artery will start to drop. Eventually, the pressure will drop enough so blood will once again start to flow through the artery.

Blood will start flowing in the artery once the pressure inside the artery equals the pressure outside the artery. The two pressures will become equal when the air pressure in the cuff drops down to the systolic pressure. When that happens, blood will spurt through the artery each time the heart contracts.

Once the air pressure in the cuff drops down to the diastolic level, the blood will flow continuously through the artery.



Slide 11.

Overview of Procedures for Measuring Blood Pressure: Apply enough air pressure to the cuff to cut off the flow of blood through the artery.

Slowly release the pressure in the cuff.

Slowly release the air pressure until the blood just begins to spurt through the artery: that level will be the systolic pressure.

Continue to release the air pressure until the blood flows continuously through the artery: that level will be the diastolic pressure.

If it proves difficult to hear the Korotkoff sounds, simply have the subject elevate their arm and squeeze their fist several times. The Korotkoff sounds will get louder. The manometer (pressure gauge) may be clipped on the subject's sleeve, so it is readily viewable.

Twist the pressure control valve all the way to the right.

Apply the stethoscope to the skin directly above the artery.

Apply pressure to the cuff, enough to cut off the flow of blood. When no blood is flowing through the artery, we hear nothing through the stethoscope.

Slowly release the air from the cuff, letting the pressure start to drop.

When we drop to the systolic pressure, we start to hear a spurting sound. This begins as a clear, tapping sound. As we continue to allow the air pressure to drop, the surges of blood become steadily longer. The sounds take on a swishing quality and become fainter. When we drop to the diastolic pressure, the blood flows steadily and all sounds cease.

Put the stethoscope earpieces in your ears. Make sure the earpieces are turned forward, i.e., toward the nose.

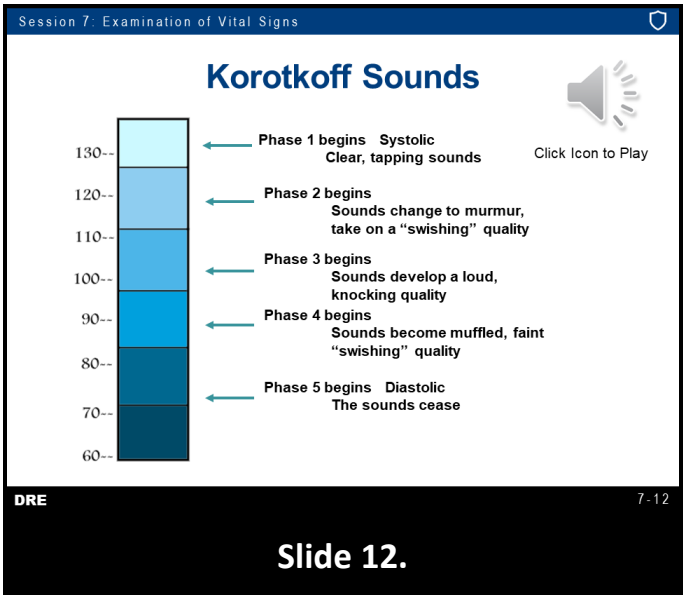
Place the diaphragm or bell of the stethoscope over the brachial artery.

Rapidly inflate the bladder to a pressure of approximately 180-200 mmHg. If the subject's blood pressure is very elevated, it may be necessary to inflate the bladder to a higher pressure.

Twist the pressure control valve slightly to the left to release the pressure slowly. If the pressure drops too fast, the needle will sweep down the gauge too quickly to be read accurately. The pressure should be released at a speed that takes one full second for the needle to move a single gradation (i.e., 2 millimeters of mercury) on the gauge.

Keep your eyes on the gauge and listen for the Korotkoff sounds. The needle on the pressure gauge generally will "bounce" slightly when blood starts to spurt through the artery.

For DRE purposes, the average ranges or expected ranges of blood pressure are: Systolic: 120 – 140; Diastolic: 70 – 90. People can have significantly different blood pressures.

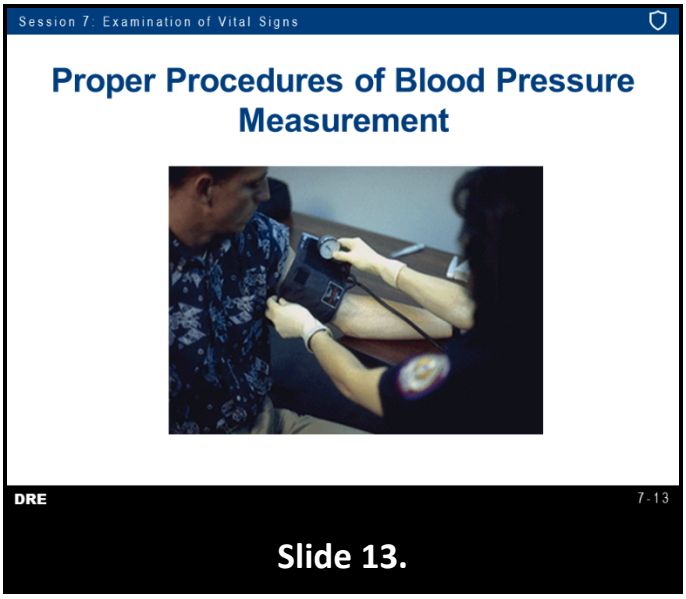


Slide 12.

The sounds we listen to are called Korotkoff Sounds. They are divided into 5 phases:

Phase 1 – the first appearance of clear, tapping sounds that gradually increase in intensity.

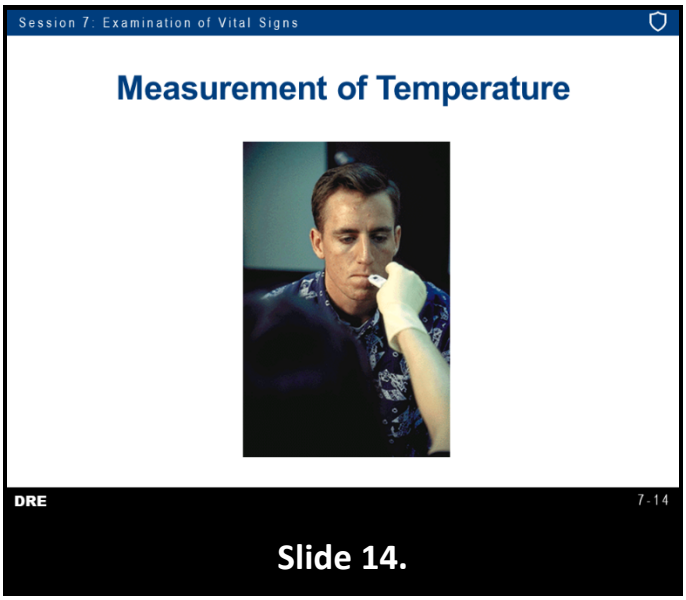
Phase 2 – the sounds change to a murmur and take on a swishing quality. Phase 3 – the sounds develop a loud, knocking quality (not quite as clear as the Phase 1 sounds). Phase 4 – the sounds become muffled and again have a faint swishing quality. Phase 5 – the sounds cease.



Slide 13.

If you inflate the bladder and then need to repeat the measurement, wait at least three minutes to ensure an accurate reading. Don't re-inflate cuff once you start releasing the pressure.

Some technical terms associated with blood pressure are: Hypertension: abnormally high blood pressure; and, Hypotension: abnormally low blood pressure.

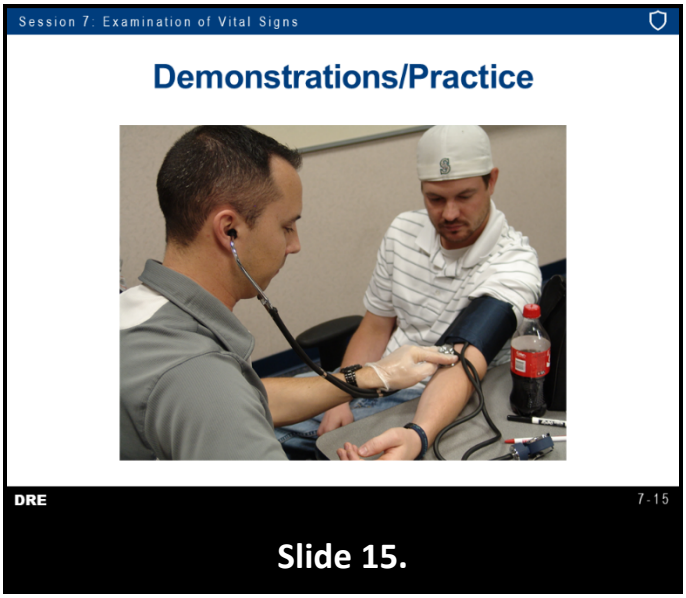


Slide 14.

Body temperature is measured using an oral digital thermometer.

A digital thermometer with plastic sleeves is used for this measurement. When measuring temperature, ensure the thermometer remains under the subject's tongue. DREs should also try to refrain from letting the subject drink hot or cold fluids immediately prior to measuring temperature. Make sure a fresh disposable mouthpiece is used each time.

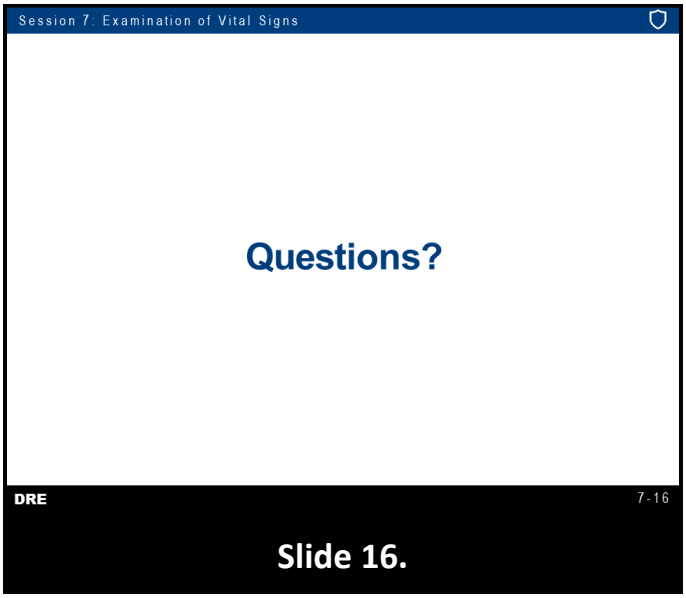
C. Demonstrations



Slide 15.

D. Documentation Procedures

E. Practice



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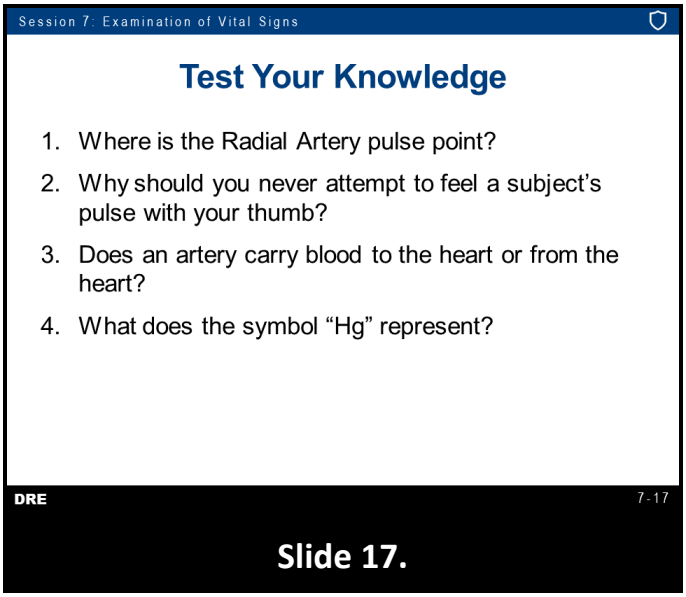
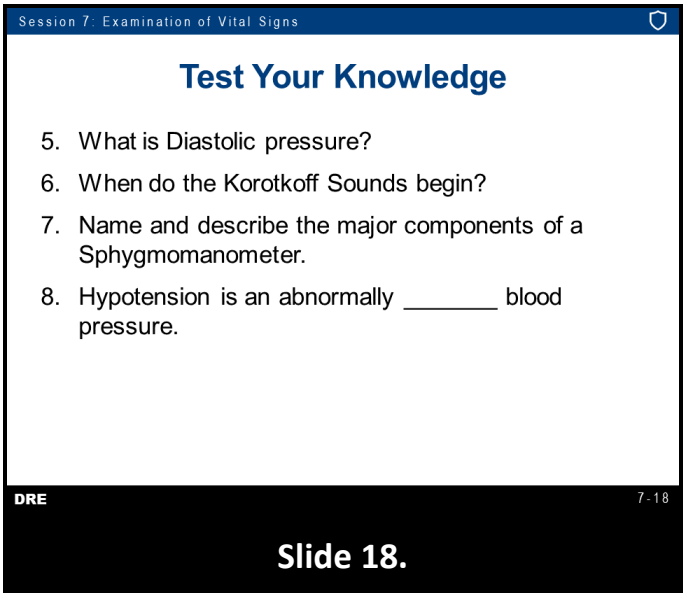


Slide 17.

Test Your Knowledge

1. Where is the Radial Artery pulse point?
2. Why should you never attempt to feel a subject's pulse with your thumb?
3. Does an artery carry blood to the heart or from the heart?
4. What does the symbol "Hg" represent?



Test Your Knowledge

5. What is Diastolic pressure?
6. When do the Korotkoff Sounds begin?
7. Name and describe the major components of a Sphygmomanometer.
8. Hypotension is an abnormally _____ blood pressure.

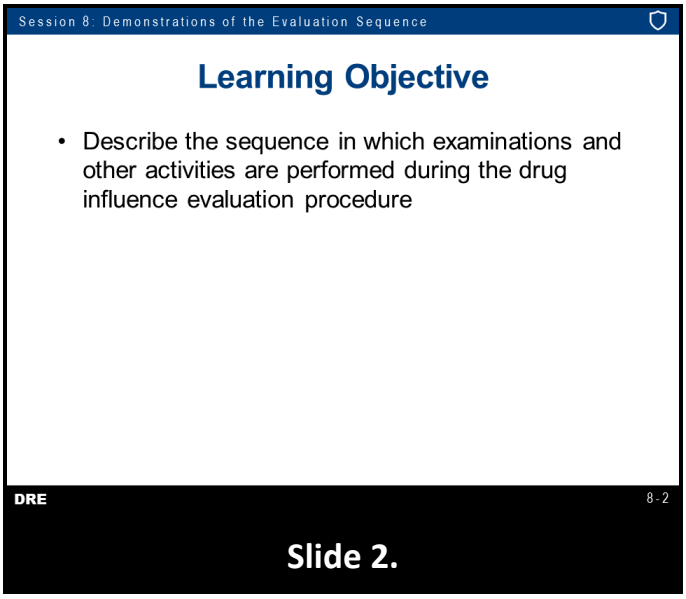
8 DRE

DEMONSTRATIONS OF THE EVALUATION SEQUENCE

LEARNING OBJECTIVES

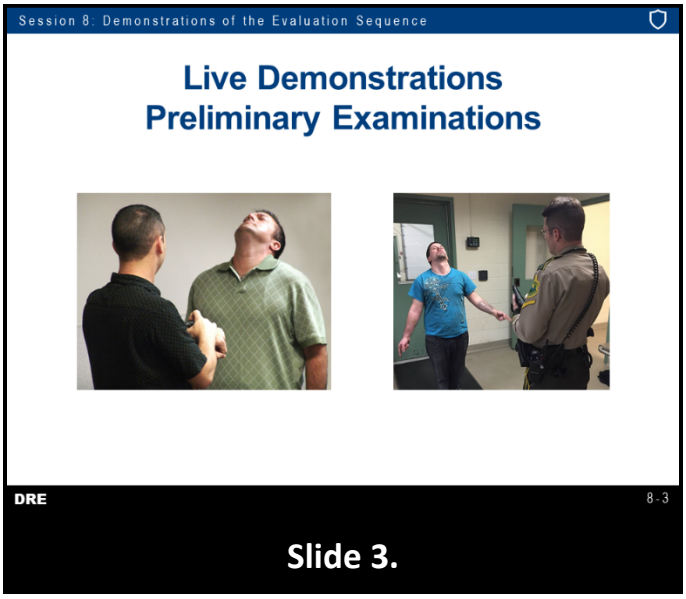
- Describe the sequence in which examinations and other activities are performed during the drug influence evaluation procedure

CONTENTS



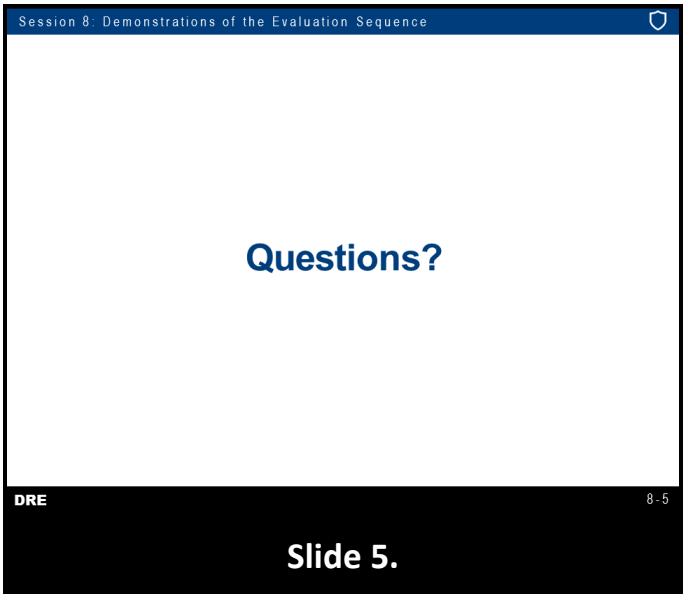
Slide 2.

A. Live Demonstrations



Slide 3.

Slide 4.



Slide 5.

International Association of Chiefs of Police

Drug Evaluation and Classification Program

Drug Influence Evaluation Checklist

_____ 1. Breath alcohol test

_____ 2. Interview of arresting officer

_____ 3. Preliminary examination and first pulse
(Note: Gloves must be worn from this point on.)

_____ 4. Eye examinations

_____ 5. Divided attention tests:

- _____ Modified Romberg Balance
- _____ Walk and Turn
- _____ One Leg Stand
- _____ Finger to Nose

_____ 6. Vital signs and second pulse

_____ 7. Dark room examinations

_____ 8. Check for muscle tone

_____ 9. Check for injection sites and third pulse

_____ 10. Interrogation, statements, and other observations

_____ 11. Opinion of evaluator

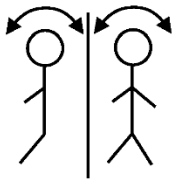
_____ 12. Toxicological analysis

DRUG INFLUENCE EVALUATION

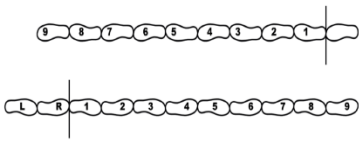
Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case #
Recorder/Witness	Crash: ☐ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency	
Arrestee's Name (Last, First, Middle)	Date of Birth	Sex / Race	Arresting Officer (Name, ID#)	
Date Examined / Time /Location / /	Breath Test: Test Refused ☐ Results: Instrument #:		Chemical Test: Urine ☐ Blood ☐ Oral Fluid ☐ Test or tests refused ☐	
Miranda Warning Given Given by: ☐ Yes ☐ No	What have you eaten today? When?		What have you been drinking? How much?	Time of last drink?
Time now/ Actual /	When did you last sleep? How long?		Are you sick or injured? ☐ Yes ☐ No	Are you diabetic or epileptic? ☐ Yes ☐ No
Do you take insulin? ☐ Yes ☐ No	Do you have any physical defects? ☐ Yes ☐ No		Are you under the care of a doctor or dentist? ☐ Yes ☐ No	
Are you taking any medication or drugs? ☐ Yes ☐ No	Attitude:		Coordination:	
Speech:	Breath odor:		Face:	
Corrective Lenses: ☐ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☐ Bloodshot ☐ Watery		Blindness: ☐ None ☐ Left ☐ Right	Tracking: ☐ Equal ☐ Unequal
Pupil Size: ☐ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☐ No	Vertical Nystagmus ☐ Yes ☐ No	Able to follow stimulus ☐ Yes ☐ No	Eyelids ☐ Normal ☐ Droopy

Pulse and Time	HGN	Left Eye	Right Eye	Convergence	/30 One Leg Stand /30
1. ____ / ____	Lack of Smooth Pursuit			Right eye Left eye	
2. ____ / ____	Maximum Deviation				
3. ____ /	Angle of Onset				

Modified Romberg Balance
Approx. Approx.



Walk and Turn Test



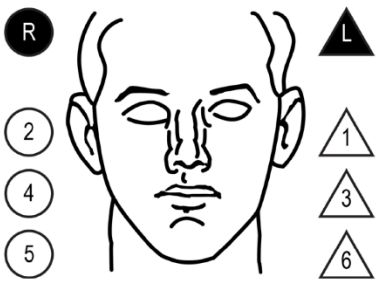
Cannot keep balance _____
Starts too soon _____

	1st Nine	2nd Nine
Stops walking		
Misses heel-toe		
Steps off line		
Uses arm(s)		
Actual steps taken		

L	R	
		Sways while balancing
		Uses arm(s) to balance
		Hopping
		Puts foot down

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
_____estimated as 30 seconds			

Finger to Nose
(Draw lines to spots touched)



PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye			
Right Eye			

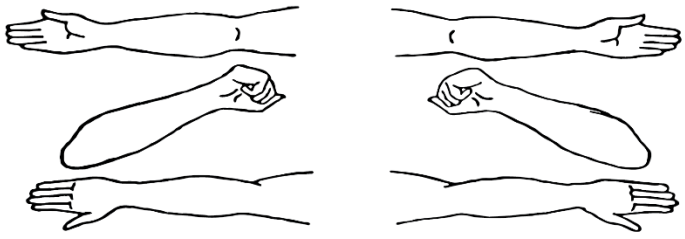
Nasal area:

Oral cavity:

Rebound Dilation: ☐ Yes ☐ No

Reaction to Light:

RIGHT ARM **LEFT ARM**



Blood Pressure /	Temperature °F

Muscle Tone: ☐ Normal ☐ Flaccid ☐ Rigid
Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)

Date / Time of arrest: /	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

Officer's Signature:	Reviewed/approved by / date:	DRE #

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant
☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

9 DRE

CENTRAL NERVOUS SYSTEM DEPRESSANTS

LEARNING OBJECTIVES

- Describe a brief overview of the Central Nervous System (CNS) Depressant category of drugs
- Identify common drug names and terms associated with this category
- Identify common methods of administration for this category
- Describe the symptoms, observable signs, and other effects associated with this category
- Explain the typical time parameters, i.e., onset and duration of effects, associated with this category.
- List the indicators likely to emerge when the drug influence evaluation is conducted for a person under the influence of this category of drugs

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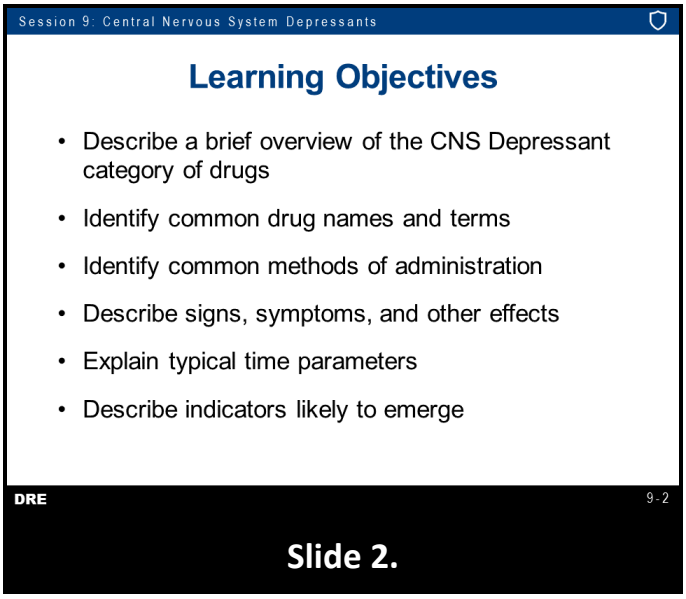


Slide 2.

A. Overview of the Category

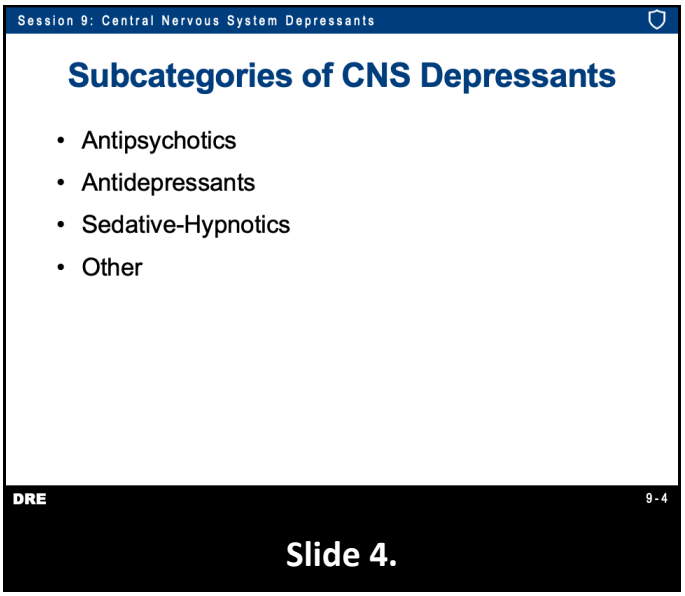
Slide 3.

The CNS Depressant category includes the single most commonly abused drug in America. Alcohol has been used and abused since prehistoric times. Alcohol and its effects are familiar to most people. Alcohol is a model for the CNS Depressant category. With some exceptions, all depressants produce effects quite similar to the effects of alcohol.

Anytime there is a positive BAC reading during an evaluation, the DRE must list alcohol (ETOH) as part of their opinion.

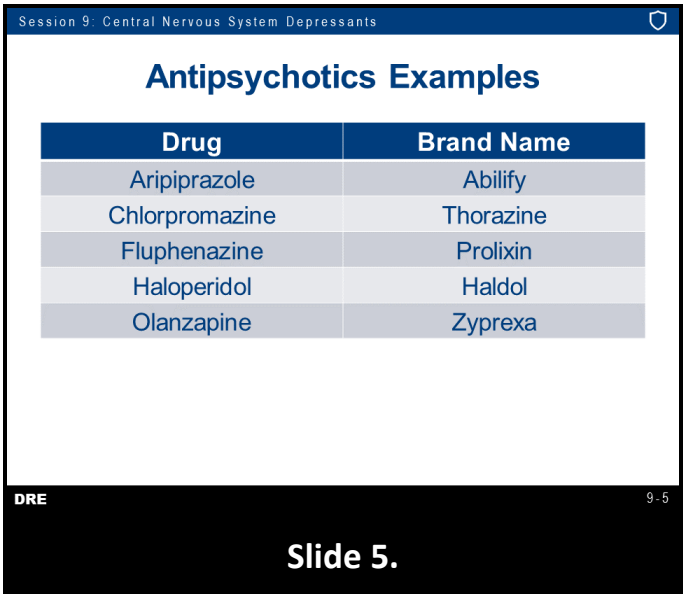
CNS Depressants are generally characterized by effects that "slow down" the central nervous system by increasing or mimicking the activity of sedating (inhibitory) neurotransmitters and/or decreasing or blocking the activity of excitatory (stimulating) neurotransmitters.

CNS Depressants first affect those areas of the brain that control a person's conscious, voluntary actions such as judgment, inhibitions, and reaction time. As the dose is increased, depressants begin to affect the parts of the brain that control the body's automatic processes, heartbeat, respiration, etc.



Slide 4.

For the purposes of this training, CNS Depressants are subdivided into four major classifications: Antipsychotics, Antidepressants, and Sedative-Hypnotics based upon primary purpose of use and shared mechanisms of action. CNS Depressants that do not belong to one of these three classes, including antihistamines, antiepileptics, and designer CNS Depressants, are characterized as Other.

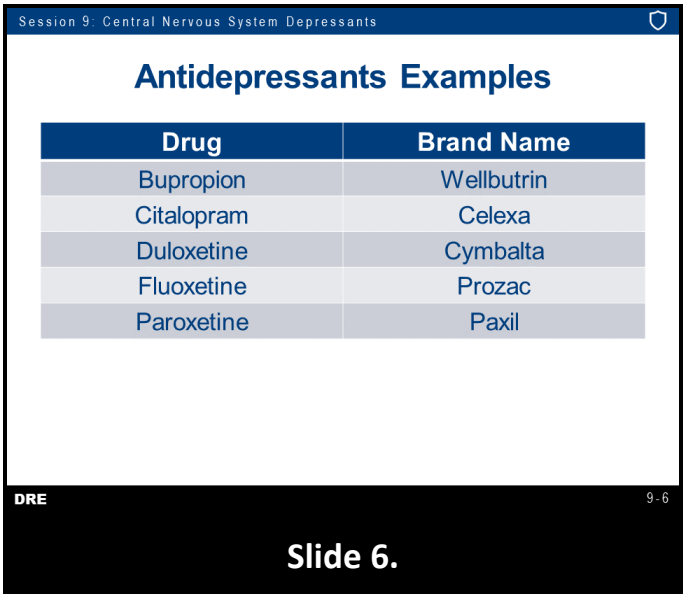


Slide 5.

Antipsychotics are used in psychiatry to manage psychotic symptoms such as delusions, hallucinations, disorganized thinking, and inappropriate emotions that are frequently associated with schizophrenia and bipolar disorder. First introduced in the 1950's, they primarily work by blocking dopamine and serotonin receptors. Some are also used to augment or supplement the effects of other psychotropic medications, such as antidepressants or combined with other drugs to achieve therapeutic goals. Such combinations may also diminish driving ability to an extent not expected from any of the drugs individually.

Antipsychotics

Drug Name	Brand Name
Aripiprazole	Abilify
Chlorpromazine	Thorazine
Fluphenazine	Prolixin
Haloperidol	Haldol
Olanzapine	Zyprexa

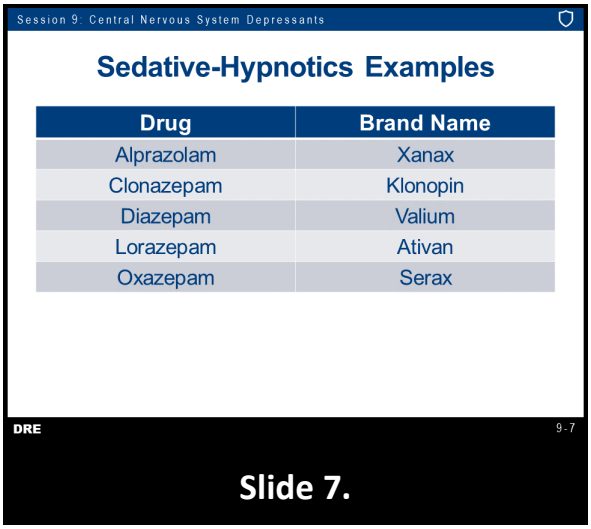


Slide 6.

Antidepressants, are used to treat certain mental disorders, including depression, anxiety, obsessive compulsive disorder (OCD), and many others by influencing brain chemistry. The most common classes of these are selective serotonin reuptake inhibitors (SSRIs), serotonin–norepinephrine reuptake inhibitors (SNRIs), tricyclic antidepressants (TCAs) and monoamine oxidase inhibitors (MAOIs). While these classes of drugs share similar core features, they may have some unique effects and side effects. Some antidepressants, such as SSRIs, SNRIs, and TCAs, may elevate pulse rate, and they usually cause pupil dilation.

Antidepressants

Drug Name	Brand Name
Bupropion	Wellbutrin
Citalopram	Celexa
Duloxetine	Cymbalta
Escitalopram	Lexapro
Fluoxetine	Prozac
Mirtazapine	Remeron
Paroxetine	Paxil
Sertraline	Zoloft
Trazodone	Desyrel
Venlafaxine	Effexor



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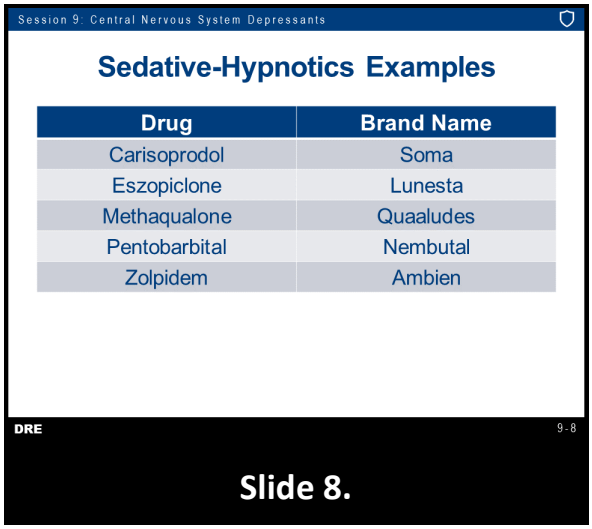


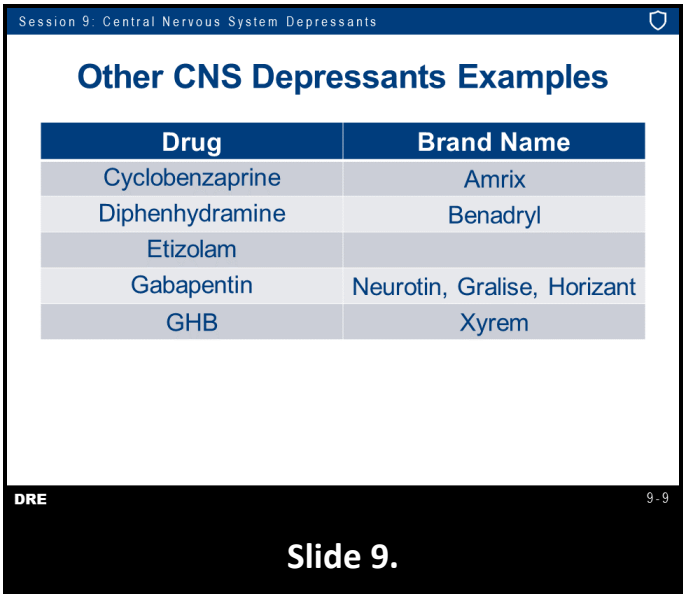
Slide 8.

Sedative-Hypnotics are used to reduce tension and anxiety and induce calm (sedative effect) or sleep (hypnotic effect). These drugs may exert a quieting or calming effect at low doses and a sleep-inducing effect in larger doses. Sedative-hypnotic drugs tend to depress the CNS. Since CNS depression and sedation are the main effects of these drugs, they work on pathways other than those affected by the Narcotic Analgesics which also cause sedation. However, symptomatology between these two categories of drugs is quite different.

Types of sedative-hypnotics include benzodiazepines, barbiturates, certain sleep aids, and muscle relaxers. Common benzodiazepines include alprazolam (Xanax), chlordiazepoxide (Librium), diazepam (Valium), lorazepam (Ativan), and oxazepam (Serax). Common barbiturates include butalbital (Fioricet), pentobarbital (Nembutal), and secobarbital (Seconal). Common sleep aids include zolpidem (Ambien), eszopiclone (Lunesta), and zaleplon (Sonata). They are often prescribed for patients with anxiety and sleeping difficulties. Other sedative-hypnotics include carisoprodol (Soma), methaqualone (Quaalude), and chloral hydrate.

Sedative Hypnotics

Drug Name	Brand Name
Alprazolam	Xanax
Butalbital	Fioricet
Carisoprodol	Soma
Chloral Hydrate	
Chlordiazepoxide	Librax
Clonazepam	Klonopin
Diazepam	Valium
Estazolam	ProSom
Eszopiclone	Lunesta
Lorazepam	Ativan
Meprobamate	
Methaqualone	Quaaludes
Midazolam	Versed, Nayzilam, Seizalam
Oxazepam	Serax
Pentobarbital	Nembutal
Phenobarbital	Luminal
Secobarbital	Seconal
Temazepam	Restoril
Triazolam	Halcion
Zaleplon	Sonata
Zolpidem	Ambien



Slide 9.

CNS Depressants that do not fit neatly into the above three subcategories include antihistamines, antiepileptics, some designer CNS Depressants, and more. Some antihistamines may cause sedation and psychomotor impairment at therapeutic dosing. Antiepileptics are used for their ability to suppress seizures, but some have other applications such as treating neuropathic pain or psychotic/mental disorders. Some designer CNS Depressants are legal pharmaceuticals in other countries, while others are synthesized for illicit use. Many are chemically and functionally similar to benzodiazepines but are significantly more potent than typical benzodiazepines found in the United States. They may be found in counterfeit preparations that appear to be pharmaceuticals, such as Xanax. They may also be found in various preparations on the internet being sold as "research chemicals".

Another example is gamma-hydroxybutyrate (GHB), originally used as an anesthetic and hypnotic agent. The only FDA approved version is sodium oxybate (Xyrem), which is approved for the treatment of narcolepsy.

Drug Name	Brand Name
Clonazolam	
Cyclobenzaprine	Amrix (formerly Flexeril)
Diphenhydramine	Benadryl
Etizolam	
Flualprazolam	
Gabapentin	Neurotin, Gralise, Horizant
Gamma-Hydroxybutyrate (GHB) or Sodium Oxybate	Xyrem
Lithium	Lithobid
Phenytoin	Dilantin
Promethazine	Promethagan

Slide 10.

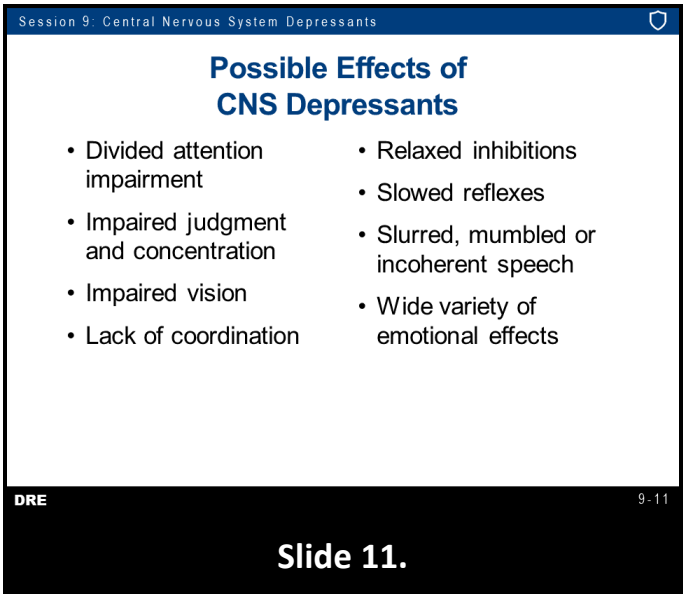
The most common and easiest method of administration is for the drug to be taken orally. This method results in a slower onset and longer duration of effects. For faster and more intense effects, abusers may crush the tablets and snort the powder, or inject the drug. More information on the injection method of administration will be provided in the session on Narcotic Analgesics. Some abusers experience a "flash" or "rush" from intravenous injection of Barbiturates they do not experience from oral administration.

The injection sites on the skin of a Barbiturate abuser appear quite different from those who inject Narcotic Analgesics. For example, large swelling, about the size of a quarter or fifty cent piece, will frequently appear at the Barbiturate injection site.

Necrosis may occur i.e., a decaying of the body's tissue at the injection site.

The Barbiturate user who injects the drug usually will not display the same type of track marks as the heroin user who uses repeated injections along the same vein.

B. Possible Effects



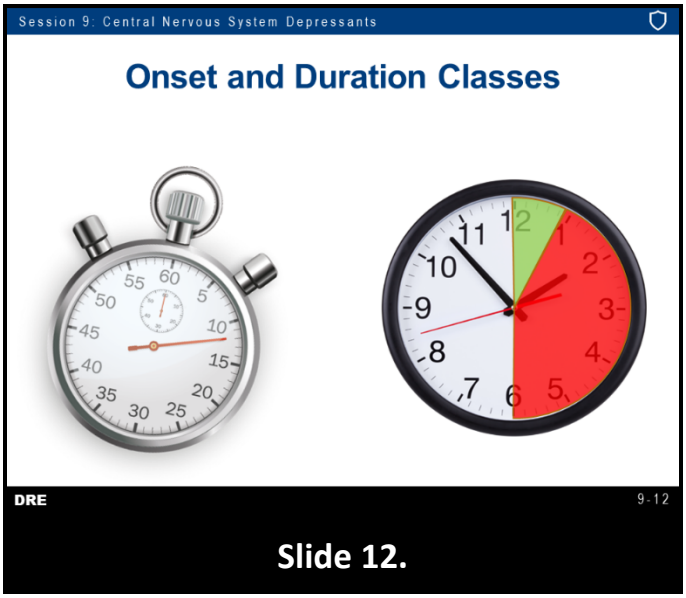
Slide 11.

CNS Depressants produce impairments of the human mind and body that essentially mirror alcohol impairment. These effects will not necessarily appear in a predictable sequence as dose increases.

- Divided attention impairment – Clarification: impede the person's ability to concentrate on more than one thing at a time
- Impaired judgment and concentration
- Impaired vision – Ability to focus eyes may be impaired; "double vision" may develop (Diplopia)
- Lack of coordination
- Relaxed inhibitions
- Slowed reflexes
- Slurred, mumbled, or incoherent speech
- Produce a variety of emotional effects, such as euphoria, depression, suicidal tendencies, laughing or crying without provocation, etc.

The extent to which a CNS Depressant user will exhibit these effects will depend, in part, on the user's tolerance to these drugs. Persons habituated to a drug often won't exhibit its effects as clearly as will a novice user. Generally speaking, a person under the influence of CNS Depressants will look and act drunk.

C. Onset and Duration Effects



Slide 12.

Some CNS Depressants are very fast acting with very brief effects. They take effect in a matter of seconds and the effects last only a few minutes. These are very rarely the "drugs of choice" for drug abusers. These are sometimes used at the beginning of a surgical operation, in conjunction with an inhaled anesthetic.

Other CNS Depressants take effect about one hour after administration and typically last 8 – 14 hours. Again, these are generally not the "drugs of choice" for abusers, however, some people will abuse the long-acting Depressants if others are not readily available. Long-acting Depressants are used medically in the control of epilepsy and of other conditions that can cause convulsions. They can also be used to provide continuing sedation to patients suffering from extreme anxiety.

Most CNS Depressants of abuse fall in between these two extremes. While the duration of effects of these drugs varies widely, the onset is generally within 30 minutes and the effects last between 4 – 8 hours. These drugs are frequently prescribed as a treatment for insomnia or may be used as a pre-anesthetic medication to calm a patient prior to surgery. Fairly often abused, the effects last long enough for users who desire a longer lasting state of intoxication.

Examples of drugs of intermediate duration include alprazolam, carisoprodol, chloral hydrate, chlordiazepoxide, clonazepam, diazepam, and lorazepam. In addition, methaqualone, oxazepam, zolpidem, and gamma hydroxy butyrate also have a similar duration of effect.

Type	Onset	Duration
Ambien	Rapid	4 to 5 hours
Klonopin	1 hour	6 to 12 hours
Soma	30 minutes	4 to 6 hours
Valium	30 minutes	12 to 24 hours
Xanax	10 to 20 minutes	6 to 8 hours
GHB	10 to 20 minutes	2 to 5 hours

Source:

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

D. Overdose Signs and Symptoms

Slide 13.

Overdoses from CNS Depressants produce symptoms essentially identical to those of alcohol overdoses. The subject may become extremely drowsy and pass out. The heartbeat (pulse) will be rapid and weak. Skin may feel cold and clammy. Subject may lapse into a coma.

Respiration will become shallow. One major danger with CNS Depressant overdoses is death from respiratory failure. A sufficiently high dose of CNS Depressant can suppress the portions of the brain that control respiration.

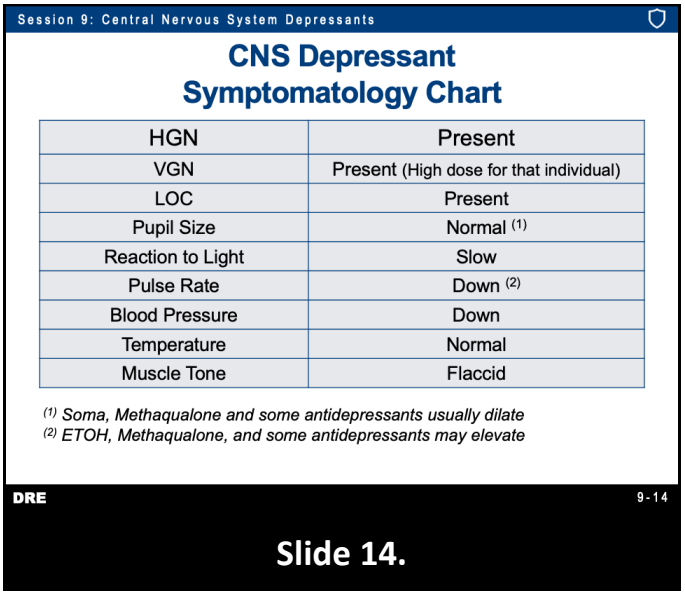
Death can occur from alcohol intoxication. However, a drinker will usually pass out before he or she consumes enough alcohol to suppress respiration completely.

Another major danger with CNS Depressants occurs when they are combined with alcohol. The combination of alcohol and certain other CNS Depressants may produce an effect greater than the sum of the effects of the two drugs independently.

There is at least an additive effect when alcohol and another depressant are taken together. With many CNS Depressants, there may be more than an additive effect. Coroners have reported a number of cases in which neither the alcohol level nor the depressant level independently would have been close to a fatal dose. The additive effect of alcohol and other depressants can be fatal.

It is not possible to predict how great of an effect will occur when alcohol is mixed with another depressant. However, it is clear the combination is always risky.

E. Expected Results of the Evaluation



Slide 14.

Observable Evidence of Impairment: If a person is under the influence of a combination of alcohol and some other CNS Depressant, the onset angle of HGN will not be consistent with the person's BAC; in other words, the eyes will start to jerk earlier than would be expected due to the alcohol alone.

Horizontal Gaze Nystagmus (HGN) will be present with subjects under the influence of CNS Depressants.

Vertical Gaze Nystagmus (VGN) may be present, with high doses, of depressants for that individual.

Lack of Convergence (LOC) will be present with subjects under the influence of CNS Depressants.

Performance on Modified Romberg Balance (MRB), Walk and Turn (WAT), One Leg Stand (OLS), and Finger to Nose (FTN) tests will be similar to that of subjects impaired by alcohol. The subject's estimation of time (on MRB) may be impaired.

Vital Signs – Pulse will be Down (2).

(2) ETOH, Methaqualone, and some antidepressants may elevate. Blood pressure will be Down. Body temperature generally will be in the normal range.

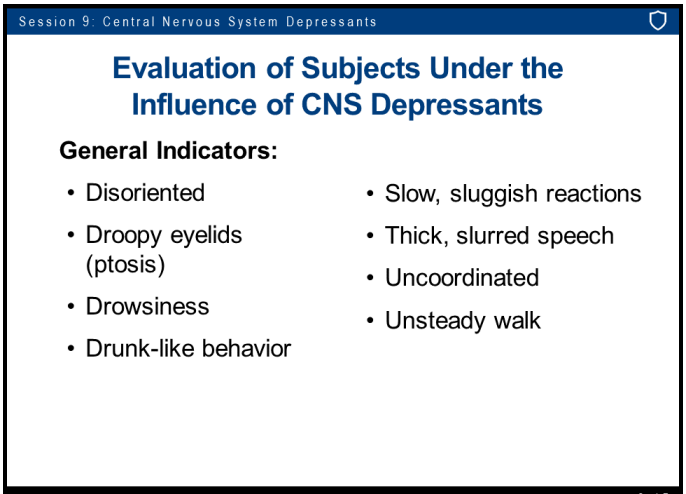
Dark Room Examinations – Pupil sizes will generally be normal.

(1) Soma, Methaqualone and some antidepressants usually dilate pupils. Pupillary reaction to light will be slowed.

Muscle Tone – Muscle tone will be Flaccid.

Source:

Richman, J.E. (2010). Review of Romberg Test for 30 Second Estimate of Time: Brief Report. *IACP, DEC Program Technical Advisory Panel Report*



Slide 15.

General Indicators

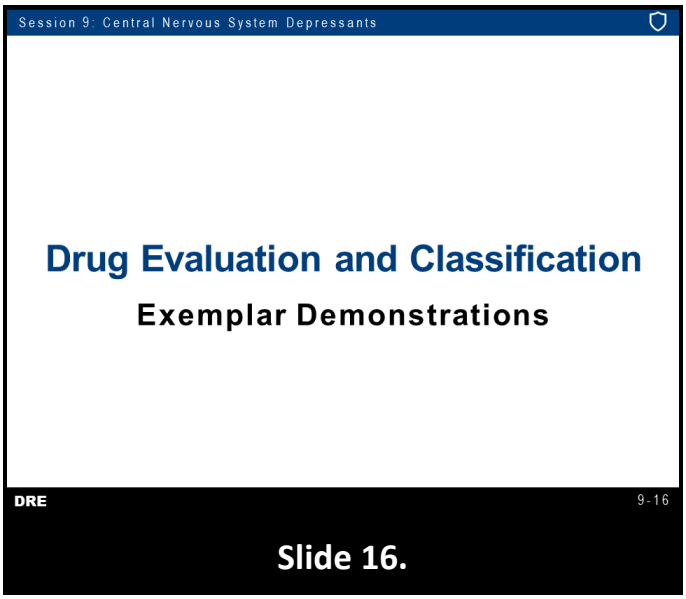
- Disoriented
- Droopy eyelids (ptosis)
- Drowsiness
- Drunk-like behavior
- Slow, sluggish reactions
- Thick, slurred speech
- Uncoordinated
- Unsteady walk

NOTE: Alcohol, Methaqualone, and some antidepressants may elevate the pulse. Soma, Methaqualone, and some antidepressants usually dilate pupils.

For more information and details regarding possible effects refer to

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

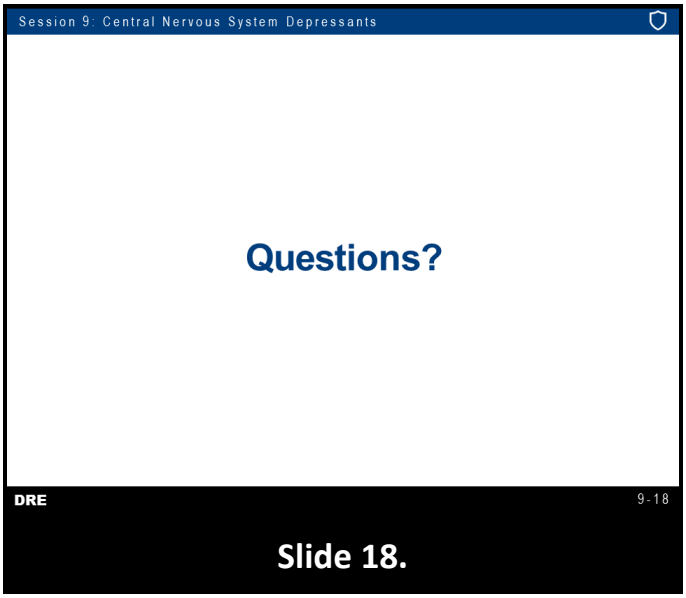
F. Review of the DEC Program Exemplars



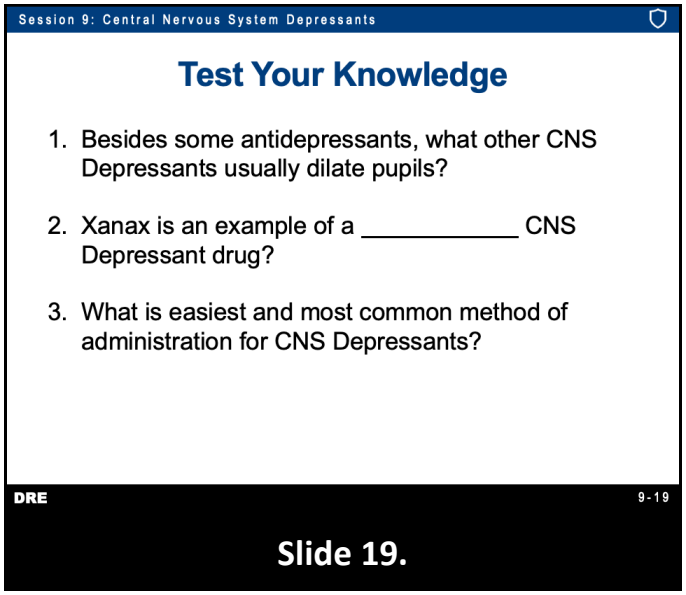
Slide 16.

The DRE narrative report should be detailed and complete, which clearly articulates the opinion of the DRE.

Slide 17.

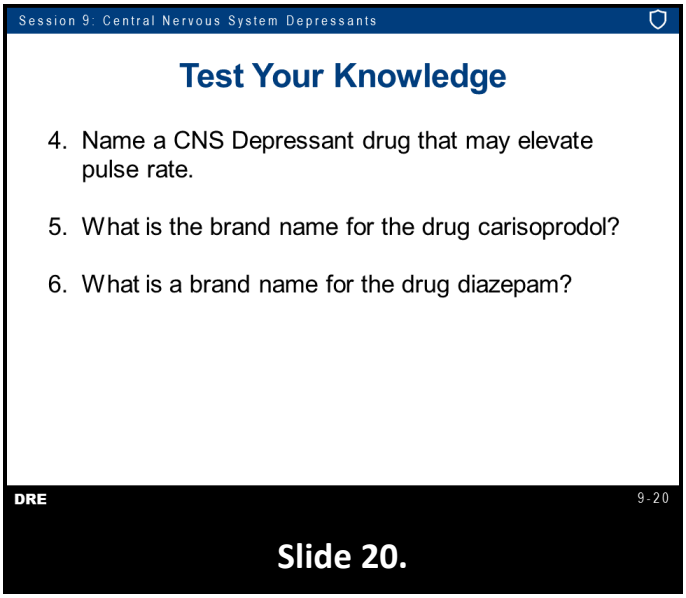


Slide 18.



Test Your Knowledge

1. Besides some antidepressants, what other CNS Depressants usually dilate pupils?
2. Xanax is an example of a _____ CNS Depressant drug?
3. What is easiest and most common method of administration for CNS Depressants?



Test Your Knowledge

4. Name a CNS Depressant drug that may elevate pulse rate.
5. What is the brand name for the drug carisoprodol?
6. What is the brand name for the drug diazepam?

DRUG INFLUENCE EVALUATION

Evaluator: Officer Margaret Nunley	DRE #: 30094	Rolling Log #: 22-015-0158	Evaluators Agency: California Borough	Case#: (Session IX - #1)
Recorder/Witness: Tpr. Craig Johnson, PA State Police	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Lititz Police Department	
Arrestee's Name (Last, First, Middle): Ludes, Lucy Dunn	Date of Birth: 04/12/1982	Sex: F	Race: W	Arresting Officer (Name, ID#): Officer Tyler Weinoldt #31606
Date Examined / Time /Location: 08/06/22 / 0145 / Lititz Police Dept.	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 63305	Chemical Test: Urine ☐ Blood ☒ Test or tests refused ☐	
Miranda Warning Given Given by: Ofc. Weinoldt: ☒ Yes ☐ No	What have you eaten today? Soup and sandwich	When? About 4 pm	What have you been drinking? How much? Nothing, just some water	Time of last drink? N/A
Time now/ Actual: Midnight / 0150	When did you last sleep? Last night	How long? 6 or 7 hours	Are you sick or injured? ☐ Yes ☒ No "Some anxiety issues"	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☐ Yes ☒ No	
Are you taking any medication or drugs? ☒ Yes ☐ No "Some pills from my brother"	Attitude: Cooperative		Coordination: Poor, Staggering	
Speech: Slurred	Breath odor: Normal		Face: Normal	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☐ Bloodshot ☒ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☐ Normal ☒ Droopy

Pulse/Time

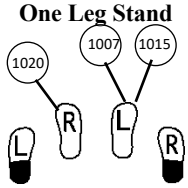
1. 56 / 0202
2. 58 / 0218
3. 58 / 0240

HGN	Left Eye	Right Eye
Lack of Smooth Pursuit	Present	Present
Maximum Deviation	Present	Present
Angle of Onset	35	35

Convergence

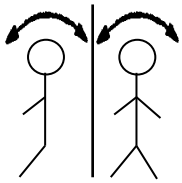
Right eye Left eye

22/30 **One Leg Stand** 25/30

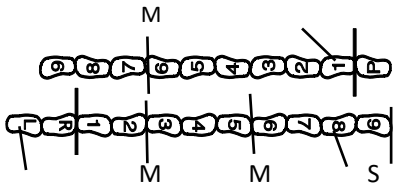


Modified Romberg Balance

Approx. 2" 2" Approx. 2" 2"



Walk and Turn Test



Slow movements. Stopped and asked for directions on turn.

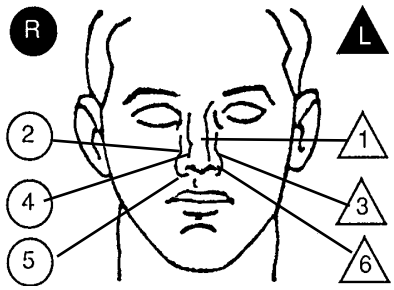
	1st Nine	2nd Nine
Cannot keep balance	1	
Starts too soon	1	
Stops walking	1	
Misses heel-toe	2	1
Steps off line	1	1
Uses arms	2	1
Actual steps taken	9	9

L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

Reminded to look at extended foot

Time Estimation 46 estimated as 30 seconds	Describe turn: Stopped. Asked for directions.	Cannot do test (explain): N/A
		Type of footwear: Lace-up athletic shoes

Finger to Nose
(Draw lines to spots touched)



Slow hand and arm movements

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	4.0	6.0	3.5
Right Eye	4.0	6.0	3.5

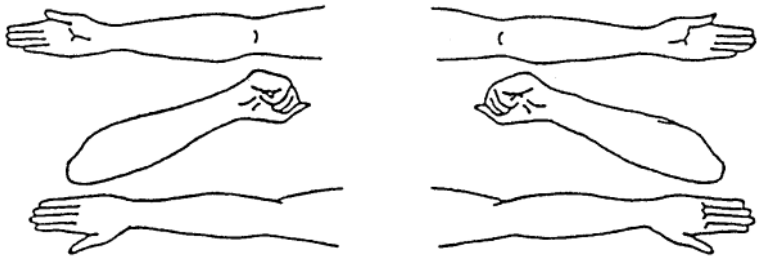
Nasal area: Clear

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature
110 / 66	98.2 °F

Muscle Tone: ☐ Near Normal ☒ Flaccid ☐ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"Don't know. Something my brother gave me."	"Couple of pills"	About 10 pm	Brothers house

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
08/06/22 0015	0130	0145	0300	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: M. Nunley | Reviewed/approved by / date: | DRE#

Opinion of Evaluator:

☐ Not Impaired	☐ Alcohol	☐ CNS Stimulant	☐ Dissociative Anesthetic	☐ Inhalant
☐ Medical	☒ CNS Depressant	☐ Hallucinogen	☐ Narcotic Analgesic	☐ Cannabis

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Ludes, Lucy Dunn

1. **Location:** The drug influence evaluation was conducted in the Interview Room at the Lititz Police Department. The floor surface is smooth tile and free of obstructions. The room is well illuminated and has adequate lighting for conducting the evaluation. The darkroom examinations were conducted in a restroom at that location.

2. **Witnesses:** Trooper Craig Johnson of the PA State Police observed and recorded the entire evaluation.

3. **Breath Alcohol Test:** A breath test was administered to the suspect prior to my arrival and a 0.00 BAC result was obtained.

4. **Notification and Interview of the Arresting Officer:** I was on duty and was requested to contact Officer Weinholdt of the Lititz PD regarding a drug evaluation. After contacting Officer Weinoldt, it was determined he had stopped the suspect on East Main Street after observing her vehicle weaving in and out of her traffic lane. Upon contacting the driver, Officer Weinoldt noted she was disoriented and exhibited drunk-like behavior. However, he did not detect an odor of an alcoholic beverage on her breath. He determined the suspect did not have any injuries or physical problems and administered SFSTs. He observed six clues on the Horizontal Gaze Nystagmus (HGN) test, four clues on the Walk and Turn (W&T) test, and three clues on the One Leg Stand (OLS) test. According to Officer Weinoldt, the suspect appeared intoxicated, displayed poor balance and coordination throughout the contact, and several times used the side of her vehicle to steady herself. The suspect told Officer Weinoldt she was not drunk, just tired. Officer Weinoldt arrested the suspect for DWI and transported her to the Lititz PD for breath testing. After obtaining a .00 BAC result, Officer Weinoldt requested a DRE to assist with the investigation.

5. **Initial Observation of the Suspect:** I first observed the suspect in the Interview Room at the Lititz PD. She seemed cooperative but was non-responsive at times. Her speech was slurred, her face appeared normal, and there was no odor of an alcoholic beverage on her breath. Her eyes were watery, and her eyelids appeared to be droopy. When she walked, she at times staggered, and several times used the wall to steady herself. I introduced myself and advised her I had been requested to conduct a drug evaluation. I asked if she would consent to the evaluation and she responded, "Okay, but I'm not drunk. I'm just really tired." I confirmed that she had been advised of her Miranda Rights, and she stated, "Yes. When I got arrested. But I don't know why." I noted the suspect was wearing blue jeans, a Steelers tee-shirt, and white lace-up athletic shoes without socks.

6. **Medical Problems and Treatment:** The suspect stated she had no injuries or physical problems, and none were mentioned or observed during the evaluation. She stated she was not under the care of a physician or dentist, was not diabetic or epileptic, and did not take insulin. She stated she had been having "some anxiety issues" due to a break-up with her boyfriend and had taken some pills she got from her brother. When asked what kind of pills they were, she did not know, but said they made her "a little sleepy."

7. **Psychophysical Indicators of Impairment:** Prior to administering the psychophysical tests, each one was explained and demonstrated to the suspect. She indicated she understood the instructions and agreed to do the tests. The following psychophysical tests were administered to the suspect:

   Modified Romberg Balance: During this test, the suspect's time estimation was slow, estimating 30 seconds in 46 seconds. She had a front to back sway of approximately two inches in each direction and a side-to-side sway of approximately two inches in each direction.

Walk and Turn: For this test, a line in the tile floor was used. The suspect lost her balance one time to the right during the instructions stage. She also attempted to start the test too soon one time. During the walking stage, she missed stepping heel to toe two times on the first nine steps, and one time on the second nine steps. She stepped off the line once in each direction, used her arms for balance twice on the first nine steps and once on the second nine steps. On her ninth step, she stopped and asked for directions on how to complete the turn. Her movements were slow, and her counting was at times difficult to hear.

One Leg Stand: Per DRE protocol, this test was conducted twice, once standing on the left foot and once standing on the right foot. When attempting to stand on her left foot, she swayed while balancing throughout the test, used her arms to balance once, and put her foot down at count 1,020. She counted slowly reaching 1,022 in 30 seconds. While attempting to stand on her right foot, she swayed while balancing throughout the test, used her arms to balance once, and put her foot down at 1,007 and 1,015. She again counted slowly reaching 1,025 at the conclusion of the 30 seconds. She also had to be reminded numerous times to look at her extended foot.

Finger to Nose: During this test, the suspect displayed slow hand and arm movements. She did not touch the tip of her nose with the tip of her index finger as directed on any of the six attempts.

8. **Clinical Indicators of Impairment:**
   Eye Signs: The suspect exhibited all six clues of HGN, with an angle of onset of approximately 35 degrees. Vertical Gaze Nystagmus was not detected. She was not able to converge her eyes as instructed. This test was conducted twice and on both attempts her eyes moved inward and then downward and back out. During the pupil size examinations, her pupils were estimated at 4.0 mm in both eyes in Room Light, 6.0 mm in both eyes in Near Total Darkness, and 3.5 mm in both eyes in Direct Light. All three estimates were within the DRE average range. Rebound dilation was not present. She had a slow pupillary reaction to light.

   Vital Signs: The suspect's pulse rates were checked three times during the evaluation: 1) 0202 hours - 56 beats per minute (bpm); 2) 0218 hours - 58 bpm; and 3) 0240 hours - 58 bpm. All three were below the DRE average range of 60 - 90 bpm. Her blood pressure was measured at 110/66. Both the systolic and diastolic measurements were below the DRE average ranges. Her body temperature was measured at 98.2°, which was within the DRE average range. Her muscle tone was flaccid.

9. **Signs of Ingestion:** The suspect's nasal area and oral cavity were clear. No indicators of injection sites were observed.

10. **Suspect's Statements:** Officer Weinoldt had advised the suspect of her Miranda Rights and she agreed to waive her rights and answer questions. She stated she had received "some pills" from her brother to help her with anxiety issues she was having. She stated she had taken a "couple of pills" at about 10 pm. She stated she took the pills at her brother's house and that they made her tired. She was unable to provide the name of the pills she used and only described them as a small oval white tablet.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a CNS Depressant and unable to operate a vehicle safely.

12. **Toxicological Sample:** After the evaluation, Officer Weinoldt transported the suspect to Penn Medicine Hospital where a blood sample was collected at 0355 hours. Officer Weinoldt submitted the blood sample as evidence pending analysis by the PA Crime Laboratory.

13. **Miscellaneous:** Refer to Officer Weinoldt's arrest report for additional details.

DRUG INFLUENCE EVALUATION

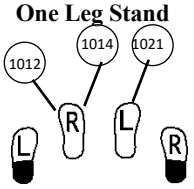
Evaluator: Officer Russ Kenney	DRE #: 9296	Rolling Log #: 22-008-0075	Evaluator's Agency: Milford PD	Case#: (Session IX - #2)
Recorder/Witness: Sgt. Sam Criswell, Ohio State HP	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Ohio State Highway Patrol	
Arrestee's Name (Last, First, Middle): Downers, Dudley Duwin	Date of Birth: 04/02/1986	Sex: M	Race: W	Arresting Officer (Name, ID#): Trooper Christopher Ellison #22367
Date Examined / Time /Location: 03/16/22 / 2130 / Clermont SHP Office	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 87264	Chemical Test: Urine ☐ Blood ☒ Test or tests refused ☐	
Miranda Warning Given: Given by: Tpr. Ellison	☒ Yes ☐ No	What have you eaten today? Ham sandwich & chips	When? 6 pm	What have you been drinking? How much? Water N/A / Time of last drink? N/A
Time now/ Actual: 11 pm / 2135	When did you last sleep? Last night	How long? About 7 hours	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☐ Yes ☒ No	
Are you taking any medication or drugs? ☒ Yes ☐ No Sleeping pills	Attitude: Cooperative		Coordination: Poor, Unsteady	
Speech: Slurred, Thick	Breath odor: Normal		Face: Normal	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☒ Normal ☐ Droopy

Pulse/Time		HGN	Left Eye	Right Eye
1.	54 / 2145	Lack of Smooth Pursuit	Present	Present
2.	52 / 2155	Maximum Deviation	Present	Present
3.	54 / 2218	Angle of Onset	40	40

Convergence

Right eye Left eye

25/30 **One Leg Stand** 24/30

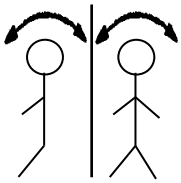


L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

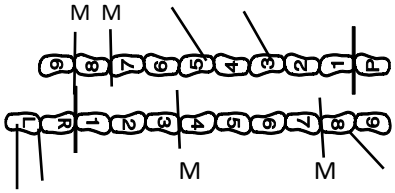
Counted slowly

Modified Romberg Balance

Approx. 3" 3" Approx. 2" 2"



Walk and Turn Test



Slow, deliberate steps

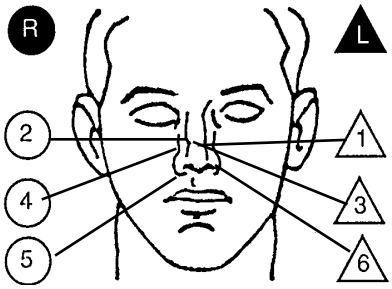
Cannot keep balance: 2

Starts too soon:

	1st Nine	2nd Nine
Stops walking		
Misses heel-toe	2	2
Steps off line	1	2
Uses arms	2	2
Actual steps taken	9	9

Time Estimation: 38 estimated as 30 seconds	Describe turn: Lost balance	Cannot do test (explain): N/A
		Type of footwear: Lace-up shoes

Finger to Nose
(Draw lines to spots touched)



Slow hand & arm movements. Pads of fingers on #1, #4 & #6

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	4.5	6.5	3.5
Right Eye	4.5	6.5	3.5

Nasal area: Clear

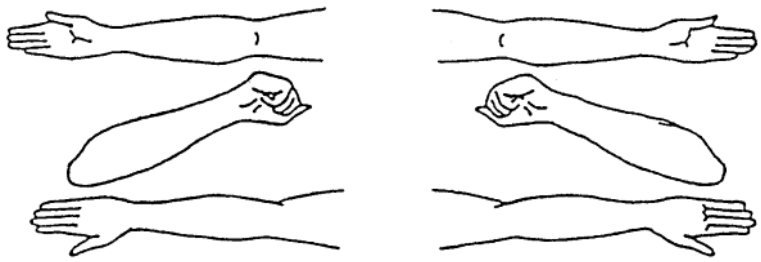
Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

Blood Pressure: 118 / 58	Temperature: 98.0 °F
Muscle Tone: ☐ Near Normal ☒ Flaccid ☐ Rigid	

RIGHT ARM **LEFT ARM**



Nothing observed

What drugs or medications have you been using? "Some medicine to help me sleep"	How much? 1 pill	Time of use? About 9 pm	Where were the drugs used? (Location) At work

Date / Time of arrest: 03/16/22 2020	Time DRE was notified: 2055	Evaluation start time: 2130	Evaluation completion time: 2230	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
DRE/Officer's Signature: Russ Kenney	Reviewed/approved by / date:			DRE#

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant
☐ Medical ☒ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Downers, Dudley Duwin

1. **Location:** The drug evaluation was conducted in the Interview Room at the Clermont Ohio State Highway Patrol Office. The flooring in the Interview Room is a tile surface free of obstructions, and there is sufficient lighting for conducting an evaluation. The darkroom examinations were conducted inside the staff restroom.

2. **Witnesses:** Sgt. Sam Criswell of the Ohio State Highway Patrol witnessed and recorded the evaluation.

3. **Breath Alcohol Test:** A breath test was administered to the suspect with a 0.00% result.

4. **Notification and Interview of the Arresting Officer:** I was off duty and contacted by the State Highway Patrol Dispatch Center and requested to conduct a drug evaluation for Trooper Ellison. I responded to the Clermont Office and after contacting Trooper Ellison it was determined he had stopped the suspect for failure to maintain a single lane of travel on I-275. When Trooper Ellison contacted the suspect, he appeared to be impaired, but there was no detectable odor of an alcoholic beverage on his breath. The suspect had poor balance with slow, unsteady movements. Trooper Ellison administered SFSTs at roadside and observed six clues of Horizontal Gaze Nystagmus (HGN) along with severe divided attention impairment during the Walk and Turn (W&T) and One Leg Stand (OLS) tests. According to Trooper Ellison, the suspect had just left work and was on his way home. The suspect admitted taking some medication to help him sleep prior to leaving work. Trooper Ellison arrested the suspect for OVI and transported him to Clermont Office for processing. After obtaining a 0.00 breath test, he requested the assistance of a DRE.

5. **Initial Observation of the Suspect:** I first observed the suspect in the Interview Room at the Clermont Office. He was cooperative, but at times was slow to respond to questions. His speech was slurred and thick. There was no detectable odor of an alcoholic beverage on his breath. His eyes appeared normal, and his pupils appeared to be equal in size. When standing, the suspect swayed noticeably, and when walking, he was unstable and at times used a nearby chair to steady himself. I introduced myself and requested that the suspect complete a drug influence evaluation, which he agreed to do. I asked if he recalled his Miranda rights being given to him by Trooper Ellison, which he indicated he did. He agreed to answer my questions. The suspect was wearing blue dress pants, a plaid gray long-sleeve shirt and black lace-up dress shoes.

6. **Medical Problems and Treatment:** The suspect indicated that he did not have any physical or medical problems. During the evaluation, none were mentioned or observed. Several times he indicated he was tired and yawned numerous times.

7. **Psychophysical Indicators of Impairment:** Prior to administering the psychophysical tests, each test was explained and demonstrated to the suspect. After each demonstration, he indicated he understood the instructions and agreed to do the tests, which included the following:

   Modified Romberg Balance: During this test, the suspect had a slow time estimation, estimating 30 seconds in 38 seconds. He had a front to back sway of approximately three inches in each direction, and a side-to-side sway of approximately two inches in each direction. When asked how he estimated the 30 seconds, he said he counted by one-thousands.

   Walk and Turn: A line on the tile floor was used for this test. The suspect lost his balance two times to the right during the instructions stage. During the walking stage, he missed touching heel to toe two times on the first nine steps and two times on the second nine steps. He also stepped off the line once during the first nine steps and twice on the second nine steps. He also used his arms for balance twice during each of the nine steps. When attempting the turn, he lost his balance and had to regain his balance before starting the second nine steps. Throughout the test, he took slow, deliberate steps. He was wearing

lace-up dress shoes and was given the opportunity to remove them for the test. However, he requested to leave them on.

One Leg Stand: This test was conducted with the suspect standing on his left foot and then standing on his right foot. When standing on his left foot, the suspect swayed while balancing once, used his arms to balance once, and put his foot down at count 1,012 and 1,014. He counted slowly, making it to 1,025 at the conclusion of the 30 seconds. While standing on his right foot and extending his left foot, he swayed while balancing three times, used his arms to balance once, and put his foot down at 1,021. He again counted slowly, making it to 1,024 at the conclusion of the 30 seconds.

Finger to Nose: During this test, the suspect displayed slow hand and arm movements. He failed to touch the tip of his nose with the tip of his index finger as instructed on all six attempts. He used the pads of his index fingers on attempts #1, #4 and #6.

8. **Clinical Indicators of Impairment:**

Eyes Signs: The suspect exhibited six clues of HGN with an angle of onset of approximately 40 degrees. Vertical Gaze Nystagmus was not present. The converge test was administered twice and both times his eyes did not converge bouncing back to center and downwards. During the pupil size examinations, his pupils were estimated at 4.5 mm in both eyes in Room Light, 6.5 mm in both eyes in Near Total Darkness, and 3.5 mm in both eyes in Direct Light. All were within the DRE average ranges for the lighting levels. Rebound dilation was not present and he had a slow pupillary reaction to light.

Vital Signs: The suspect's pulse rates were checked three times during the evaluation and were 54 beats per minute (bpm), 52 bpm, and 54 bpm. All three were below the DRE average range of 60-90 bpm. His blood pressure was measured at 118/58, which was also below the DRE average ranges. His body temperature was measured at 98.0°, which is within the DRE average range. His muscle tone was flaccid.

9. **Signs of Ingestion:** The suspect's nasal area and oral cavity were clear. There were no indicators of injection sites observed.

10. **Suspect's Statements:** Trooper Ellison advised the suspect of his Miranda Rights and he agreed to answer questions. He stated he had taken something to help him sleep at "around 9 pm" when he left work. He mentioned numerous times how sleepy and tired he was. When asked about taking other drugs or medications, he indicated that he occasionally takes a sleeping pill and nothing else. He was asked if he had a prescription for the medication and if he remembered the name of it. He indicated it was his wife's medication and the name started with a "Z" but he could not remember the name of it.

11. **DRE's Opinion:** It is my opinion as certified Drug Recognition Expert that the suspect is under the influence of a CNS Depressant and is unable to operate a vehicle safely.

12. **Toxicological Sample:** A blood sample was collected from the suspect and was witnessed by Trooper Ellison, who submitted it into evidence pending delivery to the state crime laboratory for analysis.

13. **Miscellaneous:** The suspect was disoriented regarding the time throughout the evaluation. At the beginning of the evaluation, he believed it was 11 pm (actual time was 2135), and he thought he had taken his sleeping pill at 9 pm. He was arrested at 2020 hours. Refer to Trooper Ellison's arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator: Sergeant Elicer Ayala	DRE #: 11472	Rolling Log#: 22-007-0062	Evaluator's Agency: New Jersey State Police	Case #: (Session IX - #3)
Recorder/Witness: Sgt. Michael Gibson NJSP	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: West Long Branch PD	
Arrestee's Name (Last, First, Middle): Flynn, Mickey	Date of Birth: 03/11/80	Sex: M	Race: W	Arresting Officer (Name, ID#): Officer Jeffrey Hanlon #14172
Date Examined / Time / Location: 09/06/22 WLB PD	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 12010	Chemical Test: Urine ☒ Blood ☐ Oral Fluid ☐ Test or tests refused ☐	
Miranda Warning Given: ☒ Yes ☐ No Given by: Ofc Hanlon	What have you eaten today? Cheeseburger & fries	When? 6	What have you been drinking? How much? Diet Coke N/A	Time of last drink? N/A
Time now/ Actual: 7 PM / 1915	When did you last sleep? Last night	How long? 4-5 hours	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☒ Yes ☐ No Dr. Smith (for stress)	
Are you taking any medication or drugs? ☒ Yes ☐ No Xanax	Attitude: Cooperative		Coordination: Poor, Slow	
Speech: Slurred, Thick at times	Breath odor: Normal		Face: Normal	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus: ☐ Yes ☒ No	Vertical Nystagmus: ☐ Yes ☒ No	Able to follow stimulus: ☐ No ☒ Yes	Eyelids: ☐ Normal ☒ Droopy

Pulse/Time

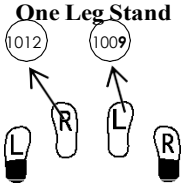
1. 58 / 1930
2. 58 / 1942
3. 56 / 2000

HGN	Left Eye	Right Eye
Lack of Smooth Pursuit	Present	Present
Maximum Deviation	Present	Present
Angle of Onset	NP	NP

Convergence

Right eye Left eye

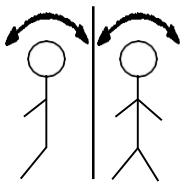
28/30 **One Leg Stand** 28/30



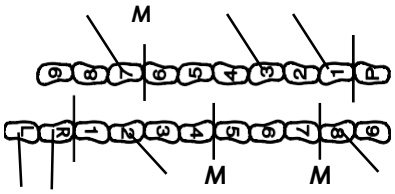
L	R	
✓	✓	Sways while balancing
✓	✓	Uses arms to balance
		Hopping
✓	✓	Puts foot down

Modified Romberg Balance

Approx. 3" 3" Approx. 3" 3"



Walk and Turn Test



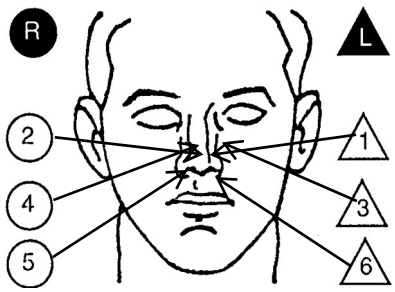
Slow steps throughout

	1st Nine	2nd Nine
Cannot keep balance	✓✓	
Starts too soon		
Stops walking		
Misses heel-toe	✓✓	✓
Steps off line	✓✓	✓✓✓
Uses arms	✓✓✓	✓✓✓
Actual steps taken	9	9

Time Estimation: 50 estimated as 30 seconds	Describe turn: Lost balance	Cannot do test (explain): N/A	Type of footwear: Slip-on shoes

Finger to Nose

(Draw lines to spots touched)



Swayed forward. Slow movements.

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	4.0	6.5	2.5
Right Eye	4.0	6.5	2.5

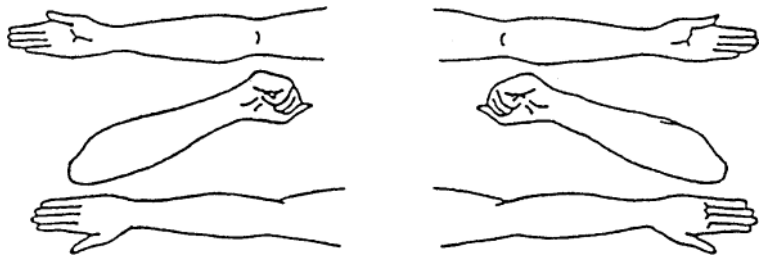
Rebound Dilation: ☐ Yes ☒ No

Nasal area: Clear

Oral cavity: Clear

Reaction to Light: Slow

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure: 106/ 68	Temperature: 98.0 °F		
Muscle Tone: ☐ Normal ☒ Flaccid ☐ Rigid	Comments:		
What drugs or medications have you been using? "Just some Xanax"	How much? "A couple today"	Time of use? 12 & 6 pm	Where were the drugs used? (Location) McDonald's
Date / Time of arrest: 09/06/22 / 1820	Time DRE was notified: 1845	Evaluation start time: 1910	Evaluation completion time: 2020

☐ Subject refused entire evaluation
☐ Subject stopped participating during evaluation

DRE/Officer's Signature: *Elicer Ayala* Reviewed/approved by / date: DRE# 11472

Opinion of Evaluator:

☐ Not Impaired	☐ Alcohol	☐ CNS Stimulant	☐ Dissociative Anesthetic	☐ Inhalant
☐ Medical	☒ CNS Depressant	☐ Hallucinogen	☐ Narcotic Analgesic	☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Flynn, Mickey

1. **Location:** The drug evaluation was conducted in an interview room at West Long Branch Police Department. The darkroom examinations were conducted in the staff restroom. Both areas have adequate lighting for conducting a drug evaluation and have a smooth tile floor.

2. **Witnesses:** The evaluation was witnessed and recorded by Sergeant Michael Gibson with the New Jersey State Police. Officer Jeffrey Hanlon witnessed the psychophysical test portion of the evaluation.

3. **Breath Alcohol Test:** A breath test was administered to the suspect by Officer Hanlon. The result of the breath test was a 0.00.

4. **Notification and Interview of the Arresting Officer:** I was contacted by the NJSP dispatch and notified that the West Long Branch Police Department was requesting a DRE at their office. I arrived and spoke with Officer Hanlon. Hanlon stated that the suspect's vehicle was found stopped partially blocking the southbound lane of Cedar Ave. Hanlon found the suspect slumped over the steering wheel and he appeared to be sleeping. After waking the suspect, it was determined he was the driver of the vehicle and was not injured or experiencing a medical emergency. When questioned about being stopped partially in the travel lane, the suspect told Officer Hanlon that he was tired and thought he had pulled off the roadway. Officer Hanlon had the suspect exit the vehicle and asked him to do SFSTs. According to Officer Hanlon, he observed four clues of HGN, three clues during the WAT, and three clues during the OLS. Officer Hanlon did not smell an odor of alcoholic beverage on the suspect's breath. He was asked about using drugs or medication and the suspect told Officer Hanlon that he was taking Xanax for stress because of the closure of his business. The suspect was arrested and transported to West Long Branch PD and after obtaining a .00 BAC result, Officer Hanlon requested assistance of a DRE.

5. **Initial Observation of the Suspect:** I first observed the suspect in the interview room at West Long Branch PD. He was partially slumped over in a chair and had a "drunk-like" appearance. He appeared cooperative. His speech was slurred and thick tongued at times. When he stood, his coordination was poor, and his movements were slow. His pupils appeared to be average in size and his eyelids were droopy. I explained why I had been called and asked him to submit to a drug evaluation. He agreed and stated, "Well, okay. I'm not drunk. You know that don't you?" I confirmed that he had been read his Miranda warnings and was willing to answer my questions. He agreed but was slow to respond to my questions. He stated that he had just gotten off work and was on his way home. He stated he had a very stressful day due to having to close his deli business. He was wearing tan khaki pants, an open collared blue shirt, and brown, slip-on shoes.

6. **Medical Problems and Treatment:** The suspect stated that he had no physical or medical problems. He stated that he sees a doctor for treatment of stress and his doctor had prescribed some medication that sometimes makes him tired and feeling a little groggy.

7. **Psychophysical Indicator of Impairment:** Each of the psychophysical tests were explained and demonstrated. The suspect stated that he understood each test prior to attempting it.

   Modified Romberg Balance: The suspect's time estimation was slow at 50 seconds. He stated, "I just tried to count in my head" when asked how he estimated the 30 seconds. He had an approximate three-inch side-to-side and front-to-back sway.

Walk and Turn: On this test the suspect lost his balance to the right two times during instructions stage. During the first nine steps, he missed touching heel-to-toe twice, stepped off the line twice, and used his arms to balance three times. When he attempted the turn, he lost his balance and had to regain his feet positioning. During the return nine steps, he missed heel-to-toe once, stepped off the line three times, and used his arms to balance three times. Each of his steps were slow and wobbly. He was given an opportunity to remove his shoes for the test, but he declined.

One Leg Stand: While standing on his left foot and extending his right foot off the floor, the suspect swayed once, used his arms for balance once, and put his foot down at his count of 1,012. He counted to 1,028 in the 30 second timed period. While standing on his right foot and extending his left foot, the suspect swayed while balancing throughout the test, used his arms for balance once, and put his foot down at his count of 1,009. The suspect again counted to 1,028 in the 30 second timed period. After the test was completed, he staggered to the right and used the wall to steady himself.

Finger to Nose: The suspect swayed forward on each of the six attempts to touch his nose. He missed the tip of his nose on all six attempts (see diagram). His movements were slow and deliberate. He appeared to be searching for the tip of his nose on each attempt.

8. **Clinical Indicators of Impairment:**

   Eye Signs: The suspect showed four clues of HGN. An estimated angle of onset was not detected. VGN was not observed. The suspect had lack of convergence with both pupils moving away from his nose then back to center. This test was conducted twice with the same results. His pupils were estimated at 4.0 mm in Room Light, 6.5 mm in Near Total Darkness, and 2.5 mm in Direct Light. His pupils had a slow reaction to light.

   Vital Signs: The suspect's pulse was below the DRE average range during all three checks (58, 58, and 56 bpm). His blood pressure was 106/68 mm Hg, which is below the DRE average range. His body temperature was measured at 98.0 degrees, which is within the DRE average range. His muscle tone was flaccid.

9. **Signs of Ingestion:** The suspect's nasal area and oral cavity were clear and there were no indicators of injection sites.

10. **Suspect's Statements:** Officer Hanlon advised the suspect of his Miranda warnings when arrested and he agreed to waive his rights and answer questions. When asked how much Xanax he had used, he stated, "a couple today" and thought he had last taken it around 12 noon and 6 pm. He indicated he had taken the last one when he stopped for a meal at McDonald's while on his way home. When asked about the milligram dosage he was using, he thought it was 1 milligram tablets. When asked about how long he had been taking Xanax, his reply was, "Probably too damn long."

11. **DREs Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a CNS Depressant and is unable operate a vehicle safely.

12. **Toxicological Sample:** A urine sample was collected from the suspect by Officer Hanlon and was submitted into evidence for laboratory testing.

13. **Miscellaneous:** According to drugs.com, Xanax (Alprazolam) is a benzodiazepine used to treat anxiety and panic disorders, and anxiety caused by depression. Warnings concerning this drug include "Because of its CNS depressant effects, patients receiving Xanax should be cautioned against engaging in hazardous occupations or activities requiring complete mental alertness such as operating machinery or driving a motor vehicle."

10 DRE

CENTRAL NERVOUS SYSTEM STIMULANTS

LEARNING OBJECTIVES

- Describe a brief overview of the Central Nervous System (CNS) Stimulant category of drugs
- Identify common drug names and terms associated with this category
- Identify methods of administration for this category
- Describe the symptoms, observable signs, and other effects associated with this category
- Describe typical time parameters, i.e., onset and duration of effects, associated with this category
- List the indicators likely to emerge when the drug influence evaluation is conducted for a person under the influence of this category of drugs

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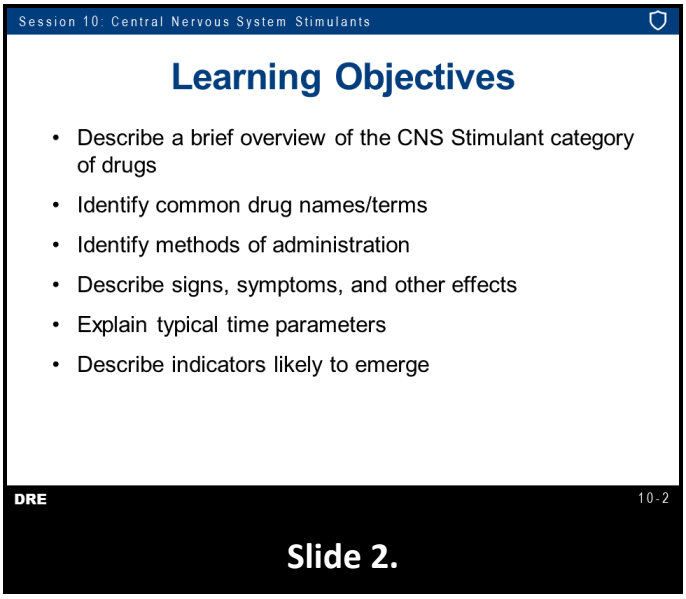


Slide 2.

A. Overview of the Category

Slide 3.

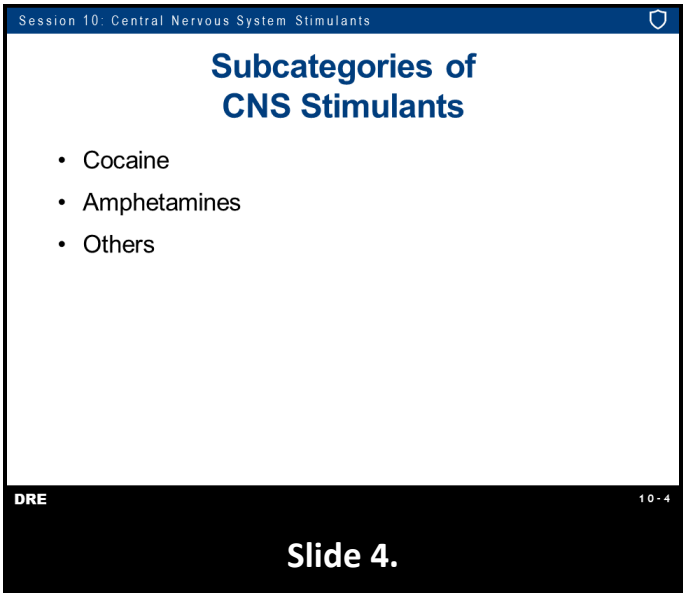
CNS Stimulants speed up the operation of the Central Nervous System. “Speed Up” does not mean “improve”. They accelerate the heart rate and many other processes of the body. For that reason, they have also been referred to as “Uppers.” Although there is a great difference in strength, all stimulants increase the chemical and electrical activity in the central nervous system. Stimulants boost energy, raise the heart rate and blood pressure, increase respiration, and reduce appetite.

Legal stimulants can be prescribed for Attention Deficit Hyperactivity Disorder (ADHD), weight loss, and narcolepsy.

Some commonly-abused CNS Stimulants include Cocaine (Crack) which is naturally derived from the leaves of the coca plant. "Crack" is the street name given to Cocaine that has been processed from Cocaine Hydrochloride. Amphetamines includes many prescription drugs such as Adderall and Dexedrine. Methamphetamine is an illegally-produced drug. The only exception is Desoxyn, which is a prescription methamphetamine used to treat narcolepsy and ADHD. Caffeine, Herbal Ecstasy, Ephedrine, Pseudoephedrine, and various energy drinks are other examples.

The abuse of CNS Stimulants does not make the brain work "better" or "smarter." Rather, they induce the brain to cause many of the body's organs to work harder, but not better. The "speeding up" results in increased heartbeat, pulse, respiration, blood pressure, and temperature. All of these effects can lead to physical harm to the stimulant user.

The "speeding up" also produces nervousness, irritability, and an inability to concentrate or think clearly. These psychological effects can lead to unpredictable and bizarre behavior by the stimulant user.



Slide 4.

There are three major subcategories of CNS Stimulants.

Cocaine: Cocaine is made from the leaves of the coca plant and is generally found as a white or off-white powder.

Amphetamines: Amphetamines include a large number of pharmaceutical and illegal drugs.

Others: There are many "other" CNS Stimulants including Ritalin and caffeine.

See also

DEA Intelligence Report. (2018). *Slang Terms and Code Words: A Reference for Law Enforcement Personnel.* doi:DEA-HOU-DIR-022-18

Slide 5.

The scientific name for the Coca plant is Erythroxylon Coca. It is a naturally derived CNS stimulant extracted and refined from the leaves of the coca plant (Erythroxylon coca), grown primarily in the Andean region of South America and to a lesser extent in India, Africa and Indonesia. The picked coca leaves are dried in the open air and then "stomped" as part of the process to extract the alkaloid, resulting in coca paste and eventually cocaine hydrochloride. "Crack" is the street name given to cocaine that has been processed from cocaine hydrochloride. It is prepared by adding baking soda to aqueous cocaine hydrochloride and heating it until the free-base cocaine precipitates into small pellets. The mixture is cooled and filtered, and then the "rocks" are smoked in a crack pipe.

Archaeological evidence indicates natives of Peru chewed coca leaves 5,000 years ago. Sigmund Freud personally experimented with Cocaine for approximately 3 years. Small quantities of Cocaine originally were included in the formula of Coca Cola. Use of Cocaine in products such as Coca Cola was outlawed by the Pure Food and Drug Law of 1906.

Source

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

Slide 6.

Amphetamines were first synthesized near the end of the 19th Century. The first use of Amphetamines for medical purposes began in the 1920's. Initial medical application was to treat colds. Amphetamines cause the nasal membranes to shrink. This gives temporary relief from stuffy nasal passages.

Amphetamines were prescribed for the treatment of narcolepsy and Attention Deficit Hyperactivity Disorder (ADHD).

Amphetamine use grew rapidly when Amphetamines were distributed to soldiers during World War II.

Present-day medical purposes for Amphetamines include:

Control Appetite: Phentermine (Adipex-P, Lomaira, Modaimia) and Methamphetamine HCl (Desoxyn). In addition, many over-the-counter (OTC) appetite control products contain CNS Stimulants as their active ingredient.

Control symptoms of narcolepsy and symptoms of attention deficit hyperactive disorder (ADHD): Amphetamines (Adderall), Dextroamphetamine (Dexedrine), or Methylphenidate HCl (Ritalin).

Relieve or prevent fatigue to allow persons to perform essential tasks of long duration: Dexedrine. The U.S. Air Force previously gave pilots Amphetamines to keep them alert on long flights. Amphetamines have also had other short-term military applications. They are also used to treat mild depression.

Antagonize the effects of depressant drugs. Two drugs are antagonistic when the signs and symptoms of one are opposite to the signs and symptoms of the other.

Prevent and treat surgical shock.

Maintain blood pressure during surgery.

Enhance the action of certain analgesic (pain killer) drugs.

D-amphetamine and methylphenidate have enhanced the analgesic effects of opioids along with countering some of the drowsiness associated with opioid medications.

Numerous pharmaceutical companies manufacture Amphetamines for these purposes.

Large quantities of Amphetamines are also illegally manufactured in this country.

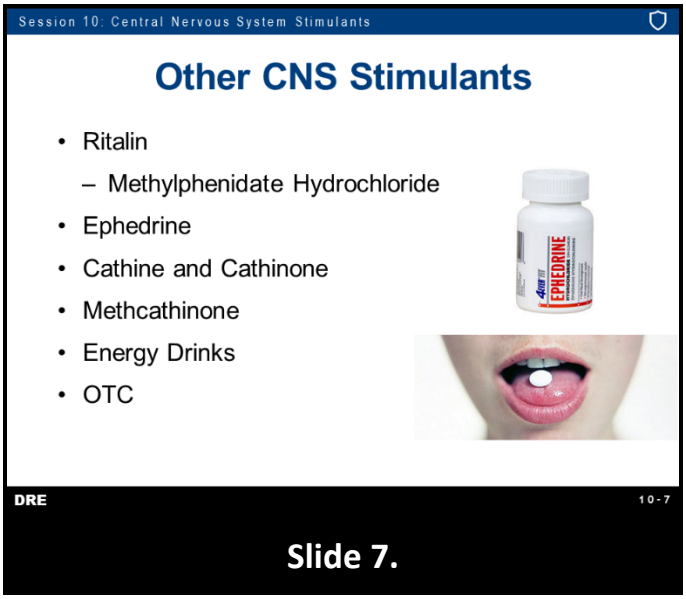
The most commonly abused illicit Amphetamine is Methamphetamine. Methamphetamine Hydrochloride is a white to light brown crystalline powder or clear chunky crystals resembling ice. Methamphetamine base is a liquid.

The majority of street methamphetamine is produced in clandestine laboratories. Note: Clandestine production normally involves the reaction of I-Ephedrine or d-Pseudoephedrine over red phosphorus and iodine and is condensed with Hydrochloric Acid or involves the reaction of Sodium or Lithium and is condensed with liquid ammonia.

Illicit Methamphetamine is also known as Methedrine or Methamphetamine Hydrochloride. Its more common street names are “Speed,” “Crank,” “Ice,” “Crystal,” “Meth,” and “Water.”

Source:

Dalal, S., & Melzack, R. (1998). *Potentiation of opioid analgesia by pyschostimulant drugs: a review. Journal of Pain and Symptom Management 16*(4), 245-253 https://doi.org/10.1016/S0885-3924(98)00084-0



Slide 7.

There are some other CNS Stimulants, apart from Cocaine or Amphetamines.

Ritalin is a manufactured, non-Amphetamine CNS Stimulant. The generic name Methylphenidate Hydrochloride. Used to treat mild depression, attention deficit disorders, narcolepsy, and drug-induced lethargy produced by CNS Depressants. Example: Ritalin is commonly prescribed for children diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) or similar disorders. Has many of the basic clinical effects of Amphetamine.

Ephedrine is a licitly-manufactured stimulant primarily used as a nasal decongestant and bronchodilator. It can also be found in herbal preparations and numerous OTC substances.

Cathine and Cathinone are the two psychoactive chemicals derived from the Khat plant. It originates from the sub-Sahara regions of Africa. Also known as "Cat."

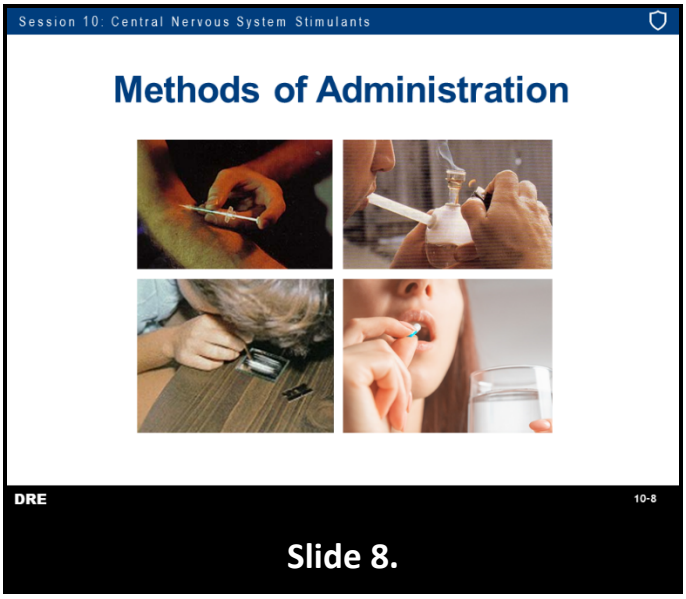
Methcathinone is illicitly manufactured from common household chemicals. Effects are very similar to Methamphetamine.

Energy Drink Phenomenon: In the 1980's, the marketing and use of energy drinks changed dramatically. With 80 mg or more of Caffeine, an energy drink contains more than twice the amount of Caffeine found in a 12-ounce can of cola (35 mg), but less than 8 ounces of brewed coffee. In addition to high levels of Caffeine, many energy drinks contain Taurine, Ginseng, Guarana, Glucose, and other Caffeine-like chemicals.

The abuse of energy drinks has been implicated in numerous hospital admissions and impaired-driving cases. In large quantities, the effects can mirror the effects of other CNS Stimulants.

There are many types and brands of energy drinks. Some popular brands contain between 120-180 mg of caffeine.

OTC Stimulants: Legal CNS Stimulants are often used to boost performance, especially among athletes and students and are available OTC. Besides high-Caffeine energy drinks, there are many abused OTC stimulants which include Ephedra (Ma Huang) and Ephedrine. Ma Huang is a Chinese herb that comes from the Ephedra bush. The active ingredients are Ephedrine (a bronchodilator) and Pseudoephedrine (a nasal decongestant). Ephedra and Ephedrine are commonly used in many legal OTC medications and diet medications.



Slide 8.

There are a variety of ways in which the different CNS Stimulants may be administered.

Cocaine is commonly insufflated (snorted), smoked, injected, and taken orally.

In order to be smoked, a pure form of Cocaine is required.

Much of the Cocaine sold in this country is mixed with other materials or chemically bonded to other elements. Various chemical processes can be used to "free" the Cocaine from other elements and impurities One such process produces pure Cocaine in the form of small chunks. These chunks are known as "Crack" or "Rock Cocaine". The term "Crack" derives from the cracking sound produced when the chunks are burned for smoking.

Legally-manufactured Amphetamines are taken orally, in the form of tablets, capsules, and liquid elixirs.

Illicitly-manufactured Methamphetamine most commonly is injected or smoked but sometimes may be snorted or taken orally. Bruising is often seen around a Methamphetamine injection site.

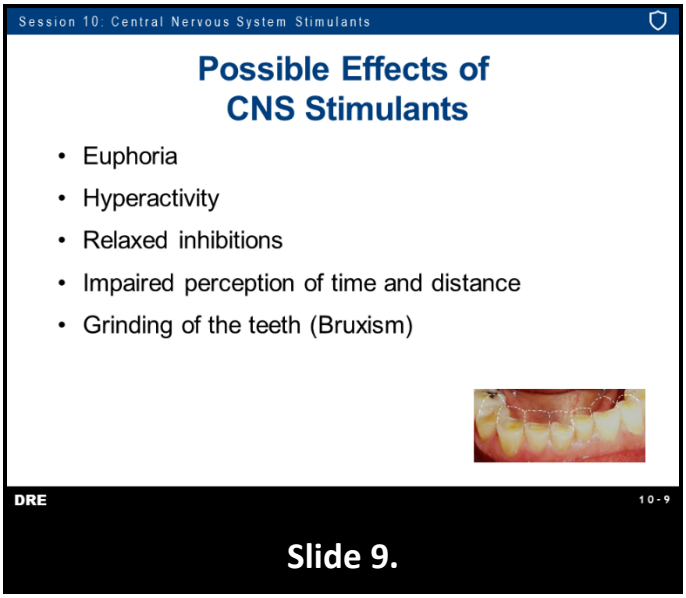
The smokable forms of Methamphetamine are known as "Crystal Meth" or "Ice". They contain the same active chemical compound as powdered Methamphetamine but undergo a re-crystallization process in which some impurities are removed. "Ice" is a clear crystal similar in appearance to rock candy, crushed ice, or broken glass. "Crystal Meth" is generally a colorless form of D-Methamphetamine resembling shiny blue-white rocks or fragments of glass.

Amphetamine Sulfate usually is produced in tablet form (called "Mini Bennies") and is taken orally.

Source:

Marnell, T. (2021). *Drug Identification Bible* (2022/2023 ed.).

B. Possible Effects



Slide 9.

Cocaine, Amphetamines, and most stimulants produce euphoria, a feeling or state of intense excitement and happiness. A feeling of super strength and absolute self-confidence may also be present. With Cocaine, but not with Amphetamines, there is an anesthetic effect.

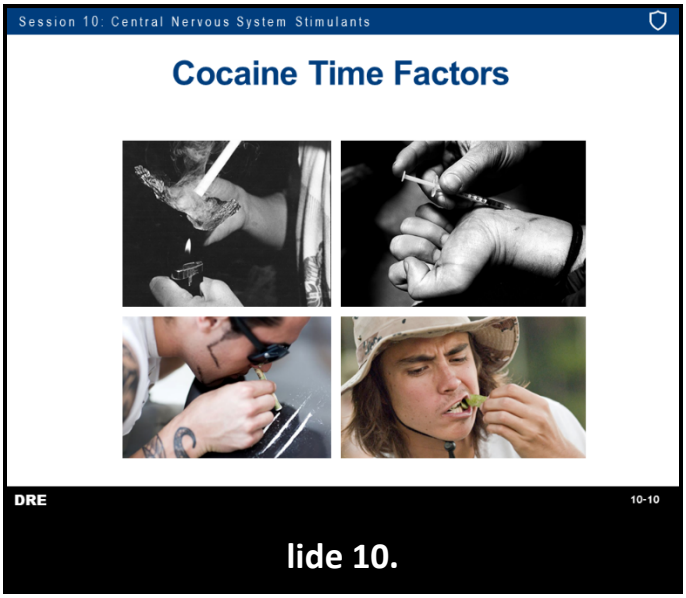
CNS Stimulant users tend to become hyperactive, indicated by nervousness, extreme talkativeness, an inability to sit still, and users may grind their teeth (which is called Bruxism).

CNS Stimulants tend to relax inhibitions allowing users to commit acts they normally would avoid.

CNS Stimulant users misperceive time and distance. Example: to the subject, time seems to be speeded up so two hours may seem like two minutes.

Persons under the influence of CNS Stimulants become easily confused and may have difficulty concentrating. This lack of concentration makes it very difficult for the user to perform divided attention tests successfully.

C. Onset and Duration of Effects



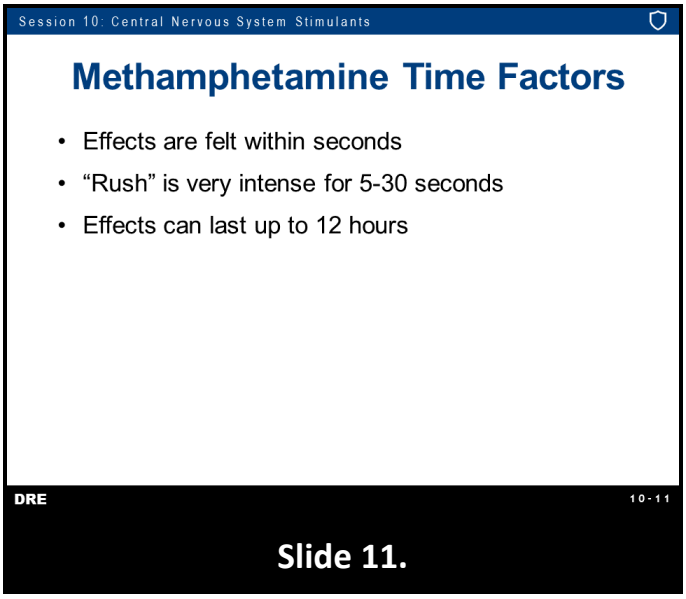
lide 10.

The faster the absorption the more intense and rapid the high, but the shorter the duration of action. Injecting cocaine produces an effect within 15-30 seconds. A hit of smoked crack produces an almost immediate intense experience and will typically produce effects lasting 5-15 minutes. Similarly, snorting cocaine produces effects almost immediately and the resulting high may last 15-30 minutes. The effects onset more slowly after oral ingestion (approximately one hour). General effects will persist for 1-2 hours depending on the dose and late phase effects following binge use may last several days.

It is very possible a Cocaine user may not be examined by a DRE until at least 30 minutes following the use of the drug. Often, much more time will have elapsed. For this reason, Cocaine use may be difficult to ascertain from the drug evaluation. As the effects wear off, it becomes very difficult to observe evidence of impairment. If the subject is not evaluated by a DRE fairly soon after the subject has been apprehended, the DRE may not uncover evidence of the CNS Stimulant

Source

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.



Slide 11.

Methamphetamine

Injected: When Methamphetamine is injected, the initial effects are very similar to the injection of Cocaine. The user begins to feel a "rush" within seconds. Unlike Cocaine, Methamphetamine's effects are longer and may last 4 – 8 hours with residual effects lasting up to 12 hours after injection.

Smoked: When Methamphetamine is smoked, the rush is also very intense. Like with injection, the effects typically last 4 – 8 hours with residual effects lasting up to 12 hours.

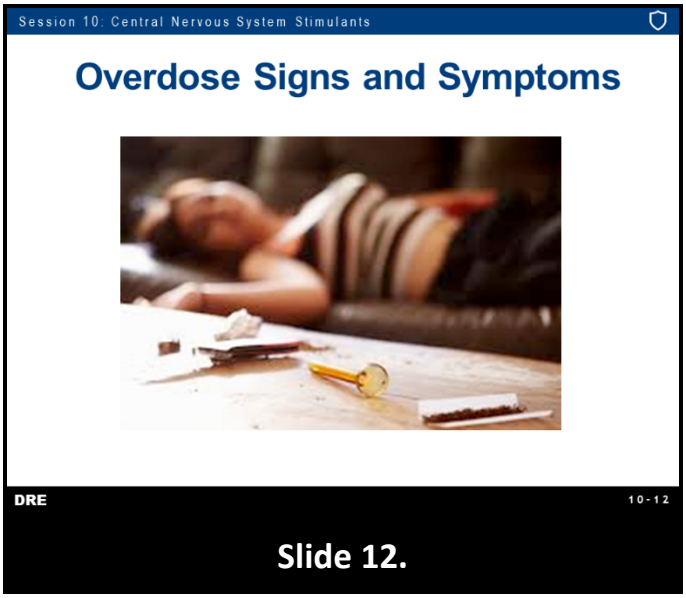
Snorted and Orally: When taken orally the onset of effects is delayed, the rush is much less intense, and the effects last longer.

Sources

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

U.S. Drug Enforcement Administration http://www.justice.gov/dea/druginfo/drug_data_sheets/Methamphetamine.pdf)

D. Overdose Signs and Symptoms



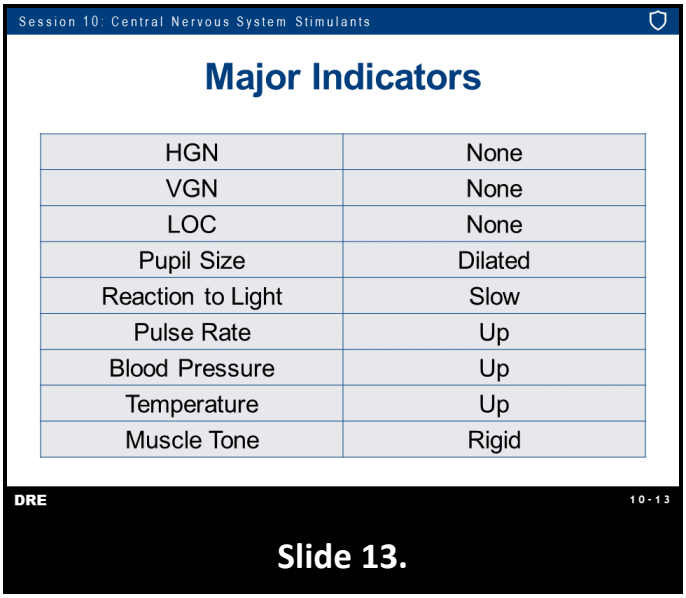
Slide 12.

The overdose of Cocaine, Amphetamines, and Methamphetamine can cause the pleasurable effects to turn into panic and often violent behavior resulting in psychosis. This is commonly referred to as Cocaine Psychosis or Methamphetamine Psychosis. Hallucinations may occur. For example, the feeling that bugs are crawling under the skin is also known as "Coke Bugs", "Crank Bugs", "Meth Mites." The medical term for this condition is formication. Subject may also suffer a stroke, heart attack, or organ damage.

For more information regarding the term "formication": https://www.merriam-webster.com/medical/formication

Death can occur from sudden respiratory failure, or from heart arrhythmia, leading to cardiac arrest. Another danger is subjects may attempt to treat CNS Stimulant overdoses with Barbiturates, possibly leading to overdose of CNS Depressants.

E. Expected Results of the Evaluation



Slide 13.

Observable Evidence of Impairment: Horizontal Gaze Nystagmus (HGN) will not be present with subjects under the influence of CNS Stimulants.

Vertical Gaze Nystagmus (VGN) will not be present.

Lack of Convergence (LOC) will not be evident.

Performance on Modified Romberg Balance (MRB) should be impaired.

Performance on Walk and Turn (WAT) may be impaired due to the subject's hyperactivity and inability to concentrate. Example: subject may start too soon on the WAT and may tend to walk fast, thus losing balance or missing heel-to-toe.

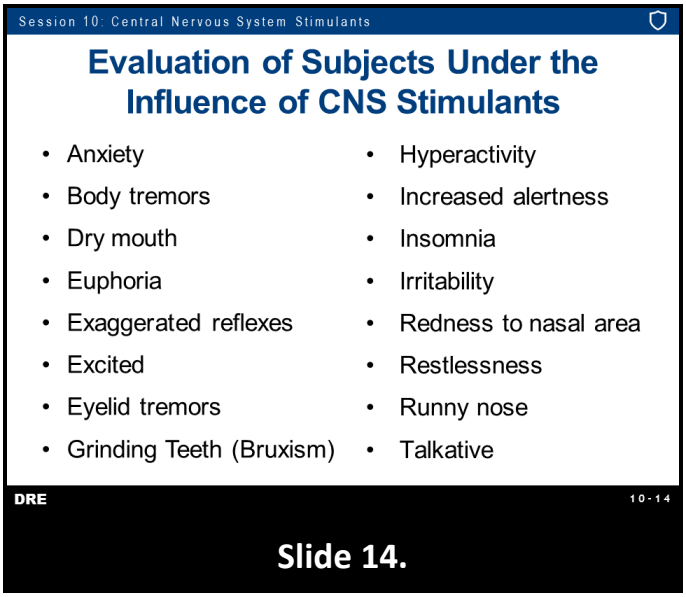
Performance on the One Leg Stand (OLS) may be impaired due to the subject's hyperactivity. Example: subject may also count very rapidly on the OLS test

Performance on the Finger to Nose (FTN) test should be impaired. His or her finger movements may be abrupt, jerky, and inaccurate.

Vital Signs: Pulse generally will be increased. Blood pressure will generally be elevated. Body temperature generally will be elevated.

Dark Room Examinations: Pupils generally will be dilated. The technical term for "dilated pupils" is Mydriasis. Pupil reaction to light generally will be slow. Rebound Dilation may be observed.

Muscle Tone: Muscle tone will be Rigid.



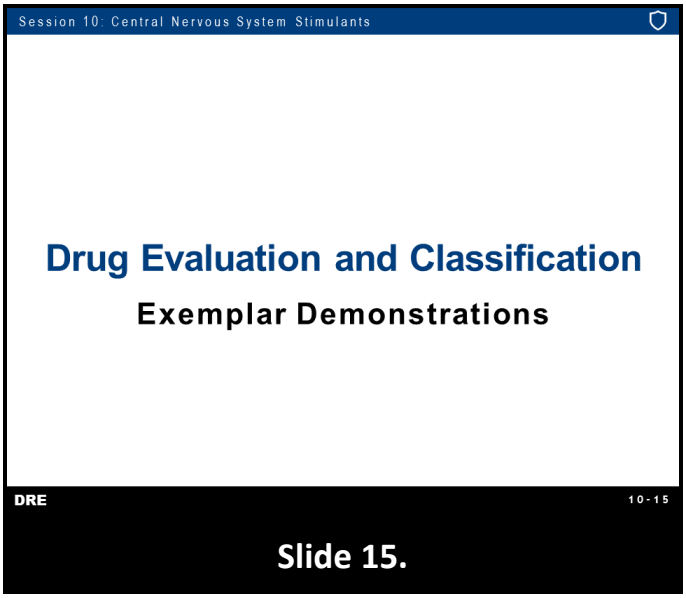
Slide 14.

- Anxiety
- Body tremors
- Dry mouth
- Euphoria
- Exaggerated reflexes
- Excited
- Eyelid tremors
- Grinding Teeth (Bruxism)
- Hyperactivity
- Increased alertness
- Insomnia
- Irritability
- Redness to nasal area
- Restlessness
- Runny nose
- Talkative

For more information and details regarding possible effects refer to:

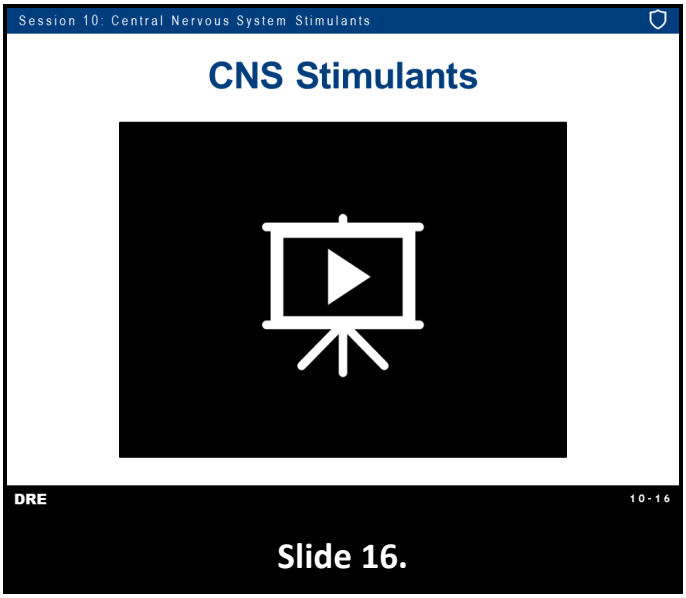
Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

F. Review of the DEC Program Exemplars

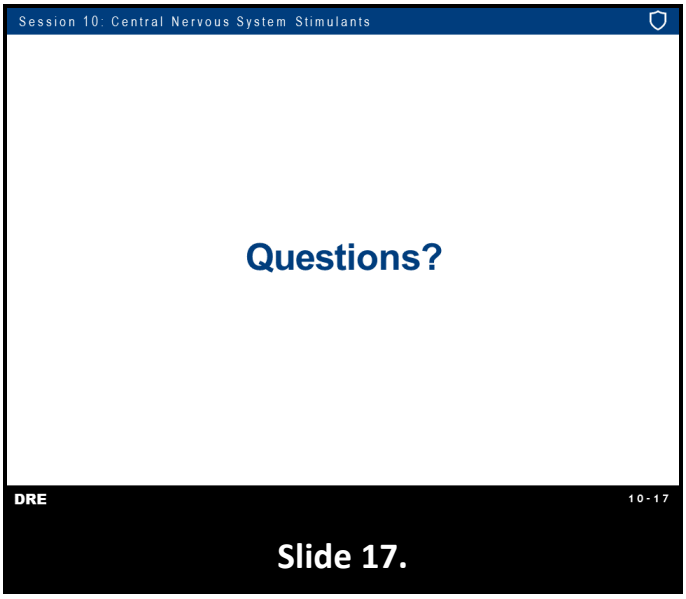


Slide 15.

The DRE narrative report should be detailed and complete, which clearly articulates the opinion of the DRE.



Slide 16.



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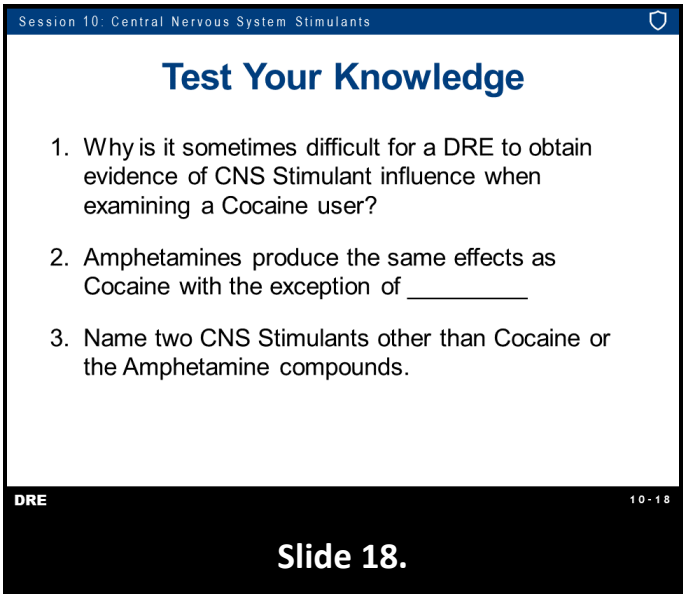
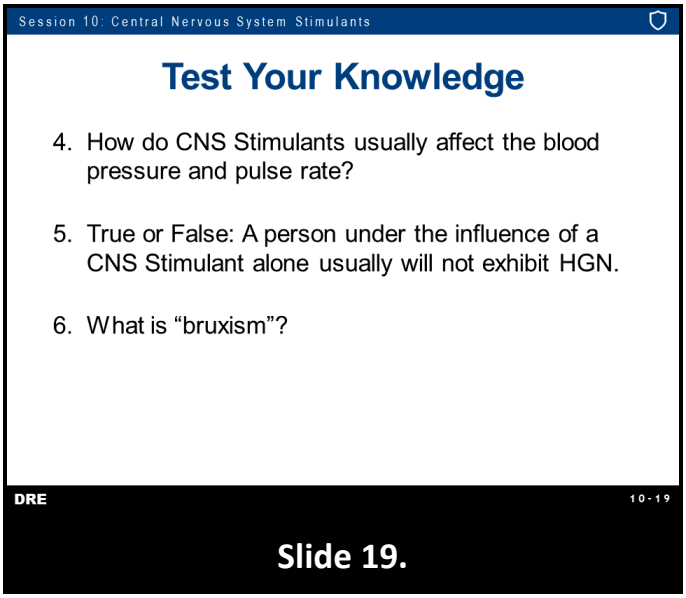


Slide 18.

Test Your Knowledge

1. Why is it sometimes difficult for a DRE to obtain evidence of CNS Stimulant influence when examining a Cocaine user?
2. Amphetamines produce the same effects as Cocaine with the exception of _____
3. Name two CNS Stimulants other than Cocaine or the Amphetamine compounds.



Slide 19.

Test Your Knowledge

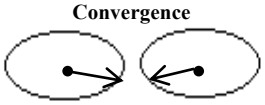
4. How do CNS Stimulants usually affect the blood pressure and pulse rate?
5. True or False: A person under the influence of a CNS Stimulant alone usually will not exhibit HGN?
6. What is “bruxism”?

DRUG INFLUENCE EVALUATION

Evaluator: Trooper Scott Kedenburg	DRE #: 16507	Rolling Log #: 22-005-0039	Evaluator's Agency: New York State Police	Case#: (Session X - #1)
Recorder/Witness: Deputy Brandon Flicker, Livingston Co. S.O.	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Wyoming County S.O.	
Arrestee's Name (Last, First, Middle): Rocke, Crystal	Date of Birth: 07/10/1987	Sex: F	Race: W	Arresting Officer (Name, ID#): Sgt. Aaron Chase #25141
Date Examined / Time /Location: 02/08/22 / 2215 / Wyoming Co. S.O.	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 41460	Chemical Test: Urine ☐ Blood ☒ Test or tests refused ☐	
Miranda Warning Given Given by: Sgt. Chase	☒ Yes ☐ No	What have you eaten today? "Couple of candy bars"	When? About 8 pm	What have you been drinking? How much? Water N/A / Time of last drink? N/A
Time now/ Actual: 11 pm? / 2218	When did you last sleep? Yesterday	How long? 2 or 3 hours	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☐ Yes ☒ No	
Are you taking any medication or drugs? ☐ Yes ☒ No Answered "Nothing" then laughed	Attitude: Cooperative, Animated		Coordination: Jerky movements, Exaggerated	
Speech: Talkative, Dry mouth	Breath odor: Rancid		Face: Acne, Open sores, Sweaty	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus: ☐ Yes ☒ No	Vertical Nystagmus: ☐ Yes ☒ No	Able to follow stimulus: ☒ Yes ☐ No	Eyelids: ☒ Normal ☐ Droopy

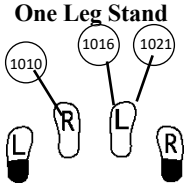
Pulse/Time	HGN	Left Eye	Right Eye
1. 102 / 2220	Lack of Smooth Pursuit	None	None
2. 106 / 2232	Maximum Deviation	None	None
3. 104 / 2252	Angle of Onset	None	None

Convergence



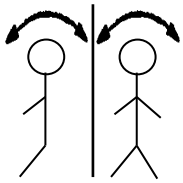
Right eye Left eye

40/30 **One Leg Stand** 42/30



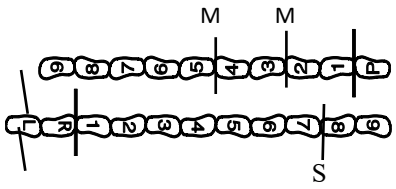
Modified Romberg Balance

Approx. 2″ 2″ Approx. 2″ 2″



Rigid & Eyelid tremors

Walk and Turn Test



Quick steps. Rigid movements

Cannot keep balance: 2

Starts too soon: 2

	1st Nine	2nd Nine
Stops walking	1	
Misses heel-toe		2
Steps off line		
Uses arms	2	1
Actual steps taken	9	9

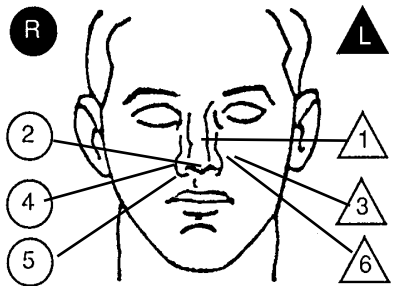
L	R	
☒	☒	Sways while balancing
☒	☒	Uses arms for balance
☐	☒	Hopping
☒	☒	Puts foot down

Jerky movements. Counted quickly.

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
22 estimated as 30 seconds	Quick, spun around	N/A	Boots

Finger to Nose

(Draw lines to spots touched)



Quick, jerky movements. Eyelid tremors.

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	7.5	9.0	6.0
Right Eye	7.5	9.0	6.0

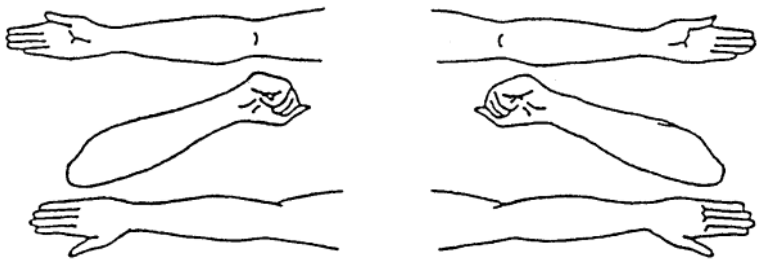
Nasal area: Clear

Oral cavity: Red

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature
172 / 102	99.8 °F

Muscle Tone: ☐ Near Normal ☐ Flaccid ☒ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"Meth"	"I smoked about a gram"	"Around 7 PM"	"Friend's house"

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
02/08/22 2100	2140	2215	2315	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: *scott Kedenburg* Reviewed/approved by / date: DRE#

Opinion of Evaluator:

☐ Not Impaired	☐ Alcohol	☒ CNS Stimulant	☐ Dissociative Anesthetic	☐ Inhalant
☐ Medical	☐ CNS Depressant	☐ Hallucinogen	☐ Narcotic Analgesic	☐ Cannabis

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Subject: Rocke, Crystal

1. **Location:** The drug evaluation was conducted in the booking room at the Wyoming County Jail. The darkroom examinations were conducted in the staff restroom.

2. **Witnesses:** The evaluation was witnessed and recorded by Deputy Brandon Flickner from the Livingston CO. S.O.

3. **Breath Alcohol Test:** Rocke provided a breath test to the arresting officer prior to my arrival. The result was 0.00%.

4. **Notification and Interview of the Arresting Officer:** On 2/8/22 at approximately 2140 hours, I was dispatched to conduct a drug evaluation at the Wyoming County Jail. Once there, I met with Sgt. Chase who advised me that he had stopped the suspect's vehicle for exceeding the speed limit on Hwy 19. He checked her vehicle on radar at 85 mph in a 55-mph zone. Sgt. Chase also reported that her vehicle was drifting in and out of the traffic lane. After signaling the vehicle to stop, it took approximately a mile before the vehicle stopped and when it did, it stopped at an angle to the roadway and almost into a ditch at roadside. During the personal contact, Sgt. Chase did not detect an odor of an alcoholic beverage on the suspect's breath. However, he did notice that she had quick and jerky movements, was very animated and restless. It took a couple of minutes to find her license and registration, first handing him a credit card and a store receipt. According to Sgt. Chase, her pupils were dilated, and she appeared to be sweating despite the cool weather. Sgt. Chase also noticed that her speech was repetitive and rapid. He stated when she exited her vehicle she walked quickly and used the side of her vehicle to steady herself. She consented to doing the SFSTs and Sgt. Chase administered the Horizontal Gaze Nystagmus (HGN), Walk and Turn (W&T), and One Leg Stand (OLS) tests. He reported observing no clues of HGN, four clues on the W&T, and three clues on the OLS. He related she had difficulty standing still during the instruction phases of the SFSTs. After completing the SFSTs, Sgt. Chase placed her under arrest for DWI, and transported her to the county jail. After obtaining a .00 BAC, he requested the assistance of a DRE.

5. **Initial Observation of the Subject:** I first observed Rocke in the booking room at the County Jail. She was seated and was rocking back and forth in her chair. She was tapping both of her feet on the floor and had sporadic head and body twitching. She was wearing jeans, a black sweatshirt, and black boots. Her clothing was soiled, and she appeared to have poor personal hygiene. I introduced myself and asked if she would agree to participate in a drug evaluation. She stated, "Sure, whatever. Am I going to jail?" I asked if the arresting officer had informed her of her Miranda rights and she confirmed that he had. She displayed moderate acne with open sores on her face. Her pupils appeared to be dilated. She told me she was not under the care of doctor or dentist and did not have any injuries. I noticed her breath was rancid and observed her grinding her teeth (Bruxism) at times. As we conversed, she at times displayed sporadic jerky movements with her head, arms, and legs.

6. **Medical Problems and Treatment:** Rocke indicated she did not have any injuries or physical problems, nor did she have any physical defects. None were observed or reported during the evaluation. She stated she is not diabetic, does not take insulin, and is not epileptic.

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to Rocke prior to her attempting them. After each demonstration, she confirmed that she understood the instructions. The following psychophysical tests were administered to Rocke:

Modified Romberg Balance: While performing this test, she had an approximate two-inch front to back and side to side sway. During the test, she separated her feet and tapped her right foot on the floor. Her time estimation was fast, estimating 30 seconds in 22 seconds. When asked how she estimated the 30 seconds, she laughed and said, "I just counted in my head."

Walk & Turn: During this test, a painted line of the floor was used. Rocke stepped out of the instruction stage position twice. Twice she started the test before instructed to do so. During the walking stage, she walked quickly in a straight legged, rigid manner. She stopped walking at step seven. Twice she raised both arms approximately a foot away from her sides. She made an improper turn by making a quick turn to the left by spinning around. On the second nine steps, she missed touching heel-to-toe between steps two and three and four and five. She also raised both arms near shoulder level between steps seven and nine during the return.

One Leg Stand: On this test, when she raised her right foot, she had a continuous side to side sway. She also raised both arms for balance throughout the test. She put her foot down on count 1,010. She had jerky movements and failed to look at her feet throughout most of the test. When she raised her left foot, she immediately started hopping from counts 1,001 to 1,005. She also raised both arms for balance throughout the test until it was stopped. She put her foot down on counts 1,016 and 1,021. Her count was quick, reaching 1,040 while raising her right foot and 1,042 when raising her left foot.

Finger to Nose: While attempting this test, Rocke missed the tip of her nose with the tip of her index finger as instructed on all attempts except for attempt #2. She completely missed her nose on attempts 3, 4, 5 and 6, touching her face near her nose. She also displayed an approximate 3-inch front to back sway and had quick and jerky movements.

8. **Clinical Indicators of Impairment:**
Eyes Signs: The eye exams were conducted in the staff restroom. Rocke exhibited equal tracking, had equal pupil size, and did not exhibit resting nystagmus. HGN and VGN were not present. Her eyes were able to converge as instructed. Her pupil sizes were estimated in three lighting levels: Room Light, Near Total Darkness, and in Direct Light. All three estimations, 7.5 mm in each eye in Room light, 9.0 mm in each eye in Near Total darkness, and 6.0 mm in each eye in Direct Light, were above the DRE average ranges for the lighting levels. Her pupillary reaction was slow, and she did not exhibit rebound dilation.

Vital Signs: Rocke's pulse rates were checked three times per DRE protocol and were elevated at 102, 106, and 104 beats per minute (BPM). All three were above the DRE average range. Her blood pressure of 172/102 millimeters of mercury (mmHg) and body temperature of 99.8 degrees were elevated and above the DRE average ranges.

9. **Signs of Ingestion:** Rocke's nasal area was clear and she had no indictors of injection sites on her arms and hands. Her oral cavity was red and appeared inflamed.

10. **Suspect's Statements:** Rocke initially denied consuming any medications or drugs, but later stated she had smoked about a gram of "Meth" (Methamphetamine) around 7 pm. She further stated she rarely uses methamphetamine and is trying to quit using it.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that Rocke is under the influence of a CNS Stimulant and is unable to operate a vehicle safely.

12. **Toxicological Sample:** A blood sample was collected from Rocke at 2352 hours and will be forwarded to the State Crime Laboratory for analysis.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case #
Officer Mark Mims	14840	22-006-0088	Florence PD	(Session X - #2)

Recorder/Witness	Crash	Arresting Officer's Agency
Sgt. Joseph Zeitner, Mount Pleasant PD	☒ None ☐ Fatal ☐ Injury ☐ Property	South Carolina HP

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Tweeker, Ira	06/24/78	M	W	Trooper Brian Bryson #19850

Date Examined / Time /Location	Breath Test	Test Refused	Chemical Test
10/23/22 / 2317 / Florence PD	Results: 0.00	Instrument #: 13005	Urine ☒ Blood ☐ Oral Fluid ☐ Test or tests refused ☐

Miranda Warning Given		What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
Given by: Tpr. Bryson	☒ Yes ☐ No	Waffles	About 6 pm	Coffee 3 or 4 cups	N/A

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
1 am / 2318	Two days ago	5 hours	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

Are you taking any medication or drugs?	Attitude:	Coordination:
☐ Yes ☒ No	Cooperative, Restless	Quick, Unsteady

Speech:	Breath odor:	Face:
Talkative, Fast	Bad breath	Flushed, Sweaty

Corrective Lenses:	Eyes:	Blindness:	Tracking:
☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	☐ Normal ☐ Bloodshot ☐ Watery	☒ None ☐ Left ☐ Right	☒ Equal ☐ Unequal

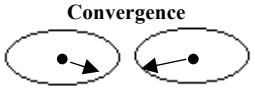
Pupil Size:	Resting Nystagmus	Vertical Nystagmus	Able to follow stimulus	Eyelids
☒ Equal ☐ Unequal (explain)	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	☒ Normal ☐ Droopy

Pulse and Time

1. 106 / 2322
2. 108 / 2334
3. 108 / 2349

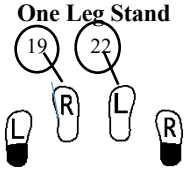
HGN	Left Eye	Right Eye
Lack of Smooth Pursuit	None	None
Maximum Deviation	None	None
Angle of Onset	None	None

Convergence



Right eye Left eye

38/30 **One Leg Stand** 41/30

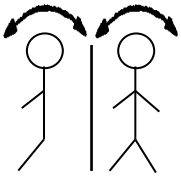


Jerky movements. Fast count

L	R	
All	1	Sways while balancing
3	All	Uses arms to balance
		Hopping
1	1	Puts foot down

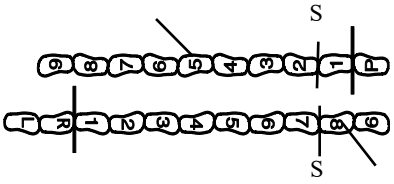
Modified Romberg Balance

Approx. 3" 3" Approx. 3" 3"



Body tremors

Walk and Turn Test



Quick choppy steps. Did not look at feet as instructed.

Cannot keep balance

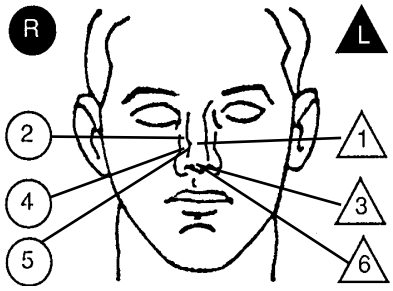
Starts too soon 1

	1st Nine	2nd Nine
Stops walking	1	1
Misses heel-toe		
Steps off line	1	1
Raises arms	All	All
Actual steps taken	9	9

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
20 estimated as 30 seconds	Stiff legged. Spun around	N/A	Slip-on shoes

Finger to Nose

(Draw lines to spots touched)



Jerky quick movements

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	6.5	9.0	6.0
Right Eye	6.5	9.0	6.0

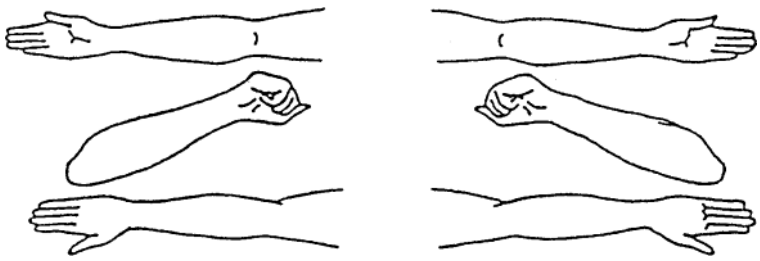
Nasal area: Red / No nasal hair right nostril

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

RIGHT ARM **LEFT ARM**



Nothing detected

Blood Pressure	Temperature
168 / 100	99.8 °F

Muscle Tone: ☐ Normal ☐ Flaccid ☒ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"Nothing for 4 or 5 months"	"Nothing Bro"	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
10/23/22 / 2205	2250	2317	0025 (10/24/21)	

Officer's Signature: *Mark Mims* Reviewed/approved by / date: DRE #

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☒ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Tweeker, Ira

1. **Location:** The drug evaluation was conducted at the Florence Police Department which had adequate lighting for conducting the drug evaluation and smooth tile flooring with no obstructions.

2. **Witnesses:** Sgt. Joseph Zeitner of the Mt. Pleasant PD witnessed and recorded the evaluation.

3. **Breath Alcohol Test:** The suspect was given a breath test by Trooper Bryson with a 0.00% result.

4. **Notification and Interview of the Arresting Officer:** On 10/23/22 at approximately 2250 hours, I was requested to conduct a drug evaluation at the Florence PD. I contacted the arresting officer, Trooper Bryson of the South Carolina HP. Trooper Bryson advised me that he had stopped the suspect's vehicle for failure to drive within a single lane of travel and failure to signal on I-20 at the 141B exist. Trooper Bryson stated that during the stop he observed a small plastic baggie with a white powdery substance on the passenger floorboard of the suspect's vehicle. When asked about it, the suspect stated it was meth and it belonged to his wife. Trooper Bryson reported that the suspect's pupils were dilated, and he was very talkative. He described the suspect's movements as quick, and said he appeared disoriented and excited. When asked about using meth, the suspect told Trooper Bryson that he had not used any meth in the past 4 or 5 months. Trooper Bryson did not detect an odor of an alcoholic beverage on the suspect's breath. The suspect consented to roadside SFSTs and Trooper Bryson administered the HGN, W&T, OLS, and the Modified Romberg Balance (MRB) tests. He did not observe any HGN clues but did observe impairment clues on the W&T and OLS. The MRB test revealed that the suspect had a fast time estimation with body tremors and jerky side-to-side movements. At the conclusion of the SFSTs, Trooper Bryson arrested the suspect for DUI and transported him to the Florence PD for a breath test.

5. **Initial Interview of the Suspect:** When I first observed the suspect, he was seated in a chair and was fidgety acting. He was talking about his marriage and repeatedly saying he wanted to leave town. He was dressed in shorts, a button-up short-sleeve shirt, and slip-on brown canvas shoes. He had bad body odor and his breath was rancid smelling. His pupils appeared to be dilated. I introduced myself and asked if he would consent to a drug evaluation to which he stated, "Okay man. Yeah, whatever." He was cooperative, but restless acting. I asked if he had any medical conditions, injuries, or physical defects, and he stated, "No, sir. I'm just really upset." He told me that he last slept two days ago for approximately five hours. When I asked why, he told me it was due to some problems with his wife. He told he was not using any medications or drugs.

6. **Medical Problems and Treatment:** The suspect indicated that he had no injuries or physical defects. None were mentioned or observed during the evaluation.

7. **Psychophysical Indicators of Impairment:** Prior to asking the suspect to perform the psychophysical tests, each one was explained and demonstrated to him. He indicated he understood the instructions prior to each attempt and the following tests were administered:

   Modified Romberg Balance: While completing the test, he estimated the passing of 30 seconds in 20 seconds. He swayed noticeably and had an approximate 3" front to back and side to side jerky sway. He also had pronounced body tremors. I asked how he had estimated the 30 seconds and he stated, "I did one-Mississippi, two-Mississippi."

   Walk & Turn: The suspect was able to maintain his balance while in the instruction stage. However, he maintained a rigid stiff-like stance. While giving he instructions, he did start to perform the test once before instructed to do so. During the walking stage of the test, he took quick, choppy steps. He raised his arms near shoulder level throughout the test. He failed to look at his feet while walking and had to

be reminded several times to do so. On the first nine steps, he stepped off the line once and stopped while walking once. On the second nine steps, he stepped off the line once and stopped while walking once. The turn was performed incorrectly with him spinning around in one motion.

One Leg Stand: While balancing on his left foot, he counted to 1,038 when 30 seconds had elapsed and had a continuous jerky side to side sway. He raised both his arms for balance three times, and he put his foot down at count 1,019. He also failed to look at his raised foot from counts 1,020 to 1,038. When balancing on his right foot, he counted to 1,041 when 30 seconds had elapsed. He again had a jerky side to side sway. He raised both arms for balance for the entire test and put his foot down once at count 1,022.

Finger to Nose: For this test, the suspect's arm movements were quick and jerky. He failed to touch the tip of his nose with the tip of his index finger as instructed on attempts 1, 2, 4, and 5. He had to be reminded numerous times to remove his finger from his nose and replace his hand back at his sides.

8. **Clinical Indicators of Impairment:**

Eye Signs: The suspect exhibited equal tracking, had equal pupil size, and did not exhibit resting nystagmus. During the Horizontal Gaze Nystagmus test the suspect did not exhibit any clues. Vertical nystagmus was also not observed. A Lack of Convergence was not observed. His pupils were examined under three lighting conditions and his pupil sizes was estimated using a pupillometer. In normal room light his pupil size was estimated at 6.5 mm. In near total darkness his pupils were estimated at 9.0 mm. In direct light his pupils were estimated at 6.0 mm in each eye. All three were dilated and above the DRE average range. The suspect's pupillary reaction was slow, and he did not exhibit rebound dilation.

Vital Signs: The suspect's pulse was checked three times during the evaluation and were: 106, 108, and 108 beats per minute. All three were above the DRE average range for pulse rate. His blood pressure was checked with a systolic pressure of 168 mm/Hg and a diastolic pressure of 100 mm/Hg. Both were above the DRE average ranges. His body temperature was 99.8 degrees Fahrenheit, which was above the DRE average range. The suspect's muscle tone was rigid.

9. **Signs of Ingestion:** The suspect's nasal area was checked and appeared red with no nasal hair in the right nostril while the left nostril appeared to be normal. His oral cavity appeared clear. The suspect was checked for injection sites and none were observed.

10. **Suspect's Statements:** The suspect denied consuming drugs and said he had not used any drugs in the past four to five months. He said that his wife uses meth, and he has been trying to "stay clean." When asked about the substance located in his vehicle, he stated, "That belongs to my wife."

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect was under the influence of a Central Nervous Stimulant and unable to operate a vehicle safely.

12. **Toxicological Sample:** A toxicological sample of urine was requested from the suspect and was collected. The sample was submitted to the state crime laboratory for forensic analysis.

13. **Miscellaneous:** A presumptive field test was performed on the powdery substance located in the suspect's vehicle. The test was positive for methamphetamine. The substance will be sent to the crime lab for additional testing. Refer to Trooper Bryson's arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Officer Jeramey Peters	12368	22-017-0087	Auburn Hills PD	(Session X - #3)

Recorder/Witness	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency
Tpr. Troy Meder Michigan SP		Michigan State Police

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Crank, Christy Dunn	10/09/1995	F	W	Sgt. Greg Primeau 18760

Date Examined / Time /Location	Breath Test: Test Refused ☐	Chemical Test: Urine ☐ Blood ☒
09/29/22 / 0130 / Auburn Hills PD	Results: 0.00 Instrument #: 909305	Test or tests refused ☐

Miranda Warning Given Given by: Sgt. Primeau	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
		Nothing	N/A	Soda A couple cans	N/A

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
1 AM / 0135	Yesterday	Maybe 3 or 4 hours	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

Are you taking any medication or drugs?	Attitude:	Coordination:
☐ Yes ☒ No (Shook his head side to side)	Irritated	Quick, Jerky

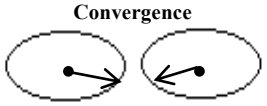
Speech:	Breath odor:	Face:
Rapid	Normal	Sweaty, Red sores on checks and forehead

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☒ Normal ☐ Droopy

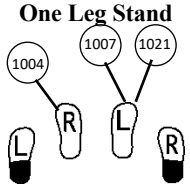
Pulse/Time	HGN	Left Eye	Right Eye
1. 102 / 0150	Lack of Smooth Pursuit	None	None
2. 98 / 0210	Maximum Deviation	None	None
3. 98 / 0230	Angle of Onset	None	None

Convergence



Right eye Left eye

36/30 **One Leg Stand** 38/30

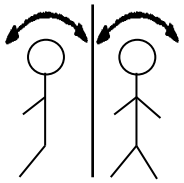


L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

Jerky movements. Leg tremors

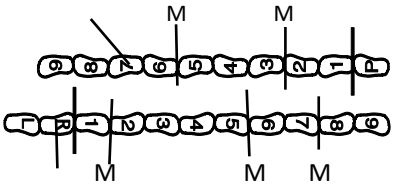
Modified Romberg Balance

Approx. 2" 2" Approx. 2" 2"



Leg tremors. Bruxism

Walk and Turn Test



Leg tremors. Jerky, fast movements. Failed to look at feet as directed.

Cannot keep balance 1

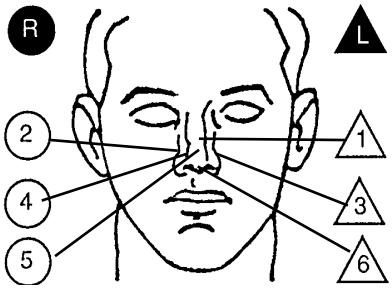
Starts too soon 2

	1st Nine	2nd Nine
Stops walking		
Misses heel-toe	3	2
Steps off line		1
Uses arms	All	All
Actual steps taken	9	9

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
18 estimated as 30 seconds	Spinning turn to left.	N/A	Flat soled shoes

Finger to Nose

(Draw lines to spots touched)



Used pad of finger on 1, 2, & 6. Jerky movements

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	7.0	9.5	6.0
Right Eye	7.0	9.5	6.0

Nasal area: Clear

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

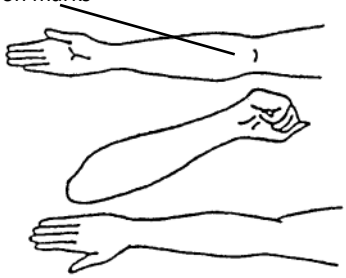
Reaction to Light: Slow

Blood Pressure	Temperature
188 / 96	99.8 °F

Muscle Tone: ☐ Near Normal ☐ Flaccid ☒ Rigid

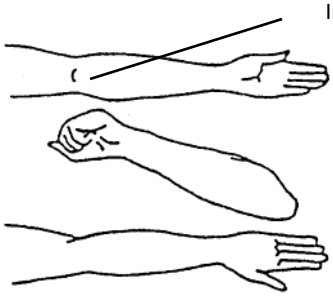
RIGHT ARM

Injection marks



LEFT ARM

Injection marks



What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"Meth and Cocaine"	"Not much today"	"Meth last night"	Friend's house

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
09/29/22 0015	0050	0130	0245	

DRE/Officer's Signature: *Jeramey Peters* Reviewed/approved by / date: DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☒ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Crank, Christy Dunn

1. **Location:** The evaluation was conducted in the Interview Room at Auburn Hills Police Department. The darkroom examinations were conducted in the staff restroom. Both areas are well illuminated and have smooth tile flooring with no obstructions.

2. **Witnesses:** The evaluation was observed and recorded by Trooper Troy Meder of the MI State Police. The arresting officer, Sergeant Greg Primeau, of the MI State Police witnessed the darkroom examinations.

3. **Breath Alcohol Test:** The suspect's breath test was administered by Sgt. Primeau prior to my arrival. Sgt. Primeau advised the result was 0.00% BAC.

4. **Notification and Interview of the Arresting Officer:** On 09/29/22 at approximately 0050 hours, I was dispatched to conduct a drug evaluation at the Auburn Hills Police Department. Upon arrival, I met with the arresting officer, Sergeant Primeau of the MSP. He advised he had stopped the suspect (Christy Crank) for speeding and failure to drive within a single traffic lane on Interstate 75. During the personal contact, Sgt. Primeau did not detect an odor of an alcoholic beverage on the suspect's breath but observed that she had quick and jerky movements when retrieving her driver's license. He also noted that she had facial perspiration and dilated pupils. She was wearing a short-sleeved shirt and had what appeared to be injection marks on her left forearm. According to Sgt. Primeau, she was very animated, and her speech was fast. She consented to SFSTs and the Horizontal Gaze Nystagmus (HGN), Walk and Turn (W&T), One Leg Stand (OLS) tests, and Finger to Nose (FTN) tests were administered. No HGN clues were observed, but six clues on the W&T and three clues on the OLS were observed. She also had difficulty with the FTN test, and had quick, jerky movements. Sgt. Primeau arrested the suspect for DWI. After obtaining a 0.00 BAC on the breath test, he requested a DRE to assist with the investigation.

5. **Initial Observation of the Suspect:** I first observed the suspect in the Interview Room at the Auburn Hills PD. She was seated in a chair at the table and appeared restless. She displayed poor personal hygiene and her appearance was disheveled. There appeared to be fresh and older injection marks on both of her arms with red and open sores in several areas. Her pupils appeared dilated and her speech was rapid. She was wearing black shorts with pink leggings, a blue tee-shirt, and flat soled shoes. I introduced myself and asked if she would consent to a drug evaluation. She stated, "Yeah, I guess so." She was cooperative, but at times seemed irritated. I asked if she had been informed of her Miranda rights and she indicated she had been. I asked if she had any injuries or physical defects, which she replied "Nope, none." She stated she was not under the care of a doctor or dentist. She told me she had not eaten anything today and had only ingested a couple cans of soda. She denied consuming any medications or drugs. When asked when she last slept, she stated, "Yesterday." When I asked how many hours, she stated, "About 3 or 4. I'm pretty stressed." She claimed she was stressed because she had lost her job. When asked about losing her job, she responded, "It's none of your business." Several times she appeared to be grinding her teeth (bruxism) when she was not talking.

6. **Medical Problems and Treatment:** No medical problems were reported by the suspect and none were observed or detected during the evaluation.

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to the suspect prior to her attempting them. Several times I had repeat my instructions to ensure she understood them. After confirming she understood the instructions, the following psychophysical tests were given:

   Modified Romberg Balance: The suspect had an approximate two-inch side to side sway. Tremors were observed in both legs. Her time estimation was fast, estimating 30 seconds in 18 seconds. I asked her how she had estimated the 30 seconds and she said, "I just counted." At times she was grinding her teeth during the test (Bruxism).

Walk and Turn: For this test, a line on the tile floor was used. During the instruction stage, the suspect lost her balance and stepped out of the instruction position with her right foot once. She twice started the test before instructed to do so. During the walking stage, she had poor balance and took fast jerky steps. Leg tremors were present throughout most of the test. She missed heel to toe on steps two, six, and eight on the first nine steps. She made an improper turn by spinning to her left and had to regain her foot positioning. On the second nine steps, she missed heel to toe on steps three and six. She also stepped off the line on step seven. She raised both arms from her sides throughout the test and failed to look at her feet while walking.

One Leg Stand: During this test, when the suspect raised her right foot, she had a noticeable side to side sway. She also raised both arms, approximately six inches for balance throughout the entire test. She put her foot down on count 1,004. Leg tremors with jerky movements were observed throughout the test. When she raised her left foot, she again swayed while balancing. She also raised both arms for balance. She put her foot down at counts 1,007 and 1,021. She again had leg tremors throughout the test. Her counting was fast, reaching 1,036 in 30 seconds when standing on her left foot and reaching 1,038 in 30 seconds when standing on her right foot.

Finger to Nose: While performing this test, the suspect missed the tip of her nose with the tip of her index finger on all six attempts. She also used the pad of her finger on attempts 1, 2, and 6. On attempt 5, she initially raised her left hand then corrected and used her right hand as instructed. During the test, leg tremors, and jerky arm movements were observed.

8. **Clinical Indicators of Impairment:**
Eye Signs: The suspect exhibited equal tracking and had equal pupil size. No clues of HGN or VGN were observed and her eyes were able to converge as instructed. Her pupil sizes were estimated in three different lighting conditions. In Room Light, her pupils were estimated at 7.0 mm. In Near Total Darkness, her pupils were estimated at 9.5 mm, and in Direct Light, her pupils were estimated at 6.0 mm. All three results were above the DRE average ranges for the lighting conditions. Her pupillary reaction to light was slow, and she did not exhibit rebound dilation.

Vital Signs: The suspect's pulse rates were elevated throughout the evaluation, at 102, 98, and 98 beats per minute. All three were above the DRE average range. Additionally, her blood pressure of 188/96 was elevated and above the DRE average range. Her body temperature was above the DRE average range, measured at 99.8 degrees using an oral thermometer. Several times she indicated that she was hot and complained about the heat.

9. **Signs of Ingestion:** The suspect's nasal and oral cavities were clear. However, there were multiple injection marks on the inside of her arms. She also had multiple open and red sores on her arms. When asked about the marks and sores, she advised that she was stressed and has been scratching herself a lot.

10. **Suspect's Statements:** When questioned about drug use, at first, the suspect denied using drugs but later admitted she used methamphetamine the night before and occasionally uses cocaine. She stated, "I use it, but I'm always nervous like this."

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a CNS Stimulant and is unable to operate a vehicle safely.

12. **Toxicological Sample:** The suspect voluntarily agreed to provide a blood sample which was collected at 0338 hours. The blood sample was entered into evidence by Sgt. Primeau and will be forwarded to the state crime laboratory for analysis.

13. **Miscellaneous:** During an inventory search of the suspect's vehicle prior to towing, Sgt. Primeau located several used syringes under the seat and in the vehicle side door compartment.

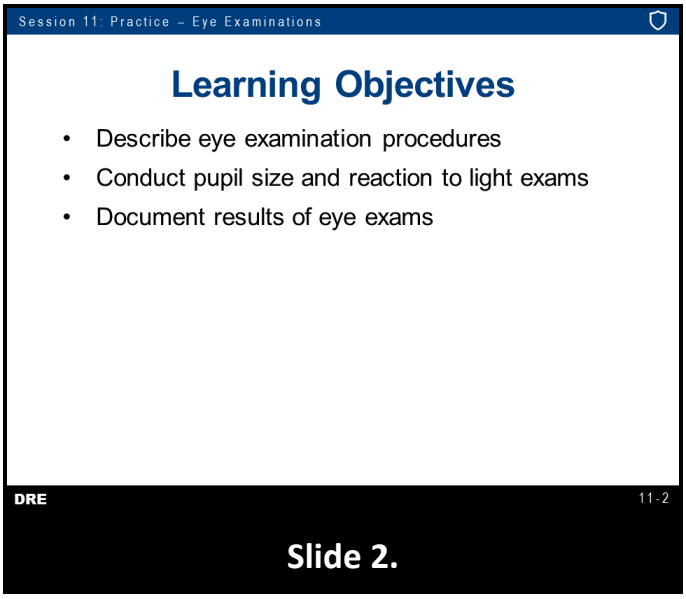
11 DRE

PRACTICE: EYE EXAMINATIONS

LEARNING OBJECTIVES

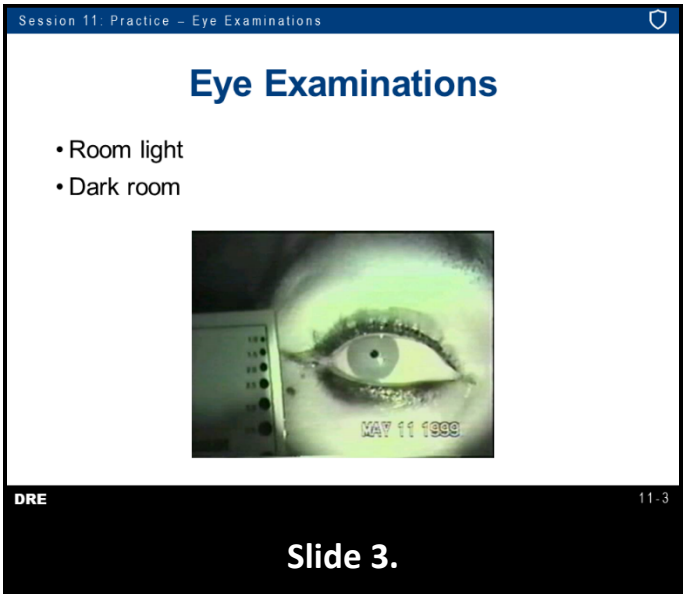
- Describe the eye examination procedures
- Conduct examinations of pupil size and reaction to light under both lighted and darkened room conditions
- Document the results of the eye examinations

CONTENTS



Slide 2.

A. Procedures for this Session



Slide 3.

Team Assignments: Participants will work in three- or four-member teams.

At any given time, one member of the team will be engaged in conducting and recording eye examinations of another member. The remaining member(s) will help coach and critique the participant who is conducting the examinations.

B. B. Room Light Examinations

Pupil Size Estimation: Pupil size estimation under room light.

Sequence of roles should be as follows:

- Test Administrator
- Test Subject
- Coach
- Test Administrator (continue cycle)

C. Dark Room Examinations

Pupil Size Estimation: Pupil size estimation under near total darkness. Pupil reaction and size estimation under direct light.

Sequence of roles should be as follows:

- Test Administrator
- Test Subject
- Coach
- Test Administrator (continue cycle)

Slide 4.

EYE EXAMINATIONS DATA SHEET

Subject: ____________________

	Left	Right
Room Light		
NTD		
Direct Light		
Reaction		

Subject: ________________

	Left	Right
Room Light		
NTD		
Direct Light		
Reaction		

Subject: ____________________

	Left	Right
Room Light		
NTD		
Direct Light		
Reaction		

Subject: ____________________

	Left	Right
Room Light		
NTD		
Direct Light		
Reaction		

Subject: ____________________

	Left	Right
Room Light		
NTD		
Direct Light		
Reaction		

Subject: ____________________

	Left	Right
Room Light		
NTD		
Direct Light		
Reaction		

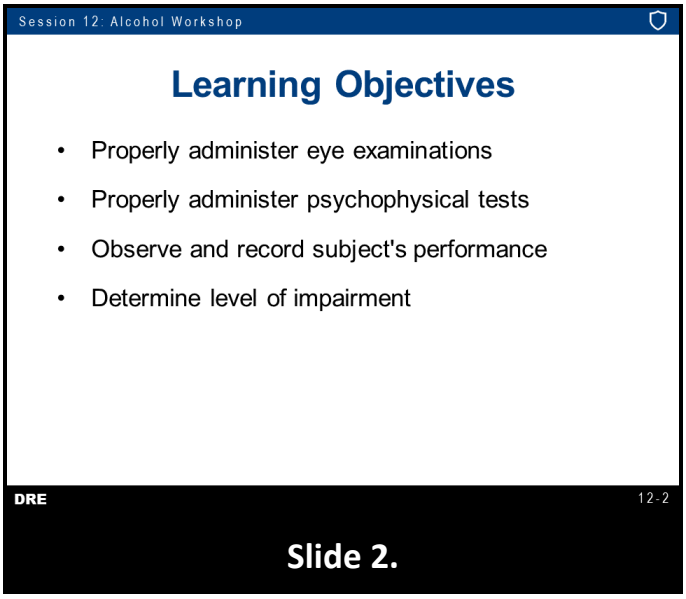
12 DRE

ALCOHOL WORKSHOP

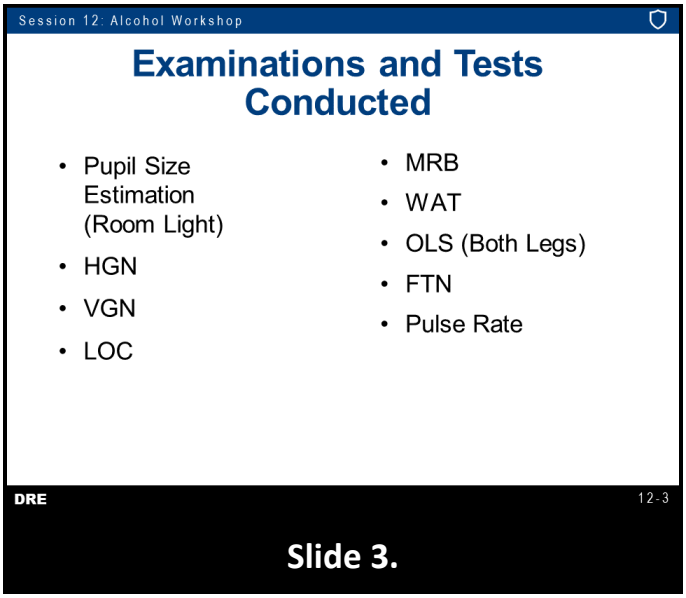
LEARNING OBJECTIVES

- Properly administer the eye examinations used in the drug influence evaluation procedure
- Properly administer psychophysical tests used in the drug influence evaluation procedure
- Observe and record the subject's performance on the eye examinations and psychophysical tests
- Determine the level of impairment based on the results of the subject's eye examinations and psychophysical tests

CONTENTS



A. Procedures



The preliminary examinations and psychophysical tests include:

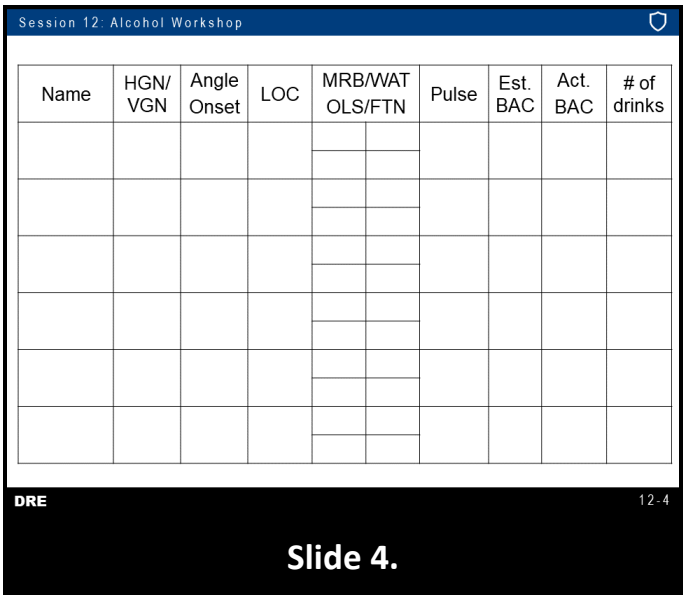
- Pupil Size Estimation (Room Light)
- Horizontal Gaze Nystagmus (HGN)
- Vertical Gaze Nystagmus (VGN)
- Lack of Convergence (LOC)
- Modified Romberg Balance (MRB)
- Walk and Turn (WAT)
- One Leg Stand (OLS) (both legs)
- Finger to Nose (FTN)
- Pulse Rate

For the drug influence evaluation, it is important to estimate Angle of Onset for HGN and relate it to Blood Alcohol Concentration (BAC).

Some volunteers will have BACs above 0.10, others will have lower BACs. Each group will collectively estimate the BAC of each volunteer they evaluate. The following safety precautions will be strictly enforced: No weapons will be present and Volunteers will not be left unattended at any time.

B. Hands-On Practice

C. Session Wrap-Up



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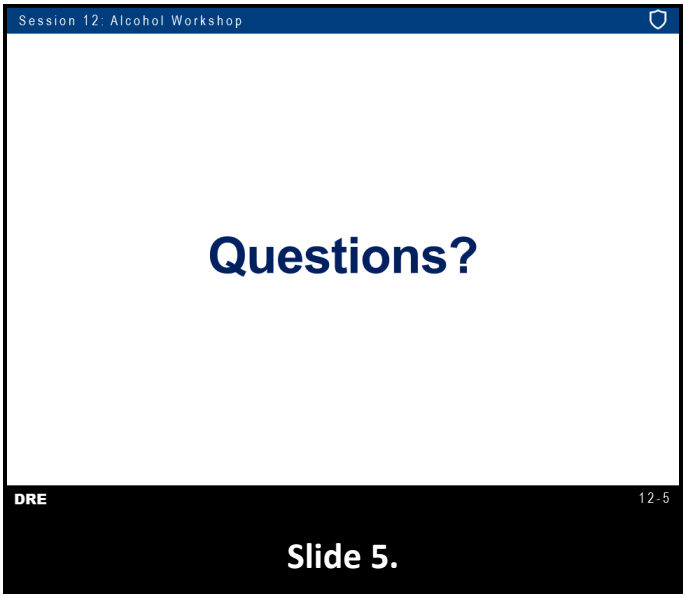


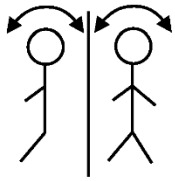
Slide 5.

DRUG INFLUENCE EVALUATION

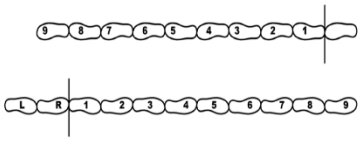
Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case #
Recorder/Witness	Crash: ☐ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency	
Arrestee's Name (Last, First, Middle)	Date of Birth	Sex / Race	Arresting Officer (Name, ID#)	
Date Examined / Time /Location / /	Breath Test: Test Refused ☐ Results: Instrument #:		Chemical Test: Urine ☐ Blood ☐ Oral Fluid ☐ Test or tests refused ☐	
Miranda Warning Given ☐ Yes ☐ No Given by:	What have you eaten today? When?		What have you been drinking? How much?	Time of last drink?
Time now/ Actual /	When did you last sleep? How long?	Are you sick or injured? ☐ Yes ☐ No		Are you diabetic or epileptic? ☐ Yes ☐ No
Do you take insulin? ☐ Yes ☐ No	Do you have any physical defects? ☐ Yes ☐ No	Are you under the care of a doctor or dentist? ☐ Yes ☐ No		
Are you taking any medication or drugs? ☐ Yes ☐ No	Attitude:	Coordination:		
Speech:	Breath odor:	Face:		
Corrective Lenses: ☐ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☐ Bloodshot ☐ Watery	Blindness: ☐ None ☐ Left ☐ Right	Tracking: ☐ Equal ☐ Unequal	
Pupil Size: ☐ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☐ No	Vertical Nystagmus ☐ Yes ☐ No	Able to follow stimulus ☐ Yes ☐ No	Eyelids ☐ Normal ☐ Droopy

Pulse and Time	HGN	Left Eye	Right Eye	Convergence	/30 One Leg Stand /30
1. ____ / ____	Lack of Smooth Pursuit				
2. ____ / ____	Maximum Deviation			Right eye Left eye	
3. ____ /	Angle of Onset				

Modified Romberg Balance
Approx. Approx.



Walk and Turn Test

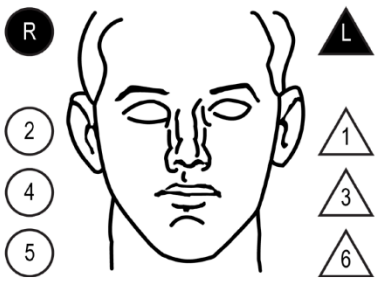


	1st Nine	2nd Nine
Cannot keep balance		
Starts too soon		
Stops walking		
Misses heel-toe		
Steps off line		
Uses arm(s)		
Actual steps taken		

L	R	
		Sways while balancing
		Uses arm(s) to balance
		Hopping
		Puts foot down

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
_____estimated as 30 seconds			

Finger to Nose
(Draw lines to spots touched)



PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye			
Right Eye			

Nasal area:

Oral cavity:

Rebound Dilation: ☐ Yes ☐ No

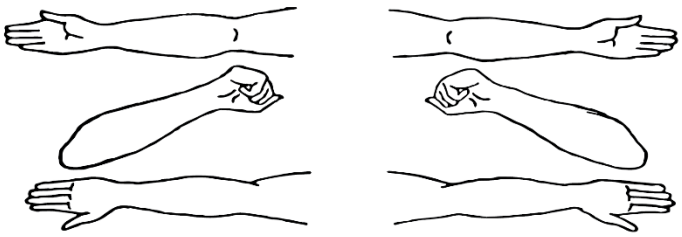
Reaction to Light:

Blood Pressure /	Temperature °F

Muscle Tone: ☐ Normal ☐ Flaccid ☐ Rigid

Comments:

RIGHT ARM **LEFT ARM**



What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)

Date / Time of arrest: /	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

Officer's Signature:	Reviewed/approved by / date:	DRE #

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant
☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

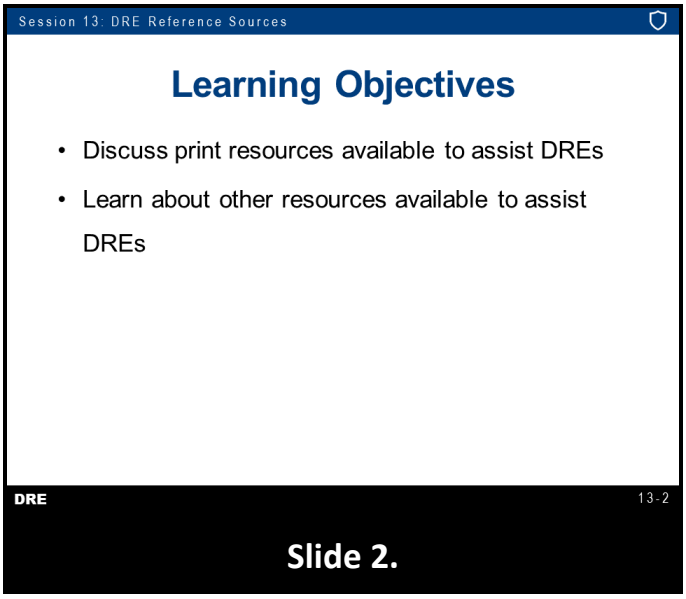
13 DRE

DRE REFERENCE SOURCES

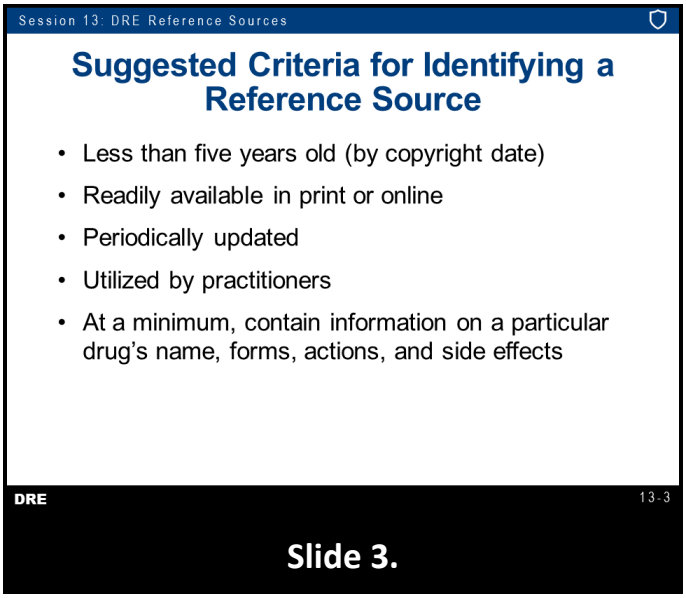
LEARNING OBJECTIVES

- Discuss print resources available to assist Drug Recognition Experts (DREs)
- Learn about other resources available to assist DREs

CONTENTS



A. Resources Available



When selecting an acceptable drug reference, DRE's should consult references that meet the below criteria:

- Be less than five years old (by copyright date)
- Be readily available in print or online
- Be periodically updated
- Be utilized by practitioners in the scientific and healthcare fields
- At a minimum, contain information on a particular drug's:
- Trade (brand), generic, and alternate common names
- Available forms (liquid, pill, injectable, etc.)

- Pharmacologic/therapeutic actions (as used clinically, both “on” and “off” label)
- Adverse reactions and side effects

The reason for this is to keep from consulting outdated and inaccurate references.

Slide 4.

Acceptable resources may be in-print, electronic, or a combination. Acceptable written examples include:

- The Complete Guide to Prescription and Non-prescription Drugs
- The Pill Book
- Nursing Drug Handbook
- Nurse Pocket Drug Guide
- Drug Identification Bible (available at: http://www.drugidbible.com)
- Davis’ Drug Guide for Nurses
- Tarascon Pocket Pharmacopoeia (for those with some pharmacology education)
- The Monthly Prescriber’s Reference (MPR)
- Disposition of Toxic Drugs and Chemicals in Man
- DEA Intelligence Report – Drug Slang Code Words (www.dea.gov)

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Website Resource

Acceptable electronic examples include:

- www.Drugs.com
- www.RxList.com
- www.WebMD.com/Drugs/Index-drugs.aspx
- www.Eprocrates.com
- iMeds – Medical Reference for Android
- Monthly Prescriber's Reference (MPR)
- www.PDR.net
- www.streetdrugs.org
- info@streetdrugs.org
- United States Drug Enforcement Administration (DEA) – Drug Fact Sheets – https://www.dea.gov/factsheets?field_fact_sheet_category_target_id=All&page-0

Slide 6.

Examples of other information sources are:

- National Highway Traffic Safety Administration (NHTSA), Enforcement and Justice Services (EJS) Division, Washington, D.C.
- Office of National Drug Control Policy (ONDCP)
- State Drug Evaluation and Classification (DEC) Program Coordinator
- Governor's Office of Highway Safety (GOHS)
- The National Traffic Law Center (NTLC) – NTLC is part of the American Prosecutors Research Institute (APRI)
- Poison control center (www.aapcc.org)
- Medical dictionaries
- Drugs and Human Performance Fact Sheets, NHTSA
- Newspaper and magazine articles on drugs and drug-impaired driving, including counter-culture magazines such as "High Times"
- Software programs such as Pharmacists, Body Works, Mosby's Medical Dictionary and other programs are available on disks and CDs
- Various resources are available through online services and the Internet

The International Association of Chiefs of Police (IACP) DEC Program website is http://www.decp.org

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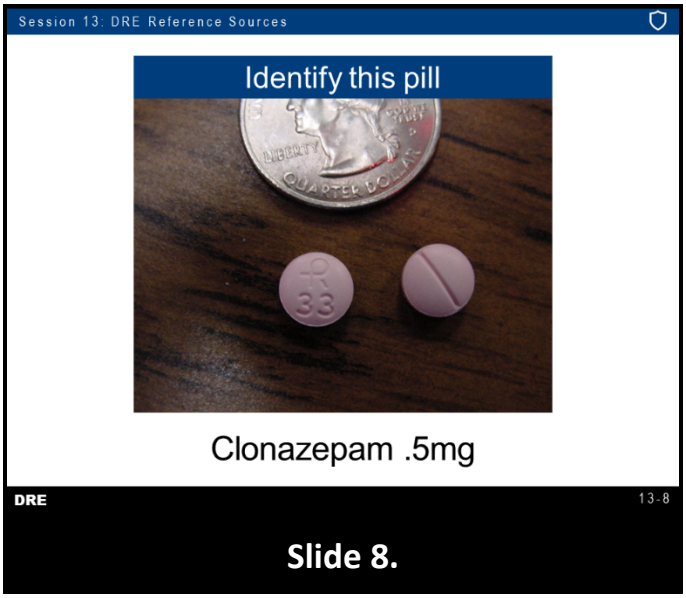

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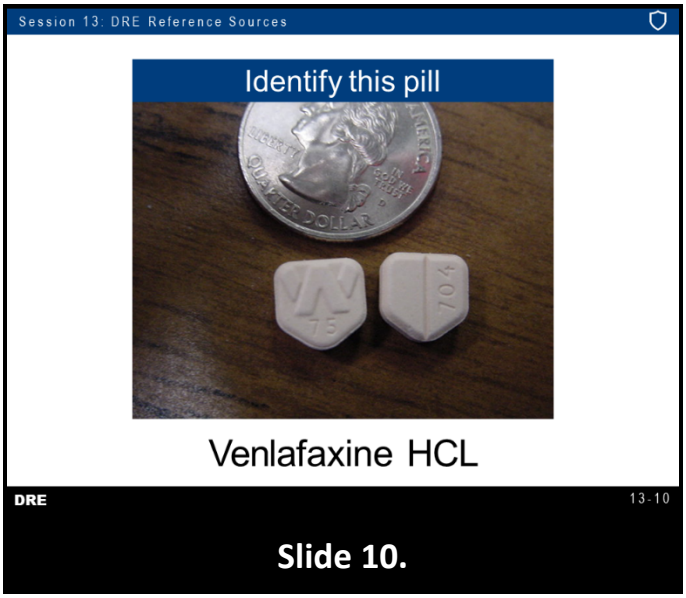
Slide 9.



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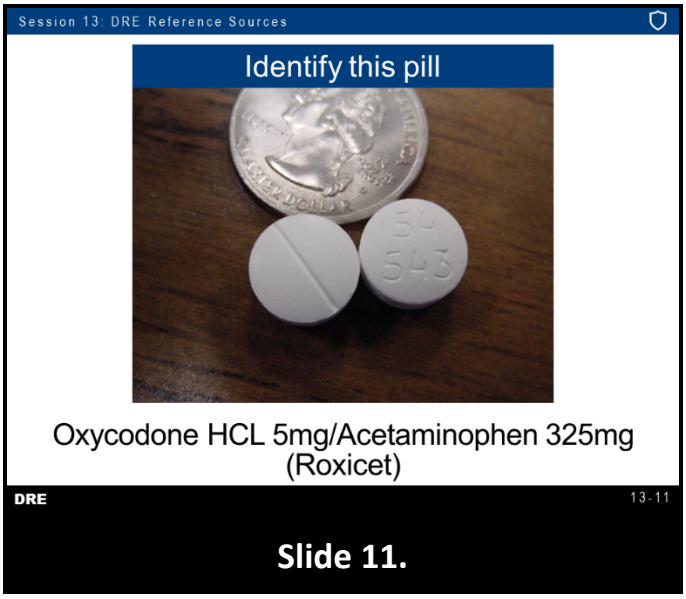

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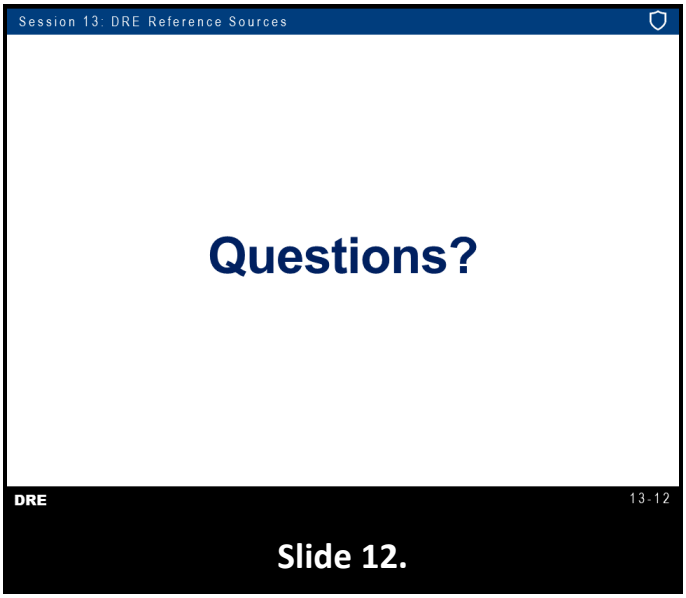


Slide 12.

COMPARISON OF DRE SYMPTOMATOLOGY
WITH CROSS SECTION OF DRUG SYMPTOMATOLOGY SOURCES

CNS DEPRESSANTS

DRE Symptomatology:

Nystagmus	Decreased pulse
Decreased blood pressure	Uncoordinated
Disoriented	Sluggish
Thick slurred speech	Drunk-like appearance

The Pharmacological Basis of Therapeutics, 13th Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co.:

Nystagmus	Strabismus
Difficulty in visual	Accommodation
Vertigo	Gait ataxia
Positive Romberg sign	Hypotonia
Dysmetria	Diplopia
Sluggishness	Difficulty in thinking
Slowness, slurring of speech	Poor comprehension
Poor memory	Faulty judgement
Emotional lability	

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 14th Ed.

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (6th Ed. , Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989.

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984), page 36: barbiturates effects like alcohol (staggering, poor motor control).

Drug Abuse and Dependence, Grinspoon, Lester, MD; Bakalar, James B., Harvard Medical School Mental Health Review No. 1 (1990), page 11: sedative hypnotics same as alcohol and other depressants.

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey (1989), page 72: Benzodiazepines same as barbiturate effects; pages 247; 292):

Barbiturates:

Nystagmus	Depressed pulse
Depressed blood pressure	Diminished concentration
Incoordination	Decreased reaction time

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D.. Ph.D.D Plenum Medical Book Company, New York (1988), p. 135.

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 159:

Maladaptive behavioral changes, e.g., disinhibition of sexual or aggressive impulses, mood lability, impaired judgment, impaired social or occupational functioning.

Slurred speech	Incoordination
Unsteady gait	Impairment in attention or memory

CNS STIMULANTS:

DRE Symptomatology:

Dilated pupils	Increased pulse rate
Increased temperature	Increased blood pressure
Body tremors	Restlessness
Excited	Euphoric
Talkative	Exaggerated reflexes
Anxiety	Grinding teeth
Redness to nasal area	Runny nose
Loss of appetite	Insomnia
Increased alertness	

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, Cocaine 551-554

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988, Amphetamines, Page 634:

Mild influence:

Mydriasis	Hyperreflexia
Restlessness	Talkativeness
Irritability	Insomnia
Tremor	Flushing
Diaphoresis	Combativeness
Nausea	Vomiting
Pallor	Dry mucous membranes

Moderate:

Hyperactivity	Confusion
Hypertension	Tachypnea
Tachycardia	Premature ventricular contraction
Chest discomfort	Vomiting
Abdominal pain	Profuser diaphoresis
Mild temperature	Elevation
Repetitive behavior	Impulsivity
Panic reactions	Hallucinations

Serious:

Delirium	Marked Hypertension/Tachycardia
Hyperreflexia	Convulsions
Hypotension	Coma
Cocaine, page 650-659	

Early Stimulation:

Euphoria	Garrulity
Excitement	Apprehension
Irritable behavior	Mydriasis
Sudden headache	Nausea
Vomiting	Dizziness
Twitching of small muscles	Tics
Tremor	Jerks
Cocaine psychosis	Hallucinations
Elevation of pulse	Increased respiration

Advanced:

Convulsions	Hyperreflexia
Decreased consciousness	Increased pulse and blood pressure

Later Stages:

Hypotension	Hypothermia
Dyspnea et al	

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 1992, pages 120-123:

Amphetamines and cocaine (CNSS):

Dilation of pupils	Increased blood pressure
Slight tremor	Restlessness
Agitation	Possibly hallucinations

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed. , Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989, page 99:

CNSS cause:

Dilation of pupils	Rapid heart rate
Elevation of blood pressure	Tremor in hands
Increased body temperature	Restlessness

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984), pages 25, 121:

Amphetamine:

Dilation of pupils	Increase heart rate
Blood pressure	Flushing
Teeth grinding	Dry mouth
Tremors	Lack of coordination

Pages 64, 100, 121:

Dilation of pupils	Increased heartbeat
Increased temperature	Similar to amphetamine

Drug Abuse and Dependence, Grinspoon, Lester, MD; Bakalar, James B., Harvard Medical School Mental Health Review No. 1 (1990), pages 8 and 10:

Cocaine and Amphetamine:

Dilated pupils	Increased pulse
Increased blood pressure	Vasoconstriction
Agitation tremors	Increased temperature

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey(1989), page 29:

Amphetamines:

Pupil dilation (Mydriasis)	Increased pulse rate
Elevated blood pressure	Hyperactive
Talkative	Irritable
Restless	Anorexia
Tremors	Urinary retention
Teeth grinding (Bruxism)	Fidgety, jerky, random motions
Illogical, loose thoughts	

Page 295: Cocaine:

Dilated pupils	Tachycardia
Increased blood pressure	Vasoconstriction
Hyperpyrexia	

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D.. Ph.D.D Plenum Medical Book Company, New York (1988) page 142:

Amphetamine:

Increased pulse	Increased blood pressure
Possibly increased temperature	Increased wakefulness
General increase in psychomotor activity	

Page 145: Cocaine

Mydriasis (dilated pupils)	May cause psychosis
Euphoria	Agitation

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 142:

Cocaine:

Maladaptive behavioral changes, e.g., euphoria, fighting, grandiosity, hyper-vigilance, psychomotor agitation, impaired judgment, impaired social or occupational functioning.

Pupillary dilation	Tachycardia
Elevated blood pressure	Perspiration or chills
Nausea or vomiting	Visual or tactile hallucinations

Amphetamine:

Maladaptive behavioral changes, e.g., fighting, grandiosity, hyper-vigilance, psychomotor agitation, impaired judgment, impaired social or occupational functioning.

Pupillary dilation	Tachycardia
Elevated blood pressure	Perspiration or chills
Nausea or vomiting	

HALLUCINOGENS:

DRE Symptomatology:

Dilated pupils	Increased pulse rate
Increased blood pressure	Increased temperature
Dazed appearance	Body tremors
Synesthesia	Hallucinations
Paranoia	Uncoordinated
Nausea	Disoriented
Difficulty in speech	Perspiring
Impaired perception of time/distance	

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, LSD and Related Drugs, page 564:

Pupillary dilation	Increased blood pressure
Tachycardia	Hyperreflexia
Tremor	Nausea
Piloerection	Muscular weakness
Increased body temperature	Hallucinations
Hyper vigilance	Synesthesia
Loss of boundaries	

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988, LSD, pages 667-669:

Pupillary dilation	Increased heart rate
Increased body temperature	Piloerection
Weakness	Tremor
Hyperreflexia	Ataxia
Hallucinations	Depersonalization
Poor judgment	Mood swings

A Primer of Drug Action, Julien, Robert M.; W. H. Freeman and Company, New York, 1992

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed.), Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989 page 160:

Dilated pupils	Increased blood pressure
Increased awareness	Faltered body images
Sensory input	Fine tremor
Flushed face	Increased body temperature

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, Inc New York (1984), pages 100; 115 120, 153):

Hallucinogens:

Dilated pupils	Increased heart rate
Increased blood pressure	Increased temperature
Profuse perspiration	Loss of appetite
Hallucinations	

Drug Abuse and Dependence, Grinspoon, Lester,MD; Bakalar,James B., Harvard Medical School Mental Health Review No. 1 (1990)

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey (1989), page 218:

LSD:

Ataxia	High blood pressure
Hyperreflexia	Incoordination
Tachycardia	

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Plenum Medical Book Company, New York (1988)

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 145:

Maladaptive behavioral changes, e.g., marked anxiety or depression, ideas of reference, fear of losing one's mind, paranoid ideation, impaired judgment, impaired social or occupational functioning.

Perceptual changes occurring in a state of full wakefulness and alertness, e.g., subjective intensification of perceptions, depersonalization, derealization, illusions, hallucinations, Synesthesia

Pupillary dilation	Tachycardia
Sweating	Palpitations
Blurring of vision	Tremors
Incoordination	

DISSOCIATIVE ANESTHETICS (PHENCYCLIDINE)

DRE Symptomatology:

Nystagmus	Increased pulse
Increased blood pressure	Increased temperature
Perspiring	Warm to the touch
Blank stare	Early onset of nystagmus
"Moon walking"	Difficulty in speech
Incomplete responses	Repetitive response
Repetitive speech	Increased pain threshold
Cyclic behavior	Confused, agitated
Hallucinations	Possibly violent and combative

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, PCP, page 565-567:

Nystagmus	Elevated heart rate
Elevated blood pressure	Feeling of intoxication
Staggering gait	Slurred speech
Numbness of extremities	Sweaty
Muscular rigidity	Blank stare
Drowsiness	Hostile behavior
Repetitive movements	

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988, PCP 768-777:

Nystagmus	Miosis
Depressed light reflexes	Blurred vision
Diminished pain	Ataxia
Tremors	Muscle weakness

Slurred speech
Increased pulse rate
Amnesia
Body image distortion
Depersonalization
Hallucinations
Drowsiness
Increased blood pressure
Anxiety/agitation
Euphoria
Disordered thought processes

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 1997, page 262:

PCP:

Increased blood pressure
Disinhibition
Muscle rigidity
Delirium excitement
Hallucinations
Speech difficulty
Elevated blood pressure
Blank stare
Mood swings
Agitation
Disorientation
Analgesia
Pain tolerance

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed.), Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989 p. 178:

Sweating
Fever convulsions
Muscle rigidity
Increased blood pressure

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984), page 100, 208:

PCP:

Nystagmus
Increased pulse rate
Mood swings
Changes in body awareness
Violent behavior
Increased blood pressure
Flushing
Hallucinations
Speech difficulties
Decreased responsiveness

Drug Abuse and Dependence, Grinspoon, Lester, M.D.; Bakalar, James B., Harvard Medical School Mental Health Review No. 1 (1990), page 25:

PCP:

Body image distortions
Nystagmus
Loss of muscle control
Memory loss drooling
Increased blood pressure
Muscle rigidity
Incoherent speech
Blank stare

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey(1989) page 296:

PCP:

Nystagmus
Hallucination
Loss of motor control
Automated speech
Nystagmus at rest
Disorientation
Extreme agitation
Disassociation from
Environment

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D. Ph.D.D Plenum Medical Book Company, New York (1988), page 156:

PCP:

- Ataxia
- Muscular hypertonicity
- Ptosis
- HGN, VGN, and Rotary Nystagmus
- Mood swings
- Tremors
- Hyperreflexia
- Tachycardia
- Elevated blood pressure

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 155:

Maladaptive behavioral changes, e.g., belligerence, assaultiveness, impulsiveness, unpredictability, psychomotor agitation, impaired judgment, impaired social or occupational functioning.

- VGN or HGN
- Numbness or diminished responsiveness to pain
- Dysarthria (slurred speech)
- Seizures
- Increased blood pressure or heart rate
- Ataxia
- Muscle rigidity
- Hyperacusis

NARCOTICS:

DRE symptomatology:

- Constricted pupils
- Decreased blood pressure
- Ptosis (droopy eyelids)
- Drowsiness
- Low, raspy speech
- Facial itching
- Fresh puncture marks
- Decreased pulse rate
- Decreased temperature
- "on the nod"
- Depressed reflexes
- Dry mouth
- Euphoria

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, Opiods page 541-545

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988; Heroin, pages 702-703. See also Methadone, Demerol, etc.

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 1997:

Morphine:

- Constructed pupils
- Drowsiness
- Mental clouding
- Depressed respiration
- Euphoria
- Decreased blood pressure
- Dysphoria
- Sedation
- Analgesia

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed., Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989:

Decrease pain (p.6)

Encyclopedia of Drug Abuse, O'Brien, Robert, Cohen, Sydney. M.D. Facts on File, INC New York (1984) page 100, 120, 123, 124:

Narcotics:

Constricted pupils	Reduced heart rate
Analgesia	Depressed appetite
Euphoria	Going "on the nod"

Drug Abuse and Dependence, Grinspoon, Lester, MD; Bakalar, James B., Harvard Medical School Mental Health Review No. 1 (1990), page 14:

Narcotics:

Constricted pupils	"nodding off"
Dreamy state	Pain suppression
Euphoria	

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey (1989) page 293 – 294:

Miosis (constricted pupils)	Bradycardia (decreased heart beat)
Hypothermia (decreased temperature)	Euphoria/dysphoria
Drowsiness lethargy	Confusion
Flaccid muscle tone	Depressed respiration
Analgesia	

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D.. Ph.D.D Plenum Medical Book Company, New York (1988), page 132:

Miosis (constricted pupils)	Low blood pressure
Itching	Flushing sweating

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 152:

Maladaptive behavioral changes, e.g., initial euphoria followed by apathy, dysphoria, psychomotor retardation, impaired judgment, impaired social or occupational functioning.

Pupillary constriction	Drowsiness
Slurred speech	Impairment in attention or memory

INHALANTS: (Toluene)

DRE symptomatology:

Nystagmus	Increased pulse rate
Increased blood pressure	Residue around nose
Odor on mouth	Nausea disorientation
Slurred speech	Confusion

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, Inhalants, page 567

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed. , Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989. P. 185:

Decreased inhibitions	Floating sensation
Drowsiness	Light sensitivity
Sneezing runny nose	

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984):

Lowered inhibitions	Restlessness
Incoordination confusion	Disorientation
Nausea	Impaired judgment

Drug Abuse and Dependence, Grinspoon, Lester,MD; Bakalar,James B., Harvard Medical School Mental Health Review No. 1 (1990)

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey(1989), pages 265, 272, 297:

Toluene:

Nystagmus	Ataxia
Tremors cerebellar	Irritability
Rambling speech	Light headedness
Tremors	CNS depression that mimics ataxia
Narcotic analgesics	Blank stare
Euphoric mood	

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D.. Ph.D..D Plenum Medical Book Company, New York (1988):

Brief euphoria	Giddy intoxication, similar to alcohol
CNS depression (volatile solvents/toluene)	Vertigo
Dizziness	

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 149:

Maladaptive behavioral changes, e.g., belligerence, assaultiveness, apathy, impaired judgment, impaired social or occupational functioning.

Nystagmus	Dizziness
Incoordination	Slurred speech
Unsteady gait	Lethargy
Depressed reflexes	Psychomotor retardation
Tremor generalized muscle	Blurred vision or diplopia
Stupor or coma	Weakness
Euphoria	

CANNABIS

DRE Symptomatology:

Dilated pupils	Paranoia
Odor of Marijuana	Debris in mouth
Body tremors	Eyelid tremors
Relaxed inhibitions	Increased appetite
Impaired perception of time and distance	Disorientation

The Pharmacological Basis of Therapeutics, Seventh Edition, Gilman, A,; Goodman, I.; MacMillan Publishing Co. 1985, Cannabis, pages 559-561:

Euphoria	Short term memory impairment
Temporal disintegration	Balance and stance impairment
Information processing impairment	Increased hunger
Dry mouth	Additive to alcohol

Lower doses affects perception, impairing well beyond when subject subjectively feels effects; alters all information processing; relatively simple motor skills unaffected

High doses:

Anxiety	Increased heart rate
Increased systolic blood	Pressure
Hallucinations	Simple motor skills affected

Medical Toxicology-Diagnosis and Treatment of Human Poisoning, Ellenhorn, Matthew J., Barceloux, Donald G. Elsevier Science Pub. Co. 1988; Cannabis, page 678-681:

Euphoria	Motor coordination impairment
Temporal distortion (time slows)	Relaxation
Loss of short term memory	Systematic thinking impaired
Stimulated appetite	Dry mouth

Impairment of motor tasks and reaction times requires higher dosages

A Primer of Drug Action, Julien, Robert M. W.H. Freeman and Company, New York, 1997, Marijuana

Increased blood pressure	Altered sensory perception
Dry mouth	

Drug and Alcohol Abuse, A Clinical Guide to Diagnosis and Treatment, (3rd Ed. , Schuckit, M.D., Mark A. Plenum Medical Book Co, New York 1989, page 145:

Cannabis:

Red Eye	Euphoria
Relaxation	Dry mouth
Increased heart rate	Possibly nystagmus
Time distortion	Short term memory
Impairment in ability to do multi-step tasks	Tremors
Decrease level of motor coordination	

Encyclopedia of Drug Abuse, O'Brien, Robert; Cohen, Sydney. M.D. Facts on File, INC New York (1984), pages 100, 120:

Marijuana:

Red eye	Increased heart beat
Time and space distortions	Dryness of mouth and throat
Increased heart rate	Increased pulse rate
Increased appetite	

Drug Abuse and Dependence, Grinspoon, Lester,MD; Bakalar,James B., Harvard Medical School Mental Health Review No. 1 (1990).page 19:

Marijuana:

Increased appetite	Faster heartbeat
Bloodshot eyes	Confusion
Agitation	Incoordination
Hallucinations	

Drugs of Abuse, Giannini, A. James, M.D.; Slaby, Andrew E. M.D., Ph.D. Medical Economics Books, Oradell, New Jersey(1989), page 296:

Cannabis:

Red Eye	Increased appetite
Pleasant relaxation	Intensification of sensations
Slowed time	Passivity
Apathy	Tachycardia (increased heart rate)
Problems with motor coordination	

Manual of Drug and Alcohol Abuse, Guidelines for Teaching in Medical and Health Institutions, ed Arif, Awni. M.D., Westermeyer, Joseph, M.D.. Ph.D..D Plenum Medical Book Company, New York (1988), page 147:

Cannabis:

Red Eye	Increased hunger
Changes in time sense	Short-term memory loss
Memory	Dry mouth
Coordination	Tachycardia (rapid heartbeat)
Balance and stance	Elevated systolic pressure affected

Diagnostic and Statistical Manual of Mental Disorders (Third Ed, Revised), American Psychiatric Association (1987), p. 140:

Maladaptive behavioral changes, e.g., euphoria anxiety, suspiciousness, or paranoid ideation, sensation of slowed time, impaired judgment, social withdrawal.

Red Eye	Increased appetite
Tachycardia (rapid heart)	Dry mouth

LACK OF CONVERGENCE:

Clinical Procedures for Ocular Examination, Kurtz and Carlson; McGraw-Hill Medical, 3rd Edition, September 26, 2003.

A Recognized Clinical Trial of Treatment for Convergence Insufficiency in Children, Scheiman, Cotter, Cooper, et al, Arch Ophthalmology, Jan 2005.

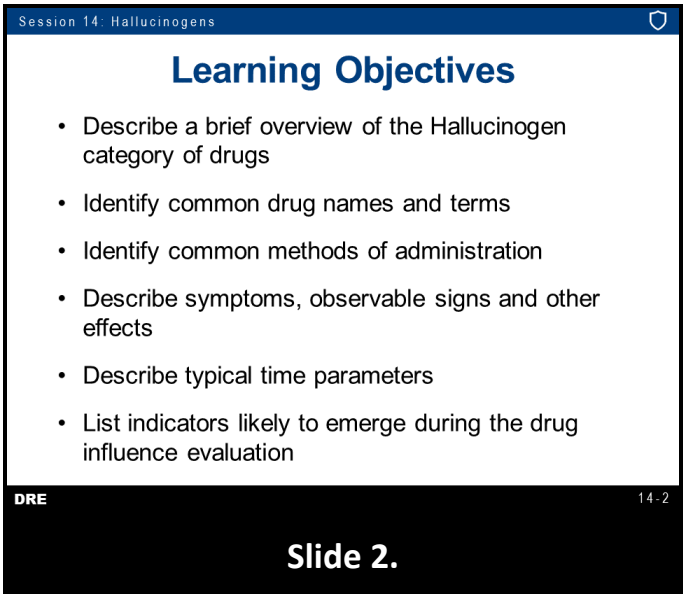
14 DRE

HALLUCINOGENS

LEARNING OBJECTIVES

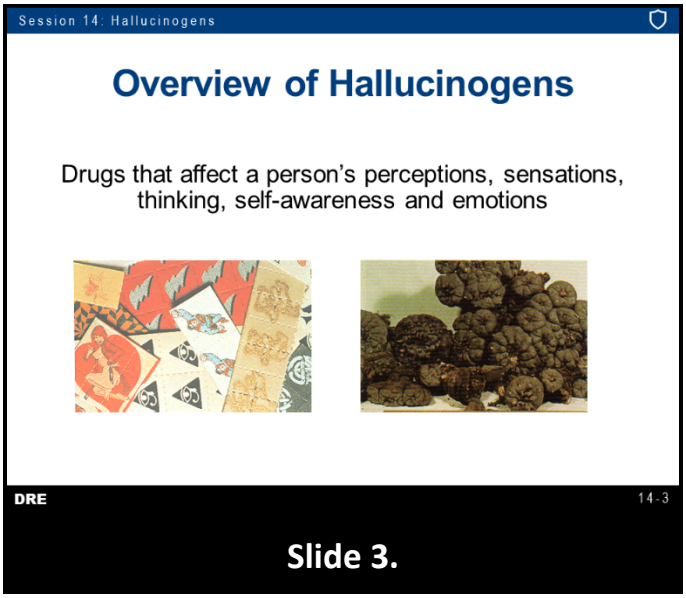
- Describe a brief overview of the Hallucinogen category of drugs
- Identify common drug names and terms associated with this category
- Identify common methods of administration for this category
- Describe the symptoms, observable signs and other effects associated with this category
- Describe typical time parameters, i.e., onset and duration of effects, associated with this category
- List the indicators likely to emerge when the drug influence evaluation is conducted for a person under the influence of this category of drugs

CONTENTS



Slide 2.

A. Overview of the Category



Slide 3.

Hallucinogens are drugs that affect a person's perceptions, sensations, thinking, self-awareness, and emotions. The word "Hallucinogen" means something that causes hallucinations. Definition from The Random House College Dictionary (Revised Edition, 1980).

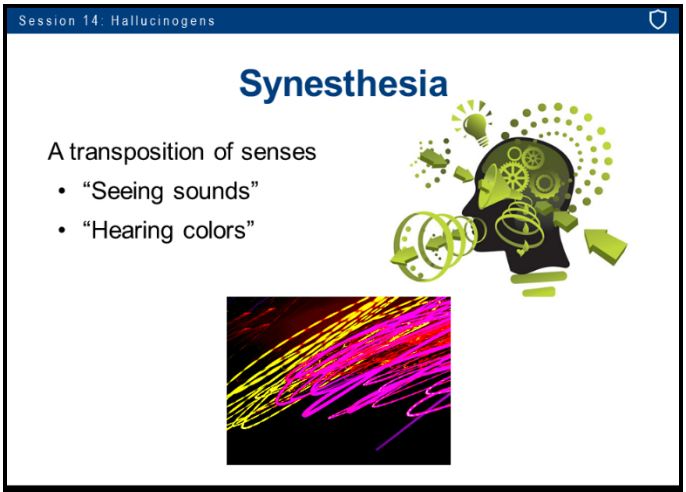
A hallucination is a sensory experience of something that does not exist outside the mind.

Seeing, hearing, smelling, tasting, or feeling something that isn't really there.

Having distorted sensory perceptions so things look, sound, smell, etc. differently than they really are.

Hallucinogenic drugs many times produce what are called pseudo-hallucinations: i.e., the user typically is aware what he or she is seeing, hearing, smelling, etc. isn't real, but is a product of the drug. This is not always the case. However, some users may believe their experience is real.

Because they often make the user appear to be psychotic, Hallucinogens are sometimes called psychotomimetic drugs. "Psychotomimetic" means "something that mimics psychosis." Psychosis is a major mental disorder. It implies a loss of touch with reality.

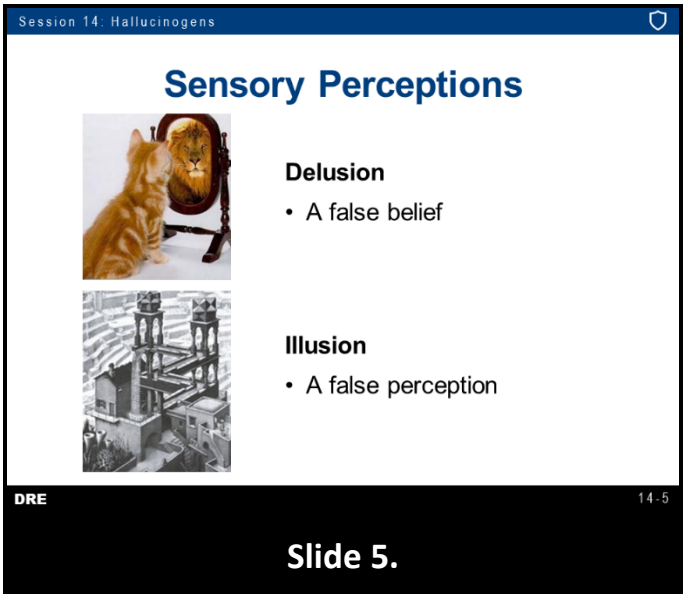


Slide 4.

One common type of hallucination produced by these drugs is called Synesthesia, which is a sensory perception disorder, in which an input via one sense is perceived by the brain as an input via another sense. In its simplest terms, it is a transposition of senses.

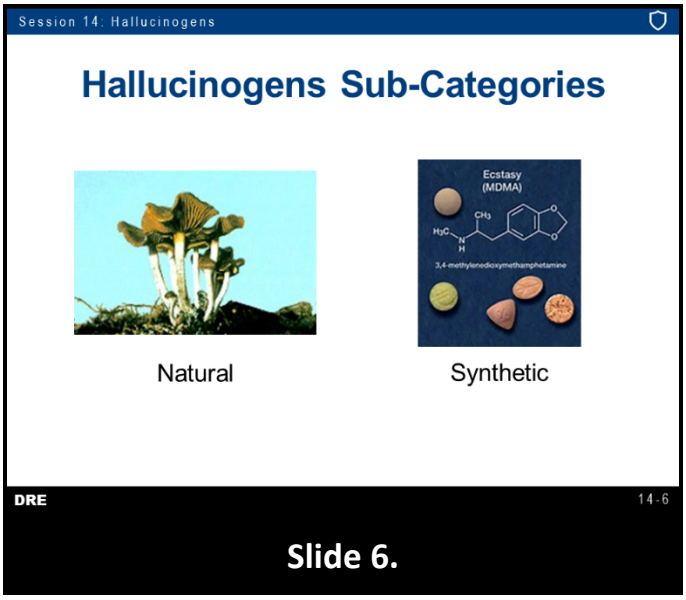
Synesthesia can occur naturally in a small percentage of the population and can differ from drug-induced synesthesia. Examples: The user may "see a flash of color, or some other sight, when the telephone rings." Sounds, for example, may be transposed into sights. Sights may be transposed into odors. The user may "smell" a particular fragrance when he or she looks at something painted yellow. The illusions and distorted perceptions produced by hallucinogenic drugs may be very alarming, even terrifying. They may produce panic and uncontrolled excitement.

The user may be unable to cope with the terror and may attempt to flee wildly. A user who is emotionally or mentally unstable may become psychotic in response to this frightening experience.



Slide 5.

Remember Hallucinogens produce delusions, illusions, or both. A delusion is a false belief, i.e., "I am an elephant." An illusion is a false perception, a misrepresentation of what the senses are receiving, i.e., "I see an elephant."

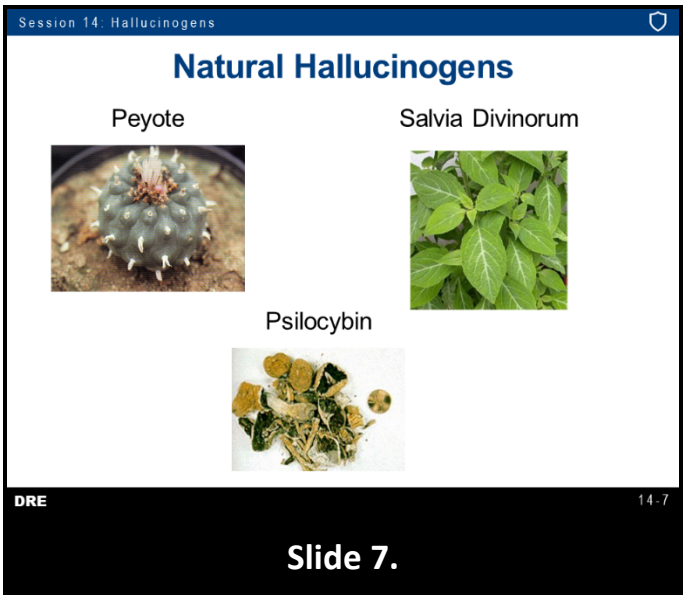


Slide 6.

Some Hallucinogens come from natural sources, while others are synthetically manufactured. Natural – those occurring in nature, such as various plants.

Peyote, Psilocybin, and Salvia Divinorum are examples of naturally-occurring Hallucinogens. Other naturally-occurring Hallucinogens include Nutmeg, Jimson Weed, Morning Glory seeds, and Bufotenine, a substance found in the glands of certain toads.

Synthetic – those made solely in a laboratory. MDMA, LSD, DOM and 2CB are examples of synthetic Hallucinogens.



Slide 7.

Peyote is a small, spineless cactus. The active, hallucinogenic ingredient in peyote is Mescaline. Mescaline is a chemical relative of adrenaline. Effects may be similar to those that would result from a massive rush of adrenaline. Mescaline was first isolated from Peyote in 1856. It was named after the Mescalero Apaches. Peyote is used legally in religious ceremonies of the Native American Church.

Psilocybin is a drug found in a number of different species of mushrooms of the genus Psilocybe. There are over 185 known species of mushrooms that contain Psilocybin and Psilocin.

These mushrooms have been used in Native American religious ceremonies for thousands of years. An unstable derivative of Psilocybin, called Psilocin, is also found in these mushrooms, and has hallucinogenic properties. Psilocybin is chemically very similar to Serotonin, a neurotransmitter found in the brain. The effects of Psilocybin may be similar to what would happen if the brain were suddenly flooded with Serotonin.

Salvia Divinorum, also known as S. Divinorum or Salvia, is a naturally occurring Hallucinogen. Salvia Divinorum is a perennial herb in the mint family native to certain areas of Mexico. The plant, which can grow to over three feet in height, has large green leaves, hollow square stems, and white flowers with purple calyces (tiny spikes) can also be grown successfully outside of this region. Salvia Divinorum has been used by the Mazatec Indians for its ritual divination and healing. The active constituent of Salvia Divinorum has been identified as Salvinorin A.

Source:

Marnell, T. (2022). *Drug Identification Bible* (2022/2023 ed.).

Some common street names for Salvia Divinorum include:

- Salvia
- Sally D
- Magic Mint
- Maria Pastora
- Diviner's Sage

Salvia is not listed under the Controlled Substance Act (CSA), but it has been banned in many States. It has not been approved for medical use.

There are several methods of administering Salvia with varying durations of hallucinogenic effects. Dried leaves of Salvia can be smoked like marijuana, in a bong, pipe, or as a joint, with the effects lasting up to 15-30 minutes. Fresh leaves can be chewed as a quid. The leaves of Salvia produce extractions of Salvinorin A before the leaves are removed from the mouth. Effects from chewing Salvia can last up to one hour.

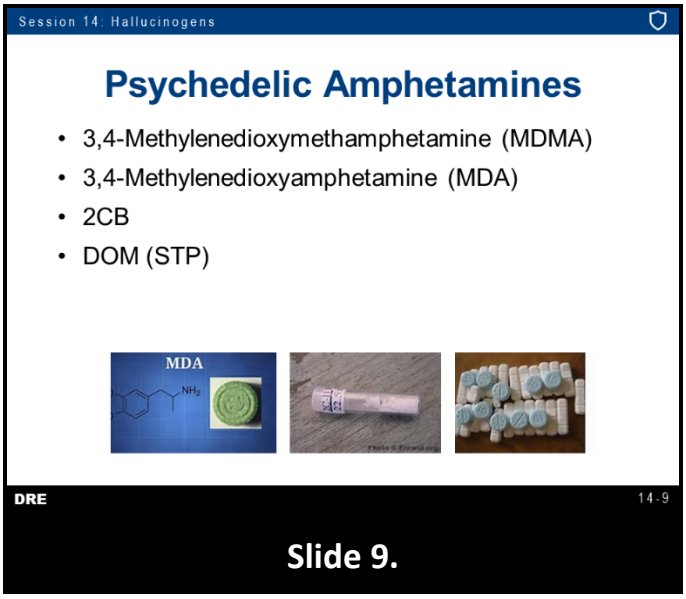
Other naturally-occurring Hallucinogens include *Nutmeg*. Nutmeg contains Myristicin, a natural compound that has mind-altering effects if administered in large doses. The buzz can last a long time and can be hallucinogenic, much like LSD. Jimson weed is a member of the Belladonna alkaloid family and grows naturally in many parts of the United States. It can be brewed as a tea or chewed and seed pods contain myristicin, a natural compound that has mind-altering effects if administered in large doses. The buzz can last one to two days and can be hallucinogenic, much like LSD. The seeds of several varieties of *Morning Glory* (Ipomoea violacea) contain a naturally-occurring Tryptamine called Lysergic Acid Amide (LSA), which is closely related to LSD. Seeds are normally administered orally and can be eaten whole or the active alkaloids can be extracted. Like LSD, LSA is a Hallucinogen, which can have strong mental effects. *Bufotenine* is a Hallucinogen found in frog or toad skins, most notably in the Colorado River Toad (Bufo alvarius).

Slide 8.

Lysergic Acid Diethylamide (LSD), Trimethoxyamphetamine (TMA), Dimethyltryptamine (DMT), MDMA, MDA, and 2CB are examples of synthetically-manufactured Hallucinogens.

LSD is perhaps the most famous of the synthetically-manufactured Hallucinogens.

First produced in 1938, although its hallucinogenic properties were not discovered until 1943. LSD was used in psychotherapy during the 1940's and early 1950's. Example: it was occasionally used in the treatment of alcoholism. Although LSD is a synthetic drug, it was first derived from Ergot, a fungus that grows on rye and other grains. Pharmaceutical companies market a combination of Caffeine and Ergot used medically to treat migraine headaches. Another synthetically manufactured hallucinogen is 25I-NBOMe: 2-(4-iodo-2,5-dimethoxyphenyl)-N-(2-methoxybenzyl) ethanamine, a synthetic drug with effects similar to LSD. It is often referred to as "N-Bomb" or "Smiles".



Slide 9.

MDA, MDMA, DOM, and TMA are synthetically-manufactured hallucinogens sometimes called "Psychedelic Amphetamines." Chemically related to Amphetamines and produce many effects similar to those of CNS Stimulants. Chemically related to Mescaline. Among users, MDA sometimes is referred to as the "Mellow Drug of America."

An important fact about Hallucinogens is they are not addictive, in the sense cessation of use does not produce withdrawal signs or symptoms; however, regular users do develop tolerance to these drugs.

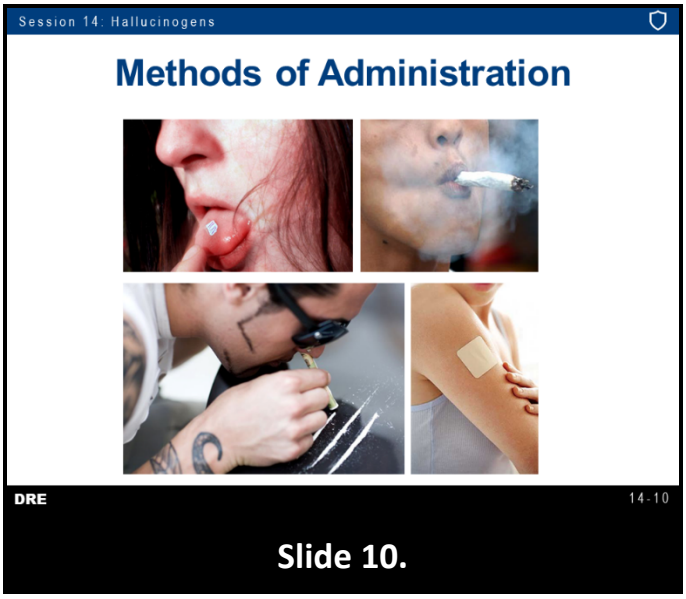
MDMA is an abbreviation for 3,4-Methylenedioxymethamphetamine and is commonly referred to as "Ecstasy". It is a hallucinogen that also acts as a stimulant. It produces an energizing effect as well as distortions in time and perception and enhances enjoyment from tactile experiences.

MDA is an abbreviation for 3,4-Methylenedioxyamphetamine. It is normally produced as a clear liquid or as a white powder in capsule or tablet form.

2CB (4-Bromo-2, 5-Dimethoxyphenethylamine) is a white powder usually found in pressed tablets or gel caps. It is considered a synthetic psychedelic amphetamine.

A popular drug first synthesized in 1974. White powder usually found in pressed tablets or gel caps. Sometimes referred to as "Venus," "Nexus," and "Bromo-Mescaline" 2CB's effects are dose related. Lower doses (5-15mg) produce enhanced sensual sensations and feelings of being "in one's body". At higher doses (15-30mg), it produces intense visual effects that includes moving objects with "trails" behind them and colors appearing from nowhere.

DOM (2, 5-dimethoxy-4-methylamphetamine) is also known as STP. STP is an abbreviation for "Serenity, Tranquility, and Peace."



Slide 10.

The most common method of administering Hallucinogens is orally. Peyote, Psilocybin, and Jimson Weed are often brewed in a tea. Salvinorin A can be ingested by chewing the leaves.

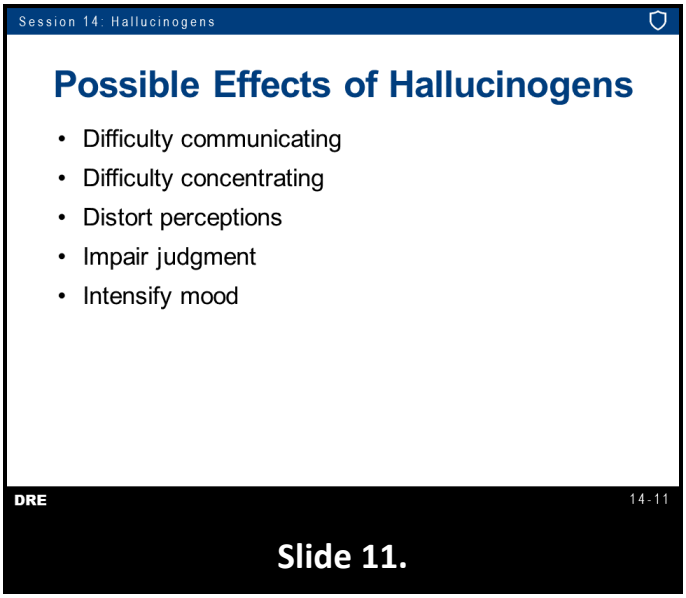
Some Hallucinogens can also be smoked, such as Peyote, Salvinorin A, and DMT. However, LSD cannot be administered by smoking. LSD is usually administered orally, or it can also be absorbed by placing drops in the eye.

MDMA and many other Psychedelic Amphetamines can also be insufflated, or "snorted."

Some Hallucinogens, such as LSD, can be administered and absorbed through the skin.

Officers should make it a practice to wear protective gloves when handling any suspected drugs.

B. Possible Effects



Slide 11.

The effects of Hallucinogens vary widely and are affected by the user's personality, mood, expectations, and by the surroundings in which the drug is taken.

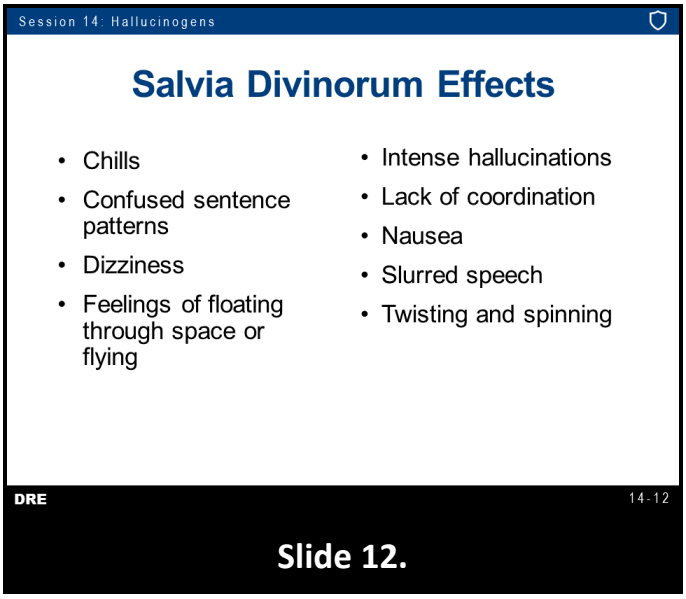
The most common effect of the Hallucinogen is hallucination: the distorted perception of reality, often with a mixing of senses that makes it virtually impossible for the drug-influenced user to function in the real world.

Generally, Hallucinogens intensify whatever mood the user is in at the time the drug is taken. If the user is depressed, the drug will usually deepen the depression. If the user is feeling pleasant, the drug will usually heighten that feeling.

If the user expects the drug will help him or her achieve new insights or an expanded consciousness, the "trip" will seem to have that effect.

However, Hallucinogens also often uncover mental or emotional flaws the user was unaware of possessing. Therefore, many users who expect a positive experience with the drug will encounter instead the panic of a "bad trip."

Hallucinogens may cause difficulty concentrating, communicating clearly, or distinguishing between reality and illusion. They may also distort perceptions, impair judgment, and induce body-wide dissociative or stimulating sensations, which may cause panic reactions or violent defensive behaviors.



Slide 12.

Effects of Salvia Divinorum include: intense hallucinations; feelings of floating through space or flying; twisting and spinning; dizziness; nausea; lack of coordination; slurred speech; confused sentence patterns; and chills.

Source:

Salvia Divinorum. (2020, April). Retrieved May 16, 2022, from United States Drug Enforcement Administration: https://www.dea.gov/factsheets/salvia-divinorum

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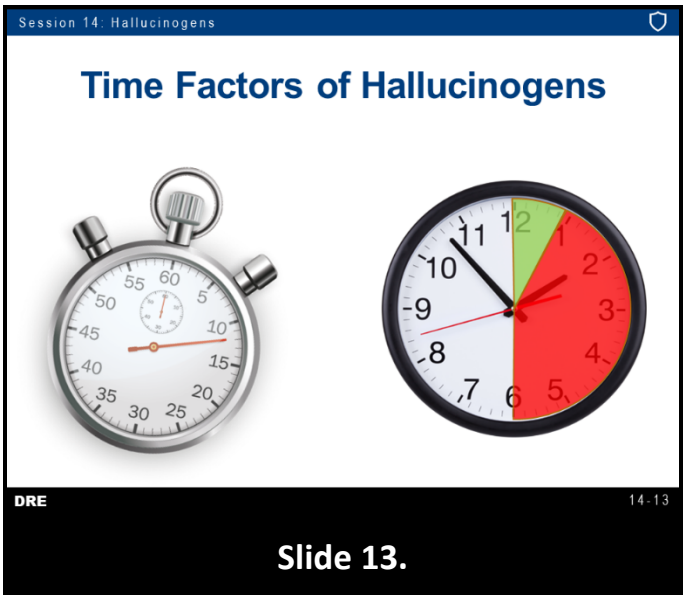
C. Onset and Duration of Effects



Slide 13.

The time parameters associated with Hallucinogens vary from drug to drug.

The effects of Peyote (Mescaline) begin to be felt within approximately one-half hour after eating the cactus "buttons." Effects generally last up to 12 hours.

Psilocybin also begins to exert its effects within one-half hour. The effects generally last up to 5 hours.

LSD's effects begin to be felt within 30 – 45 minutes. The effects gradually diminish 6 – 8 hours after administration.

MDMA's effects usually begin within several minutes to a half hour if taken orally. The duration of effects can last from 1 – 3 hours.

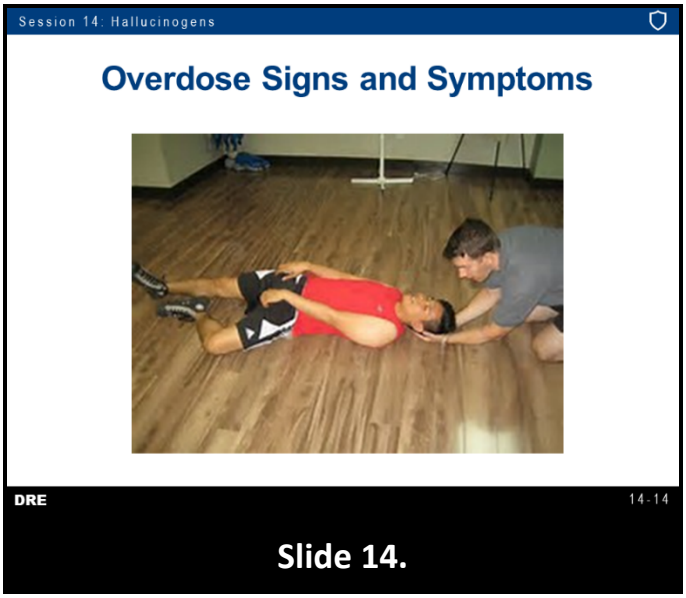
Onset and duration of effects of other Hallucinogens vary widely from about 2 hours to about 24 hours.

Sources:

Marnell, T. (2022). *Drug Identification Bible* (2022/2023 ed.).

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

D. Overdose Signs and Symptoms



Slide 14.

The most common danger of an overdose of Hallucinogen is an intense “bad trip” which can result in severe and sometimes permanent damage. “Bad trips” may consist of severe, terrifying thoughts and feelings, fear of losing control, and despair.

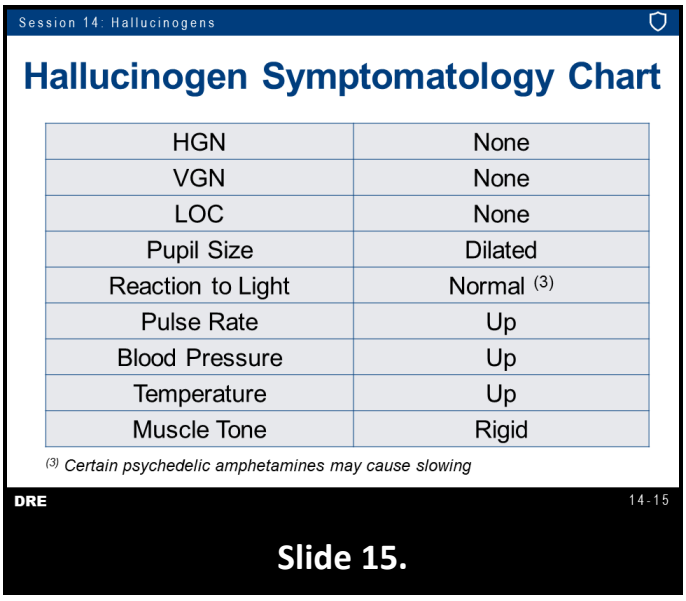
Apart from Psychedelic Amphetamines, it is unlikely other Hallucinogens would directly result in death from overdoses. There have been occasions people have overdosed on Psychedelic Amphetamines, resulting in a condition similar to heat stroke, convulsions, and even death. However, an overdose on other hallucinogens can still be extremely dangerous and indirectly result in death.

The extreme panic and agitation of a “bad trip” have been known to result in suicide or in accidental death as the user attempts to flee the hallucinations.

Sometimes Hallucinogens induce a perception of invulnerability in the user, leading to bizarre and very dangerous behavior and death. For example, at least one LSD user was killed when he attempted to stop a train. Others have died from jumping off buildings believing they can fly.

Some evidence suggests prolonged use of LSD may produce organic brain damage, leading to impaired memory, reduced attention span, mental confusion, and impaired ability to deal with abstract concepts.

E. Expected Results of the Evaluation



Slide 15.

Eye Exams: Neither Horizontal Gaze Nystagmus (HGN) nor Vertical Gaze Nystagmus (VGN) will be present. Lack of Convergence (LOC) will not be evident.

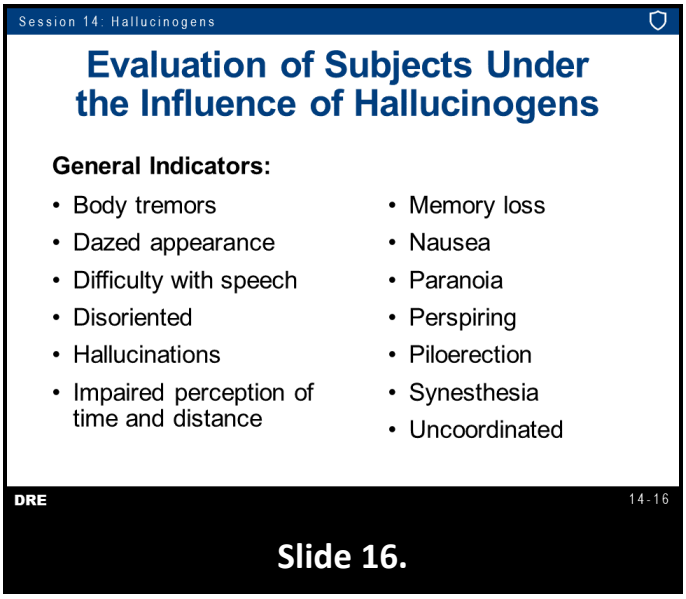
Psychophysical Tests: Performance on the Modified Romberg Balance (MRB) test will generally be impaired, particularly in the subject’s estimation of the passage of 30 seconds.

Performance on the Walk and Turn (WAT), One Leg Stand (OLS), and Finger to Nose (FTN) tests will generally be impaired due to the subject's severe visual distortion, impaired perception of distance, and decreased muscle coordination.

Vital Signs: Pulse will generally be elevated. Blood pressure generally will be elevated. Body temperature generally will be elevated.

Dark Room: Pupils generally will be dilated. Reaction to light will usually be normal. Certain Psychedelic Amphetamines may cause slowing of the pupil's Reaction to Light.

Muscle tone generally will be rigid.



Slide 16.

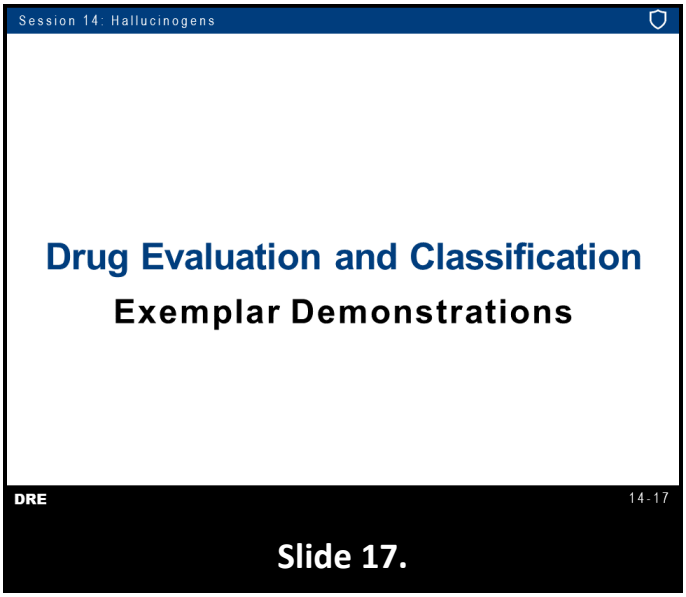
General Indicators:

- Body tremors
- Dazed appearance
- Difficulty with speech
- Disoriented
- Hallucinations
- Impaired perception of time and distance
- Memory loss
- Nausea
- Paranoia
- Perspiring
- Piloerection (hair standing on end, i.e. goosebumps)
- Synesthesia
- Uncoordinated

For more information and details regarding possible effects refer to

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

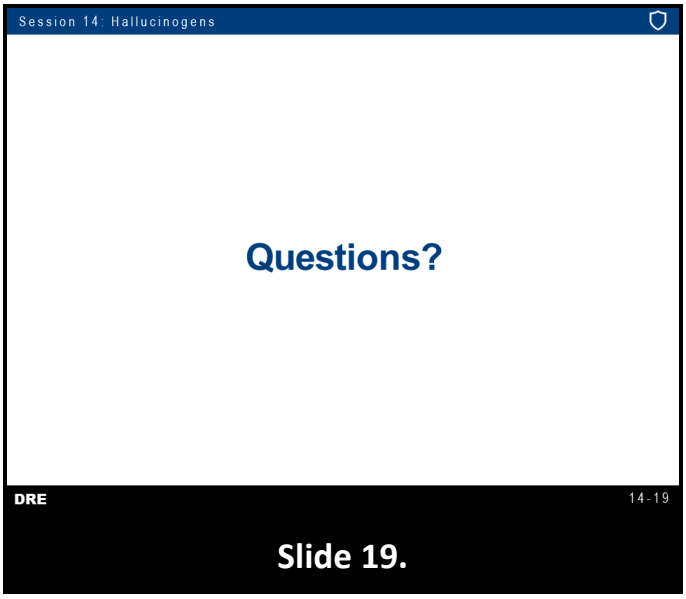
F. Review of the DEC Program Exemplars



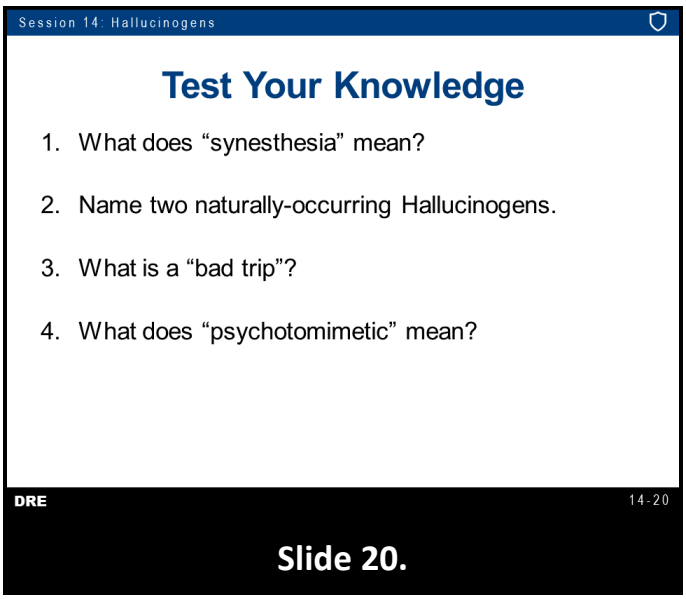
Slide 17.

The DRE narrative report should be detailed and complete, which clearly articulates the opinion of the DRE.

Slide 18.



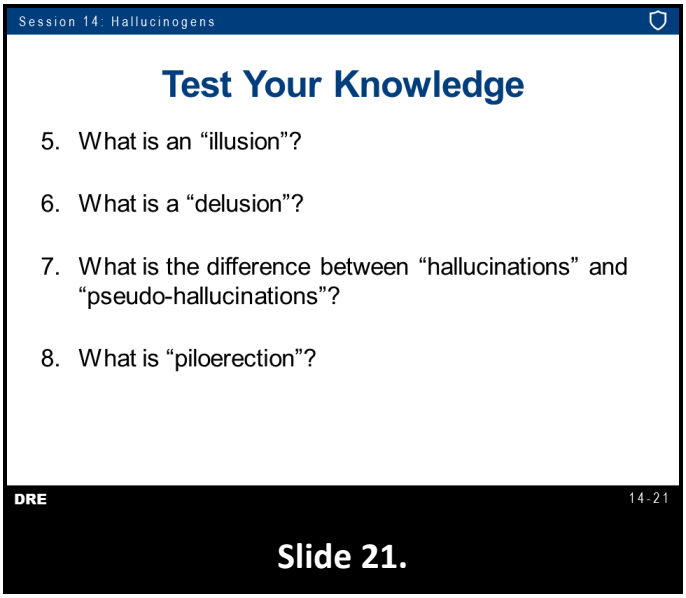
Slide 19.



Slide 20.

Test Your Knowledge

1. What does “synesthesia” mean?
2. Name two naturally occurring Hallucinogens.
3. What is a “bad trip”?
4. What does “psychotomimetic” mean?



Slide 21.

Test Your Knowledge

5. What is an “illusion”?
6. What is a “delusion”?
7. What is the difference between “hallucinations” and “pseudo-hallucinations”?
8. What is “piloerection”?

DRUG INFLUENCE EVALUATION

Evaluator: Sgt. Chris Treadway	DRE #: 18760	Rolling Log #: 22-008-0072	Evaluator's Agency: Sioux Falls PD	Case#: (Session XIV - #1)
Recorder/Witness: Lt. Isaac Kurtz, South Dakota HP	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: SD Highway Patrol	
Arrestee's Name (Last, First, Middle): Flipping, Candi R.	Date of Birth: 06/19/1986	Sex: F	Race: W	Arresting Officer (Name, ID#): Trooper Trent Heuretz
Date Examined / Time /Location: 08/10/22 / 2:10 pm / Minnehaha Co	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: Intox 9000	Chemical Test: Urine ☒ Blood ☐ Test or tests refused ☐	

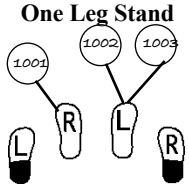
Miranda Warning Given Given by: Heuretz	☒ Yes ☐ No	What have you eaten today? Muffin, eggs, kale	When? About noon	What have you been drinking? How much? Water 4 or 5 bottles	Time of last drink? N/A
Time now/ Actual: 5 pm / 2:15 pm	When did you last sleep? Last night	How long? 3 or 4	Are you sick or injured? ☒ Yes ☐ No Nauseous		Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☐ Yes ☒ No		
Are you taking any medication or drugs? ☒ Yes ☐ No "A couple of Molly's"	Attitude: Cooperative, Dazed		Coordination: Poor, Staggering		
Speech: Rambling, Slurred	Breath odor: Normal		Face: Flushed, Sweaty		
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery		Blindness: ☒ None ☐ Left ☐ Right		Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No		Eyelids ☒ Normal ☐ Droopy

Pulse/Time	HGN	Left Eye	Right Eye
1. 102 / 2:20	Lack of Smooth Pursuit	None	None
2. 104 / 2:30	Maximum Deviation	None	None
3. 102 / 2:50	Angle of Onset	None	None

Convergence

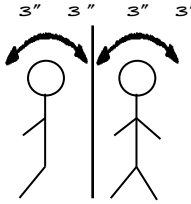
Right eye Left eye

NA/30 **One Leg Stand** NA/30



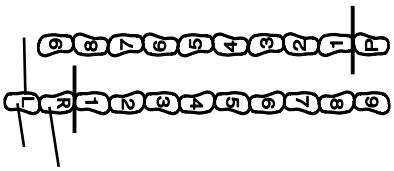
Modified Romberg Balance

Approx. 3″ 3″ Approx. 3″ 3″



Arm & leg tremors

Walk and Turn Test



Test stopped. Nearly fell 3 times.

Cannot keep balance: 3

Starts too soon:

	1st Nine	2nd Nine
Stops walking		
Misses heel-toe		
Steps off line		
Uses arms		
Actual steps taken	N/A	N/A

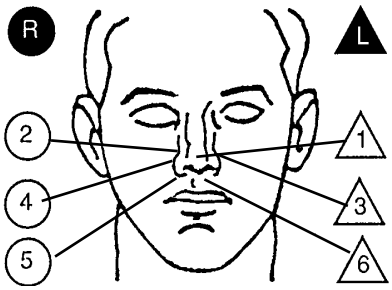
L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

Tests stopped after nearly falling

Time Estimation 46 estimated as 30 seconds	Describe turn: N/A	Cannot do test (explain): N/A

Type of footwear: Bare feet

Finger to Nose
(Draw lines to spots touched)



Used pads of fingers on attempts 2, 4, & 6; Body tremors

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	7.5	9.0	6.0
Right Eye	7.5	9.0	6.0

Nasal area: Clear

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

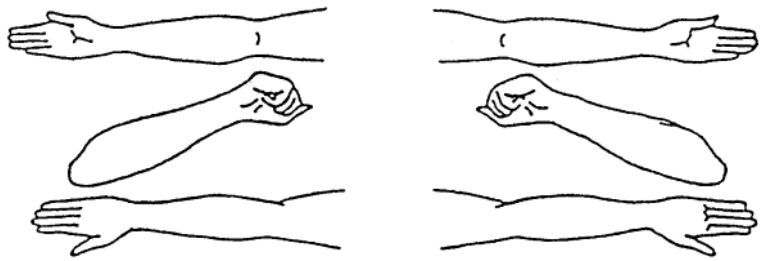
Reaction to Light: Slow

Blood Pressure	Temperature
166 / 98	99.9 °F

Muscle Tone: ☐ Near Normal ☐ Flaccid ☒ Rigid

Comments:

RIGHT ARM **LEFT ARM**



Nothing observed

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"Just a couple of Molly's."	"Just a couple"	Don't remember	In the park at the concert

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
08/10/22 1:25 PM	1:50 PM	2:10 PM	3:20 PM	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: C. Treadway | Reviewed/approved by / date: | DRE#

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant
☐ Medical ☐ CNS Depressant ☒ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Flipping, Candi R.

1. **Location:** The evaluation was conducted in the Interview Room at the Sioux Falls Police Department. The darkroom examinations were conducted in a storage room adjacent to the Interview Room. Both areas were well illuminated, and both had smooth concrete flooring.

2. **Witnesses:** The evaluation was witnessed and recorded by Lt. Isaac Kurtz of the South Dakota HP.

3. **Breath Alcohol Test:** The suspect's breath test was administered by Trooper Heurtz prior to my arrival with a 0.00% BAC result.

4. **Notification and Interview of the Arresting Officer:** I was working as part of a DUI Emphasis operation and was requested to conduct a drug evaluation for Trooper Heurtz of the SD HP. When contacted, Trooper Heurtz advised he had observed the suspect driving her vehicle 20 miles per hour under the posted speed limit and weaving within her lane on Highway 115. According to Trooper Heurtz, the suspect's vehicle tires nearly contacted the gravel shoulder numerous times. After Trooper Heurtz activated his emergency lights and siren, the suspect continued her poor driving until eventually stopping over a half mile later. When contacted, the suspect was extremely disoriented and had difficulty speaking. According to Trooper Heurtz, the suspect indicated she was in the area for the Sturgis Motorcycle Rally. She indicated she had just left an outdoor concert and was on her way to a friend's campsite near Deadwood. Trooper Heurtz suspected the driver might be impaired and attempted to administer SFST's at roadside. However, the suspect was unable to complete the SFST's due to her poor balance and lack of coordination. He attempted to administer the Horizontal Gaze Nystagmus (HGN) test but was unable to do so because the suspect could not focus on his penlight as requested. He also attempted to administer the Walk & Turn (W&T) test, but the suspect could not maintain her balance in the instructions stage. For this reason, he did not have the suspect attempt any other roadside tests. Trooper Heurtz arrested the suspect for DUI and transported her to the PD for processing. After obtaining a 0.00 BAC, he requested the assistance of a DRE.

5. **Initial Observation of the Suspect:** I first observed the suspect in the Interview Room at the PD. She was seated on a bench and was perspiring heavily and had a flushed face. She appeared dazed and disoriented. I noted she was wearing cut-off jeans, a black tee-shirt, and was bare foot. She responded slowly to my greeting, and at times her attention was elsewhere. She was cooperative, and for the most part was responsive to my questions. However, some of her responses were not relevant to my questions. When I asked if she was feeling alright, she stated, "I am, but your shirt is really bright." At times she mumbled to herself and had rambling, slurred speech. She told me she believed it was about 5:00 pm, when it was actually 2:15 pm. She stated she ate breakfast earlier and had a muffin, eggs, and kale. He also indicated she had consumed 4 or 5 bottles of water during the day. She stated she slept the night before for about 3 or 4 hours. Her eyes appeared normal, but her pupils were noticeably dilated. When asked if she would submit to a drug evaluation, she replied, "Sure, okay, why not."

6. **Medical Problems and Treatment:** Several times the suspect reported feeling nauseous. When asked, she told me she did not require any medical attention and denied having any medical problems. She stated she was not epileptic or diabetic and does not take insulin. She indicated she is generally in good health, is not under the care of a doctor or dentist and has no physical defects.

7. **Psychophysical Indicators of Impairment:** For the following psychophysical tests, the suspect was given instructions and demonstrations for each one. She told me she understood the tests before each one was attempted. The following psychophysical tests were given:

Modified Romberg Balance: Three times the suspect asked me to repeat the instructions, and after the third time, she told me she understood them. During the test she swayed approximately 3" front to back and side to side. She had a slowed time estimation, estimating the passage of 30 seconds in 46 seconds. When asked how she estimated the 30 seconds, she stated, "I had a clock in my head and used that." She exhibited arm and leg tremors while attempting the test.

Walk & Turn: For this test, a line on the concrete floor was used. However, she was unable to perform this test due to her extreme poor balance. Each time she attempted to get into the instruction position, she would lose her balance and nearly fall. The test was stopped for her safety. She appeared upset when she could not do the test and told me the test was not fair because the line was moving.

One Leg Stand: On the first attempt while raising her right foot, she swayed and used her arms for balance. She put her foot down immediately at count 1,001 to keep from falling. The test was then stopped for safety reasons. She attempted to stand on her right foot and raise her left foot of the floor and again immediately put her raised foot down at counts 1,002 and 1,003. While attempting the test, she used her arms for balance. For safety reasons, the test was stopped.

Finger to Nose: The suspect swayed noticeably, and she missed the tip of her nose on all six attempts. She used the pads of her fingers on attempts 2, 4 and 6. Several times during the test she laughed out loud. Several times she opened her eyes, looked at me, and then closed them again. Body tremors were present in her arms and legs.

8. **Clinical Indicators of Impairment:**

   Eye Signs: The suspect exhibited equal tracking, had equal pupil size, and did not exhibit resting nystagmus. On the HGN test, she had to be reminded to focus on my penlight. I was able to complete the test, and no clues were observed. She did not exhibit VGN. She did not exhibit a lack of convergence, as her eyes were able to converge as instructed. Her pupils were dilated and above the DRE average ranges. In Room Light, her pupils were estimated at 7.5 millimeters (mm) in both eyes. In Near Total Darkness, her pupils were estimated at 9.0 mm in both eyes, and in Direct Light, they were estimated at 6.0 mm in both eyes. Her pupillary reaction to light was slow and she did not exhibit rebound dilation.

   Vital Signs: The suspect's pulse rates were elevated at 102, 104 and 102 beats per minute (bpm). All three were above the DRE average range. Her blood pressure was elevated at 166/98 millimeters of Mercury (mmHg). Her body temperature was elevated at 99.9° F. Both were above the DRE average ranges. Her muscle tone was rigid.

9. **Signs of Ingestion:** There were no signs of ingestion or injection. Her nasal and oral cavities were clear.

10. **Suspect's Statements:** The suspect stated she was healthy and did not take medications. However, she admitted taking "a couple Molly's" at a concert earlier in the day. She said they made her happy and helped her enjoy the music. When asked if "Molly" was Ecstasy, she replied, "Yea, I think so."

11. **DRE's Opinion:** It is my opinion as certified Drug Recognition Expert that Flipping was under the influence of a Hallucinogen and unable to operate a vehicle safely.

12. **Toxicological Sample:** A urine sample was collected from the suspect by Trooper Heurtz and was submitted as evidence pending analysis by the state crime laboratory.

13. **Miscellaneous:** Refer to Trooper Heurtz's arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Lt. Allan Kolak	8191	22-010-0102	Cape Coral PD	(Session XIV - #2)

Recorder/Witness	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency
Tim Cornelius, IPTM		Cape Coral PD

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Tripp, Brad	07/18/1988	M	W	Sgt. Heather Causer #16882

Date Examined / Time /Location	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: Drager 12355	Chemical Test: Urine ☒ Blood ☐ Test or tests refused ☐
05/17/22 / 2210 / Collier Co. Jail			

Miranda Warning Given Given by: Sgt. Causer	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
		Couple of hotdogs	About 5 pm	Water 3 or 4 bottles	N/A

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
About 7 pm / 2215	Yesterday	About 6 hours	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

Are you taking any medication or drugs?	Attitude:	Coordination:
☐ Yes ☒ No	Indifferent, Paranoid at times	Poor, Staggering

Speech:	Breath odor:	Face:
Rambling, Incoherent at times	Normal	Flushed, Sweaty

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

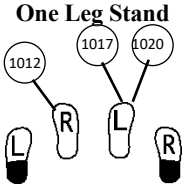
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☒ Normal ☐ Droopy

Pulse/Time	HGN	Left Eye	Right Eye
1. 112 / 2221	Lack of Smooth Pursuit	None	None
2. 110 / 2238	Maximum Deviation	None	None
3. 112 / 2244	Angle of Onset	None	None

Convergence

26/30

One Leg Stand 32/30

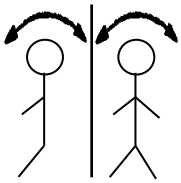


L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

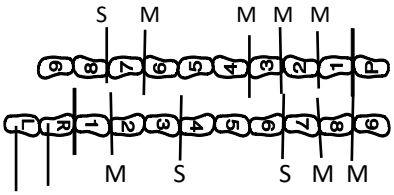
Body tremors

Modified Romberg Balance

Approx. 2″ 2″ Approx. 2″ 2″



Walk and Turn Test



Leg tremors throughout

Cannot keep balance: 2

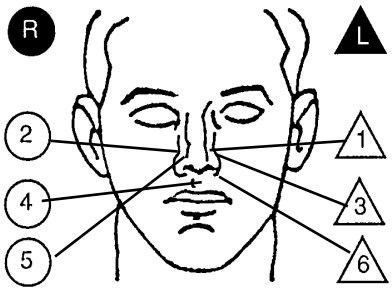
Starts too soon: 1

	1st Nine	2nd Nine
Stops walking	2	1
Misses heel-toe	3	4
Steps off line		
Uses arms	1	All
Actual steps taken	9	9

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
22 estimated as 30 seconds	Lost balance. Had to regain footing	N/A	Leather sandals

Finger to Nose

(Draw lines to spots touched)



Tremors. Used pad of finger on attempts 3, 4, and 6. Slow jerky movements

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	6.0	9.0	5.5
Right Eye	6.0	9.0	5.5

Nasal area: Clear

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

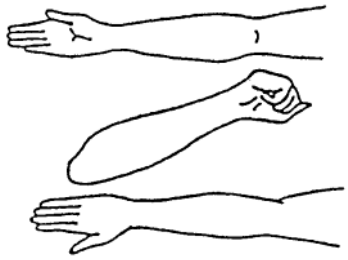
Reaction to Light: Slow

Blood Pressure	Temperature
160 / 96	99.8 °F

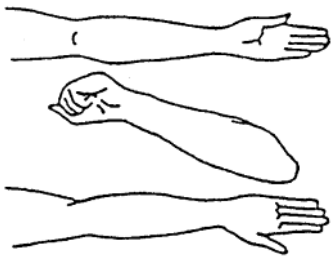
Muscle Tone: ☐ Near Normal ☐ Flaccid ☒ Rigid

Comments:

RIGHT ARM



LEFT ARM



Nothing observed

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"Nothing" (Laughed outload after answering)	N/A	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
05/17/22 2105	2125	2210	2305	

DRE/Officer's Signature: Alan Kollak	Reviewed/approved by / date:	DRE#

Opinion of Evaluator:

☐ Not Impaired	☐ Alcohol	☐ CNS Stimulant	☐ Dissociative Anesthetic	☐ Inhalant
☐ Medical	☐ CNS Depressant	☒ Hallucinogen	☐ Narcotic Analgesic	☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Tripp, Brad

1. **Location:** The evaluation was conducted on 05/17/22 in the Collier County Jail Interview Room. The darkroom examinations were conducted in the staff restroom. Both areas have adequate lighting to conduct an evaluation and both have smooth tile flooring.

2. **Witnesses:** Timothy Cornelius from IPTM witnessed and recorded the evaluation. The darkroom examinations were witnessed by the arresting officer, Sgt. Heather Causer.

3. **Breath Alcohol Test:** The suspect's breath test was 0.00% and was administered by Sgt. Causer at the County Jail prior to my arrival.

4. **Notification and Interview of the Arresting Officer:** I was requested to conduct a drug evaluation for Sgt. Causer and contacted her at the Collier County Jail. She advised that she had arrested the suspect after observing him driving his vehicle along the gravel shoulder of Beach Road trying to pass slower moving vehicles. According to Sgt. Causer, the suspect was acting very strange and at times began talking to imaginary people. He also claimed that the overhead lights on Sgt. Causer's patrol vehicle were burning his eyes and skin. Sgt. Causer administered SFSTs and no clues of HGN were observed. However, the suspect did very poorly on the W&T and OLS tests, and due to his poor balance and coordination, some of the tests had to be stopped for safety reasons. According to Sgt. Causer, she could not detect an odor of alcoholic beverage on the suspect's breath. He was subsequently arrested for DWI and taken to the County Jail for processing. After obtaining a 0.00 BAC result, Sgt. Causer requested a DRE to assist with the investigation.

5. **Initial Observation of the Suspect:** I first observed the suspect sitting in the Interview Room of the CCSO Jail. He appeared to be extremely disoriented. At times, he was talking to himself, and once he pointed to the clock on the wall and began talking to it. He was indifferent, easily distracted, and at times paranoid acting, rambling about various things. He did tell me that he was not sick or injured. He had a flushed sweaty face. His breath odor was unremarkable. His coordination was poor, and at times he staggered as he walked. When asked what time it was, he thought it was about 7:00 pm, when it was actually 10:15 pm (2215 hours). He stated he had eaten a couple of hotdogs about 5:00 pm, and only had water to drink throughout the day. He denied consuming any alcohol. He stated he slept yesterday for about six hours. I noted that he was wearing soiled green pants, a red tee-shirt, and slip-on leather sandals.

6. **Medical Problems and Treatment:** The suspect indicated he was not sick and was not injured. No indicators of injury or illness were mentioned or observed during the evaluation. He stated he was not under the care of a doctor or dentist, was not epileptic or diabetic, and did not take insulin. He further stated he had no medical or mental health problems and was not taking any medication.

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to the suspect prior to each test. He stated he understood the instructions each time. The following tests were conducted:

   Modified Romberg Balance: The suspect swayed approximately two inches front to back and side to side. His time estimation was fast, estimating 30 seconds in 22 seconds. When asked how he estimated the 30 seconds, he stated he could hear the clock ticking on the wall and used that. I asked what clock he was referring to as there were no clocks in the room. The suspect then pointed to an air vent behind me.

Walk and Turn: For this test, a line in the tile floor was used. The suspect lost his balance twice during the instructions stage and attempted to start the test too soon once. During the walking stage, he stopped while walking twice and missed touching heel to toe three times on the first nine steps. He also used his arms to balance once. He made an improper turn losing his balance and then having to regain his footing. After regaining his balance and starting the next nine steps, he missed touching heel to toe four times, stopped while walking once and used his arms for balance on all nine steps. Prior to attempting the test, he was asked if he preferred to remove his sandals. He looked at his feet for about 30 seconds, and said, "No, I have both feet." He then attempted the test with his sandals on.

One Leg Stand: The suspect swayed while balancing and used his arms for balance while standing on his left foot. He put his foot down once at 1,012 and counted to 1,026 in the 30 second period. While standing on his right foot and raising his left foot off the floor, he swayed while balancing and used his arms for balance once. He put his foot down twice, at his count of 1,017 and 1,020. He counted to 1,032 in the 30 second period. Lower body tremors were present throughout the test.

Finger to Nose: During this test, the suspect missed the tip of his nose with the tip of his index finger on each attempt. He used the pad of his finger on attempts 3, 4 and 6. He exhibited slow jerky movements with his arms on each attempt. His legs tremored constantly, and his arms exhibited tremors, particularly when each was at his side.

8. **Clinical Indicators of Impairment:**

Eye Signs: The suspect's eyes tracked equally, his pupils were equal in size, and he did not have resting nystagmus. No clues of HGN were observed and he did not exhibit VGN. He did not exhibit a lack of convergence as his eyes were able to converge as instructed but only after repeated instructions to follow my penlight. His pupils were dilated in all three lighting levels and were estimated at 6.0 millimeters (mm) in both eyes in Room Light, 9.0 mm in both eyes in Near Total Darkness, and 5.5 mm in both eyes in Direct Light. All three estimates were above the DRE average ranges. His pupillary reaction to light was slow and he did not exhibit rebound dilation.

Vital Signs: The suspect's pulse rates were all above the DRE average range, at 112 beats per minute (bpm), 110 bpm and 112 bpm. His blood pressure was above the average ranges at 160/96 millimeters of mercury (mmHg). His body temperature was above the DRE average range at 99.8° F. His muscle tone was rigid.

9. **Signs of Ingestion:** No signs of ingestion were observed. His nasal and oral cavities were clear, and he had no injection marks on his arms or hands.

10. **Suspect's Statements:** The suspect denied drug use. He made numerous rambling statements that were at times incoherent. He at times appeared to be talking to someone or something that was not real. He seemed to see objects that were not actually present and was constantly looking around the room.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a Hallucinogen and is unable to operate a vehicle safely.

12. **Toxicological Sample:** A urine sample was collected from the suspect and it was turned over to Sergeant Causer for submission to the crime lab for analysis.

13. **Miscellaneous:** Due to the suspect's periodic hallucinations and elevated vital signs, he was put on a medical watch alert by the jail staff and his condition was monitored. Refer to Sgt. Causer's report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Sgt. Jay Penton	15465	22-005-0032	Alabama LEA	(Session XIV - #3

Recorder/Witness	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency
Dpty. Ricky Thompson, MCSO		Prattville PD

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Trumpet, Angel	01/12/1992	F	W	Sgt. Brian Gentry #25218

Date Examined / Time /Location	Breath Test: Test Refused ☐	Chemical Test: Urine ☐ Blood ☒
07/29/22 / 1830 / Prattville PD	Results: 0.00 Instrument #: 59882	Test or tests refused ☐

Miranda Warning Given	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
Given by: Sgt. Gentry		"Nothing, I'm fasting"	N/A	Water 2 bottles	N/A

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
10 PM / 1833	Last night	About 4 hours	☒ Yes ☐ No Upset stomach	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

Are you taking any medication or drugs?	Attitude:	Coordination:
☐ Yes ☒ No "I don't do drugs!"	Argumentative, Excited	Poor, Staggering at times

Speech:	Breath odor:	Face:
Rapid, Incoherent at times	Rancid	Flushed, Sweaty

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

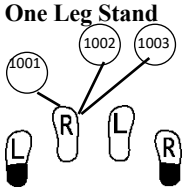
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☒ Normal ☐ Droopy

Pulse/Time	HGN	Left Eye	Right Eye
1. 108 / 1837	Lack of Smooth Pursuit	None	None
2. 106 / 1858	Maximum Deviation	None	None
3. 106 / 1912	Angle of Onset	None	None

Convergence

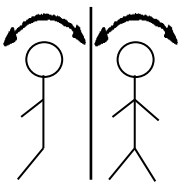
Right eye Left eye

3/30 **One Leg Stand** NA/30



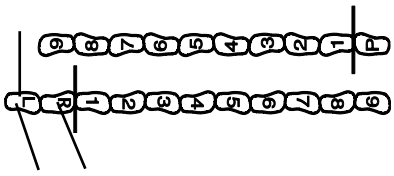
L R
☒ ☐ Sways while balancing
☒ ☐ Uses arms for balance
☐ ☐ Hopping
☒ ☐ Puts foot down
Nearly fell. Test stopped.

Modified Romberg Balance
Approx. Approx.



Unable to stand. Test stopped for safety

Walk and Turn Test

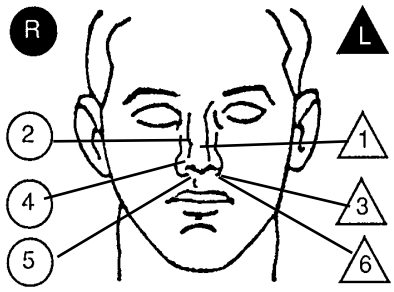


Lost balance almost falling. Test stopped for safety reasons.

	1st Nine	2nd Nine
Cannot keep balance	3	
Starts too soon		
Stops walking		
Misses heel-toe		
Steps off line		
Uses arms		
Actual steps taken		

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
N/A estimated as 30 seconds	N/A	N/A	Lace-up boots

Finger to Nose
(Draw lines to spots touched)



Done seated for safety. Slow rigid movements

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	6.0	8.5	5.0
Right Eye	6.0	8.5	5.0

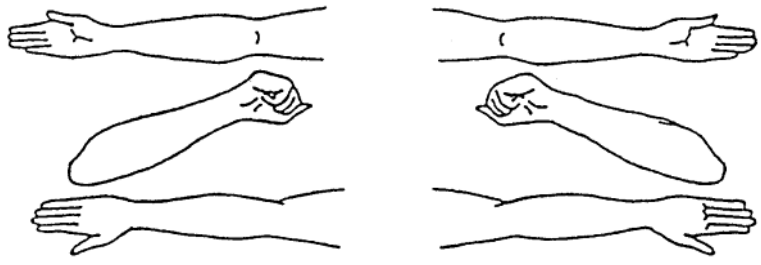
Nasal area: Clear

Oral cavity: Brown coating on tongue, brown matter in teeth.

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature
172 / 96	100.8 °F

Muscle Tone: ☐ Near Normal ☐ Flaccid ☒ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"Nothing. I told you, I don't do drugs!"	N/A	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
07/29/22 1725	1810	1830	1945	

DRE/Officer's Signature: *Jay Penton* Reviewed/approved by / date: DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☒ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Trumpet, Angel

1. **Location:** The drug evaluation was conducted in the interview room of the Prattville Police Department. The dark room examinations were conducted in the staff restroom at that location. Both areas have adequate lighting for conducting a drug evaluation and have a level and smooth concrete floor.

2. **Witnesses:** Deputy Ricky Thompson of the Montgomery CO. S.O. Witnessed and recorded the evaluation.

3. **Breath Alcohol Test:** The suspect's breath test was administered by Sgt. Brian Gentry with a 0.00 result.

4. **Notification and Interview of the Arresting Officer:** On 07/29/22, at approximately 1810 hours, I was contacted by Sergeant Gentry from Prattville PD requesting my assistance with a DWI arrest. I responded to PPD and spoke with Sergeant Gentry and he reported finding the suspect's vehicle stopped, partially blocking East Main Street. Gentry contacted the suspect who was in the driver's seat and appeared dazed and disoriented. He stated the suspect repeatedly pointed into the sky and said she had stopped because the lights were so bright. According to Sergeant Gentry, there were no lights where the suspect was pointing. He further stated the suspect was at times incoherent and it took some time for her to understand who he was and to get her to exit her vehicle. Gentry determined she was not experiencing any emergency life threatening medical issues and suspected that she may be impaired. Gentry stated that the suspect's pupils were very large for the lighting condition. He was able to administer the HGN test, but the suspect as unable to complete the WAT and OLS and nearly fell several times during her attempts. The suspect told Gentry that there was a spaceship overhead causing her to nearly fall. Gentry placed the suspect under arrest for DWI and read her the Miranda warnings. While traveling to the PD she stated that the streetlights were too loud and hurt her ears. The suspect became a little more coherent once at the PD and was able to exit the patrol car, walk into the station on her own, and answer questions. She was given a breath test with a .00% result. Immediately after obtaining the .00 BAC, Gentry requested DRE assistance.

5. **Initial Observation of the Suspect:** I first observed the suspect in the interview room at the PPD. She was seated in a chair and was staring straight ahead. As I entered the room, she turned quickly and asked me, "Are you God?" I introduced myself and asked if she would submit to a drug evaluation. She replied, "They sent you. It must be okay." Her speech was rapid and incoherent at times. She was perspiring heavily, even though the room was cool from the air conditioning. She would have mood swings from cooperative to argumentative and calm to excited. When asked about her condition, she stated, "I'm okay, are you okay?" She stated she ate nothing and was "fasting" and drank two bottles of water. She estimated the time as about 10 pm when it was actually 6:30 pm (1830 hours). She stated she did not have any vision problems or blindness and that she did not wear corrective lenses. Her pupils were noticeably dilated for the lighting condition. There was a rancid odor on her breath as she spoke.

6. **Medical Problems and Treatment:** The suspect indicated she had an upset stomach from something she ate the day before but did not require medical assistance. She was not epileptic, not diabetic and did not take insulin. She stated she was not under the care of a doctor or dentist and had no physical defects. She stated she did not take any medications and did not have any medical issues.

7. **Psychophysical Indicators of Impairment:** The psychophysical tests were explained and demonstrated to the suspect. Even though several had to be explained multiple times and stated she understood them prior to attempting each test. The following tests were administered:

Modified Romberg Balance: Due to the suspect's poor balance, and nearly falling several times when she closed her eyes and put her head back, it was necessary to stop the test for safety reasons.

Walk and Turn: A line in the tile floor was used for this test. The suspect started in the instructional position but lost her balance three times and the test was stopped for safety reasons. After nearly falling for the third time and having to use the wall for balance, she stated, "It's not my fault. The room is moving."

One Leg Stand: This test was also stopped for her safety. On the first attempt, the suspect started to raise her right foot as directed, but quickly put her foot down three times and nearly fell. She then stated, "Everything is moving." The second part of the test was not attempted due to safety concerns.

Finger to Nose: For safety reasons, this test was conducted while the suspect was seated. She missed touching the tip of her nose on all six attempts and got visibly upset when she could not touch her nose. Her arm movements were slow and rigid-like.

8. **Clinical Indicators of Impairment:**

Eye Signs: The suspect had equal tracking and had equal pupil size. She did not exhibit any clues of HGN. VGN was not present. She did not exhibit a lack of convergence, as her eyes were able to converge as instructed. Her pupillary reaction to light was slow and she did not exhibit rebound dilation. Her pupils were dilated in Room Light (6.0 mm) and Direct Light (5.0 mm). They were at the high end of the DRE average range in Near Total Darkness (8.5 mm).

Vital Signs: The suspect's pulse rates were checked three times and were above the DRE average range on all three checks (108, 106, 106 bpm). Her blood pressure was above the DRE average range at 172/96. Her body temperature was measured at 100.8, also above the DRE average range.

9. **Signs of Ingestion:** The suspect's nasal area was clear. Her breath was rancid smelling, and she had a brownish coating on her tongue. She also had small pieces of brown matter in her teeth. When asked about that and the coating on her tongue, she indicated that she likes to eat healthy foods and doesn't brush her teeth very often.

10. **Suspect's Statements:** The suspect first stated she was fasting for religious reasons and not allowed to use alcohol or drugs. However, she later stated that she got hungry and purchased some "organic mushrooms" from a man at a truck stop. She did not know who he was and had not seen him before. She made numerous comments regarding things she saw and heard that no one else saw or heard. She would occasionally talk about the overhead room lights making too much noise and hurting her ears. When asked about drug use, she responded loudly, "I don't do drugs!" She became visibly upset that I asked the question and stated she was "pure" and would never take drugs or do anything to harm her body.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a Hallucinogen and is unable to operate a vehicle safely.

12. **Toxicological Sample:** After the evaluation, Sergeant Gentry transported the suspect to the Prattville Hospital where a blood sample was collected at 2055 hours. Sergeant Gentry collected the sample and submitted it as evidence pending testing by the Alabama Crime Lab.

13. **Miscellaneous:** Refer to Sergeant Gentry's arrest report for additional details.

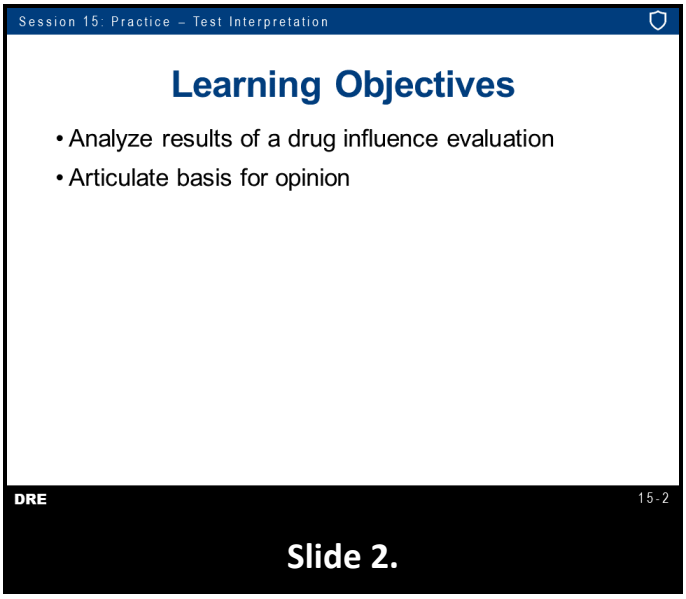
15 DRE

PRACTICE: TEST INTERPRETATION

LEARNING OBJECTIVES

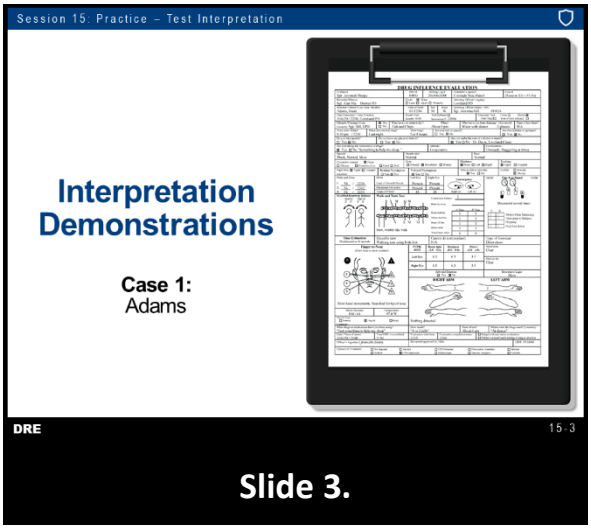
- Analyze the results of a complete drug influence evaluation and identify the category of drugs affecting the individual examined
- Articulate the basis for the drug category identification

CONTENTS



Slide 2.

A. Interpretation Demonstrations



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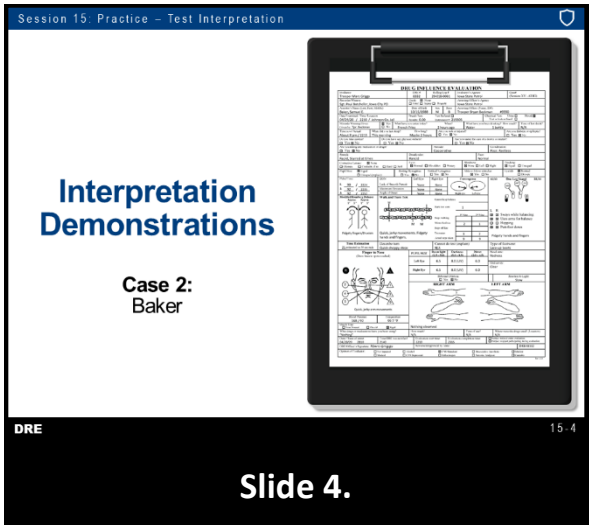

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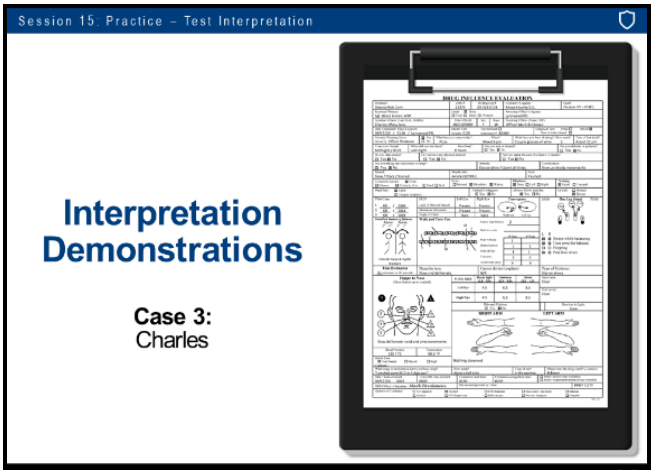
B. B. Interpretation Practice



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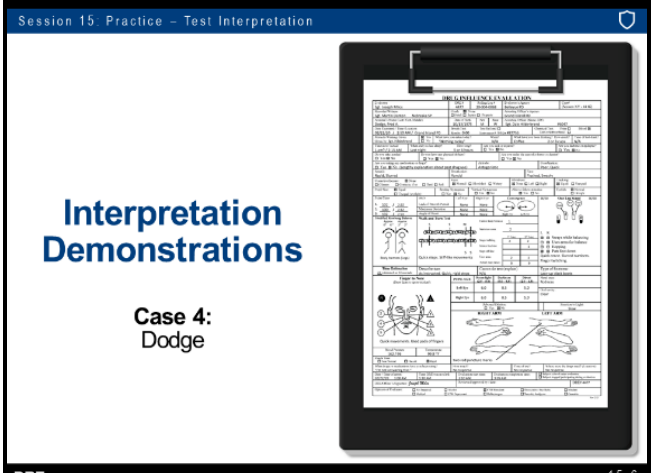

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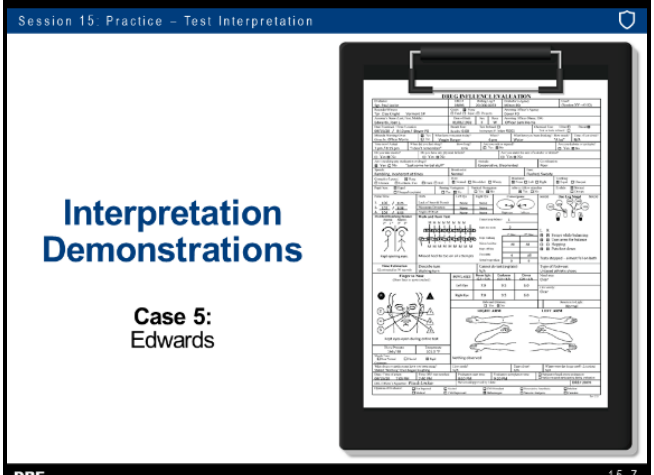

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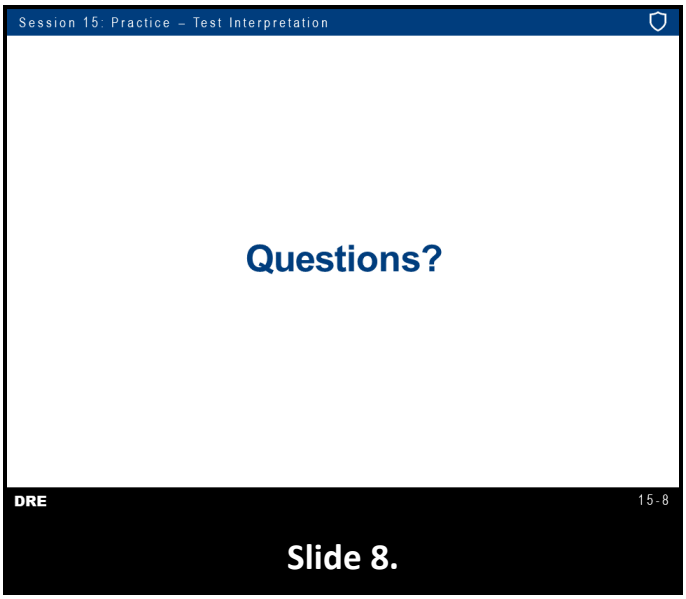

Session 15: Practice – Test Interpretation
Questions?
DRE
15-8

Slide 8.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case #
Deputy Jennifer Plutt	13857	22-006-0088	Park County S.O.	(Session XV - #1 PM)

Recorder/Witness	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency
Sgt. Alan Ma, Denver PD		Loveland PD

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Adams, Frank	01/12/86	M	W	Sgt. Antolina Hill #19624

Date Examined / Time /Location	Breath Test:	Test Refused ☐	Chemical Test: Urine ☐ Blood ☒
10/6/22 / 2218 / Loveland PD	Results: 0.00	Instrument #: 23006	Oral Fluid ☐ Test or tests refused ☐

Miranda Warning Given	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
Given by: Sgt. Hill, LPD		Fish and Chips	About 6 pm	Water with dinner 2 glasses	N/A

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
9:30 pm / 2220	Last night	7 or 8 hours	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No Dr. Davis, Loveland Clinic

Are you taking any medication or drugs?	Attitude:	Coordination:
☒ Yes ☐ No "Something to help me sleep."	Cooperative	Unsteady, Staggering at times

Speech:	Breath odor:	Face:
Thick, Slurred, Slow	Normal	Normal

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☒ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☒ Yes ☐ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☐ Normal ☒ Droopy

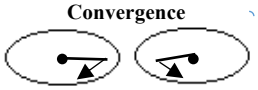
Pulse and Time

1. 56 / 2230
2. 56 / 2242
3. 54 / 2255

HGN

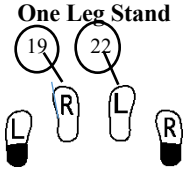
	Left Eye	Right Eye
Lack of Smooth Pursuit	Present	Present
Maximum Deviation	Present	Present
Angle of Onset	35	35

Convergence



Right eye Left eye

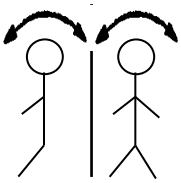
26/30 **One Leg Stand** 24/30



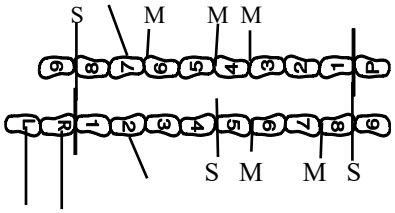
Miscounted several times

Modified Romberg Balance

Approx. 2" 2" Approx. 3" 3"



Walk and Turn Test



Slow, wobbly-like walk

Cannot keep balance 2

Starts too soon

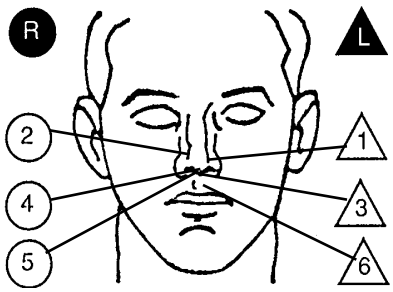
	1st Nine	2nd Nine
Stops walking	2	1
Misses heel-toe	2	3
Steps off line	1	1
Raises arms	3	3
Actual steps taken	9	9

L	R	
1	1	Sways while balancing
1	1	Uses arms to balance
		Hopping
1	1	Puts foot down

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
38 estimated as 30 seconds	Walking turn using both feet	N/A	Dress shoes

Finger to Nose

(Draw lines to spots touched)



Slow hand movements. Searched for tip of nose

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	4.5	6.5	3.5
Right Eye	4.5	6.5	3.5

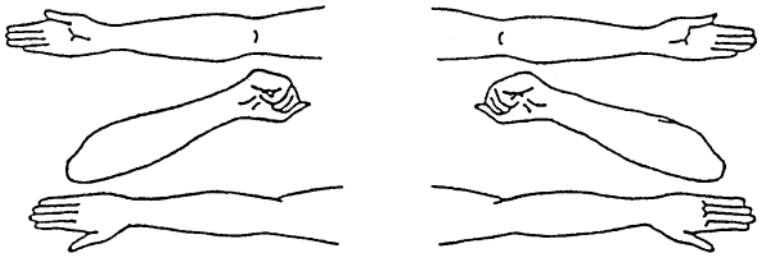
Nasal area: Clear

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

RIGHT ARM **LEFT ARM**



Nothing detected

Blood Pressure	Temperature
104 / 64	97.4 °F

Muscle Tone: ☐ Normal ☒ Flaccid ☐ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"Just something to help me sleep"	"1 or 2 pills"	About 6 pm	"At dinner"

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
10/6/22 / 2108	2150	2215	2310	

Officer's Signature: Jennifer Plutt	Reviewed/approved by / date:	DRE #

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Adams, Frank

1. **Location:** The drug influence evaluation was conducted at the Loveland PD DUI processing room. The darkroom examinations were conducted inside a restroom at that location. The area is well illuminated, and the floor was level and free of obstructions.

2. **Witnesses:** Sgt. Alan Ma of the Denver PD witnessed the evaluation and the arresting officer, Sgt. Antolina Hill of the Loveland PD witnessed the psychophysical tests and darkroom examinations.

3. **Breath Alcohol Test:** A breath test was administered to the suspect by Sgt. Hill prior to my arrival, at 2145 hours obtaining a 0.00 BAC result.

4. **Notification and Interview of the Arresting Officer:** Upon my arrival to the Loveland PD and contacting Sergeant Hill, it was determined she had stopped the suspect after observing his vehicle drifting outside the travel lane on South Wilson Street and make a wide turn onto South 14th Street. Sergeant Hill activated her overhead lights to stop the suspect's vehicle, however, he continued for approximately two blocks before pulling to the side of the roadway. While stopping the vehicle the suspect hit the brakes several times, causing the vehicle to exhibit jerky motions. While speaking with the suspect at roadside, Sergeant Hill noticed that he had slurred speech and appeared to have difficulties with simple divided attention tasks. He could not obtain his license and registration at the same time, and had difficulty rolling down the window while trying to talk to Sergeant Hill. She did not detect any odor of an alcoholic beverage on the suspect's breath but administered SFSTs. She observed six clues of HGN and observed Vertical Gaze Nystagmus (VGN). During both tests, the suspect had difficulty holding his head still. According to Sergeant Hill, the suspect demonstrated significant impairment during the Walk and Turn (W&T) and the One Leg Stand (OLS) tests, observing four clues on the W&T and three clues on the OLS. Sergeant Hill arrested the suspect and transported him to the Loveland PD for processing. When the test breath result was not consistent with the observed degree impairment, Sergeant Hill requested a DRE for further investigation.

5. **Initial Observation of the Subject:** I first observed the suspect at the LPD seated on the processing room bench. He was wearing a long sleeve shirt, slacks, and dress shoes. His head was tilted forward, his eyes were closed, and his breathing was deep and slow. He responded slowly to questions and when he did, his speech was slow, slurred, and thick. Several times when he stood, he staggered and used the wall to steady himself. His face appeared normal, and there was no discernable odor of an alcoholic beverage on his breath. His eyes appeared normal, his pupils appeared equal in size and his eyelids appeared to be droopy. I asked if he would participate in a drug evaluation which he agreed to do by stating. "I guess so. Hopefully, it won't take too long."

6. **Medical Problems and Treatment:** The suspect stated he had no physical problems, and none were observed during my contact with him. He stated he was seeing a doctor (Dr. Davis) at the Loveland Clinic for a sleeping problem and had received a prescription to help him sleep. However, he could not remember the name of the prescription and described it as being a small round blue colored pill that makes him fall asleep really fast. He stated other than that, he takes no medication or other drugs. He further stated he has no other medical problems, and no physical defects.

7. **Psychophysical Indicators of Impairment:** After determining that the suspect was not suffering from any conditions that would prevent him from doing the psychophysical tests, I explained and demonstrated each test to him prior to him attempting them. The suspect was given the opportunity to remove his shoes for the tests and he elected to keep them on. The following tests were administered:

Modified Romberg Balance: During this test, the suspect had a slow time estimation, estimating 30 seconds in 38 seconds. When asked how he estimated the 30 seconds, he stated, "I counted one Mississippi, two Mississippi until I got to 30." During the test, the suspect had a front-to-back sway of approximately 2 inches in each direction and a side-to-side sway of approximately 3 inches in each direction. To assist in estimating the amount of sway, a vertical line in the brick wall behind the suspect was used.

Walk and Turn: For this test, a painted line on the floor was used. When attempting the test, the suspect lost his balance twice during the instructions stage. During the walking stage, he stopped while walking two times during the first nine steps (#4, #8) and once during the second nine steps (#8). He missed touching heel-to-toe twice on the first nine steps (#6 and #8) and three times on the second nine steps (#4, #5, #7). He stepped off the line once in each direction (#2 on the first nine steps, #7 on the second nine steps). He also raised his arms three times walking in each direction. During the turn, he made a walking turn using both feet instead of turning as directed. He exhibited a slow wobbly-like walk throughout.

One Leg Stand: Per DRE protocol, this test was conducted once standing on the left foot and once standing on the right foot. While standing on his left foot and extending his right foot, he swayed while balancing once, used his arms to balance once, and put his right foot down at count 1,019. He counted slowly reaching 1,026 at the conclusion of 30 seconds. While standing on his right foot and extending his left foot, he swayed while balancing once, used his arms to balance once, and put his foot down at count 1,022. He again counted slowly reaching 1,024 at the conclusion of the 30 second time period. He miscounted several times during both attempts, missing several numbers in sequence.

Finger to Nose: During this test, the suspect displayed slow hand and arm movements and appeared to search for the tip of his nose on each attempt. He touched the tip of his nose as directed three times (3, 4, and 5) and missed the tip of his nose with the tip of his index finger on attempts 1, 2 and 6. On one attempt (6), he missed his nose entirely and touched his upper lip. He also had to be reminded each time to remove this finger and return his arm back to his side.

8. **<u>Clinical Indicators of Impairment</u>:**

Eye Signs: The suspect exhibited equal tracking, had equal pupil size, and did not exhibit resting nystagmus. Six clues of HGN with an early angle of onset of approximately 35 degrees was observed. VGN was also observed. He was not wearing glasses and stated he does not use any corrective lenses. During the Lack of Convergence (LOC) test, he was not able to converge his eyes as directed. This test was conducted twice and both times his eyes started inward and then moved downward. During the pupil size examinations, his pupils were estimated at 4.5 mm in Room Light (RL) in each eye, 6.5 mm in Near Total Darkness (NTD) in each eye and 3.5 mm in each eye in Direct Light (DL). All were within the DRE average range for pupil size. Rebound dilation was not present and his pupillary reaction to light was slow.

Vital Signs: The suspect's pulse was checked three times during the evaluation and were 56, 56, and 54 beats per minute (BPM). All three results were below the DRE average range of 60-90 BPM. His blood pressure was measured at 104/64 millimeters of mercury (mmHg), which was below the DRE average ranges for both the systolic and diastolic pressures. His body temperature was measured at 97.4° F, which was below the DRE average range. His muscle tone was flaccid.

9. **<u>Signs of Ingestion</u>:** The suspect's nasal area and oral cavity were clear and there were no indicators of injection sites observed or located.

10. **Subject's Statements:** Sgt. Hill had advised the suspect of his Miranda rights upon their arrival at LPD. According to Sgt. Hill, the suspect agreed to waive his rights and answer questions. During my evaluation, I confirmed that he understood his rights prior to my questioning. He stated he had taken 1 or 2 pills around 6 pm (1800 hours) while eating dinner to help him sleep. He could not recall the name of the pills. He indicated he was prescribed the pills by Dr. Davis about a month ago and is still getting used to them. When asked where the prescription bottle was, he indicated it was at his home. When asked about the potency of the pills, he was not sure. When asked about other drugs, he indicated that he used to use recreational marijuana when it was first legalized in Colorado but quit using it because it made him hyper.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that Adams is under the influence of a _____ and is unable to operate a vehicle safely.

12. **Toxicological Specimen:** After my evaluation, the suspect was transported to the Loveland Hospital where a blood sample was collected 2357 hours. The sample was submitted as evidence by Sergeant Hill and will be forwarded to the Crime Laboratory for analysis.

13. **Miscellaneous:** Refer to Sgt. Hill's arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator: Sgt. Paul Batcheller	DRE #: 14760	Rolling Log #: 22-018-0081	Evaluator's Agency: Iowa City PD	Case#: (Session XV - #2 PM)
Recorder/Witness: Captain Mark Bruner, Dept. Natural Res.	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Iowa State Patrol	
Arrestee's Name (Last, First, Middle): Baker, Samuel E.	Date of Birth: 10/15/1988	Sex: M	Race: B	Arresting Officer (Name, ID#): Trooper Cody Reicks #28959
Date Examined / Time /Location: 04/29/22 / 2210 / Iowa City PD	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 219305	Chemical Test: Urine ☐ Blood ☒ Test or tests refused ☐	

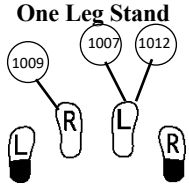
Miranda Warning Given: ☒ Yes ☐ No. Given by: Tpr. Reicks	What have you eaten today? French Fries	When? 2 hours ago	What have you been drinking? How much? Water 1 bottle	Time of last drink? N/A
Time now/ Actual: About 8 pm / 2215	When did you last sleep? This morning	How long? Maybe 2 hours	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☐ Yes ☒ No	
Are you taking any medication or drugs? ☐ Yes ☒ No	Attitude: Cooperative		Coordination: Poor, Restless	
Speech: Rapid, Slurred at times	Breath odor: Rancid		Face: Normal	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus: ☐ Yes ☒ No	Vertical Nystagmus: ☐ Yes ☒ No	Able to follow stimulus: ☒ Yes ☐ No	Eyelids: ☒ Normal ☐ Droopy

Pulse/Time		HGN	Left Eye	Right Eye
1. 90	2224	Lack of Smooth Pursuit	None	None
2. 92	2235	Maximum Deviation	None	None
3. 92	2252	Angle of Onset	None	None

Convergence

Right eye Left eye

40/30 **One Leg Stand** 38/30

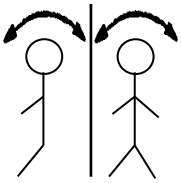


L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

Fidgety hands and fingers

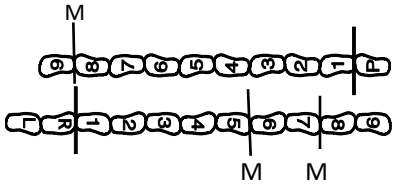
Modified Romberg Balance

Approx. 3" 3" Approx. 3" 3"



Fidgety fingers/Bruxism

Walk and Turn Test



Quick, jerky movements. Fidgety hands and fingers.

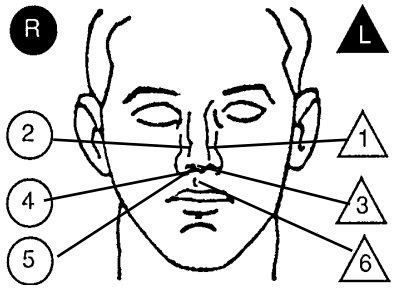
Cannot keep balance

Starts too soon: 1

	1st Nine	2nd Nine
Stops walking		
Misses heel-toe	2	1
Steps off line		
Uses arms	3	2
Actual steps taken	9	9

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
21 estimated as 30 seconds	Quick choppy steps	N/A	Lace-up boots

Finger to Nose
(Draw lines to spots touched)



Quick, jerky arm movements

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	6.5	8.0 (UV)	6.0
Right Eye	6.5	8.0 (UV)	6.0

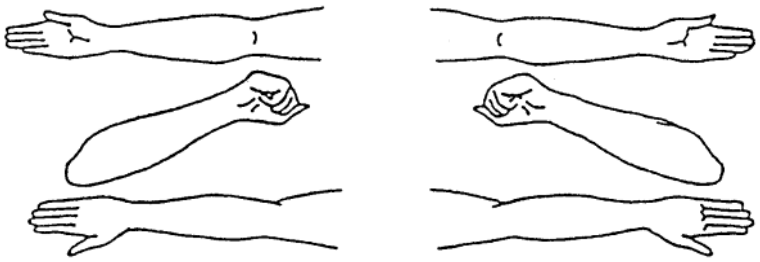
Nasal area: Redness in left nostril

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature	Muscle Tone
168 / 92	99.7 °F	☐ Near Normal ☐ Flaccid ☒ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"Nothing"	N/A	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
04/29/22 2110	2140	2210	2315	

DRE/Officer's Signature: Paul Batcheller | Reviewed/approved by / date: | DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: **Baker, Samuel E.**

1. **Location:** The drug influence evaluation was conducted at the Iowa City Police Department. The darkroom examinations were conducted inside a restroom at that location. The floor surface was tiled and was level and free of obstructions. Both areas had adequate lighting for conducting the evaluation.

2. **Witnesses:** Captain Mark Bruner of the Iowa Department of Natural Resources witnessed and recorded the evaluation. The arresting officer, Trooper Cody Reicks of the Iowa State Patrol witnessed the dark room examinations.

3. **Breath Alcohol Test:** The suspect submitted to a breath test and the test was administered by Trooper Reicks prior to my arrival. A result of 0.00 BAC was obtained.

4. **Notification and Interview of the Arresting Officer:** I was on-duty and notified at approximately 2140 hours that Trooper Reicks was requesting DRE assistance with a suspected DUI-drugs arrest. I contacted Trooper Reicks at the Iowa City Police Department and it was determined he had stopped the driver after observing his vehicle cross over the center line on SR 6 almost striking an oncoming vehicle. When he activated his overhead lights to stop the vehicle, it again crossed over the center line and eventually stopped on a side road. Upon contacting the driver, Trooper Reicks noticed that his speech was quick and difficult to understand at times. He was also very animated and appeared restless. Trooper Reicks did not detect an odor of an alcoholic beverage on the driver's breath but suspecting possible impairment, administered SFSTs at roadside. He stated the driver had difficulty completing the SFSTs and was not able to perform them as directed. According to Trooper Reicks, the driver had difficulty maintaining his balance during the Walk and Turn test, and four clues were observed. The driver was also not able to maintain his balance on the One Leg Stand test and repeatedly put his foot down to maintain his balance. Trooper Reicks also administered the HGN test, but no clues of nystagmus were observed. However, the driver had large, dilated pupils. According to Trooper Reicks, the driver was fidgety and very animated during the contact at roadside. Trooper Reicks arrested the driver for DUI and transported him to the PD for processing. When his breath test result was not consistent with the impairment observed, Trooper Reicks requested another DRE to assist with the investigation.

5. **Initial Observation of the Suspect:** I first observed the suspect at approximately 2200 hours in the breath testing room at the Iowa City Police Department. I confirmed that the Miranda Warnings had been given to him by Trooper Reicks and he acknowledged understanding them. I asked if he would participate in a drug evaluation and he agreed. He was asked some initial questions and preliminary observations were made. He thought the present time was "about 8 pm" when the time was actually 2215 hours (10:15 pm). He stated he had last slept for "maybe 2 hours" this morning. When asked if he had been drinking alcoholic beverages, he replied he had not and had only drank water. He stated he is not taking any medications or drugs. For the most part, he was cooperative even though he showed some resentment towards Trooper Reicks for arresting him. His coordination appeared to be poor and he was restless throughout my initial contact with him. His speech was both fast and slurred. I noted that his breath was rancid, and he appeared to be grinding his teeth at times. When standing, he repeatedly shifted his weight from foot to foot and was frequently moving his hands and arms and he had fidgety fingers. His pupils appeared dilated in normal room light. I noted that he was wearing dirty soiled jeans, a white tee shirt and brown lace-up boots. He was unshaven and appeared to have poor hygiene.

6. **Medical Problems and Treatment:** The suspect stated he had no physical problems, and none were observed prior to or during the evaluation. He stated he was not presently under the care of a physician or dentist. He stated he is not a diabetic, is not epileptic, and does not take insulin. There were no indications seen during the evaluation that the suspect needed any type of medical care.

7. **Psychophysical Indicators of Impairment:** As part of the evaluation, the suspect was asked to perform four psychophysical tests. Prior to administering the tests, I explained and demonstrated each one to him. He indicated he understood the instructions prior to attempting each test. The following tests were administered to the suspect:

Modified Romberg Balance: The suspect was able to remain in the instructional position while the instructions for the test were given. He did attempt the test and was able to complete it. He had a quick time estimation, estimating the passage of 30 seconds in 21 seconds. He swayed noticeably while standing with his eyes closed. He had a front to back sway of approximately three inches in each direction, as well as a side-to-side sway of approximately 3 inches in each direction. While performing the test, his hands and fingers were constantly moving and were fidgety. He also started grinding his teeth (bruxism) midway through the test.

Walk and Turn: The suspect did attempt this test and he was able to complete it. During the instruction stage of the test, he was able to maintain his balance, however, he attempted to start the test before instructed to do so. During the walking stage he missed touching heel to toe two times on the first nine steps (steps #6 and #8) and once during the second nine steps (step #9). He used his arms for balance three times on the first nine steps and twice on the second nine steps. He did perform the turn correctly but did so by taking quick, choppy steps. He walked with quick, jerky steps throughout the test. He was wearing lace-up boots and was asked about removing his boots for the test to which he indicated he preferred to keep them on.

One Leg Stand: The suspect was able to stand in the instructional position while the instructions were given for this test. This test was conducted in two parts – once standing on the left foot and once standing on the right foot. While standing on his left foot the suspect swayed noticeably while balancing once and used his arms for balance once. He put his foot down at count 1,009. He counted quickly and reached 1,040 at the conclusion of the 30 seconds. While standing on his right foot, he swayed noticeably while balancing three times, used his arms to balance twice, and put his foot down at counts 1,007 and 1,012. He counted quickly, reaching 1,038 at the conclusion of the 30 seconds. While completing the test he had fidgety hands and fingers.

Finger to Nose: The suspect was able to stand in the instructional position while the instructions were given for this test. He did attempt the test and was able to complete it. During this test, he displayed quick and jerky hand and arm movements. He did use the tip of the finger as directed and touched the tip of his nose correctly three times (#3, #4, #5) and missed touching the tip of his nose with the tip of his index finger as directed three times (#1, #2 and #6). On attempt #1 he touched high on his nose, on attempt #2 he touched high on his nose, and on attempt #6 he touched under his nose on his upper lip. During the test he at times was grinding his teeth (Bruxism). He was fidgety acting and had quick and jerky arm movements.

8. **<u>Clinical Indicators of Impairment</u>:**
Eye Signs: The suspect's eyes were examined, and no clues of Horizontal Gaze Nystagmus were detected. Vertical Gaze Nystagmus was also not observed. A Lack of Convergence was not present. His pupils were examined under three lighting conditions and his pupil sizes were estimated using a DRE pupillometer. In Room Light (RL) his pupils were estimated at 6.5 mm in both eyes. In Near Total Darkness (NTD) his pupils were estimated at 8.0 mm in each eye, and in Direct Light (DL) his pupils were estimated at 6.0 mm in each eye. Due to the dark coloring of the suspect's pupils, an Ultraviolet (UV) Light was used after attempting the estimation first with a regular penlight. The estimations showed his pupils to be dilated and outside the DRE average ranges for RL and DL and at the high end of the NTD DRE average range. Rebound dilation was not present. His pupils had a slow reaction to light.

Vital Signs: The suspect's pulse rates were measured three times during the evaluation and were 90 beats per minute (BPM) at 2224 hours, 92 BPM at 2235 hours, and 92 BPM at 2252. All three were above the DRE average range of 60-90 BPM. His blood pressure was measured and indicated a systolic pressure of 168 mm/Hg and a diastolic pressure of 92 mm/Hg. Both pressures are above the DRE average ranges. His body temperature was measured at 99.7° Fahrenheit, which is above the DRE average range. His muscle tone was rigid.

9. **<u>Signs of Ingestion</u>:** The suspect's left nasal area was red and appeared inflamed. His right nasal area appeared to be normal. When asked about the redness in his nasal area, he stated that he had been experiencing a bloody nose due to a cold. His oral cavity was clear and there were no indicators of injection sites on his hands and arms.

10. **Suspect's Statements:** When I questioned the suspect about drug use, he denied consuming any drugs by stating "nothing" and became irritated by the questions about drug use. He was very animated with his responses and frequently used his arms and hands when talking.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a _____ and unable to operate a vehicle safely.

12. **Toxicological Specimen:** A blood sample was requested from the suspect by Trooper Reicks at the conclusion of my evaluation. The suspect agreed to provide the sample after being advised on his implied consent rights. He was transported to the Mercy Iowa City hospital by Trooper Reicks where the blood sample was obtained.

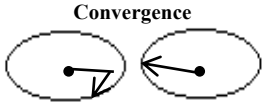
13. **Miscellaneous:** Refer to arrest report by Trooper Reicks for additional details.

DRUG INFLUENCE EVALUATION

Evaluator: Deputy Rob Corn	DRE #: 12373	Rolling Log #: 22-013-0138	Evaluator's Agency: Kitsap County S.O.	Case#: (Session XV - #3 IG)
Recorder/Witness: Officer Jon Huber, Seattle PD	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Washington State Patrol	
Arrestee's Name (Last, First, Middle): Charles, Mary Jane	Date of Birth: 06/13/1982	Sex: F	Race: W	Arresting Officer (Name, ID#): Trooper Kyle Dahl #24874
Date Examined / Time /Location: 09/17/22 / 0130 / Kitsap Co. Jail	Breath Test: Results: 0.05	Test Refused ☐ Instrument #: 82460	Chemical Test: Urine ☐ Blood ☒ Test or tests refused ☐	
Miranda Warning Given Given by: Tpr. Dahl	☒ Yes ☐ No	What have you eaten today? Pizza	When? About 6 pm	What have you been drinking? How much? Couple glasses of wine 2	Time of last drink? About 11 pm
Time now/ Actual: Midnight / 0135	When did you last sleep? Last night	How long? 8 hours	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No	Are you under the care of a doctor or dentist? ☐ Yes ☒ No		
Are you taking any medication or drugs? ☐ Yes ☒ No	Attitude: Cooperative / Upset at times	Coordination: Slow unsteady movements		
Speech: Slow / Thick / Slurred	Breath odor: Alcohol (ETOH)	Face: Flushed		
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☒ Bloodshot ☒ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal	
Pupil Size: ☒ Equal ☐ Unequal (explain)	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☐ Normal ☒ Droopy	

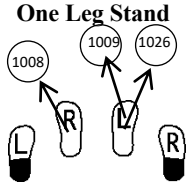
Pulse/Time	HGN	Left Eye	Right Eye
1. 66 / 0145	Lack of Smooth Pursuit	Present	Present
2. 64 / 0214	Maximum Deviation	Present	Present
3. 64 / 0228	Angle of Onset	None	None

Convergence



Right eye Left eye

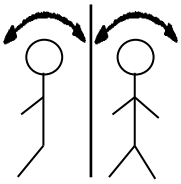
28/30 **One Leg Stand** 30/30



L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

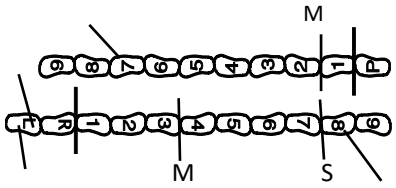
Modified Romberg Balance

Approx. 2″ 2″ Approx. 2″ 2″



Circular sway & Eyelid tremors

Walk and Turn Test



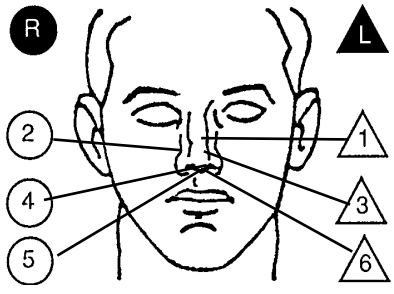
Cannot keep balance: 2

Starts too soon:

	1st Nine	2nd Nine
Stops walking	1	
Misses heel-toe	1	1
Steps off line	1	1
Uses arms	2	3
Actual steps taken	9	9

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
32 estimated as 30 seconds	Slow and deliberate	N/A	Slip-on shoes

Finger to Nose
(Draw lines to spots touched)



Slow deliberate hand and arm movements

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	4.5	6.5	3.5
Right Eye	4.5	6.5	3.5

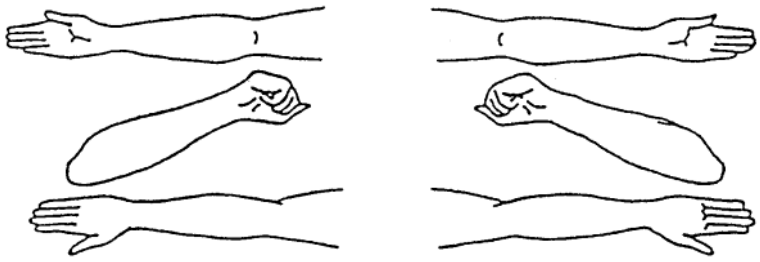
Nasal area: Clear

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Normal

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature
120 / 72	98.6 °F

Muscle Tone: ☒ Near Normal ☐ Flaccid ☐ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"I smoked some MJ 2 or 3 days ago."	About a half joint	In the evening	At home

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
09/17/22 0005	0045	0130	0235	

DRE/Officer's Signature: Rob Corn | Reviewed/approved by / date: | DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Charles, Mary

1. **Location:** The drug influence evaluation was conducted in the DUI processing room at the Kitsap County Jail. The darkroom examinations were conducted inside a storage room at that location. The floor surface where the drug evaluation was conducted was a level tile floor free of obstructions.

2. **Witnesses:** The entire drug evaluation was witnessed and scribed by Officer Jon Huber of the Seattle Police Department.

3. **Breath Alcohol Test:** A breath test was administered to the suspect prior to my arrival. The result of the breath test was a 0.05 BAC.

4. **Notification and Interview of the Arresting Officer:** I contacted Trooper Dahl at the Kitsap County Jail and it was determined that the suspect had been reported as a possible DUI while traveling north on SR 303 near Sheridan Street. When Trooper Dahl located her vehicle, it was unable to maintain a single lane of travel. When attempting to stop the vehicle, the driver was slow to respond to his emergency lights and once the vehicle pulled over, the right front tire stuck a curb. During the personal contact with the driver, Trooper Dahl observed slow, sluggish movements and her speech was thick and slurred. She admitted drinking a couple glasses of wine earlier in the evening and consented to SFSTs. According to Trooper Dahl, who is a certified DRE, she performed poorly on the Walk and Turn (W&T) and One Leg Stand (OLS) tests. Trooper Dahl observed four clues on the W&T and three clues on the OLS. He also administered the HGN test observing four clues of HGN. He also detected an odor of marijuana coming from her vehicle. When questioned about marijuana use, the driver admitted being a recreational marijuana user, but indicated she had not used marijuana for a couple of days. Trooper Dahl arrested the driver for DUI and transported her to the county jail for processing where she provided a 0.05 BAC. Because of a high volume of calls for service, Trooper Dahl requested another DRE to assist with the investigation. I was on duty and responded to his location to conduct the evaluation.

5. **Initial Observation of the Suspect:** I first observed Charles in the DUI processing room at the Kitsap County Jail. She was swaying when she stood, and several times used the interview chair to steady herself. Her speech was slow, thick, and slurred. She was emotional at times and several times almost began crying. She was cooperative and was answering questions from Trooper Dahl. Her face appeared flushed, and her breath had an odor of an alcoholic beverage. Her eyes were bloodshot and watery, and her pupils appeared equal in size. I noted that she was wearing blue jeans, a green Seattle Seahawks jersey and black canvas slip-on shoes. I asked if she remembered being advised of her Miranda rights and she stated that she did and agreed to answer my questions. I explained the drug evaluation process and she agreed to participate in the evaluation.

6. **Medical Problems and Treatment:** Charles indicated that she had no medical or physical problems, and none were observed during the evaluation.

7. **Psychophysical Indicators of Impairment:** Prior administering the psychophysical tests, I demonstrated and explained each test to her. She indicated she understood each one prior to attempting it. The following tests were administered:

   Modified Romberg Balance: During this test, Charles estimated the passage of 30 seconds in 32 seconds. She had a front to back and side to side sway of approximately two inches. Eyelid tremors were observed during the test.

Walk and Turn: For this test, a line of the tile floor was used. During this test, Charles lost her balance twice during the instruction stage. During the walking stage on the first nine steps, she missed touching heel to toe at step 4 and stopped while walking at step 7. She then stepped off the line to the right with her next step (Step 8.) Her turn was slow and deliberate but as instructed. On the second nine steps she missed touching heel to toe at step 2 and stepped off the line at step 7. She used her arms to balance two times on the first nine steps and three times on the second nine steps. Prior to her starting the test, I asked if her shoes would cause her any problems completing the test and gave her the option to do the test without her shoes. She indicated she did not and preferred to leave her shoes on for the test.

One Leg Stand: Per DRE protocol, this test was conducted twice, once while standing on the left foot and once while standing on the right foot. While standing on her left foot and extending her right foot off the floor, she swayed while balancing twice, used her arms for balance once, and put her right foot down at count 1,008. While standing on her right foot and extending her left foot off the floor, she swayed while balancing once, used her arms for balance once, and put her foot down at counts 1,009, and 1,026.

Finger to Nose: During this test, Charles touched the tip of her nose as instructed three times (4, 5, and 6) and missed touching the tip of her nose with the tip of her index finger three times (1, 2, and 3). Her arm and hand movements were slow and deliberate, and she appeared to be searching for her nose on each attempt.

8. **Clinical Indicators of Impairment:**
Eye Signs: During the HGN test, Charles had a lack of smooth pursuit and a distinct and sustained nystagmus at maximum deviation in both eyes. An angle of onset of nystagmus was not present. Vertical Gaze Nystagmus was also not present. A lack of convergence (LOC) was observed in her right eye but was not present in her left eye. The test was conducted twice with the same results. During the pupil size examinations, her pupils were estimated at 4.5 mm in Room Light in each eye, 6.5 mm in Near Total Darkness in each eye and 3.5 mm in Direct Light in each eye. All three were within the DRE average ranges. Rebound dilation was not present and she had a normal pupillary reaction to light.

Vital Signs: Her pulse rate was measured three times during the evaluation. The results were 66 beats per minute (BPM) at 0145 hours, 64 BPM at 0214 hours, and 64 BPM at 0228 hours. All were within the DRE average range of 60-90 BPM. Her blood pressure was measured at 120/72, which was within the DRE average ranges for both systolic and diastolic pressure. Her body temperature was measured at 98.6°, which was within the DRE average range. Her muscle tone was normal.

9. **Signs of Ingestion:** Charles' nasal area and oral cavity were clear. There were no indicators of injection sites on her arms or hands.

10. **Suspect's Statements:** Trooper Dahl had advised Charles of her Miranda rights and she agreed to waive her rights and answer questions. She admitted drinking two glasses of wine earlier in the evening at a friend's house. She admitted being a marijuana user and had smoked marijuana 2 or 3 days ago while at home and had smoked "about half of a joint" because of all the stress she had been experiencing. She denied using any other drugs or medications.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that Charles is under the influence of _____ and is unable to operate a vehicle safely.

12. **Toxicological Specimen:** A blood sample was collected from Charles at 0315 hours by a licensed phlebotomist. The sample was submitted into evidence for laboratory testing by the Washington State Crime Laboratory.

13. **Miscellaneous:** Refer to Trooper Dahl's arrest report for additional information.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Sgt. Joseph Milos	4477	22-004-0068	Bellevue PD	(Session XV - #4 PM)

Recorder/Witness	Crash	Arresting Officer's Agency
Sgt. Martin Denton Nebraska SP	☒ None ☐ Fatal ☐ Injury ☐ Property	Grand Island PD

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Dodge, Fred A.	10/13/1975	M	W	Sgt. Dale Hilderbrand #6047

Date Examined / Time /Location	Breath Test	Chemical Test
02/22/22 / 2:10 AM / Grand Island	Results: 0.00 Test Refused ☐ Instrument #: Intox #37755	Urine ☐ Blood ☒ Test or tests refused ☐

Miranda Warning Given		What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
Given by: Sgt. Hilderbrand	☒ Yes ☐ No	"Nothing today"	N/A	Coffee 2 or 3 cups	N/A

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
1 am? / 2:15 AM	Last night	5 or 6	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

Are you taking any medication or drugs?	Attitude:	Coordination:
☐ Yes ☒ No (Lengthy explanation about past drug use)	Antagonistic	Poor, Quick

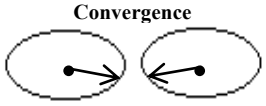
Speech:	Breath odor:	Face:
Rapid, Slurred	Rancid	Flushed, Sweaty

Corrective Lenses:	Eyes:	Blindness:	Tracking:
☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	☒ Normal ☐ Bloodshot ☐ Watery	☒ None ☐ Left ☐ Right	☒ Equal ☐ Unequal

Pupil Size:	Resting Nystagmus	Vertical Nystagmus	Able to follow stimulus	Eyelids
☒ Equal ☐ Unequal (explain)	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	☒ Normal ☐ Droopy

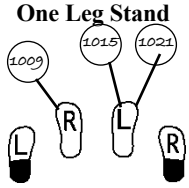
Pulse/Time	HGN	Left Eye	Right Eye
1. 102 / 2:20	Lack of Smooth Pursuit	None	None
2. 100 / 2:32	Maximum Deviation	None	None
3. 102 / 2:50	Angle of Onset	None	None

Convergence



Right eye Left eye

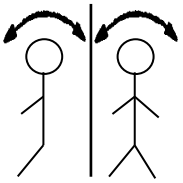
38/30 **One Leg Stand** 36/30



L R
☒ ☒ Sways while balancing
☐ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down
Quick count. Slurred numbers. Finger twitching.

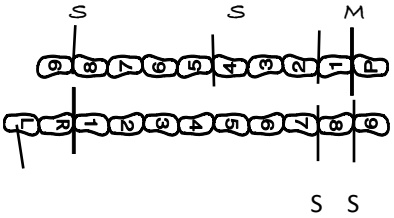
Modified Romberg Balance

Approx. 0" Approx. 0" 2" 2"



Body tremors (Legs)

Walk and Turn Test



Quick steps. Stiff-like movements

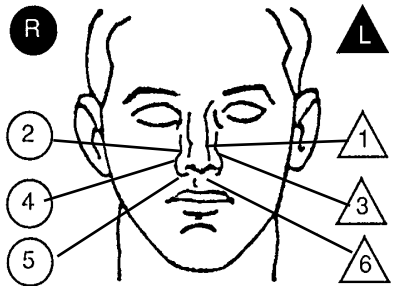
Cannot keep balance 1

Starts too soon 2

	1st Nine	2nd Nine
Stops walking	2	2
Misses heel-toe		1
Steps off line		
Uses arms	2	3
Actual steps taken	9	9

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
22 estimated as 30 seconds	As instructed. Quick, rigid	N/A	Lace-up black boots

Finger to Nose
(Draw lines to spots touched)



Quick movements. Used pads of fingers

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	6.0	8.5	5.0
Right Eye	6.0	8.5	5.0

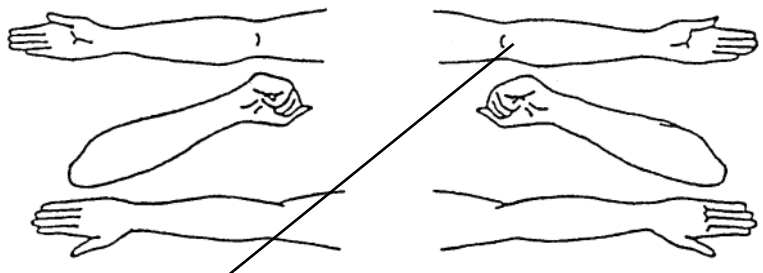
Nasal area: Redness

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

RIGHT ARM **LEFT ARM**



Two red puncture marks

Blood Pressure	Temperature
162 / 96	99.8 °F

Muscle Tone: ☐ Near Normal ☐ Flaccid ☒ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"I'm not answering that."	No response	No response	No response

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
02/22/22 1:08 AM	1:30 AM	2:10 AM	3:05 AM	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: Joseph Milos	Reviewed/approved by / date:	DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Dodge, Fred A.

1. **Location:** The drug influence evaluation was conducted in the DUI processing room at the Grand Island Police Department. The darkroom examinations were conducted inside a restroom at that location. The floor surface was level and free of obstructions, and the room had adequate lighting.

2. **Witnesses:** Sergeant Martin Denton of the NE State Patrol witnessed and recorded the entire evaluation.

3. **Breath Alcohol Test:** A breath test was administered to the suspect by Sergeant Hilderbrand prior to the start of my evaluation. He obtained a .00 BAC result at 1:22 am.

4. **Notification and Interview of the Arresting Officer:** Sergeant Dale Hilderbrand was the arresting officer and requested a DRE to assist with the investigation. I contacted Sergeant Hilderbrand at the Grand Island PD, and it was learned the suspect had attempted to elude police on East Bismarck Road but was apprehended after a short pursuit. According to Sergeant Hilderbrand, when the suspect was stopped, he was very restless, animated, and unable to stand still. He was very talkative, and his speech was rapid and slurred. He appeared to have difficulty with divided attention tasks. It was determined that the suspect was driving with a suspended operator's license and was suspected of being impaired. Sergeant Hilderbrand administered SFSTs at roadside and the suspect had difficulty performing them as directed. According to Sergeant Hilderbrand, the suspect was unable to complete the Walk and Turn (W&T) and the One Leg Stand (OLS) tests as instructed and had difficulty performing other field sobriety tests. The suspect was arrested for DWS, DUI and other offenses and transported to Grand Island PD for processing. A breath test confirmed the suspect was not impaired by alcohol and a DRE was requested to assist with the investigation. I was on duty and responded to his location and conducted the DRE evaluation.

5. **Initial Observation of the Suspect:** I first observed the suspect in the interview room at the Grand Island PD. His speech was rapid, loud, and slurred. He had quick jerky movements. He was constantly moving in his chair when he was seated. He appeared to be sweating, though the inside temperature was cool. His face was flushed, and his pupils appeared to be dilated. He was wearing dark colored jeans, black lace-up boots, and a dark-colored, soiled sweatshirt. I explained why I had been called to assist and asked if he would participate in a drug evaluation. He replied, "Oh what the hell. Sure, why not." I confirmed that he had been advised of his Miranda rights and he agreed to answer my questions. I asked some preliminary questions and made some observations while conversing with him. He indicated he had not had anything to eat during the day and only admitted drinking coffee. He was not under a doctor's care and claimed to be healthy. When asked about any medication or drug use, he went into a long explanation about how he used to use drugs and had been in out of drug rehab and was trying to stay clean from drugs. He was very animated in is explanation using his arms and hands.

6. **Medical Problems and Treatment:** The suspect stated he had no medical issues or physical problems, and none were mentioned or observed during the evaluation.

7. **Psychophysical Indicators of Impairment:** Prior to administering the psychophysical tests each one was explained to the suspect and a verbal confirmation that he understood the test was obtained. He was given the option of removing his boots for the tests, and he wanted to keep them on. The following tests were administered to the suspect:

   Modified Romberg Balance: During this test, the suspect had a quick time estimation and estimated the passage of 30 seconds in 22 seconds. When asked how he estimated the 30 seconds, he replied "I just counted in my head. How'd I do?" He displayed a side-to-side sway of approximately 2 inches in each direction. He was constantly moving his fingers on both hands during the test. Body tremors were also observed in his legs.

Walk and Turn: For this this test, a taped line on the floor was used. During the instruction stage, the suspect lost his balance to the right once and twice attempted to start walking before being told to begin. During the walking stage he stopped while walking twice during the first nine steps (Steps 7 and 8) and twice during the second nine steps (Steps 4 and 8). He missed touching heel to toe once on the second nine steps (Step 2). He raised his arms for balance twice on the first nine steps and three times on the second nine steps. The suspect turned as instructed, but his steps were quick and rigid. Throughout the test the suspect took quick and stiff-like steps.

One Leg Stand: When standing on his left foot and extending his right foot off the floor, the suspect swayed while balancing numerous times. He used his arms for balance three times and put his right foot down at 1,009. He counted quickly reaching a count of 1,038 in the 30 second period. When standing on his right foot and extending his left foot off the floor, he again swayed while balancing, used his arms for balance twice and put his left foot down at his counts of 1,015 and 1,021. He again counted quickly, reaching a count of 1,036 at the conclusion of the 30 second period.

Finger to Nose: During this test, the suspect displayed quick hand and arm movements. He missed the tip his nose with the tip of his index finger as directed and used the pad of his index fingers on each attempt.

8. **Clinical Indicators of Impairment:**
Eye Signs: The suspect did not display any clues of Horizontal Gaze Nystagmus (HGN), and Vertical Gaze Nystagmus (VGN) was not observed. He was able to converge his eyes as directed. During the pupil size examinations, his pupils were estimated at 6.0 mm in both eyes in Room Light, 8.5 mm in both eyes in Near Total Darkness, and 5.0 mm in both eyes in Direct Light. The Room Light and Direct Light measurements were outside the DRE average ranges and the Near Total Darkness result was at the high end of the DRE average range. Rebound dilation was not present and he had a slow reaction to light.

Vital Signs: The suspect's pulse was measured three times during the drug evaluation. The results were 102 beats per minute (bpm), 100 bpm, and 102 bpm. All three were above the DRE average range. His blood pressure was measured at 162/96 mmHg. Both the systolic and diastolic measurements were above the DRE average ranges. His body temperature was measured at 99.8°, which is above the DRE average range. The suspect's muscle tone was rigid. He was asked about his high pulse and B/P and he stated, "I don't know man. You tell me."

9. **Signs of Ingestion:** The suspect's nasal area showed some redness. His oral cavity was clear. There were two red puncture marks on his left inner arm. When questioned about the marks, he first indicated they were from plasma donations. He later changed his explanation to them being caused by an IV injection he had about a week ago. He became very evasive when I continued to ask about the marks.

10. **Suspect's Statements:** Sergeant Hilderbrand advised the suspect of his Miranda rights immediately after his arrest. I again advised him of his rights to ensure he understood them. When asked what drugs or medications he had used, he looked away and stated, "I'm not answering that."

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect was under the influence of a _____ and was unable to operate a vehicle safely.

12. **Toxicological Specimen:** A blood sample was collected from the suspect by a licensed phlebotomist after the completion of my evaluation. The blood draw was witnessed by Sergeant Hilderbrand and was submitted into evidence for laboratory testing.

13. **Miscellaneous:** In addition to the charges for DWS and Attempting to Elude, the suspect had an active warrant for his arrest for Failure to Appear on a drug possession charge. Refer to Sergeant Hilderbrand's arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator: Sgt. Jay Riggen	DRE #: 15563	Rolling Log #: 22-006-0072	Evaluator's Agency: Vermont State Police	Case#: (Session XV - #5 PM)
Recorder/Witness: Tpr. Clay Knight Vermont SP	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Dover PD	
Arrestee's Name (Last, First, Middle): Edwards, Joan L.	Date of Birth: 01/06/1992	Sex: F	Race: W	Arresting Officer (Name, ID#): Officer Sam Morris
Date Examined / Time /Location: 08/15/22 / 8:10 pm / Dover PD	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: Intox 45301	Chemical Test: Urine ☐ Blood ☒ Test or tests refused ☐	

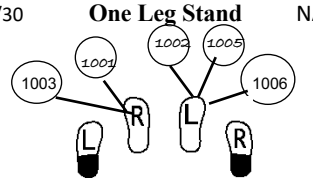
Miranda Warning Given Given by: Officer Morris	☒ Yes ☐ No	What have you eaten today? Veggie Burger	When? 6 pm	What have you been drinking? How much? Water "A lot"	Time of last drink? N/A
Time now/ Actual: 7 pm / 8:15 pm	When did you last sleep? "I don't remember"	How long? Unk	Are you sick or injured? ☒ Yes ☐ No "A little nauseous"		Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☐ Yes ☒ No		
Are you taking any medication or drugs? ☒ Yes ☐ No "Just some herbal stuff"	Attitude: Cooperative, Disoriented		Coordination: Poor		
Speech: Rambling, Incoherent at times	Breath odor: Normal		Face: Flushed, Sweaty		
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery		Blindness: ☒ None ☐ Left ☐ Right		Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No		Eyelids ☒ Normal ☐ Droopy

Pulse/Time	HGN	Left Eye	Right Eye
1. 106 / 8:25	Lack of Smooth Pursuit	None	None
2. 102 / 8:38	Maximum Deviation	None	None
3. 104 / 8:55	Angle of Onset	None	None

Convergence

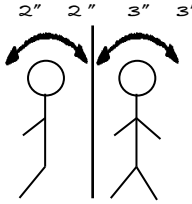
Right eye Left eye

NA/30 **One Leg Stand** NA/30



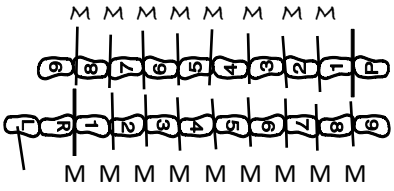
Modified Romberg Balance

Approx. 2″ 2″ Approx. 3″ 3″



Kept eyes opened.

Walk and Turn Test



Missed heel to toe on all attempts

	1st Nine	2nd Nine
Cannot keep balance	1	
Starts too soon	2	
Stops walking		
Misses heel-toe	All	All
Steps off line		
Uses arms	4	All
Actual steps taken	9	9

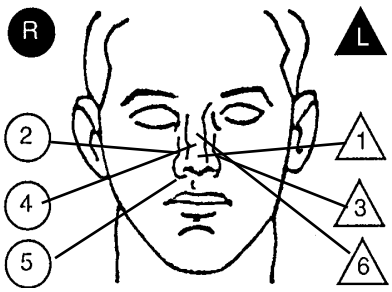
L	R	
☒	☒	Sways while balancing
☒	☒	Uses arms for balance
☐	☐	Hopping
☒	☒	Puts foot down

Tests stopped – almost fell on both

Time Estimation 62 estimated as 30 seconds	Describe turn: Walking turn	Cannot do test (explain): N/A	Type of footwear: Unlaced athletic shoes

Finger to Nose

(Draw lines to spots touched)



Kept eyes opened. Slow rigid movements.

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	7.0	9.5	6.0
Right Eye	7.0	9.5	6.0

Nasal area: Clear

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

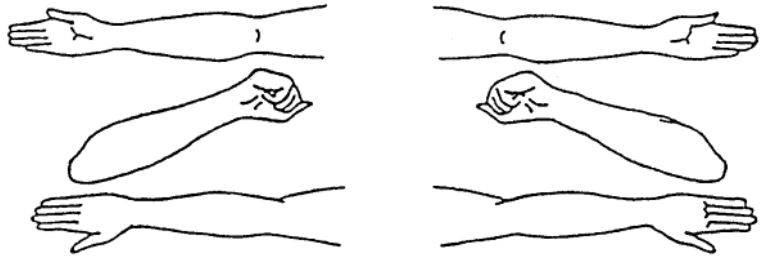
Reaction to Light: Normal

Blood Pressure	Temperature
166 / 98	101.0 °F

Muscle Tone: ☐ Near Normal ☐ Flaccid ☒ Rigid

Comments:

RIGHT ARM **LEFT ARM**



Nothing observed

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
Stated "Nothing" then began laughing	N/A	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
08/15/22 7:05 PM	7:40 PM	8:10 PM	9:20 PM	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: Jay Riggen | Reviewed/approved by / date: | DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Edwards, Joan L.

1. **Location:** The drug influence evaluation was conducted in the interview room at the Dover Police Department. The darkroom examinations were conducted inside the staff bathroom adjacent to the interview room. The flooring in the interview room was a tile surface, free of obstructions, and the room had suitable lighting for conducting a drug evaluation.

2. **Witnesses:** Trooper Clay Knight of the Vermont SP witnessed and recorded the drug entire evaluation.

3. **Breath Alcohol Test:** A breath test was administered to the suspect by Officer Morris with a .000 BAC result.

4. **Notification and Interview of the Arresting Officer:** I was on duty and requested to respond to the Dover PD for a drug evaluation. Once arriving, I contacted Officer Morris who advised he had observed the suspect suddenly stop her vehicle for no reason on Handle Road. After making an abrupt stop, she exited her vehicle and climbed onto the hood and began waving her arms and screaming at vehicles as they passed by. Officer Morris contacted her because of her bizarre behavior. According to Officer Morris, she had difficulty answering his questions and gave rambling responses. He was able to learn that she had driven to her location after attending an Uncle Acid and the Toad Lickers concert near the Canadian border. She appeared very uncoordinated and Officer Morris suspected she was impaired or suffering from a mental disorder. After calming her down, Officer Morris was able to administer SFSTs. However, she had difficulty performing them as described. According to Officer Morris, she nearly fell twice while trying to complete the Walk and Turn (W&T) test and had difficulty trying to balance on one foot during the One Leg Stand (OLS) test. HGN and VGN were not observed. Officer Morris placed her under arrest for DUI and transported her to the Dover PD for further investigation. Her breath test result was negative for alcohol and he requested DRE assistance.

5. **Initial Observation of the Suspect:** I first observed Edwards in the DPD interview room. Her speech was incoherent at times and she was rambling as she spoke. She appeared dazed, disoriented, and had difficulty walking. Her face appeared flushed and she was sweating even though she had been in a cool environment for nearly an hour. She also seemed unconcerned about her arrest and circumstances. I noted that she was wearing cut-off jeans, a faded blue tee-shirt, unlaced high-top athletic type shoes and she had a blue bandana in her hair. I explained why I had been called and asked if she would consent to a drug evaluation. She responded by stating, "Okay…, I'm cool with that." She was reminded of her Miranda rights and she agreed to answer my questions. She admitted eating a veggie burger earlier in the evening and had only drank water. Several times during our conversation, Edwards would look at the clock on the wall and start talking to it and laughed out loud. At times, she was unconcerned and disinterested about her circumstances.

6. **Medical Problems and Treatment:** Edwards did indicate that she felt nauseous. She stated she had no physical problems, and none were observed or reported. She indicated that she was not under the care of a doctor or dentist. She was asked if she required medical assistance and she laughed out loud and said, "Nope."

7. **Psychophysical Indicators of Impairment:** Prior to requesting Edwards to perform the psychophysical tests, each one was explained and demonstrated to her. Each time she indicated she understood the instructions. However, I had to repeat the instructions for the W&T and Finger-to-Nose tests multiple times. The psychophysical tests administered to Edwards included:

   Modified Romberg Balance: For this test, her time estimation was slow as she estimated the passage of 30 seconds in 62 seconds. When asked how she estimated the 30 seconds, she laughed and said, "I was singing a song in my head." She had a front-to-back sway of approximately two inches in each direction, and a side-to-side sway of approximately three inches in each direction. He also kept her eyes open during the test even though she was reminded several times to close them.

Walk and Turn: A line in the tile flooring was used for this test. Edwards was given the opportunity to remove her shoes for the test. However, she wanted to keep them on and stated, "No….. they're really comfortable." Edwards lost her balance once while listening to instructions and twice attempted to start the test before being instructed to do so. During the walking stage she missed heel to toe on every step and raised her arms for balance four times during the first nine steps and throughout the second nine steps. She did not make the turn as directed, making a walking turn using both feet. After completing her turn, she appeared confused and had to be reminded to continue the test. She again missed touching heel to toe on every step on the second nine steps.

One Leg Stand: For this test, while standing on her left foot and extending her right foot off the floor, she immediately swayed while balancing, used her arms for balance, and put her foot down at counts 1,001 and 1,003. She was in danger of falling and the test was stopped. While attempting to stand on her right foot, she once again immediately swayed while balancing, used her arms for balance, and put her foot down at 1,002, 1,005, and 1,006. This part of the test was also stopped for safety reasons. After nearly falling the second time, she stated, "Wow, the floor was really moving."

Finger to Nose: During this test, Edwards kept her eyes open during the entire test despite instructions for her to keep her eyes closed. With her eyes open, she missed touching the tip her nose with the tip of her index finger as directed on all six attempts. Her arm movements were slow and rigid-like.

8. **Clinical Indicators of Impairment:**
   Eye Signs: Both Horizontal Gaze Nystagmus (HGN) and Vertical Gaze Nystagmus (VGN) were not observed. Edwards was able to converge her eyes as directed and laughed as she performed the test. The test was conducted twice with the same results. During the pupil size examinations, her pupils were estimated at 7.0 mm in each eye in Room Light, 9.5 mm in each eye in Near Total Darkness, and 6.0 mm in each eye in Direct Light. All three were dilated and outside the DRE average ranges for the three lighting conditions. Rebound dilation was not present and her pupil reaction to light was normal.

   Vital Signs: Her pulse was checked three times during the evaluation and were 106, 102 and 104 beats per minute. Each result was above the DRE average range for pulse rate. Her blood pressure was measured at 166/98, which was above the DRE average ranges. Her body temperature was measured at 101°, which is above the DRE average range for body temperature. Her muscle tone was rigid.

9. **Signs of Ingestion:** Her nasal area and her oral cavity were both clear and there were no indicators of injection sites on either arm or her hands.

10. **Suspect's Statements:** Officer Morris had advised Edwards of her Miranda rights and she agreed to answer questions. When asked about drugs she may have used, she replied "Nothing," laughed and then said, "Do you think I'm a druggie?" When asked about drug use at the concert she indicated that some of her friends may have been doing some drugs, but she didn't use anything that she could remember.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that Edwards is under the influence of a _____ and is unable to operate a vehicle safely.

12. **Toxicological Specimen:** A blood sample was collected from Edwards by a licensed phlebotomist and witnessed by Officer Morris. The sample was submitted into evidence for laboratory testing.

13. **Miscellaneous:** Due to her elevated vital signs and behavior, Edwards was later released to a friend instead of being detained on the DUI charge. Refer to Officer Morris' arrest report for additional details.

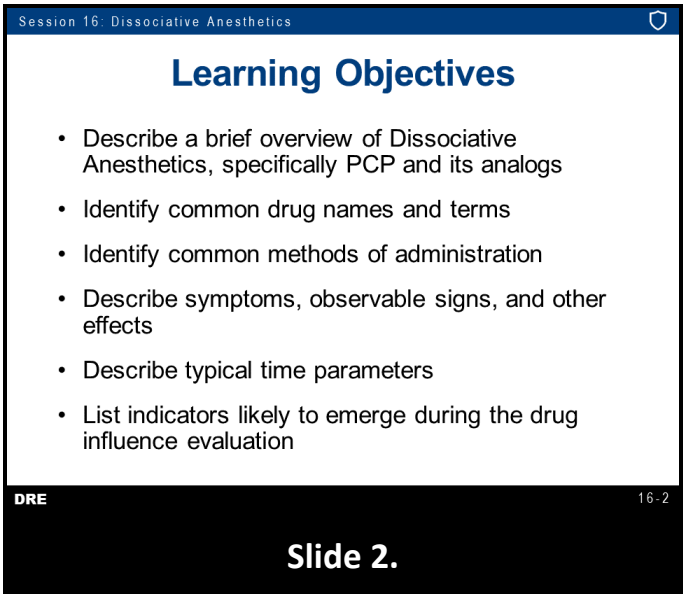
16 DRE

DISSOCIATIVE ANESTHETICS

LEARNING OBJECTIVES

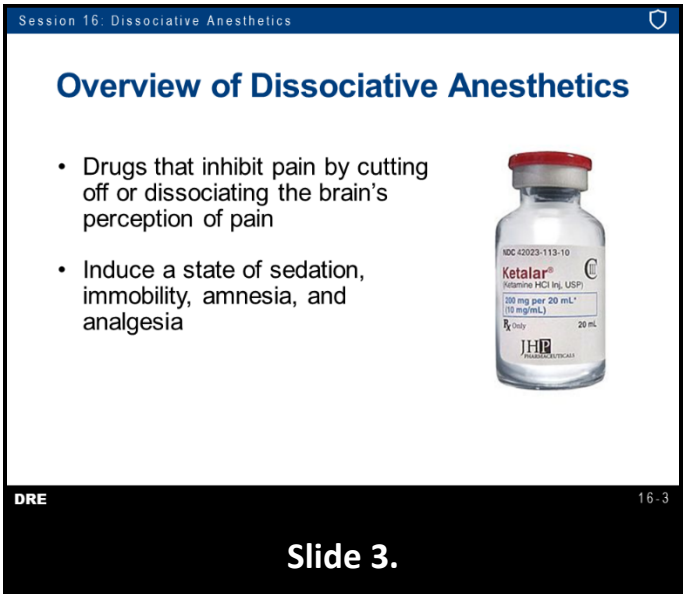
- Describe a brief overview of Dissociative Anesthetics and specifically Phencyclidine (PCP) and its analogs
- Identify common drug names and terms associated with this drug category
- Identify common methods of administration for this drug category
- Describe the symptoms, observable signs, and other effects associated with this drug category
- Describe the typical time parameters associated with this drug category
- List the indicators likely to emerge when the drug influence evaluation is conducted for a person under the influence of this drug category

CONTENTS



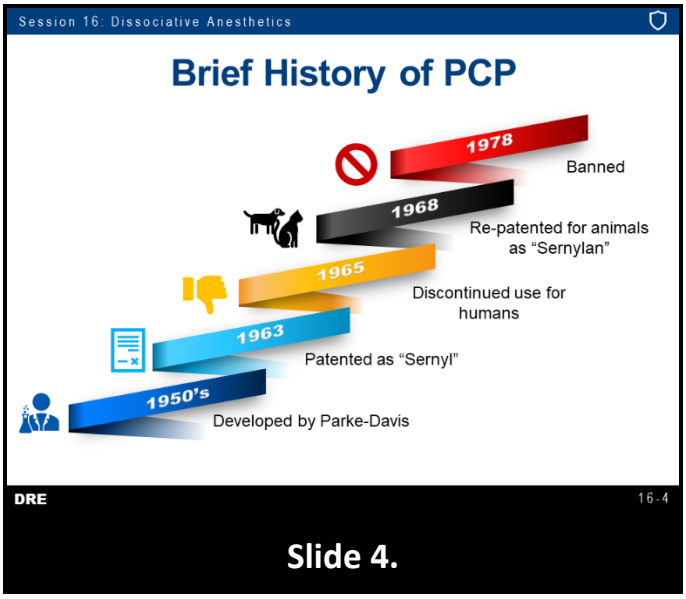
Slide 2.

A. Overview of the Category



Slide 3.

Dissociative Anesthetics include drugs that inhibit pain by cutting off or disassociating the brain's perception of pain. The drugs within this category normally will induce a state of sedation, immobility, amnesia, and marked analgesia. The term "Dissociative Anesthesia" is derived from the strong feeling of dissociation from the environment expected by the user. PCP was the first drug used for this purpose.



Slide 4.

PCP is a drug that, along with its analogs, are examples of this distinct drug category. The chemical for PCP is Phenyl Cyclohexyl Piperidine.

PCP shares some characteristics with each of the three categories of drugs. It produces some effects similar to the effects of Central Nervous System (CNS) Depressants. Examples of effects PCP shares with CNS Depressants: nystagmus, slurred speech, slowed responses. It produces some effects similar to those of CNS Stimulants. Examples of effects PCP shares with CNS Stimulants: elevated vital signs and restlessness. In some respects, it acts like a Hallucinogen.

PCP and its analogs have often been referred to as "psychedelic anesthetics" because of the bizarre and varying effects they can cause. "Phencyclidine" is a contracted or a shortened form of the chemical name. An "Analog" is a chemical very similar to the drug in terms of molecular structure or in psychoactive effects. In many medical texts and other reference documents, PCP may be classified as a Hallucinogen. However, for purposes of the DEC Program, it is treated as a separate category.

PCP sometimes goes by the "street" names "Angel Dust", "Animal Tranquilizer", "Wet", "Embalming Fluid", "Sherm" etc.

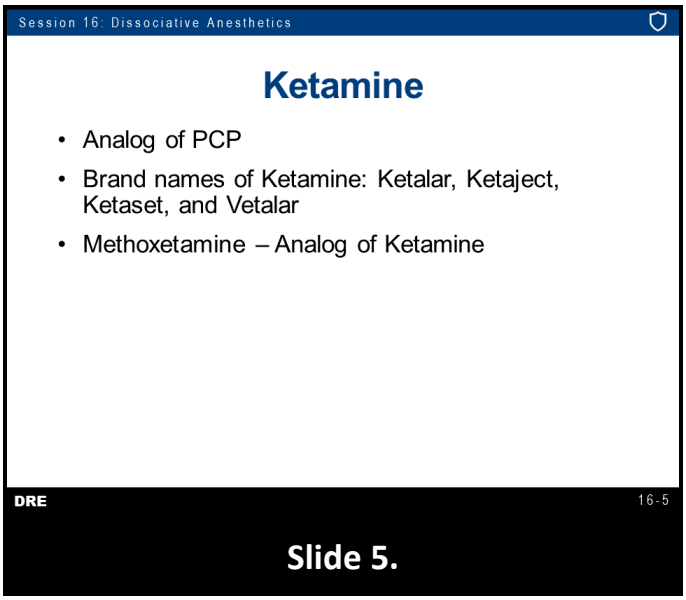
PCP was first developed in the late 1950's. It was developed by Parke-Davis and Company, a leading pharmaceutical firm. The developers were searching for a drug that would serve as an efficient intravenous anesthetic. PCP proved to be a very effective anesthetic. An anesthetic is an agent that reduces or abolishes pain sensitivity. It was patented and marketed in 1963 under the trade name Sernyl. It was used in the treatment of mental and psychological disorders, including schizophrenia. Many adverse side effects were experienced by persons who had been treated with PCP.

In 1965, use of PCP as an anesthetic for humans was discontinued. In 1968, Parke-Davis re-patented PCP under the trade name Sernylan, which was restricted to use as a veterinary anesthetic. Sernyl for animals is Sernylan. However, Sernylan was often illicitly diverted to "street" use, so most legitimate manufacturing of PCP was stopped in 1978.

PCP is relatively easy to manufacture. The chemicals required to produce it are readily available commercially. The formula for producing PCP has been widely publicized. The hardware needed to combine the chemicals is very basic.

Source:

Marnell, T. (2022). *Drug Identification Bible* (2022/2023 ed.).



Slide 5.

Another drug in this category is called Ketamine, which is an analog of PCP. Unlike PCP, Ketamine continues to be manufactured and sold legitimately. Ketamine is a white, crystalline powder or clear liquid. Ketamine is used as a rapid surgical anesthetic, both for animals and humans, especially children.

Some brand names of Ketamine: Ketalar (human use), Ketaject, Ketaset, and Vetalar. Some street names include: "Special K", "Vitamin K", "Jet", "Kit Kat", "Kitty", "Super K".

Ketamine is being studied as a possible treatment of depression.

Methoxetamine (MXE) is a research chemical not currently approved for human or veterinary use. Methoxetamine has a similar abuse profile to Ketamine and can cause pain suppression, tachycardia, hypertension, and altered perception and memory.

Signs and symptoms include dissociated and catatonic state, nausea, vomiting, and visual hallucinations.

Source:

(2012). *Society of Forensic Toxicologists Newsletter*, 36(4).

Slide 6.

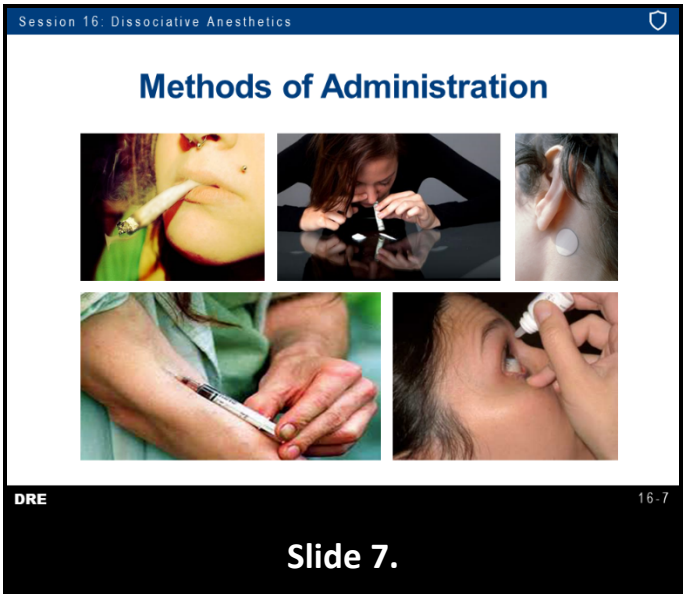
Another drug in this category is Dextromethorphan. It is sometimes referred to as “DXM” and is an ingredient found in numerous over-the-counter (OTC) cough and cold remedies.

DXM is a synthetically-produced substance that is chemically related to Codeine although it is not an Opiate.

Street names for Dextromethorphan include: “Triple C”,“ Robo”, “Robo-Tripping”, “Skittles”, “DM”.

When administered in recommended dosage levels, DXM generally is a safe and highly-effective cough suppressant; however, when administered in large amounts, it produces negative physiological effects. DXM abusers normally administer the drug orally, although some crush the pills and snort them.

Some abusers administer 250 to 1,500 milligrams in a single dosage.



Slide 7.

Common Methods of Administration for PCP: Many users administer PCP by smoking. PCP can be applied in either powder or liquid form to a variety of vegetable or leafy substances, which can then be smoked in a pipe or homemade cigarette. Popular substances include mint leaves, parsley, oregano, tobacco, or marijuana.

Commercially-prepared cigarettes can also be dipped in liquid PCP, allowed to dry, and then smoked. **PCP-adulterated cigarettes usually will be wrapped in metal foil to be preserved.**

Some users prefer to dip a string in liquid PCP and then insert the string into a tobacco cigarette.

White cigarette paper will be stained brown if adulterated with PCP. Brown cigarette paper will show white crystals when adulterated.

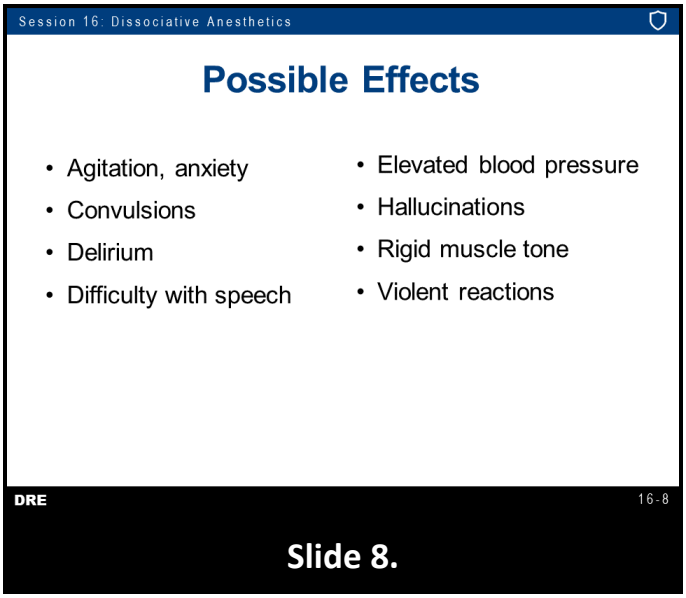
PCP can also be insufflated or "snorted." It can also be taken orally, in capsule or tablet form. Some users inject liquid PCP either directly into a vein, under the skin, or into a muscle. Some users have administered PCP to themselves by dripping liquid PCP onto their eyes using an eyedropper. Transdermal absorption of PCP has also been reported (i.e., when applied to the skin, especially as a liquid, PCP can penetrate directly into the body and bloodstream).

Liquid PCP is especially dangerous because it can be absorbed through the skin. Hence, it could be used as a weapon.

Common Methods of Administration for Ketamine: Ketamine can be applied in either powder or liquid form to a variety of vegetable or leafy substances which can then be smoked in a pipe or homemade cigarettes. Popular substances include mint leaves, parsley, oregano, tobacco, or Marijuana. Commercially-prepared cigarettes can also be dipped in liquid Ketamine, allowed to dry, and then smoked. Some users prefer to dip a string in liquid Ketamine and then insert the string into a tobacco cigarette.

Common Methods of Administration for DXM: Orally; Injection; Insufflation (snorting).

B. Possible Effects of Dissociative Anesthetics



Slide 8.

Possible effects of Dissociative Anesthetics may include the following adverse side effects.

- Delirium: confusion, incoherent speech, excitement, illusions, hallucinations, and disorientation
- Agitation, anxiety
- Rigid muscle tone
- Elevated blood pressure
- Convulsions: involuntary contortion of the muscles, producing contortion of the body and limbs
- Difficulty with speech
- Hallucinations
- Violent reactions

PCP has sometimes been called a psychotomimetic drug; i.e., it produces effects that mimic psychosis, or “craziness.” When the psychosis remains long after the drug has dissipated, we say its effects were psychotogenic, i.e., it didn’t simply mimic craziness, it caused craziness.

PCP is classified as a Dissociative Anesthetic because it cuts off the brain’s perceptions of the senses. PCP users often feel their heads are physically separated from their bodies. They sometimes report feeling they are dead and their heads are floating away. Cases of terribly bizarre, self-destructive behavior have been reported with persons under the influence of PCP.

One young man methodically pulled his own teeth out using a pair of pliers.

Another individual suffered hallucinations of unbelievably grotesque monsters and gouged out his own eyes to avoid seeing the monsters. Another young man drank rat poison, attempting to kill rats he imagined were inhabiting his body. A nude woman plunged a butcher knife into her own eye, chest, groin, and abdomen. She then threatened a police officer with the knife and was shot to death.

Sources:

Marnell, T. (2022). *Drug Identification Bible* (2022/2023 ed.).

(1988, March 7). *Washington Post*.

C. Onset and Duration of Effects

Slide 9.

PCP: When PCP is smoked or injected, onset occurs within 1 – 5 minutes. When inhaled ("snorted"), onset occurs in 30 minutes. Onset is considerably slower when PCP is taken orally: 30 – 60 minutes. The effects reach their peak in about 15 – 30 minutes, assuming the PCP was smoked, injected, or snorted. The effects generally last 4 – 6 hours, but they can go somewhat longer. The user usually, but not always, returns to normal within 24 – 48 hours.

Ketamine: Within seconds if smoked; duration varies. 1 – 5 minutes if injected; lasting 30 – 45 minutes. 5 – 10 minutes if snorted; lasting 45 – 60 minutes. 15 – 20 minutes if orally; lasting 1 – 2 hours. Ketamine abusers will often "re-administer" the drug due to its relatively short duration of action.

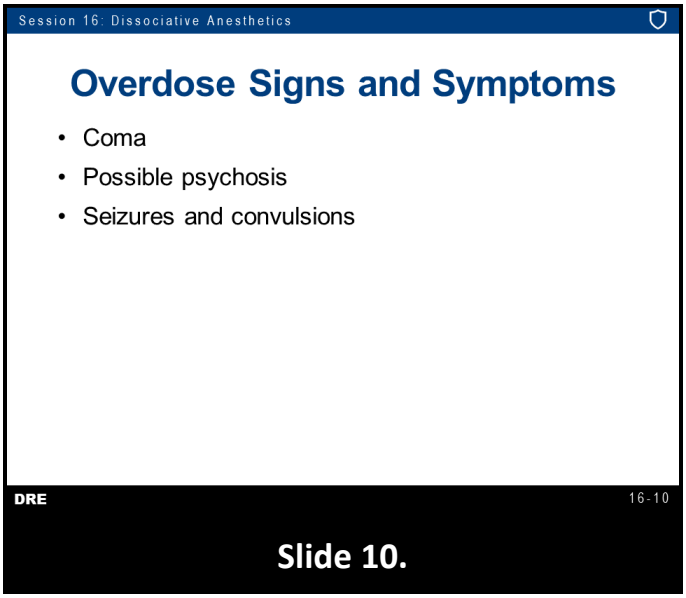
DXM: Rapidly absorbed from the gastrointestinal tract and peak plasma concentrations are reached in approximately 2.5 hours. DXM is widely distributed and is rapidly and extensively metabolized by the liver. DXM exerts its antitussive effects within 15 – 30 minutes of oral administration. The duration of action is approximately 3 – 6 hours with conventional dosage forms.

DXM Plateau (or effect): Abusers will also administer various amounts of DXM depending on their body weight and the effect or "plateau" they are attempting to achieve. Plateaus include the normal recommended therapeutic dosages of DXM are 10 to 20 milligrams for every four hours or 30 milligrams every 6 to 8 hours and acute dose between 250 – 1500 mg. The 1st Plateau is mild inebriation. The 2nd Plateau is an effect similar to alcohol intoxication with mild hallucinations. Speech at the 2nd plateau can become slurred and short-term memory may be temporarily impaired. The 3rd Plateau is an altered state of consciousness where the abuser's senses, particularly vision, can become impaired. The 4th Plateau is where the mind and body dissociate or an "out of body" experience. Abusers at the 4th plateau can lose some or all contact with his or her senses. The effects at this level are comparable to PCP. Other effects include blurred vision, body itching, rash, sweating, fever, hypertension, shallow respiration, diarrhea, toxic psychosis, and an increased heart rate, blood pressure, and body temperature.

Source:

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

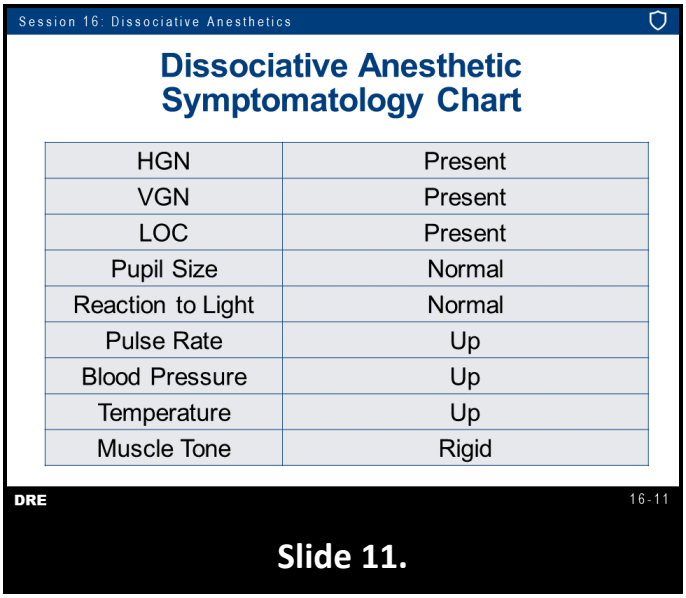
D. Overdose Signs and Symptoms



Slide 10.

In addition to the bizarre, violent, and self-destructive behavior discussed previously, persons overdosing on Dissociative Anesthetics may exhibit extreme symptoms signifying a medically dangerous condition. These include a coma and seizures. Prolonged use of Dissociative Anesthetics can lead to psychosis, which can be permanent.

E. Expected Results of the Evaluation



Slide 11.

Horizontal Gaze Nystagmus (HGN) generally will be present with a very early angle of onset.

Vertical Gaze Nystagmus (VGN) usually will be present.

Lack of Convergence (LOC) will generally be present.

Performance on Modified Romberg Balance (MRB) will be impaired: time estimation may be slowed.

Performance on Walk and Turn (WAT), One Leg Stand (OLS), and Finger to Nose (FTN) will be impaired.

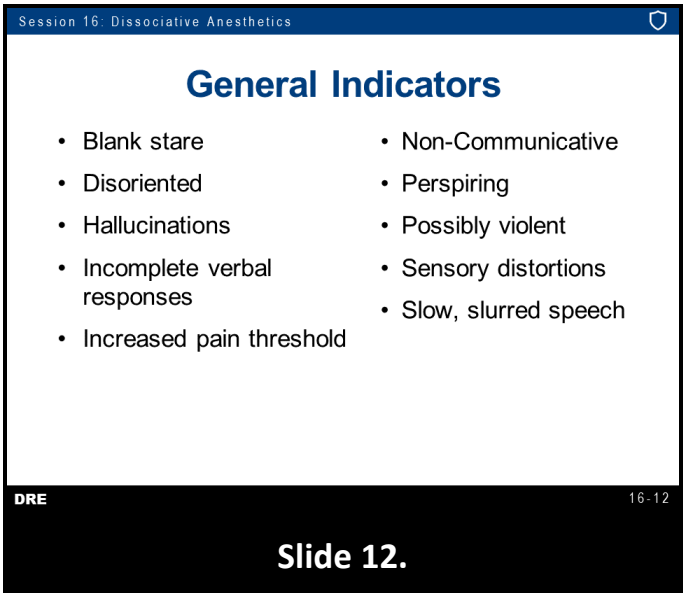
Muscle tone will usually be rigid.

With PCP, the subject may exhibit an unsteady, uncoordinated walk, taking abnormally high and slow steps as though he or she were trying to step over obstacles in his or her path.

Vital Signs: Pulse rate will generally be up. Blood pressure will generally be elevated. Body temperature will generally be up.

Dark Room: Pupil size will be within the DRE average ranges. Reaction to Light will be normal.

Muscle tone will be rigid.



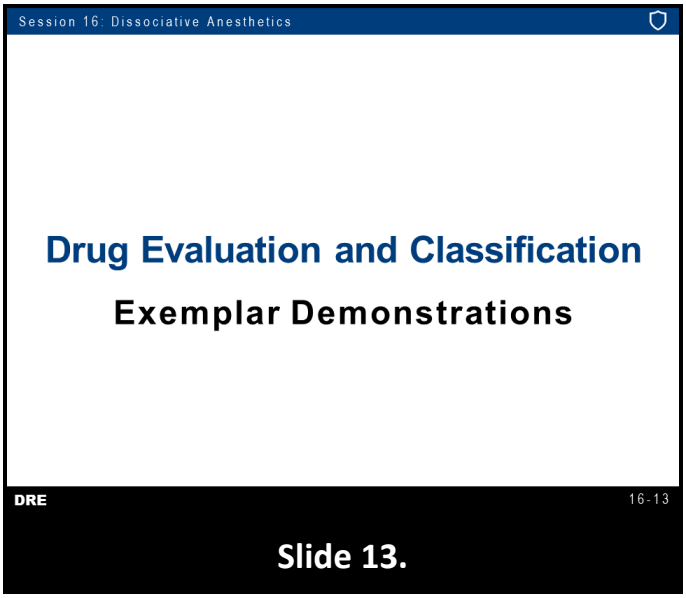
Slide 12.

- Blank stare
- Confusion
- Chemical odor (PCP)
- Cyclic behavior (PCP) varying between passive/calm, irritated/agitated, and aggressive/combative, that tend to increase and decrease cyclically
- Disoriented
- Hallucinations
- Incomplete verbal responses
- Increased pain threshold
- Non-communicative
- Perspiring
- Possibly violent
- Sensory distortions
- Slow, slurred speech

For more information and details regarding possible effects refer to

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

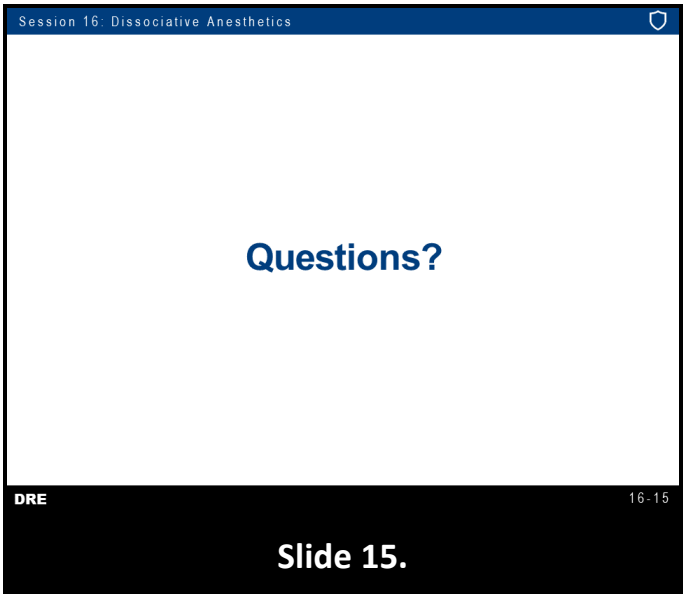
F. Review of the DEC Program Exemplars



Slide 13.

The DRE narrative report should be detailed and complete, which clearly articulates the opinion of the DRE.

Slide 14.



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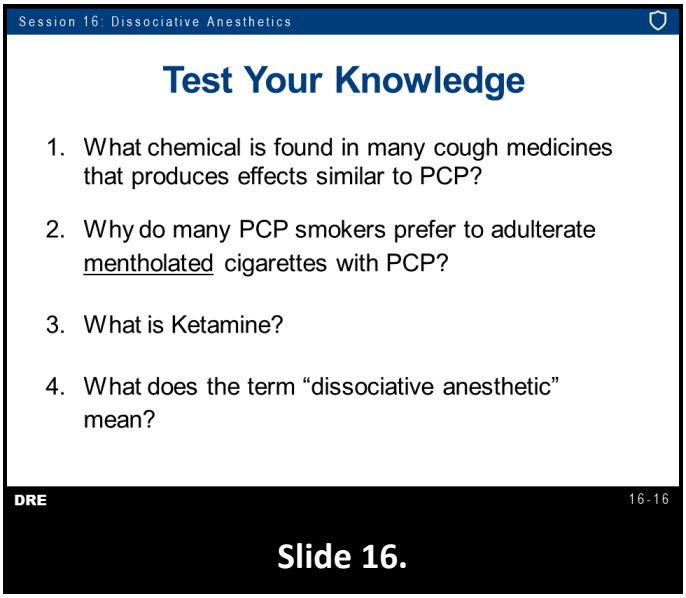


Slide 16.

Test Your Knowledge

1. What chemical is found in many cough medicines that produces effects similar to PCP?
2. Why do many PCP smokers prefer to adulterate mentholated cigarettes with PCP?
3. What is Ketamine?
4. What does the term “dissociative anesthetic” mean?

DRUG INFLUENCE EVALUATION

Evaluator: Sgt. Dean Olivier	DRE #: 12610	Rolling Log #: 22-014-0048	Evaluator's Agency: Beaumont PD	Case #: (Session XVI - #1)
Recorder/Witness: Sgt. Scott Foulke, San Antonio PD	Crash: ☐ None ☐ Fatal ☐ Injury ☒ Property		Arresting Officer's Agency: Texas DPS	
Arrestee's Name (Last, First, Middle): Dexing, Delbert R.	Date of Birth: 03/09/89	Sex: M	Race: B	Arresting Officer (Name, ID#): Trooper Stephen Gresham #14432
Date Examined / Time /Location: 12/31/22 / 2020 / Jefferson CO Intake Center	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 90914	Chemical Test: Urine ☐ Blood ☒ Oral Fluid ☐ Test or tests refused ☐	
Miranda Warning Given: ☒ Yes ☐ No Given by: Tpr. Gresham	What have you eaten today? Fried Chicken	When? About noon	What have you been drinking? How much? Water "Lots"	Time of last drink? N/A
Time now/ Actual: 2 pm / 2025	When did you last sleep? (Long pause) Last night	How long? 2 hours	Are you sick or injured? ☐ Yes ☐ No (No response)	Are you diabetic or epileptic? ☐ Yes ☐ No (No response)
Do you take insulin? ☐ Yes ☐ No (No response)	Do you have any physical defects? ☐ Yes ☒ No "I'm not sick"		Are you under the care of a doctor or dentist? ☐ Yes ☒ No "I don't think so"	
Are you taking any medication or drugs? ☐ Yes ☐ No (No response)	Attitude: Cooperative, Passive		Coordination: Slow, Rigid	
Speech: Slow, Confused, Incomplete sentences	Breath odor: Chemical-like		Face: Flushed, Sweaty, Blank stare at times	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☒ Yes ☐ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☒ Normal ☐ Droopy

Pulse and Time

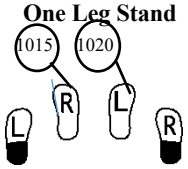
1. 110 / 2035
2. 112 / 2058
3. 110 / 2118

HGN	Left Eye	Right Eye
Lack of Smooth Pursuit	Present	Present
Maximum Deviation	Present	Present
Angle of Onset	Immed	Immed

Convergence

Right eye Left eye

NA/30 **One Leg Stand** NA/30



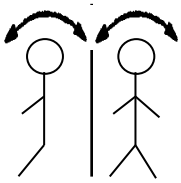
Rigid, stiff movements

L	R	
1	1	Sways while balancing
All	All	Uses arms to balance
		Hopping
1	1	Puts foot down

Tests stopped after putting foot down.

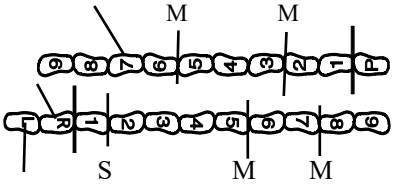
Modified Romberg Balance

Approx. 4" 4" Approx. 3" 3"



Rigid stance

Walk and Turn Test



Rigid, slow steps. Reminded to count steps out loud.

Cannot keep balance: 2

Starts too soon: 2

	1st Nine	2nd Nine
Stops walking	1	
Misses heel-toe	2	2
Steps off line		1
Raises arms	4	3
Actual steps taken	9	9

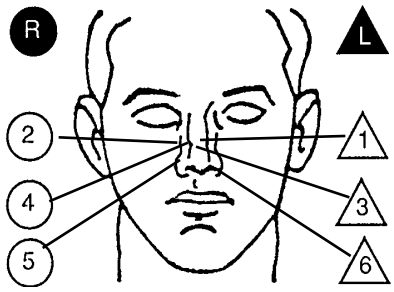
Time Estimation
48 estimated as 30 seconds

Describe turn
Rigid steps using both feet

Cannot do test (explain)
N/A

Type of footwear:
Slip-on boots

Finger to Nose
(Draw lines to spots touched)



Slow, rigid movements. Kept finger in place

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	5.0	7.0	4.0
Right Eye	5.0	7.0	4.0

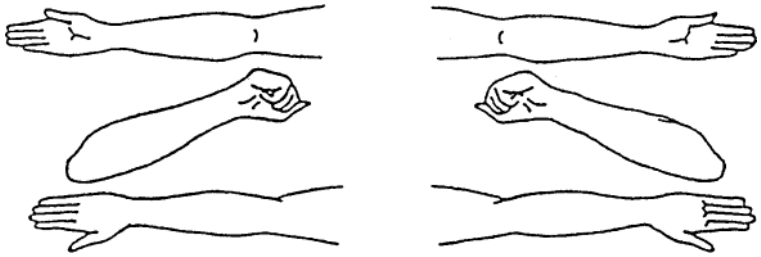
Nasal area: Clear

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Normal

RIGHT ARM **LEFT ARM**



Nothing detected

Blood Pressure	Temperature
180 / 98	99.8 °F

Muscle Tone: ☐ Normal ☐ Flaccid ☒ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
No response, laughed out loud	No response	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
12/31/22 / 1915	1955	2020	2130	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

Officer's Signature: Deane Olivier

Reviewed/approved by / date:

DRE #

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☒ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Dexing, Delbert R.

1. **Location:** The drug evaluation was conducted at the Jefferson County Intake Center. The room where the evaluation was conducted was well illuminated and had a smooth, level concrete floor with no obstructions. The darkroom exams were conducted in the restroom adjacent to the processing area.

2. **Witnesses:** The evaluation was witnessed and recorded by Sgt. Scott Foulke of the San Antonio PD. The arresting officer, Trooper Stephen Gresham of the Texas DPS witnessed the darkroom examinations.

3. **Breath Alcohol Test:** The suspect's breath test was administered by Trooper Gresham prior to my arrival to the Intake Center. The suspect's breath test result was a 0.00%.

4. **Notification and Interview of the Arresting Officer:** On 12/31/22, I was working a New Year's Eve DUI Emphasis patrol and at approximately 1955 hours, I was dispatched to the Jefferson County Intake Center regarding a DRE drug evaluation. After arriving I met with Trooper Stephen Gresham of the Texas DPS who was requesting DRE assistance with a DUID arrest. According to Trooper Gresham, he had investigated a one vehicle, non-injury crash on Highway 105 where the suspect's vehicle left the roadway striking several road signs and ended up in a ditch. When contacted, the suspect appeared to be confused and was in a dazed-like condition. The suspect told Trooper Gresham that he thought he was near Houston (Approximately 80 miles away). According to Trooper Gresham, the suspect's speech was slurred, and at times, did not complete his sentences. Trooper Gresham also observed that the suspect's balance was poor with unsteady with rigid-like movements. After determining that the suspect was not injured, Trooper Gresham administered SFSTs at roadside. Trooper Gresham observed six clues of HGN with an immediate angle of onset of nystagmus. According to Trooper Gresham, VGN was also present. The suspect had difficulty completing the WAT and OLS tests due to his poor balance and lack of coordination. Trooper Gresham arrested the suspect for DUI and during an inventory search of his vehicle, he located several stained partially used cigarettes inside some tinfoil. When asked about the cigarette's, the suspect stated they were not his. The suspect was transported to the Jefferson County Intake Center for processing and after obtaining a 0.00% breath test, Trooper Gresham requested DRE assistance.

5. **Initial Observation of the Suspect:** I first observed the suspect in the Intake Center booking area. He appeared dazed and disoriented. He was slow to respond to Trooper Gresham's questions and, at times, did not respond at all. His face was flushed, and he was sweating, which was not appropriate for the conditions. His movements were slow and rigid. When standing he several times used the wall and a chair to steady himself. I introduced myself and asked if we would submit to a drug evaluation. After a noticeable pause where it appeared he was trying to process the request, he agreed by stating, "What? Okay. I guess so." I asked if he remembered being advised of his Miranda rights by Trooper Gresham to which he replied, "Rights? Oh yea. I was." The suspect was cooperative, but at times, nonresponsive. He seemed unconcerned with his arrest and his circumstances. He stated that he did not have any injuries from his crash. Even though he was slow to respond to my questions, I was able to confirm that he had no physical defects. When first asked about medications or drugs, he did not respond and laughed out loud. During the preliminary examination, several times he would stop talking in mid-sentence and stared straight ahead with a blank-stare look. The suspect was wearing black slip-on boots, blue jeans, and a gray hoodie sweatshirt.

6. **Medical Problems and Treatment:** The suspect was asked if he needed medical assistance due to his crash and he indicated he did not. No medical issues were observed or detected during the evaluation.

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to the suspect prior to him attempting them. Several times I had repeat my instructions to ensure he understood them. At times he had a blank stare and appeared to be having concentration issues.

After each demonstration, the suspect confirmed that he understood the instructions either verbally or by nodding his head. Per DRE protocol, the following psychophysical tests were administered to the suspect:

Modified Romberg Balance: While performing this test, the suspect had an approximate 4-inch front to back sway and an approximate 3-inch side to side sway. His time estimation was slow, estimating 30 seconds in 48 seconds. Throughout this test, the suspect stood very rigid with slow movements.

Walk and Turn: A painted line on the floor in the booking area was used for this test. The suspect's movements were slow and rigid throughout the test. He lost his balance twice during the instructions and twice attempted to start the test before instructed to do so. During the first nine steps, he stopped walking once, missed heel-to-toe twice, and raised his arms four times. He had to be reminded several times to count his steps out loud and to look at his feet. He turned improperly by taking multiple rigid-like steps. On the second nine steps, he missed heel-to-toe twice, stepped off the line once, and used his arms to balance three times. He again had to be reminded to count his steps out loud.

One Leg Stand: While standing on his left foot, the suspect immediately started swaying while balancing once he extended his right foot off the floor. He used his arms for balance the entire time his right foot was extended. He was reminded to count out loud and when he put his foot down at count 1,015, he stopped participating. While standing on his right foot, he again began swaying while balancing and used his arms to balance. He put his left foot down at count 1,020 and he again stopped participating. On both attempts, his leg and body movements were stiff and rigid-like.

Finger to Nose: While performing this test, the suspect had slow, rigid arm movements. He did not touch the tip of his nose with the tip of his index finger on any of the six attempts. He had to be reminded after each attempt to remove his hand and to replace his arm back at his side.

8. **Clinical Indicators of Impairment:**

Eye Signs: Six clues of HGN were observed with an immediate angle of onset. VGN was also present. Lack of Convergence was present with his eyes not fully moving in towards his nose. As they started inward, both then moved outward and down. The test was conducted twice with the same results. His pupil sizes were checked in three lighting conditions. In RL his pupils were estimated at 5.0 mm. In NTD his pupils were estimated at 7.0 mm. In DL his pupils were estimated at 4.0 mm. All three were within the DRE average range. Rebound dilation was not present and his pupillary reaction to light was normal.

Vital Signs: The suspect's pulse was above the DRE average range on all three checks of 110, 112 and 110 bpm. His blood pressure was 180/98 mm Hg, which is above the DRE average range. His body temperature was above the DRE average range at 99.8 degrees.

9. **Signs of Ingestion:** The suspect's nasal and oral cavities were clear. There were no visible signs of injection marks on his arms or hands.

10. **Suspect's Statements:** When asked about drug use and specifically the stained cigarette's in tinfoil located in his vehicle, the suspect looked away, laughed, and did not respond.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a Dissociative Anesthetic and is unable to operate a vehicle safely.

12. **Toxicological Sample:** The subject provided a blood sample. The sample was sealed in the lab provided kit and submitted as evidence pending lab testing.

13. **Miscellaneous:** Refer to Trooper Gresham's arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Officer Kamron Sardar	16369	22-015-0142	LAPD	(Session XVI - #2)

Recorder/Witness	Crash	Arresting Officer's Agency
Officer Jayson Siller, LAPD	☒ None ☐ Fatal ☐ Injury ☐ Property	LAPD

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Sherms, Shelly Dunsome	08/24/1988	F	W	Officer Timothy Arroyo #19840

Date Examined / Time /Location	Breath Test	Chemical Test
05/02/22 / 11:10 pm / Metro Detention	Results: 0.00 Test Refused ☐ Instrument #: Intox 45301	Urine ☐ Blood ☒ Test or tests refused ☐

Miranda Warning Given / Given by: Officer Arroyo	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
		Chicken Sandwich	No response	Water "A lot"	N/A

Time now/ Actual	When did you last sleep? How long?	Are you sick or injured?	Are you diabetic or epileptic?
10 pm / 11:15 pm	No response	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☐ No No response	☐ Yes ☒ No "I'm not sick"

Are you taking any medication or drugs?	Attitude:	Coordination:
☒ Yes ☐ No "I smoke pot sometimes"	Indifferent, Disoriented	Poor, Slow, Rigid

Speech:	Breath odor:	Face:
Slow, Thick, Delayed	Chemical	Flushed, Sweaty

Corrective Lenses:	Eyes:	Blindness:	Tracking:
☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	☒ Normal ☐ Bloodshot ☐ Watery	☒ None ☐ Left ☐ Right	☒ Equal ☐ Unequal

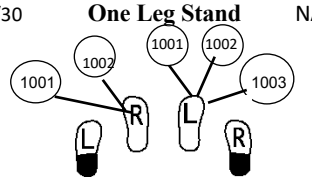
Pupil Size:	Resting Nystagmus	Vertical Nystagmus	Able to follow stimulus	Eyelids
☒ Equal ☐ Unequal (explain)	☐ Yes ☒ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Normal ☐ Droopy

Pulse/Time	HGN	Left Eye	Right Eye
1. 102 / 11:22	Lack of Smooth Pursuit	Present	Present
2. 100 / 11:36	Maximum Deviation	Present	Present
3. 104 / 11:48	Angle of Onset	Immed	Immed

Convergence

Right eye Left eye

NA/30 **One Leg Stand** NA/30

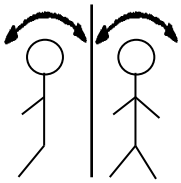


L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

Tests stopped after almost falling

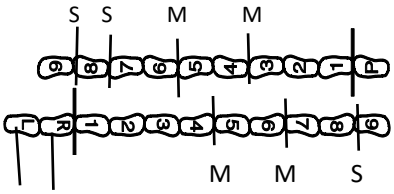
Modified Romberg Balance

Approx. 3" 3" Approx. 3" 3"



Rigid

Walk and Turn Test



Rigid, slow movements. Reminded to count steps out loud.

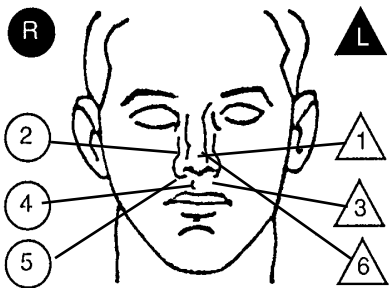
Cannot keep balance: 2

Starts too soon:

	1st Nine	2nd Nine
Stops walking	1	2
Misses heel-toe	2	2
Steps off line		
Uses arms	3	4
Actual steps taken	9	9

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
42 estimated as 30 seconds	Slow, rigid walking turn	N/A	Slip-on Vans

Finger to Nose
(Draw lines to spots touched)



Slow, stiff movement. Eyes open

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	4.0	6.0	3.0
Right Eye	4.0	6.0	3.0

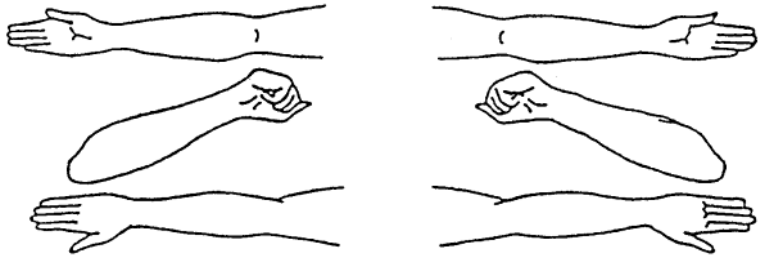
Nasal area: Clear

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Normal

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature
188 / 92	100.0 °F

Muscle Tone: ☐ Near Normal ☐ Flaccid ☒ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
No response	No response	No response	No response

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
05/02/22 10:00 PM	10:40 PM	11:10 PM	11:58 PM	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: Kameron Sardar | Reviewed/approved by / date: | DRE#

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☒ Dissociative Anesthetic ☐ Inhalant
☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Sherms, Shelly Dunsome

1. **Location:** The evaluation was conducted in the booking area of the LAPD Metro Detention Center. The darkroom examinations were conducted in the staff restroom. Both areas were well illuminated, had level smooth flooring and provided a suitable area for conducting the DRE evaluation.

2. **Witnesses:** The evaluation was witnessed and recorded by LAPD Officer Jayson Siller. The arresting officer, Timothy Arroyo of the LAPD witnessed the psychophysical tests.

3. **Breath Alcohol Test:** Sherm's breath test was administered by Officer Arroyo at 10:35 pm, prior to my arrival. He obtained a 0.00% BAC result using an Intox 9000, serial #45301.

4. **Notification and Interview of the Arresting Officer:** On 5/02/22 at approximately 10:40 pm, I was dispatched to conduct a drug evaluation at the Metro Detention Center. Upon my arrival, I met with the arresting officer, Officer Timothy Arroyo of the LAPD. Officer Arroyo advised that during an interagency DUI enforcement operation he had stopped Sherms' vehicle after observing it nearly hit several parked cars along West Olympic Blvd. According to Officer Arroyo, he activated his emergency lights to stop her vehicle, however, she continued without stopping for almost three blocks, nearly hitting other parked vehicles. When her vehicle did stop, the right front tire scraped the concrete curb. When Officer Arroyo approached the vehicle, he noticed that Sherms was staring straight ahead with a blank stare look. During the personal contact she appeared to be in a dazed-like condition and confused, appearing to not know where she was. According to Officer Arroyo, she had difficulty producing her operator's license and other paperwork. Her movements were slow and rigid. Her responses to questions were slow, and several times, she did not respond at all. When requested to exit her vehicle, Officer Arroyo had to remind her several times to turn off the vehicle's ignition. Once outside the vehicle, she had poor balance and had slow, rigid-like movements. Officer Arroyo did not detect an odor of an alcoholic beverage on her breath but did detect a chemical-like odor. When asked if she was alright, she stared at Officer Arroyo for several seconds, then stated "I'm okay." Officer Arroyo administered the HGN, Walk and Turn, and One Leg Stand tests to Sherms. He reported observing six clues of HGN and Vertical Gaze Nystagmus (VGN). She had difficulty completing the W&T and OLS tests due to her poor balance and both tests were stopped for safety reasons. Officer Arroyo arrested Sherms for DWI, advised her of her Miranda rights, and transported her to the Metro Detention Center for processing. After obtaining a 0.00 BAC breath test, he requested a DRE to assist with the investigation.

5. **Initial Observation of the Subject:** I first observed Sherms in the booking area at the Detention Center. She was seated in a chair at the table and appeared disoriented. She was wearing jeans, slip-on Vans, and a red pullover shirt. I noted she was slow to respond to questions and appeared to be having concentration problems. Her face appeared flushed and she had facial sweating. When she stood, her movements were slow and rigid-like. Several times she bumped into the interview table and twice used the chair to steady herself. I introduced myself and asked if she would participate in a drug evaluation. She appeared confused and after an approximate 20 to 30 second pause, asked, "Do you mean a drug test?" After explaining the procedure to her, she agreed to do the evaluation. I asked if she had any injuries or physical defects, to which she stared straight ahead and did not respond. She denied using drugs or medications. During the preliminary examination, she would occasionally stop talking, sometimes in the middle of a sentence. Her speech was slow and thick. When asked when she last slept, and for how long, she stared at me and did not answer the questions. She did state that she had eaten a chicken sandwich and drank "a lot" of water during the day. Although cooperative, she appeared indifferent to what was going on.

6. **Medical Problems and Treatment:** Sherms did not report any medical problems or conditions, and none were observed or detected during the drug evaluation. When asked if she was under the care of a doctor or dentist, she stated, "No, I'm not sick." She stated she was not diabetic or epileptic. When asked if she was taking any medications or drugs, she stated, "I smoke pot sometimes" then laughed.

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to Sherms prior to her attempting them. For each of the tests, I had to repeat my instructions several times. After each demonstration, I confirmed that she understood the instructions. The following psychophysical tests were given:

Modified Romberg Balance: While performing this test, Sherms had an approximate three-inch side to side sway and front to back sway. She also had a slow time estimation, estimating 30 seconds in 42 seconds. While performing the test, she stood very rigid and stiff. When asked how she estimated the 30 seconds, she had a long pause of almost a minute and then stated she thought she tried to count in her head but was not sure.

Walk and Turn: For this test, a line on the floor was used. Sherms lost her balance to the right two times while in the instructions stage. During the walking stage, she had slow, rigid movements. During the first nine steps, she missed touching heel to toe on her fifth and seventh steps. She stopped walking after step eight and appeared confused, then continued with the test. She made an improper turn by taking slow rigid steps with both feet. On the second nine steps, she missed touching heel to toe on her fourth and sixth steps. She stopped walking at steps eight and nine. She raised both arms from her body three times on the first nine steps and four times on the second nine steps. She was reminded several times to count her steps out loud. However, she only counted out loud as instructed on the second nine steps.

One Leg Stand: During this test, when attempting to raise her right foot, Sherms swayed while balancing, used her arms for balance, and put her foot down two times immediately after attempting to raise her foot, on her counts of 1,001, and 1,002. The test was then stopped for safety reasons. When she attempted to balance on her right foot and raise her left foot, she again was very rigid, swayed while balancing, used her arms for balance, and put her foot down after three attempts, on her counts of 1,001, 1,002, and 1,003. This portion of the test was also stopped for safety reasons.

Finger to Nose: While performing this test, Sherms had very slow and rigid arm movements. She did not touch the tip of her nose with the tip of her index finger as instructed on any of the six attempts. She touched the middle of her nose attempt #1, the right side of her nose with attempt #2, her upper lip area on attempts #3, #4, and #5 and the left side of her nose with attempt #6. She also kept her eyes open throughout the test even after being reminded several times to keep her eyes closed.

8. **Clinical Indicators of Impairment:**

Eye Signs: Sherms exhibited equal tracking and had equal pupil size. All six clues of HGN with an immediate angle of onset was observed. VGN was also observed. Her eyes were not able to converge as instructed and her eyes looked straight ahead on both attempts. Her pupils were examined in three different lighting conditions. In Room Light, her pupils were estimated at 4.0 mm in both eyes. In Near Total Darkness, her pupils were estimated at 6.0 mm in both eyes, and in Direct Light, her pupils were estimated at 3.0 mm in both eyes. All three estimates were within the DRE average ranges for the three lighting conditions. Her pupillary reaction to light was normal.

Vital Signs: Sherms pulse rates were checked three times during the evaluation. All three were elevated at 102, 100, and 104 beats per minute (bpm) and were above the DRE average range. Her blood pressure of 188/92 millimeters of mercury (mmHg) was also above the DRE average range. Her body temperature was above the DRE average range, measured at 100.0 degrees F. Her muscle tone was rigid.

9. **Signs of Ingestion:** Her nasal and oral cavities were clear, and she had no visible signs of injection marks. No other visible signs of ingestion detected.

10. **Subject's Statements:** Sherms had been advised of her Miranda rights by Officer Arroyo and she agreed to answer questions. When asked about drug use, she gave no response and looked straight ahead. Numerous times when she was asked a question, she would simply stare straight ahead, and did not respond. Several times when she did answer a question, her responses were slow and were related to some previous questions asked of her.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that Sherms was under the influence of a Dissociative Anesthetic and was unable to operate a vehicle safely.

12. **Toxicological Sample:** Sherms provided a blood sample after the evaluation. Officer Arroyo collected the sample and submitted it as evidence pending delivery to the crime laboratory for analysis.

13. **Miscellaneous:** Refer to Officer's Arroyo's DUI arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Det. Joseph MacLean	11522	22-011-0042	Franklin PD	(Session XVI - #3)

Recorder/Witness	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency
Don Decker, Nahant PD		Middleborough PD

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Krystal, K.J.	09/06/2002	M	B	Sgt. Debra Bastista #10423

Date Examined / Time /Location	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 14454	Chemical Test: Urine ☒ Blood ☐ Test or tests refused ☐
09/28/22 / 2145/ Middleborough PD			

Miranda Warning Given Given by: Sgt. Bastista	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
		"Eat? Pizza"	(Long pause) "About 7"	Juice & water No response	N/A

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
Don't know / 2150	(Long pause) "Yes"	No response	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No (Pause) "None that I remember"	☐ Yes ☒ No (Long pause) "No doctor"

Are you taking any medication or drugs?	Attitude:	Coordination:
☒ Yes ☐ No (Long pause) "Weed sometimes" (Laughed)	Cooperative, Passive	Poor, Rigid

Speech:	Breath odor:	Face:
Slow, Low, Delayed	Unremarkable	Flushed, Sweaty

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

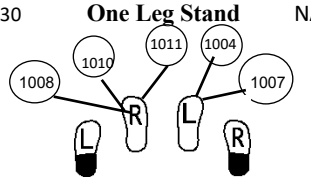
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☒ Yes ☐ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☒ Normal ☐ Droopy

Pulse/Time	HGN	Left Eye	Right Eye
1. 106 / 2155	Lack of Smooth Pursuit	Present	Present
2. 102 / 2210	Maximum Deviation	Present	Present
3. 106 / 2228	Angle of Onset	Immed	Immed

Convergence

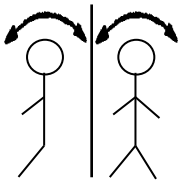
Right eye Left eye

NA/30 **One Leg Stand** NA/30



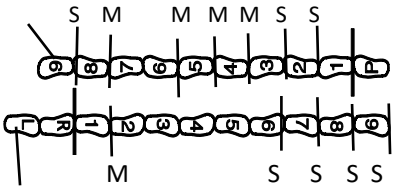
Modified Romberg Balance

Approx. 2" 2" Approx. 2" 2"



Rigid/Sweating

Walk and Turn Test



Slow, rigid walk

Cannot keep balance: 1

Starts too soon:

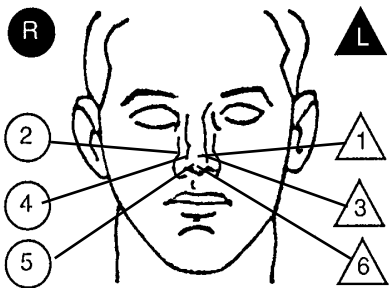
	1st Nine	2nd Nine
Stops walking	4	3
Misses heel-toe	1	4
Steps off line		1
Uses arms	All	All
Actual steps taken	9	9

L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

Tests stopped – almost fell on both

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
40 estimated as 30 seconds	Stopped. Needed directions	N/A	Red high top athletic shoes

Finger to Nose
(Draw lines to spots touched)



Slow, stiff arm movements. Reminded to remove hand and return arms to side.

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	4.5	6.5	3.5
Right Eye	4.5	6.5	3.5

Nasal area: Clear

Oral cavity: Clear

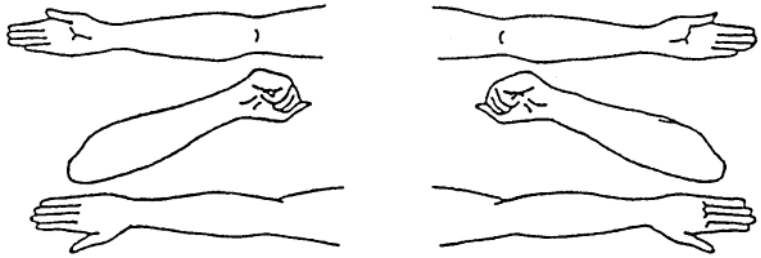
Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Normal

Blood Pressure	Temperature
176 / 98	101.0 °F

Muscle Tone: ☐ Near Normal ☐ Flaccid ☒ Rigid

RIGHT ARM **LEFT ARM**



Nothing observed

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
(Long pause) "Some K"	No response	No response	No response

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
09/28/22 2018	2120	2145	2250	

DRE/Officer's Signature: *Debra Bastista* Reviewed/approved by / date: DRE#

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☒ Dissociative Anesthetic ☐ Inhalant
☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Krystal, K. J.

1. **Location:** The evaluation was conducted at the Middleborough Police Department interview room with the darkroom examinations conducted in the staff restroom. The interview room had adequate lighting for conducting a drug evaluation. Both areas had smooth tile flooring with no obstructions.

2. **Witnesses:** The evaluation was witnessed and recorded by Don Decker, a DRE with the Nahant Police Department. The arresting officer, Sergeant Debra Bastista witnessed the darkroom eye examinations.

3. **Breath Alcohol Test:** The suspect provided a breath sample to Sgt. Bastista prior to my arrival. Using a Drager 9510, she obtained a 0 .00 BAC result.

4. **Notification and Interview of the Arresting Officer:** I was notified on 09/28/22 at approximately 2120 hours by the Dispatch Center that a driver had been arrested and was suspected of being under the influence of drugs and the arresting officer was requesting assistance with a DRE evaluation. I responded to the Middleborough PD and contacted the arresting officer, Sgt. Debra Bastista. Sgt. Bastista advised that she had stopped the suspect's vehicle after observing it fail to stop while exiting a private drive from a business and nearly colliding with another vehicle. According to Sgt. Bastista, during the personal contact with the suspect, no odor of an alcoholic beverage was detected on his breath. However, Sgt. Bastista noted that he was confused and disoriented. He had difficulty finding his operator's license and vehicle registration. He also had difficulty with short term memory and several times had to be reminded to produce the documents. Sgt. Bastista also noted that his speech was slurred and thick sounding. Once he existed his vehicle, Sgt. Bastista noted that he had poor balance and needed to steady himself using his vehicle. Sgt. Bastista administered SFST's and reported observing six clues of Horizontal Gaze Nystagmus (HGN), with an immediate angle of onset. Vertical Gaze Nystagmus (VGN) was also observed. He also had difficulty completing the Walk and Turn (W&T) and the One Leg Stand (OLS) tests due to his poor balance and rigid coordination. Both tests had to be stopped for safety reasons because he lost his balance and nearly fell several times. After completing the SFSTs, Sgt. Bastista arrested the suspect for DUI and transported him to the MPD for a breath test. After obtaining a 0.00 BAC breath test, a DRE was requested to assist with the investigation.

5. **Initial Observation of the Suspect:** I first observed the suspect in the interview room at Middleborough PD. He was slow to respond to questions and appeared to be confused and disoriented. When he stood, his movements were slow and rigid-like. When moving about, he several times used the wall to steady himself. I introduced myself and requested his participation in a drug influence evaluation, which he agreed to do after a pause where he appeared to be processing the request. I asked if he remembered being informed of his Miranda rights and he indicated that he did. He was asked a few initial questions and preliminary observations were made. When asked about the time, he indicated he did not know the time. When asked when he had last slept, after a pause of about one minute, he replied "Yes". When asked if he had been drinking any alcoholic beverages he stated "No" and indicated he had been drinking juice and water. When asked about any drug or medication use, after another pause of about 45 to 60 seconds, he replied, "Weed sometimes" and laughed. At times he would stop talking and appeared to be confused and trying to process information. His attitude was cooperative and passive. His breath was unremarkable. He indicated he was not blind in either eye and did not wear corrective lenses. He was able to follow a stimulus with his eyes and they appeared to track equally. His eyelids appeared normal. The suspect was wearing black baggy shorts, a Red Sox hoody sweatshirt, and red unlaced athletic shoes.

6. **Medical Problems and Treatment:** I asked the suspect if he had any injuries or physical defects and he once again seemed confused and after another noticeable pause replied, "None that I remember." He stated he was not under the care of a doctor or dentist. He acknowledged that he is not diabetic, is not epileptic, and does not take insulin. No medical problems were reported, and none were observed or detected during the evaluation to indicate the need for immediate medical care.

7. **Psychophysical Indicators of Impairment:** During the evaluation, the suspect was asked to perform four psychophysical tests. Each one was fully explained and demonstrated to him. He acknowledged understanding each test before attempting it. Several of the test instructions had to be repeated. The following psychophysical tests were administered to the suspect:

Modified Romberg Balance: He was able to stand in the instructional stance while this test was explained and was able to complete the test. While performing the test, he had an approximate two-inch side to side and front to back sway. He had a slow time estimation, estimating 30 seconds in 40 seconds of actual elapsed time. When asked how he estimated the 30 seconds, he looked away and stared at a clock on the wall and did not respond. While performing the test, he stood very rigid and was sweating profusely.

Walk and Turn: For this test, a line in the tile floor was used. The suspect lost his balance to the right one time during the instructions stage. During the walking stage, he had slow, rigid, stiff movements. On the first nine steps, he missed touching heel to toe on his second step. He also stopped walking four times. At the turn, he stopped, appeared to be confused on what to do and walked off the line as if he had completed the test. I explained that he needed to complete the test and provided instructions to him for completing the second nine steps. Once he started the second nine steps, he stopped while walking three times and missed touching heel to toe four times. On his final step, he stepped off the line to the right. He had his arms raised in a stiff-like manner during the first and second nine steps of the test.

One Leg Stand: This test was performed first while standing on his left foot and then on his right foot. While standing on his left foot and extending his right foot off the floor, he put his foot down at 1,008, 1,010, and 1,011 and then lost his balance nearly falling and the test was stopped. He swayed noticeably while attempting the test and raised his arms for balance as soon as he lifted his right foot off the floor.

When attempting the test standing on his right foot and extending his left foot off the floor, he put his foot down on counts 1,004 and 1,007. Again, he was in danger of falling and the test was stopped for safety reasons. He swayed noticeably while attempting the test and raised his arms for balance when he tried to lift his right foot of the floor. On each attempt, he appeared to be rigid and stiff-like.

Finger to Nose: The suspect was able to stand in the instructional stance while the test was explained. While performing this test, he had slow and rigid arm movements. He was unable to touch the tip of his nose with the tip of his index finger on four of the six attempts. On the first attempt he touched the left side of his nose, on the second attempt he touched on the right side of his nose, on the third attempt he touched on the left side of the tip of his nose, on the fourth attempt he touched on the right side of the tip of his nose, on the fifth and sixth attempt he touched the tip of his nose as directed. He had to be reminded to remove his hand and return his arm to his side on the first four attempts.

8. **Clinical Indicators of Impairment:**

Eye Signs: The suspect exhibited equal tracking and had equal pupil size. During the check for Horizontal Gaze Nystagmus, he displayed a lack of smooth pursuit in both eyes, had distinct and sustained nystagmus at maximum deviation in each eye, and had an immediate angle of onset of nystagmus in each eye. Vertical Gaze Nystagmus was also present. His eyes were not able to converge as both eyes moved downward as they moved in towards the nose. This test was conducted twice with the same results. His pupils were examined and

estimated in size in three different lighting levels. In Room Light, his pupils were estimated at 4.5 mm in both eyes. In Near Total Darkness, his pupils were estimated at 6.5 mm in both eyes, and in Direct Light, they were estimated at 3.5 mm in both eyes. All three estimates were within the DRE average ranges for the three lighting levels. His pupillary reaction to light was normal.

Vital Signs: The suspect's pulse was taken three times during the evaluation. His pulse rates were elevated at 106, 102, and 106 beats per minute (bpm), and were above the DRE average ranges of 60-90 bpm. His blood pressure had a systolic pressure of 176 mm/Hg and diastolic pressure of 98 mm/Hg. Both results were above the DRE average range. His body temperature was measured at 101.0 degrees Fahrenheit which was also above the DRE average range. His muscle tone was rigid.

9. **Signs of Ingestion:** The suspect's nasal and oral cavity were checked and there were no remarkable observations. He was checked for injection sites and there were no visible signs of injection marks on his hands and arms.

10. **Suspect's Statements:** The suspect had been advised of his Miranda rights prior the evaluation and he agreed to answer questions and to participate in the evaluation. After explaining the results of my evaluation, he was once again asked about drug usage. After another noticeable pause, he responded "Some K". I then asked if he was referring to Ketamine and he did not respond, smiled, and looked away.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that Krystal was under the influence a Dissociative Anesthetic and unable to operate a vehicle safely.

12. **Toxicological Sample:** A toxicological sample of urine was requested which he provided at the conclusion of the evaluation. The sample was turned over to Sgt. Bastista who submitted it as evidence pending analysis by the crime laboratory.

13. **Miscellaneous:** Due to the suspect's elevated vital signs, EMS was requested to evaluate his condition. He was subsequently released to EMS who transported him to the hospital for a follow-up medical evaluation. Refer to Sgt. Batista's arrest report for additional details.

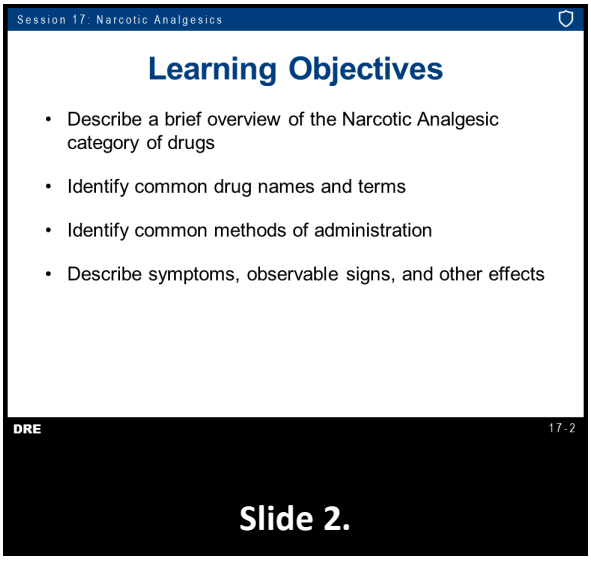
17 DRE

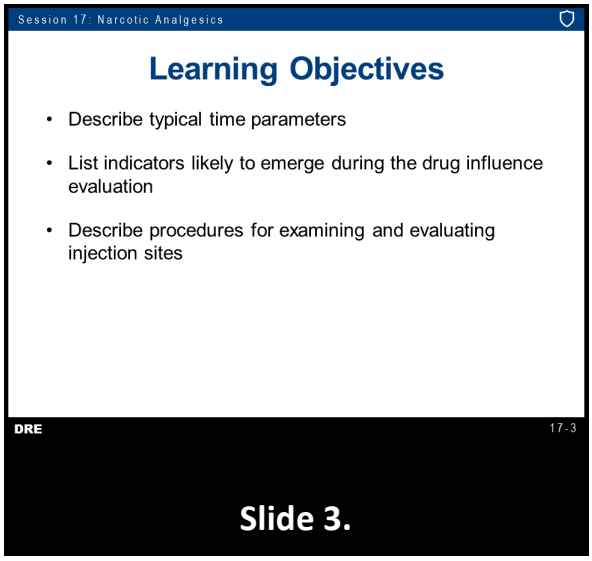
NARCOTIC ANALGESICS

LEARNING OBJECTIVES

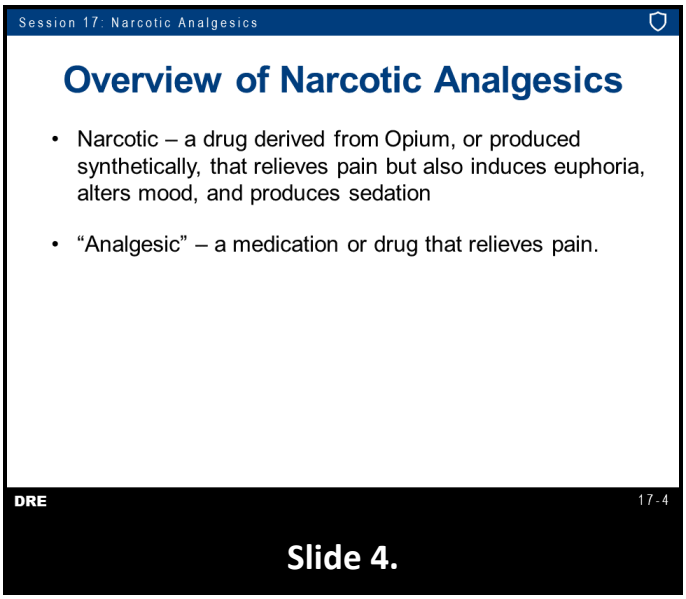
- Describe a brief overview of the Narcotic Analgesic category of drugs
- Identify common drug names and terms associated with this category
- Identify common methods of administration for this category
- Describe the symptoms, observable signs, and other effects associated with this category
- Describe typical time parameters, i.e., onset and duration of effects, associated with this category
- List the indicators likely to emerge when the drug influence evaluation is conducted for a person under the influence of this category of drugs
- Describe the procedures for examining and evaluating injection sites

CONTENTS





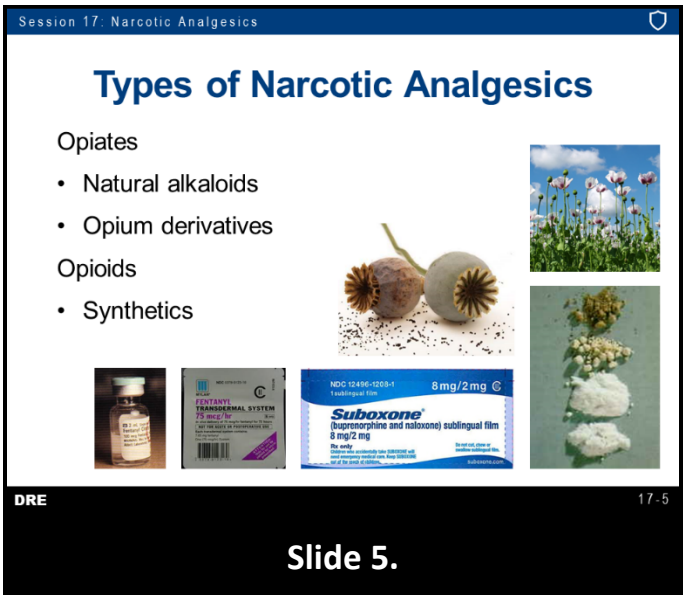
A. Overview of the Category



Narcotic Analgesics, sometimes called "Opioids", are drugs found in Opium, derived chemically from Opium, or are produced synthetically. The term "Opioid," however, most correctly refers to the synthetic subcategory of Narcotic Analgesics. This is a medical term, not a legal or police term.

A Narcotic is a drug that relieves pain but also induces euphoria, alters mood, and produces sedation. An "Analgesic" is a medication or drug that relieves pain. It differs from an anesthetic, in that it lowers one's perception or sensations of pain, rather than stopping nerve transmission.

Non-Narcotic Analgesics, such as Aspirin, Tylenol, and Motrin, relieve pain, but do NOT produce narcosis, which means numbness or sedation and do not alter mood. Therefore, non-narcotic analgesics in small amounts, are not psychoactive and are not abused for their mind- or mood-altering actions.



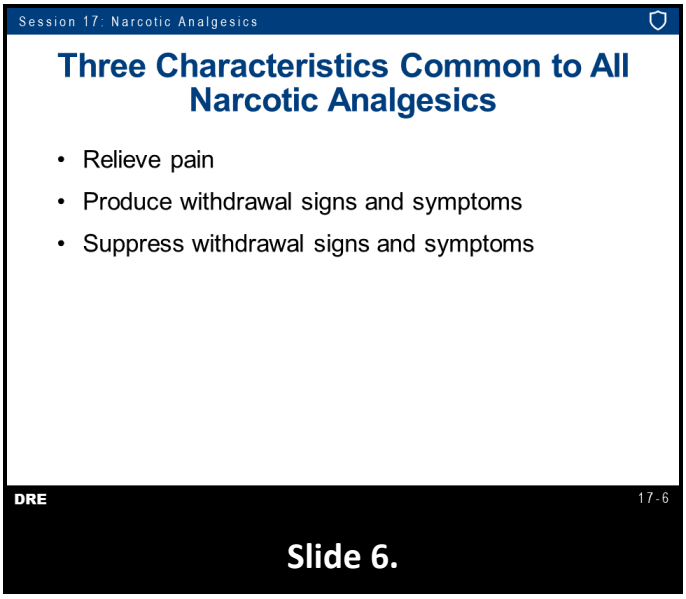
Slide 5.

There are two subcategories of Narcotic Analgesics: Opiates and Opioids.

Opiates are drugs that either contain or are derived from Opium, which is sap from the seed pods of a particular type of poppy. The Opium poppy is also called “Papaver Somniferum” (Somniferum in Latin means “carrier of sleep”). These drugs are available as a natural alkaloid or as opium derivative. A “natural alkaloid” is a substance found in another substance and can be isolated from it. Morphine and Codeine are examples of a natural alkaloid. (The term “main ingredient” can be used as a synonym for “alkaloid.”) Opium derivatives are obtained by chemically treating the Opium alkaloid. Opium derivatives are sometimes referred to as semi-synthetic narcotic analgesics.

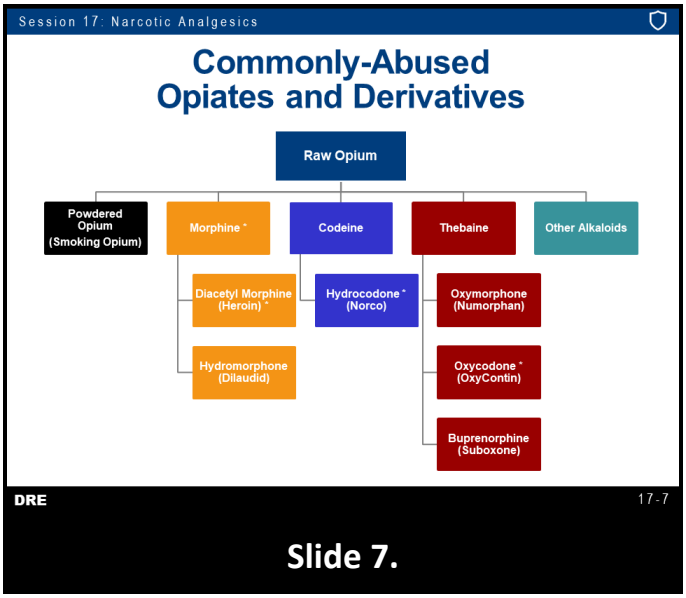
Heroin is the most commonly-abused illicit Narcotic Analgesic. The generic, or technical, name for Heroin is “Diacetylmorphine.”

Opioids, which are not derived from Opium, produce similar or identical effects as Opium alkaloids and derivatives. Synthetic Narcotic Analgesics are synthetically produced from a variety of non-opiate substances. Examples include fentanyl and methadone.



Slide 6.

Narcotic Analgesics all share three characteristics. They produce analgesia (pain relief). Physical dependence may occur from "chronic administration" when the drug has been taken at fairly regular intervals for a period of time. Withdrawal signs and symptoms will occur when the user is physically dependent and drug use is stopped. Drug users will commonly use other Narcotic Analgesics, substituting one drug for another, to suppress the withdrawal signs and symptoms of chronic Narcotic Analgesic administration. For example, Methadone is generally used for treating narcotic user's addiction.

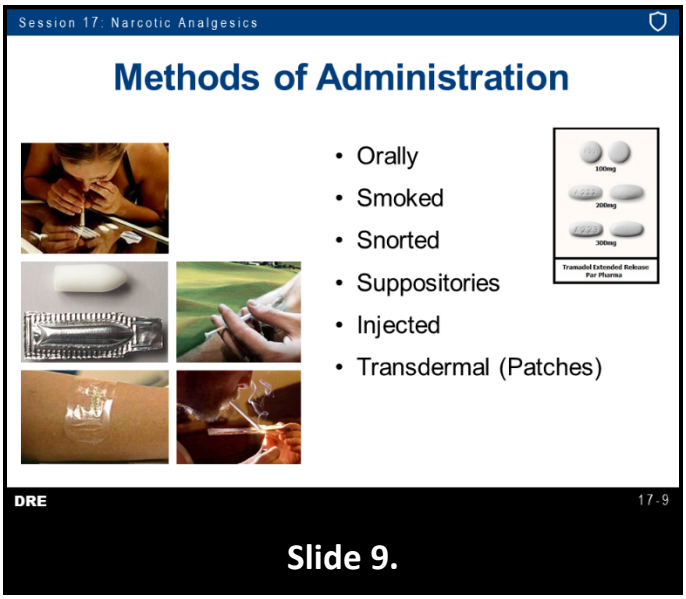


Slide 7.

Current opiates being abused in the United States include morphine, heroin, codeine, hydrocodone (Norco), and oxycodone (OxyContin).

Slide 8.

Methadone is commonly used to treat withdrawal symptoms. Demerol is a short acting Opioid used to treat moderate to severe pain, to help put people to sleep before surgery, and provide pain relief. The fentanyls are highly potent, opioid pain medications with a rapid onset and short duration of action. They can be 80 to 100 times or more potent than Morphine. According to the *Drug Identification Bible*, "Fentanyl and its four analogs used in medicine (alfentanil, carfentanil, remifentanil, and sufentanil) are Schedule II drugs, while illicitly produced fentanyl analogs are Schedule I drugs." Many other fentanyl analogs are available illicitly.

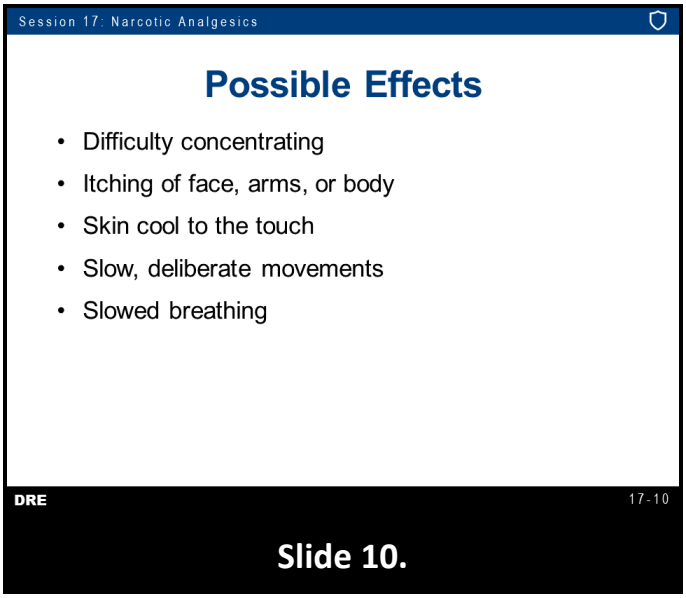


Slide 9.

Methods of administration of Narcotic Analgesics vary from one drug to another. Some are commonly taken orally. Some are smoked. Some are snorted (insufflated). Heroin and some others are usually taken by injection. Users have stated the fear of contracting diseases, such as AIDS, from shared needles, has prompted them to either snort or smoke Heroin.

Medically, some are administered in suppositories and some may be administered transdermally or through the skin. Fentanyl patches are often used for chronic pain.

B. Possible Effects of Narcotic Analgesics



Slide 10.

A possible effect of Narcotic Analgesics is Sedation – "On the Nod." The condition known as "on the nod" is a semiconscious state of deep relaxation. The user's eyelids become very droopy.

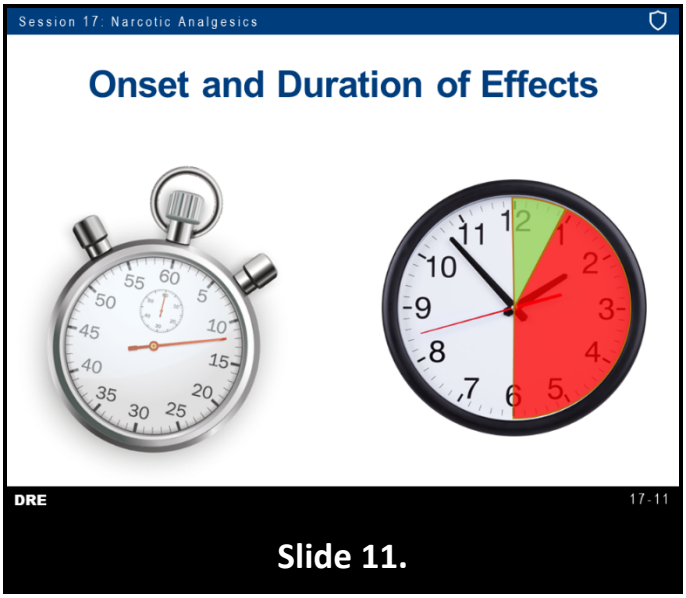
Their head will slump forward until the chin rests on the chest. In this condition, the user usually can be aroused easily and will be sufficiently alert to respond to questions.

These effects may be dose-related and most often occur with non-tolerant users.

- Difficulty concentrating
- Itching of the face, arms, or body
- Skin cool to the touch
- Slow, deliberate movements
- Slowed breathing (Technical terms are Hypopnea or Bradypnea)

Impairment is more evident with new users and with tolerant users who exceed their "normal" doses.

C. Onset and Duration of Effects



Slide 11.

The psychological effects of narcotic analgesics begin at various times dependent upon how the drug was administered. If injected, smoked, or snorted, the effects may be felt immediately or within a few minutes. Most drugs taken orally will produce effects within 10-60 minutes. These effects include a feeling of pleasure or euphoria, relief from the symptoms of withdrawal, and relief from pain.

Observable Signs: The observable signs will usually become evident within 5 – 30 minutes after the user has injected. User may nod head and move in and out of consciousness. User may display poor motor coordination, depressed reflexes, and slowed breathing. Onset of observable signs from oral administration is generally slower, being 10-60 minutes, but may last for several hours depending on the drug. Listed below is the onset and duration for some of the most commonly abused Narcotic Analgesics.

Morphine (MS-Contin): Onset of effects: 15-60 minutes; Duration: 4-6 hours.

Diacetylmorphine (Heroin): Onset of effects: 45 seconds to several minutes; Duration: peak effects last 1-2 hours, and the overall effects wear off in 3-5 hours.

Oxycodone (OxyContin, Percodan): Onset of effects: 10-15 minutes, 1 hour for controlled release; Duration: 3-6 hours, controlled release lasts 10-12 hours.

Hydrocodone (Norco, Lortab): Onset of effects: 10-30 minutes; Duration: effects peak at 30-60 minutes and last 4-8 hours, extended-release dosing lasts 14-16 hours.

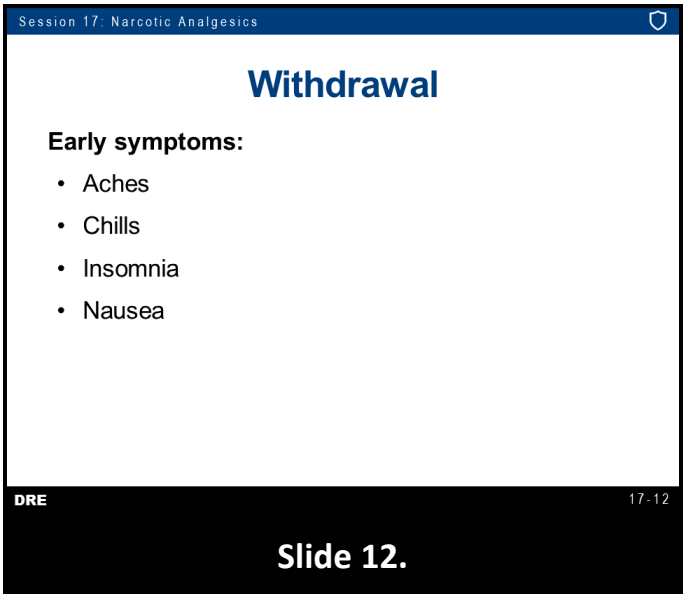
Fentanyl (Duragesic, Sublimaze): Onset of Effects: extremely rapid, within minutes; Duration: Main effects last 2-3 hours.

Methadone: Onset of effects: Oral - 30-60 minutes; Duration: effects may last 6-8 hours, in cases of chronic administration increasing to 22-48 hours.

Sources:

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

World Health Organization. (2009). Clinical Guidelines for Withdrawl Management and Treatment of Drug Dependence in Closed Settings. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK310658/



Slide 12.

As the effects of the drug diminish, withdrawal signs and symptoms start to develop until the addicted user administers again. Withdrawals may not be seen in persons using a Narcotic Analgesic for a short period such as using a therapeutic dose as prescribed by a doctor for acute treatment.

As the effects of the drug diminish, withdrawal symptoms begin. According to *the Drugs and Human Performance Fact Sheets*, "Early symptoms include watery eyes, runny nose, yawning, and sweating".

As with nearly all drugs, the withdrawal signs and symptoms are essentially the opposite of the "high" or intoxicated state.

The *Drugs and Human Performance Fact Sheets* report later withdrawal symptoms "include drug craving, restlessness, irritability, dysphoria, loss of appetite, tremors, severe sneezing, diarrhea, nausea and vomiting, elevated heart rate and blood pressure, chills alternating with flushing and excessive sweating, piloerection, abdominal cramps, body aches, muscle and bone pain, muscle spasms, insomnia, and severe depression."

Withdrawal signs and symptoms closely resemble those of Influenza or the common cold.

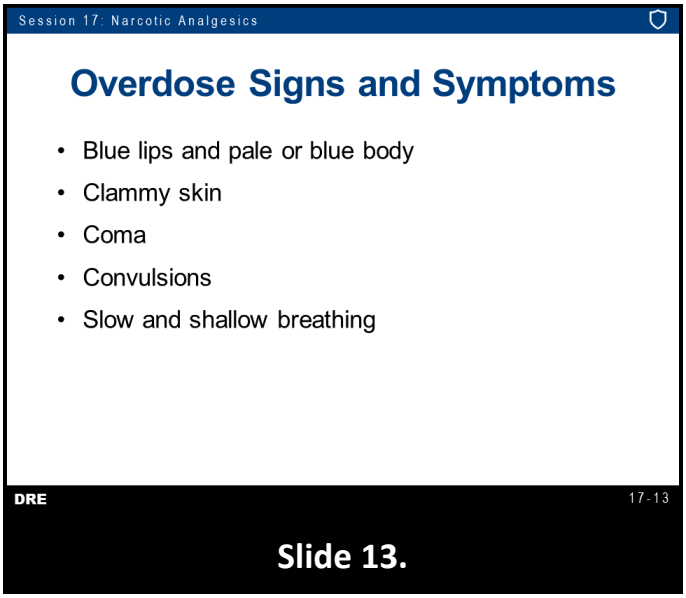
The addicted user at this point is nauseated, gags, vomits, and may experience significant weight loss.

The withdrawal syndrome continues to decrease in intensity over time and is usually greatly reduced by the fifth day, disappearing in one week to 10 days. A common misconception regarding withdrawal from Narcotic Analgesics is they may be fatal. In reality, however, although Narcotic withdrawal is extremely uncomfortable, it rarely, if ever proves fatal.

Source:

Drugs and Human Performance Fact Sheets (2023). National Highway Traffic Safety Administration.

D. Overdose Signs and Symptoms



Slide 13.

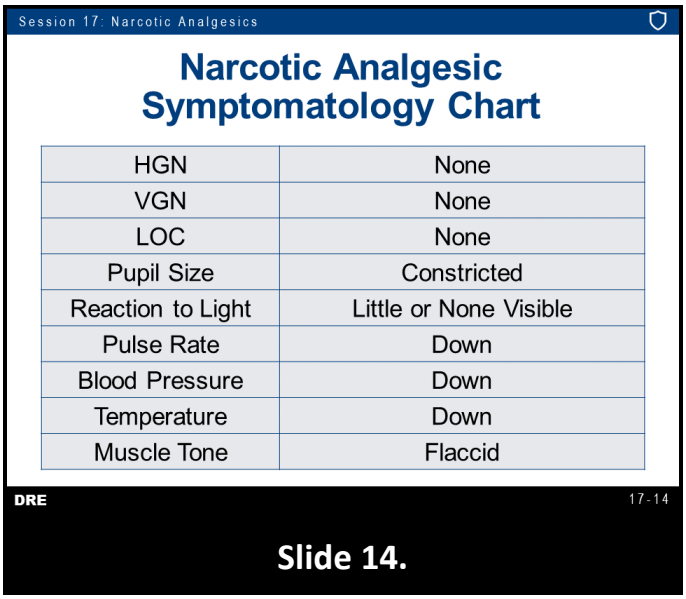
Narcotic Analgesics depress respiration. In overdoses, the user's breathing will become slow and shallow.

Other signs and symptoms of an overdose of a Narcotic Analgesic include clammy skin, convulsions and coma, blue lips and pale or blue body. Due to the rapid onset of an injected drug, an unconscious person may be found with a needle still in their arm.

Death can occur from severe respiratory depression. The danger of death is heightened by the fact the addicted user may not know the strength of the drug he or she is taking. Clarification: the percentage of pure Heroin in the sample the subject uses may be much higher than what the subject expects and is accustomed. In some cases, the drug has been altered by adding another drug such as fentanyl, which is a more potent Narcotic Analgesic.

Narcotic Analgesic overdoses are sometimes treated by the administration of a Narcotic antagonist such as Narcan. A Narcotic antagonist works at neuron receptor sites, blocking or counteracting the effects of Narcotic Analgesics. In effect, these substances precipitate withdrawal. The short duration of effects produced by Narcotic antagonists, however, require continued medical monitoring of the user.

E. Expected Results of the Evaluation



Slide 14.

Observable Evidence of Impairment: Neither Horizontal Gaze Nystagmus (HGN) nor Vertical Gaze Nystagmus (VGN) will be present. Eyes will not exhibit Lack of Convergence (LOC).

Psychophysical Tests

Performance on the Modified Romberg Balance (MRB) test will be impaired. The subject may appear drowsy and have slow time estimation.

Performance on the Walk and Turn (WAT) and One Leg Stand (OLS) will often be impaired and reflect the slow and deliberate movements caused by this category of drugs.

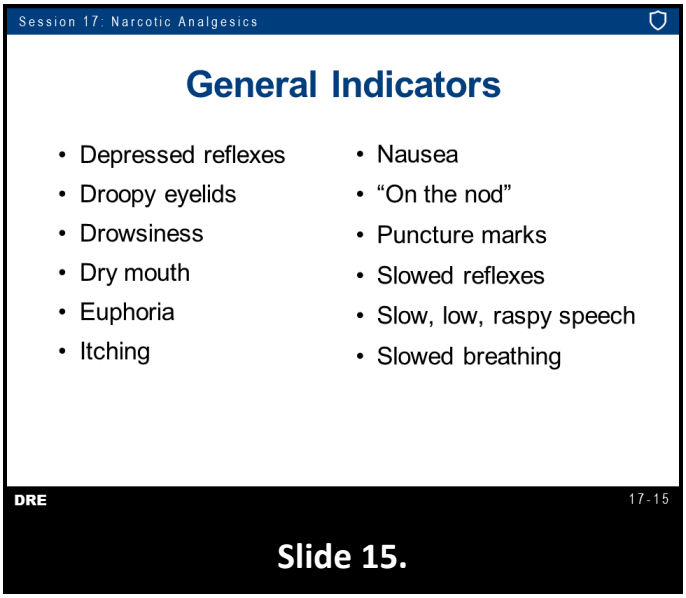
Performance on Finger to Nose (FTN) can also be impaired. The subject may appear drowsy, possibly “on the nod,” and exhibit slow and deliberate movements.

Vital Signs: Pulse will be down. Blood pressure will be down. Body temperature will be down.

Muscle tone will be flaccid.

Dark Room: Pupil size generally will be constricted.

Pupil reaction to light will be little or none visible.



Slide 15.

- Depressed reflexes
- Droopy eyelids (Ptosis)
- Drowsiness
- Dry mouth
- Euphoria
- Itching – caused by the release of Histamines
- Nausea
- "On the nod"
- Puncture marks
- Slowed reflexes
- Slow, low, raspy speech
- Slowed breathing

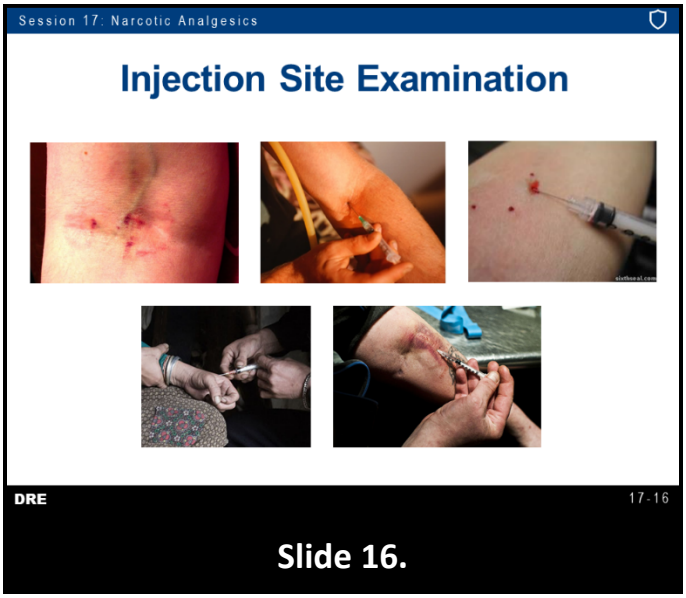
Source:

Julien's Primer of Drug Action, 14th edition, 2019

For more information and details regarding possible effects refer to

Drugs and Human Performance Fact Sheets (2023). National Highway Traffic Safety Administration .

F. Injection Site Examination



Slide 16.

Drugs and medication are injected into the body in three ways.

Intramuscular: Legal injections are usually Intramuscular (abbreviated as I/M). "Intramuscular" is defined as administering by entering a muscle.

Intravenous: For medically drawing of blood or emergency medical procedures, the injection is made into a blood vessel (Intravenous – abbreviated as I/V). Here, veins are usually used. Arteries are deep, thus not lending themselves to injection. "Intravenous" defined as entering a vein.

Subcutaneous: Subcutaneous (S/C) means just under the skin. It is commonly referred to as "skin popping".

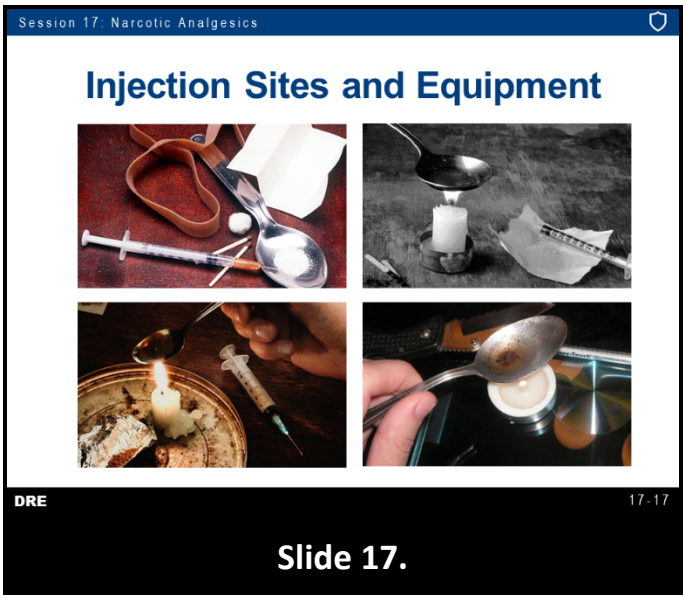
The primary instrument for injection is the hypodermic syringe. It consists of a hollow needle, a barrel (tube) and a plunger. Needles vary in size, with the primary variance being the inside diameter of the needle or the gauge. A 26-gauge needle is used by a diabetic. The greater the number the larger the gauge, the smaller the inside diameter of the needle. Most illegal drug users prefer a larger gauge needle. The hypodermic marks are smaller and are, therefore, less noticeable making it more difficult for the DRE to see them.

As a DRE, you may be asked in court to describe the difference between a medical and non-medical injection site. A medical injection is usually I/M. Some exceptions would be in a blood donation, an emergency, or a lab test.

If the technician is unable to find a vein during the first try, there may be multiple injections. There may also be bruising near the site.

The injection mark for medical purposes can be described as: Clean; No scarring or scabbing.

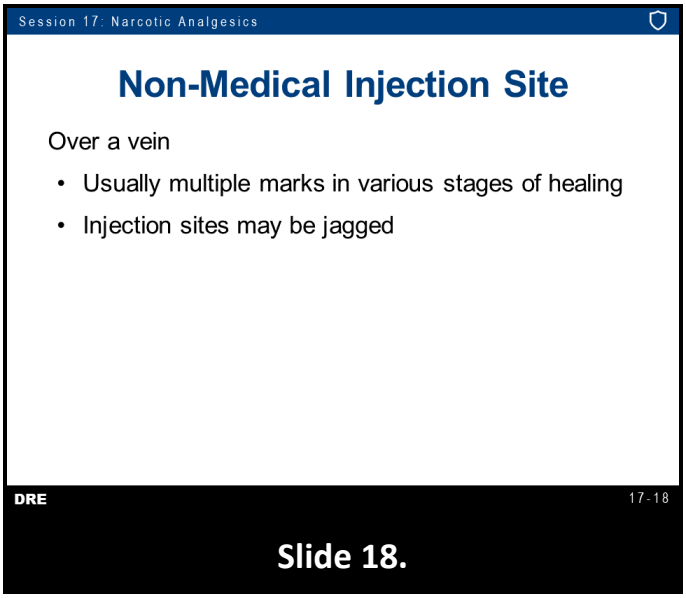
Most IM medical injections will not be evident during a DRE evaluation. Usually there will be only one mark and it will be larger than the typical non-medical injection. Medical injections are made with new, sterile needles.



Slide 17.

Examination of subject's injection sites can give many clues to their drug habits. The slang term for an injection site is a "mark". Many drugs can be injected. The presence of injection sites may be a sign of drug abuse. Examination of injection sites is just one of the 12 steps in the evaluation. Injection sites are a sign of drug abuse which may or may not be present. This may be evidence of habitual use. The trauma to the skin, muscles, and the blood is the basic concept of injection sites.

The user's equipment is commonly referred to as a "hype kit" or "works." The kit contains a "cooker" which is any device such as a bottle cap, a metal spoon, etc., used to heat the drug with water to form an injectable solution. Other parts of the "kit" include: A handle to hold the "cooker" over the flames; Matches, lighters (primarily disposable, adjustable flame types) used to heat the substance in the "cooker"; and, a tourniquet, which can be a rubber tubing, a tie, belt, etc. It is tied around the arm, above the injection site, to cause the vein to bulge or rise, thus making it easier to inject. "Cottons" are the cotton balls or cigarette filters used to "purify" the drug. The user places the "cottons" into their cooker and draws the drug up through the cottons. The cottons are saved for later use since they contain some of the drug.



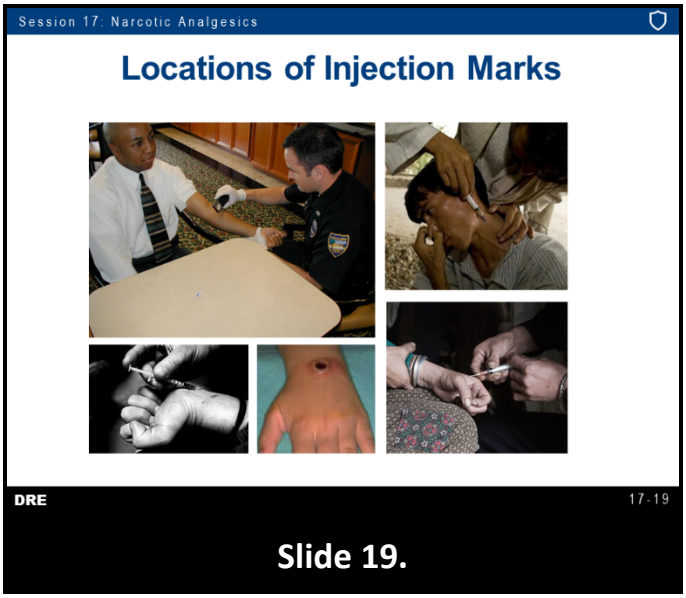
Slide 18.

The non-medical (illicit) mark is usually over a vein. There will usually be multiple marks in various stages of healing. It takes approximately two weeks for a "mark" to totally heal. For example, the Heroin user will inject approximately four to six times each day (every four to six hours). Therefore, they will inject approximately 2,000 times in one year. Users frequently use the same needle over and over again, thus making it become dull or barbed.

Frequently the needles are carried in pockets or socks and the rubbing against clothing causes them to be dull or barbed. Since the used needles make it more difficult to pierce the skin and vein, the injection sites may be jagged. A barbed needle may tear the skin on the way in and on the way out. Use of old, dirty, and shared needles cause the spread of infections and diseases such as AIDS.

ALWAYS WEAR PROTECTIVE GLOVES PRIOR TO CONDUCTING THE EXAMINATION.

G. Expected Locations of Injection Marks



Slide 19.

Prior to conducting the injection site examination, always remember to wear gloves. Injection sites may be located anywhere on the subject's body. Conduct a thorough, slow, methodical examination of the subject's hands and arms beginning with the left.

Using a magnifying light or "ski light" examine the inner arm as it is extended with the palm facing you.

Beginning at the bicep, slowly examine the arm; document the findings of your examination.

Ask the subject to contract the arm, grasping their shoulder. Starting at the wrist, slowly examine the arm to the elbow documenting the results. This forces the individual's veins to protrude. Next examine the outer arm as it is extended palm facing downward. Start the examination at the shoulder moving to the wrist. Subject should extend and spread his/her fingers when examining the hands. Examine both sides of the hands, with particular attention to the areas between the fingers, under watch bands and rings. Conduct the entire procedure for the right side.

Ankles are a common injection area. Subject should be instructed to remove their shoes and socks to allow the DRE to examine them for puncture wounds. The most common area is on the foot or the ankle. Subject's sometimes hide hypodermic needles in their socks, shoes, and the heel compartments of their shoes.

On a case-by-case basis, the DRE may need to examine other parts of the body for marks. Another such area may be the legs.

ALWAYS follow your agency's rules, policies, and procedures and laws regarding invasive type searches.

Other Indicators of Injection Sites: Users may "sterilize" a needle by using an open flame. This results in dark carbon deposits left on the needle. When the user inserts the needle, the carbon deposits are then injected into the skin. This is termed "tattooing" and results in a "tattoo effect" when the carbon is left under the skin when the needle is removed.

Users may frequently use the same spot to inject as an attempt to reduce their likelihood of detection. The veins may become hard and thick from continuous injections and this makes them difficult to find. After about 10 to 20 injections, a large sore forms causing the site to enlarge and bruise. Upon close examination, the site may reveal there are numerous, overlapping puncture wounds in the same area. This is referred to as "tunnel" or "corn". The entire vein area becomes scarred and hardened and, over time, future injections may not be possible. The area becomes silvery-blue in color and raised. This is referred to as "tracks" or "silver streaks". AS A GENERAL RULE: one inch of tracks indicates approximately 50 – 100 separate injections have been administered in this area.

In an attempt to hide evidence of intravenous drug usage, users may inject into decorative tattoos. Tattoos designed to hide puncture wounds are frequently colored and found on the inner arms.

Slide 20.

Basic Principles of Puncture Healing: Any needle that punctures the skin leaves a scab. A scab is simply a crust formed by the drying of the discharge from the puncture. Scab is the dried remains of blood, plasma (a cellular, colorless fluid part of the blood), lymph fluid (a thin fluid that bathes all the tissues of the body), and puss (a thick yellowish/greenish fluid that forms at an injection(s) site).

These dried remains fill the gap caused by the puncture of the skin. As the fluids dry, they harden (clot and gel). Users will sometimes peel a corner of a healing scab up and inject into that area then cover the injection site with the scab. This injecting under a scab to hide multiple puncture wounds is referred to as "Trap Dooring."

Puncture Healing Timetable: There are no exact timetables for wounds to heal, but there are some general guidelines. Chronic disease, poor nutrition, etc. retard the puncture healing process. Fresh puncture wounds, less than 24 hours old, will appear as a red dot and may be oozing fluids. Scabs develop within about 24 hours after a puncture and may include light bruising and a reddened border. As a general rule, when the scab first forms, it is bright red; with age, the color gets darker. After about 14 days, a scab usually starts to peel or flake and then falls off. The skin under the scab is shriveled and is lighter in color than the surrounding tissue.

Source:

Tennant, F. S. (n.d.). Identifying the Cocaine User. *3rd*. 1985: Veract.

Slide 21.

There is no exact science to classifying the age of puncture wounds. Following are some general guidelines. Fresh puncture wounds are defined as under 12 hours after injection and will be a red dot and have an oozing appearance or blood crater with no scab formation. Early puncture wound is 12 – 96 hours (half day to 4 days) after injection. It will have a light scab, light bruise, reddened border, and a crater appearance. Late puncture wound is 5 – 14 days old and will have a dark scab, dark bruise, and the crater will flatten. Healing puncture wound is over 14 days. The scab will be flaking and falling off with shriveled light colored skin underneath.

For more information and details regarding possible effects refer to:

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

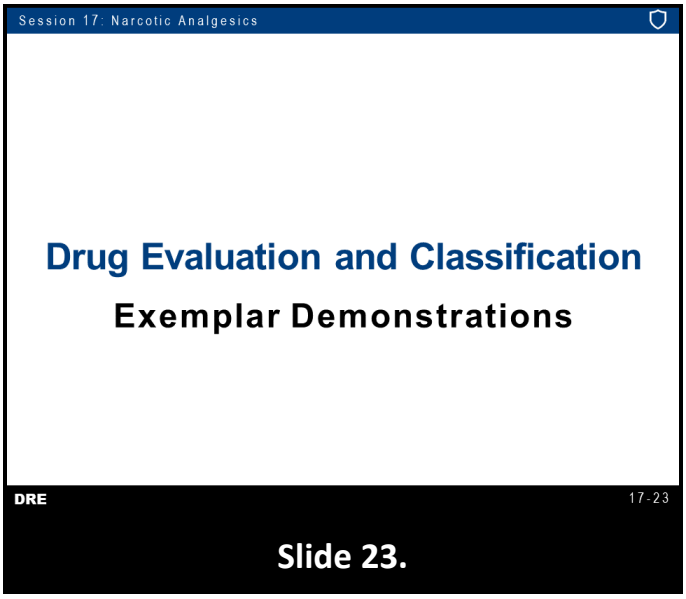
H. Conclusion

Slide 22.

The injection site examination may reveal evidence of recent use.

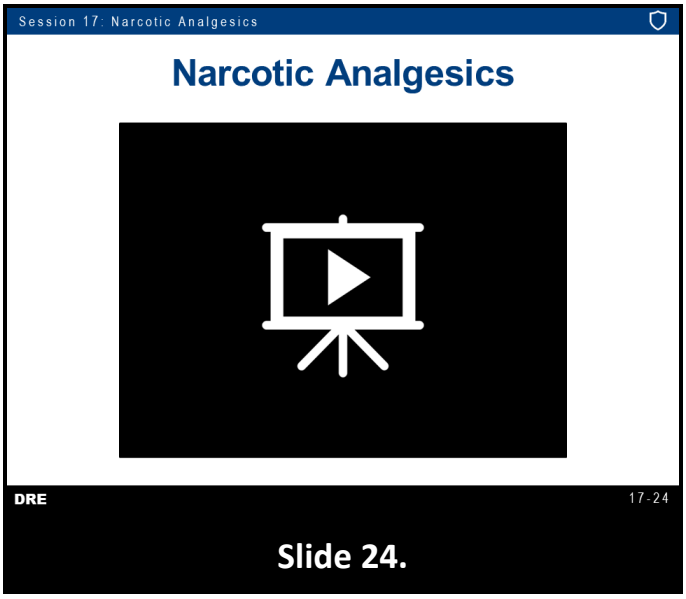
The presence of marks, however, doesn't mean drug influence or impairment at the time of the evaluation. Conducting an injection site examination is a skill. As with all skills, such as taking blood pressure, competency improves with practice.

I. Review of the DEC Program Exemplars

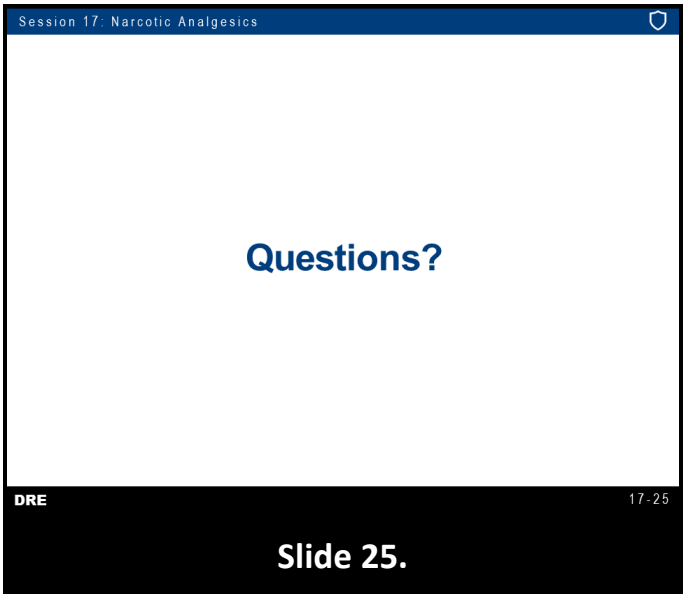


Slide 23.

The DRE narrative report should be detailed and complete, which clearly articulates the opinion of the DRE.



Slide 24.



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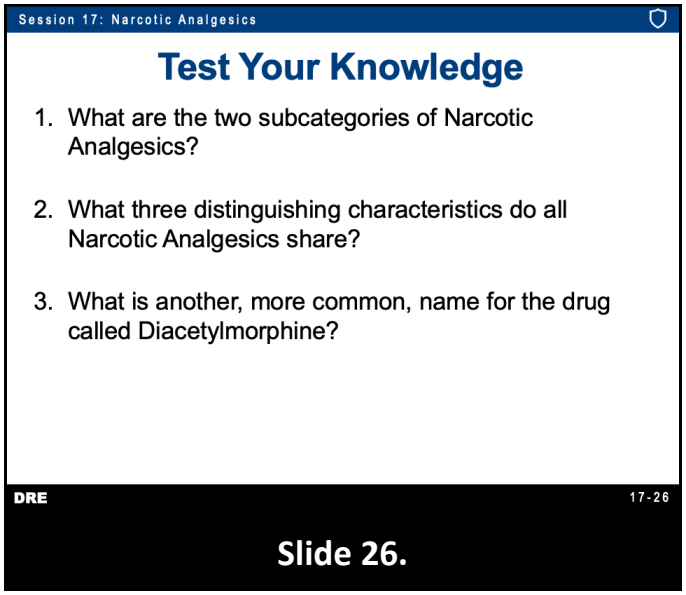
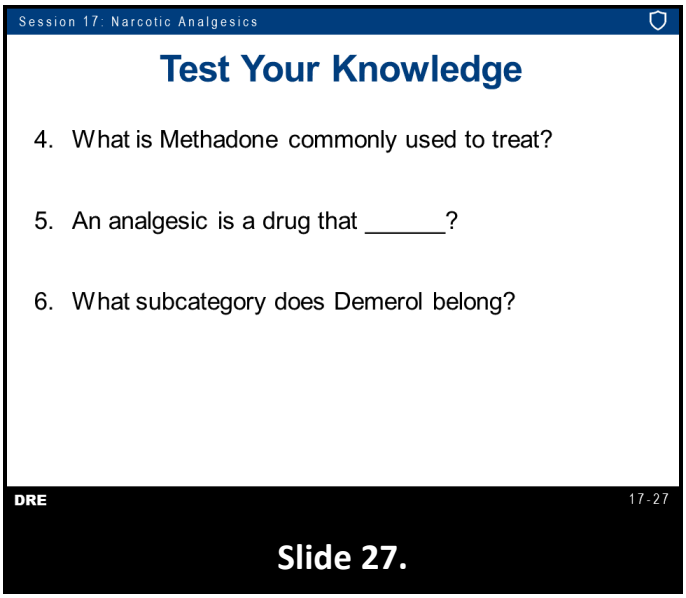


Test Your Knowledge

1. What are the two subcategories of Narcotic Analgesics?
2. What three distinguishing characteristics do all Narcotic Analgesics share?
3. What is another, more common, name for the drug called Diacetylmorphine?



Test Your Knowledge

4. What is Methadone commonly used to treat?
5. An analgesic is a drug that _____?
6. What subcategory does Demerol belong?

Powdered Opium: Also known as smoking Opium. Powdered Opium is a simple refinement of raw Opium. It is used medically to treat diarrhea (administered orally). The development of more effective opiates and synthetics has virtually eliminated its use medically. In recent years, there has been little street use of Opium. It is important to realize, however, drug use trends can and do change. Remains popular as a drug of abuse (smoked) among some Asian-American communities.

Morphine: The principal natural alkaloid of Opium. Morphine was first isolated from Opium in 1805. It is used medically to suppress severe pain (e.g., with terminal cancer patients) and is highly addictive. Morphine was widely used during the Civil War. Morphine addiction was termed "Soldier's disease". At one time, Morphine was the most commonly abused Narcotic Analgesic. Morphine is typically used as the standard for comparison with other Narcotic Analgesics.

Codeine: Codeine is another natural alkaloid of Opium. Its technical name is Methylmorphine. It was first isolated in 1832. Codeine's pain-killing ability is much weaker than Morphine's. It is used medically to suppress coughing or minor pain. Clarification: Narcotic Analgesic addicts often turn to Codeine when they cannot get more popular drugs. Codeine is definitely an addictive drug.

Heroin: Heroin is the most commonly-abused illicit Narcotic Analgesic. The generic, or technical, name for Heroin is "Diacetyl Morphine."

Heroin derived from Morphine in 1874. It was first thought to be a non-addictive substitute for Morphine. Heroin was approved for general use by the American Medical Association in 1906. By the 1920's it was evident Heroin was much more addictive than Morphine. Importation and manufacture of Heroin have been illegal in this country since 1925. It is a Schedule I drug, which means it has no legitimate medical uses in the United States.

Dilaudid: Another derivative from Morphine. Technical Name: Hydromorphone Hydrochloride. *Dilaudid* was first produced in 1923. It is sometimes called "Drug Store Heroin" since it is commercially available from medical and pharmaceutical sources. Dilaudid has the same addictive liabilities as does Heroin or Morphine. It is used medically for short-term relief of moderate to severe pain and to suppress severe, persistent coughs. It can be administered via injection, orally, or in suppositories and is sometimes abused by addicts who are unable to obtain Morphine or Heroin.

Hydrocodone: Derived from Codeine but is more closely related to Morphine in its pharmacological profile. Hydrocodone (Vicodin, Norco, Lortab) is the most widely prescribed Opioid with many of the same actions as Codeine but produces less nausea. It is used orally for relief of moderate to severe pain, but also commonly taken in liquid form as an antitussive/cough suppressant.

Thebaine: Thebaine is an Opiate alkaloid of Opium. It is not used therapeutically and is converted into several drugs including Oxycodone and Oxymorphone.

Oxymorphone: Numorphan is a derivative of Thebaine and used to treat moderate to severe pain. It is sometimes used before surgery to cause sedation and to reduce anxiety. As a narcotic pain reliever, it works by dulling the pain perception center in the brain. It is used medically for the relief of chronic pain. It is sold in ampules (injection) and in suppositories. Previously (pre-1972) it was sold in tablets and was a favorite substitute for Heroin among addicts; addicts now generally prefer Dilaudid as a Heroin substitute.

Oxycodone: Oxycodone is a Thebaine derivative . It is somewhat less addictive than Morphine, but more than Codeine. Two examples commonly prescribed are OxyContin (Brand Name) and Percodan (Oxycodone combined with aspirin). It is also produced under the brand name of Percocet, which is Oxycodone combined with Acetaminophen. OxyContin is a controlled-release tablet that contains large amounts of Oxycodone (10-80mg), but users have learned to defeat the slow release process. Street names include: “Oxy”; “OC”; “Killer”.

Buprenorphine: A Thebaine derivative with powerful analgesia. As an analgesic, it is about 25 to 40 times more potent than Morphine.

It is an ingredient of the drug Suboxone and Buprenex. Depending on the application form, Buprenorphine is normally prescribed for the treatment of moderate to severe chronic pain. It is commonly used in the treatment of Opioid addiction, much like Methadone. Buprenorphine Hydrochloride is normally administered by intramuscular injection, intravenous infusion, via a transdermal patch, or as a sublingual (under the tongue) tablet. It is also used in the treatment of narcotic addiction.

Demerol: Meperidine (Demerol) is a short-acting Opioid used to treat moderate-to-severe pain, to help put people to sleep before surgery, and provide pain relief after childbirth. It was first produced in 1939. Demerol is one of the most widely used Synthetic Opiates for relief of pain and for sedation and is also one of the Narcotic Analgesics most frequently abused by medical personnel. One medical advantage of Demerol is it produces less respiratory depression than other Narcotic Analgesics; thus, a fatal overdose is less likely with Demerol.

Methadone: Developed in Germany during World War II because of wartime shortages of Morphine and first marketed in America in 1947. The effects are similar to Morphine’s, although they develop more slowly and last longer than do Morphine’s effects. Withdrawal symptoms are slower and milder than are Morphine’s.

Methadone is used extensively in “maintenance programs” as a substitute for Heroin for addicts undergoing therapy and treatment.

In theory, the daily dose of Methadone given to a Heroin addict allows the addict to function normally with no physical need for up to 24 hours. Methadone has a much longer duration of effects than Heroin and is not designed to be injected. It is also used medically to relieve moderate to severe pain and to suppress coughing. Methadone (Dolophine) is an Opioid used to treat pain and as maintenance therapy or to help with detoxification in people with Opioid dependence.

Fentanyl: Fentanyl (Sublimaze, Actiq) is a highly potent, synthetic Opioid pain medication with a rapid onset and short duration of action. It is 80 to 100 times more potent than Morphine.

It was introduced into medical practice as an intravenous anesthetic under the trade name of Sublimaze in the 1960s.

Fentanyl prescriptions have grown rapidly in recent years, causing a rise in abuse of legal and illegal forms. Fentanyl pharmaceutical products are currently available in the dosage forms of oral transmucosal lozenges, commonly referred to as the Fentanyl "lollipops" (Actiq), effervescent buccal tablets (Fentora), sublingual spray (Subsys), nasal spray (Lazanda), transdermal patches (Duragesic), and injectable formulations. Oral transmucosal lozenges and effervescent buccal tablets are used for the management of break-through cancer pain in patients who are already receiving Opioid medication for their underlying persistent pain. Transdermal patches are used in the management of chronic pain in patients who require continuous Opioid analgesia. Fentanyl citrate injections are administered intravenously, intramuscularly, spinally, or epidurally for potent analgesia and anesthesia.

Fentanyl Analogs

Well over 1000 distinct fentanyl analogs have been identified and described. Examples include carfentanil, acetylfentanyl, and methylfentanyl.

Novel Synthetic Opioids (NSO)

NSOs are often promoted as heroin or oxycodone substitutes. Examples include U-47700, AH-7921, and MT-45.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Officer Joseph Koher	21707	22-005-0112	Huntington PD	(Session XVII - #1)

Recorder/Witness	Crash	Arresting Officer's Agency
Sgt. Jay Powers, WV SP	☒ None ☐ Fatal ☐ Injury ☐ Property	Huntington PD

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Schmack, Charlie J.	05/14/1987	M	W	Officer Travis Hogan

Date Examined / Time /Location	Breath Test	Test Refused	Chemical Test
01/23/22 / 1505 / Huntington PD	Results: 0.00	Instrument #: 64872	Urine ☐ Blood ☒ Test or tests refused ☐

Miranda Warning Given		What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
Given by: Ofc. Hogan	☒ Yes ☐ No	Nothing	N/A	Just coffee 4 or 5 cups	N/A

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
About 4 pm / 1508	Last night	5 or 6 hours	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

Are you taking any medication or drugs?	Attitude:	Coordination:
☐ Yes ☐ No "You tell me"	Cooperative, Passive	Poor, Relaxed, Unstable

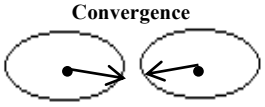
Speech:	Breath odor:	Face:
Low, Raspy	Normal	Pale

Corrective Lenses:	Eyes:	Blindness:	Tracking:
☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	☒ Normal ☐ Bloodshot ☐ Watery	☒ None ☐ Left ☐ Right	☒ Equal ☐ Unequal

Pupil Size:	Resting Nystagmus	Vertical Nystagmus	Able to follow stimulus	Eyelids
☒ Equal ☐ Unequal (explain)	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	☐ Normal ☒ Droopy

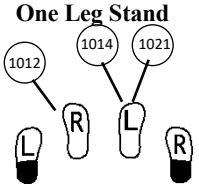
Pulse/Time	HGN	Left Eye	Right Eye
1. 56 / 1518	Lack of Smooth Pursuit	None	None
2. 52 / 1538	Maximum Deviation	None	None
3. 52 / 1550	Angle of Onset	None	None

Convergence



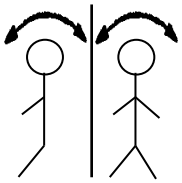
Right eye Left eye

20/30 **One Leg Stand** 22/30



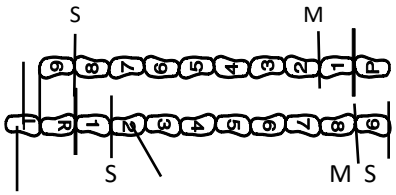
Modified Romberg Balance

Approx. 4″ 4″ Approx. 2″ 2″



On the nod. Licking his lips

Walk and Turn Test



Slow, deliberate steps

Cannot keep balance 3

Starts too soon

	1st Nine	2nd Nine
Stops walking	2	1
Misses heel-toe	1	1
Steps off line	1	
Uses arms	1	2
Actual steps taken	9	9

L R

☒ ☒ Sways while balancing

☒ ☒ Uses arms for balance

☐ ☐ Hopping

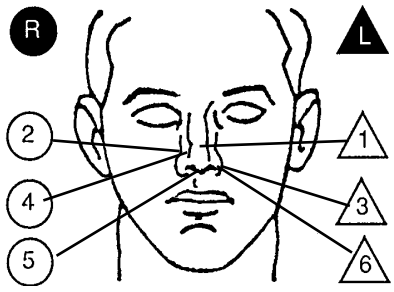
☒ ☒ Puts foot down

Counted slowly

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
44 estimated as 30 seconds	Slow, deliberate steps	N/A	Lace-up boots

Finger to Nose

(Draw lines to spots touched)



Slow movements. On the nod.

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	2.0	3.0	2.0
Right Eye	2.0	3.0	2.0

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Little or none visible

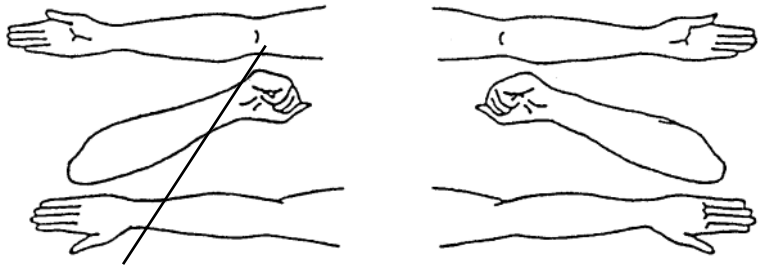
Nasal area: Clear

Oral cavity: Clear

Blood Pressure	Temperature
110 / 64	97.0 °F

Muscle Tone: ☐ Near Normal ☒ Flaccid ☐ Rigid

RIGHT ARM **LEFT ARM**



Red puncture mark. Numerous bruises along veins on inside of both arms.

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"I don't use drugs. I'm just tired."	N/A	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
01/23/22 1350	1430	1505	1600	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: *Joseph Koher* Reviewed/approved by / date: DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☒ Narcotic Analgesic ☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Schmack, Charlie J.

1. **Location:** The evaluation was conducted in the booking room at the Huntington Police Department. The booking room is well illuminated and has a smooth tile floor. The darkroom examinations were conducted in the staff restroom adjacent to the interview room.

2. **Witnesses:** Sergeant Jay Powers of the West Virginia State Police witnessed and recorded the entire evaluation. The arresting officer, Officer Travis Hogan observed the psychophysical tests.

3. **Breath Alcohol Test:** The suspect's breath test result was 0.00%. The test was administered by Officer Hogan using the Intoxilyzer 9000 prior to my arrival.

4. **Notification and Interview of the Arresting Officer:** I was on-duty and was notified by Dispatch to contact Officer Hogan at HPD regarding a drug evaluation. When contacted, Officer Hogan advised that the suspect (Charlie J. Schmack) was found slumped over the steering wheel of his vehicle on 8th Street. He had his foot on the brake and he appeared to be unconscious and was unresponsive. Officer Hogan was preparing to use Narcan when the suspect became responsive. During the contact, Officer Hogan did not detect an odor of an alcoholic beverage on the suspect's breath. However, he did observe indicators of possible drug impairment, which included slow lethargic movements while retrieving his identification, with slow, thick, and raspy speech. He also observed that the suspect had small, constricted pupils. He observed what appeared to be a red puncture mark on the inside of the suspect's right arm and noted that he was frequently licking his lips. The suspect consented to SFSTs at roadside and Officer Hogan administered the Horizontal Gaze Nystagmus (HGN), Walk and Turn (W&T), and One Leg Stand (OLS) tests. No clues of HGN were observed, however, he did observe impairment clues on the W&T and the OLS tests. After completing the SFSTs, Officer Hogan arrested the suspect for DWI and transported him to HPD for processing. After obtaining a 0.00 BAC result, Officer Hogan requested the assistance of a DRE. (Refer to Officer Hogan's arrest report for additional details)

5. **Initial Observation of the Suspect:** I first observed the suspect in the booking room at HPD. He appeared to be "on the nod." His eyes were partially closed, his head kept nodding forward, and his breathing was slow and shallow. He responded to my questions slowly, and his speech was low and raspy sounding. He had a dry mouth and frequently licked his lips. His movements were slow and deliberate. He was wearing blue jeans, a red tee-shirt, and lace-up boots. I introduced myself and asked if he would participate in a drug evaluation. He replied by stating, "I guess so." I asked if he had been informed of his Miranda rights and he confirmed that he had. I asked if he had any injuries or physical defects, and he indicated he did not, and that he was not under the care of a doctor or dentist. He told me he had not eaten anything today and drank 4 or 5 cups of coffee during the day. When asked if he was taking any medications or drugs, he responded "You tell me." He advised he was not blind in either eye and did not wear glasses. When asked when he last slept, he indicated he had slept about 5 or 6 hours the night before. His coordination was poor, and he was unstable on his feet when he stood and walked.

6. **Medical Problems and Treatment:** The suspect did not report any injuries or physical problems. During the evaluation, none were mentioned by the suspect and none were observed.

7. **Psychophysical Indicators of Impairment:** The psychophysical tests were explained and demonstrated to the suspect prior to him attempting them. After each demonstration, he confirmed that he understood the instructions. The following psychophysical tests were administered to the suspect:

   Modified Romberg Balance: During this test, the suspect swayed approximately 4" front to back and approximately 2" side to side. His time estimation was slow, estimating 30 seconds in 44 seconds. He appeared to be "on the nod" and was licking his lips during the test.

Walk & Turn: For this test, a line on the booking room floor was used. The suspect lost his balance three times during the instructions stage. Once he started the walking stage, he stopped immediately after taking his first step. When he continued, he stepped off the line with his next step. He missed touching heel to toe on his ninth step and stopped. He appeared to be confused on how to continue. He was instructed to make his turn as directed and he then made a slow and deliberate turn, but as instructed. On the second nine steps, he missed touching heel to toe on his second step and continued along the line taking slow and deliberate steps. When he reached his eighth step, he stopped and again appeared to be confused on what to do next. Three times he was reminded to count his steps out loud and when he did count out loud, his counting was very faint and difficult to hear. He used his arms to balance once on the first nine steps and twice on the second nine steps.

One Leg Stand: For this test, when the suspect raised his right leg, he swayed side to side. He used his arms for balance during the entire test and he put his foot down at count 1,012. He counted slowly throughout the test, counting to 1,020 in 30 seconds. When he raised his left leg, he again swayed side to side. He also used his arms for balance for most of the test. He put his foot down on counts 1,014 and 1,021. He again counted slowly, counting to 1,022 in the 30 second timed period.

Finger to Nose: During this test, the suspect swayed forward approximately 2 – 3 inches. He was unable to touch the tip of his nose with the tip of his index finger on five of the six attempts. His arm movements were slow and deliberate, and he again appeared to be on the nod during portions of the test.

8. **Clinical Indicators of Impairment:**
Eye Signs: The suspect exhibited equal tracking, equal pupil size and did not exhibit resting nystagmus. No HGN clues or Vertical Gaze Nystagmus were observed. His eyes converged as directed. His pupil sizes were estimated in three lighting levels and were 2.0 mm in both eyes in Room Light, 3.0 mm in both eyes in Near Total Darkness, and 2.0 mm in both eyes in Direct Light. The Room Light and Near Total Darkness estimates were below the DRE average ranges for the lighting conditions. The Direct Light estimate was at the low end of the DRE average range. The suspect had droopy eyelids and his pupillary reaction to light was little or none visible.

Vital Signs: The suspect's pulse rates were low throughout the evaluation at 56, 52, and 52 beats per minute (bpm). All three were below the DRE average range. His blood pressure of 110/64 millimeters of Mercury (mmHg) and body temperature of 97.0 °F, were low and below the DRE average ranges. The suspect's muscle tone was flaccid. Numerous times during the vital signs examinations he appeared to be on the nod and was licking his lips.

9. **Signs of Ingestion:** A red injection mark was located on the inside of the suspect's right arm. He claimed it was from a blood donation from a couple of days prior. He also had numerous bruised areas along the veins on the inside of both of his arms. His nasal and oral cavities were clear.

10. **Suspect's Statements:** After explaining my observations to the suspect, I again asked him about drug use. He denied using drugs and continued to claim he was just tired.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a Narcotic Analgesic and is unable to operate a vehicle safely.

12. **Toxicological Sample:** The suspect provided a blood sample, which was collected at the local hospital and submitted as evidence pending delivery to the State Police Forensic Laboratory for analysis.

13. **Miscellaneous:** Officer Hogan advised after the evaluation that while securing the suspect's vehicle, a syringe was located on the passenger side floorboard. The syringe contained a small amount of liquid which will be forwarded to the State Police Forensic Laboratory for analysis.

DRUG INFLUENCE EVALUATION

Evaluator: Ofc Michael Thiele	DRE # 18946	Rolling Log # 22-009-0045	Evaluator's Agency: Los Vegas Metro PD	(Session XVII - #2)
Recorder/Witness: Officer Daniel Slattery, NV HP	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Las Vegas Metro PD	
Arrestee's Name (Last, First, Middle): Wynn, Hara	Date of Birth: 4/10/1987	Sex: M	Race: W	Arresting Officer (Name, ID#): Officer Jarrod Hurley #19598
Date Examined / Time /Location: 7/05/22 / 1840 / Clark Co. Detention	Breath Test: Results: 0.000	Test Refused ☐ Instrument #: 32455	Chemical Test: Urine ☒ Blood ☐ Oral Fluid ☐ Test or tests refused ☐	

Miranda Warning Given: Given by: Ofc. Hurley	☒ Yes ☐ No	What have you eaten today? "Couple of candy bars" When? 3 pm	What have you been drinking? How much? Water, Big Gulp A couple	Time of last drink? N/A
Time now/ Actual: 7 pm / 1845	When did you last sleep? Last night	How long? "A few hours"	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☐ Yes ☒ No	
Are you taking any medication or drugs? ☐ Yes ☒ No "No, no medicine"	Attitude: Cooperative		Coordination: Poor, Sluggish, Unstable	
Speech: Low, Raspy	Breath odor: Normal		Face: Pale	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☐ Normal ☒ Droopy

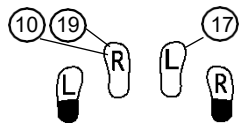
Pulse and Time

1. 56 / 1855
2. 52 / 1908
3. 52 / 1920

HGN	Left Eye	Right Eye
Lack of Smooth Pursuit	None	None
Maximum Deviation	None	None
Angle of Onset	None	None

Convergence

24/30 **One Leg Stand** 22/30

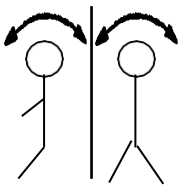


L	R	
All	All	Sways while balancing
All	All	Uses arms to balance
		Hopping
2	1	Puts foot down

Counted slowly. Scratching arms and face.

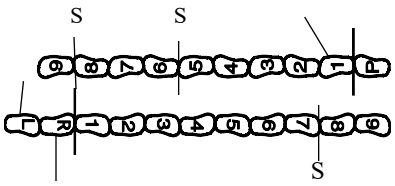
Modified Romberg Balance

Approx. 3" Approx. 3" 3" 3"



Counted slow. On the nod.

Walk and Turn Test

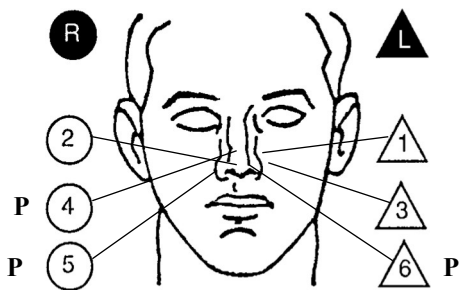


Walked slowly with deliberate steps.

	1st Nine	2nd Nine
Cannot keep balance	✓✓	
Starts too soon		
Stops walking	✓	✓✓
Misses heel-toe		
Steps off line		✓
Raises arms	✓	✓✓✓
Actual steps taken	9	9

Time Estimation 44 estimated as 30 seconds	Describe turn: Slow, deliberate steps	Cannot do test (explain): N/A	Type of footwear: Athletic shoes

Finger to Nose
(Draw lines to spots touched)



Slow arm movements. Leaned forward.

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	2.0	2.5	1.5
Right Eye	2.0	2.5	1.5

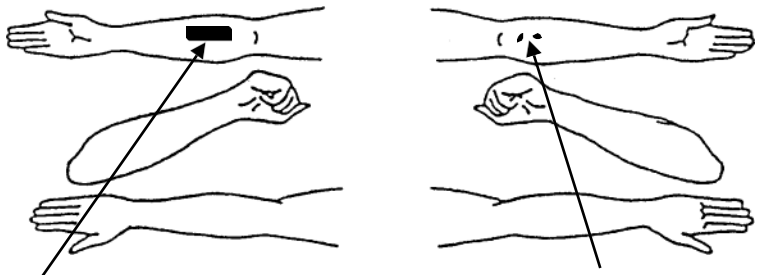
Nasal area: Clear

Oral cavity: White coating. Dry lips

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Little to none visible

RIGHT ARM **LEFT ARM**



Blood Pressure	Temperature
108 / 66	97.0 °F

Muscle Tone: ☐ Normal ☒ Flaccid ☐ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"I'm not going to answer that"	N/A	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
7/05/22 / 1735	1815	1840	1935	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

Officer's Signature: *Michael Thiele*	Reviewed/approved by / date:	DRE #

Opinion of Evaluator:

☐ Not Impaired	☐ Alcohol	☐ CNS Stimulant	☐ Dissociative Anesthetic	☐ Inhalant
☐ Medical	☐ CNS Depressant	☐ Hallucinogen	☒ Narcotic Analgesic	☐ Cannabis

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Wynn, Hara

1. **Location:** The evaluation was conducted in the booking area of the Clark County Detention Center in Las Vegas, NV. The area is well illuminated and has a concrete floor with no obstructions. The dark room examinations were conducted in the booking area restroom that was adequately darkened for the examinations.

2. **Witnesses:** Officer Daniel Slattery of the Nevada HP witnessed and recorded the evaluation.

3. **Breath Alcohol Test:** The suspect's breath test result was 0.00% and was obtained prior to my arrival by the arresting officer, Officer Jarrod Hurley of the Las Vegas Metro PD.

4. **Notification and Interview of the Arresting Officer:** I was on duty and at approximately 1815 hours, I was requested to contact Officer Hurley of the LVMPD regarding a drug evaluation. After contacting Officer Hurley at the Clark County Detention Center, it was determined he had arrested the suspect for DUI after the vehicle he was operating failed to stop at a red traffic light on Tropicana Ave. nearly colliding with another vehicle. Officer Hurley further advised that after stopping the suspect's vehicle, he did not detect an odor of an alcoholic beverage on his breath, but he showed indicators of impairment. He reported that the suspect passed over his driver's license three times while looking for it. The suspect also had slow and deliberate hand movements. Officer Hurley noticed the suspect's speech was slow, thick, and slurred. He also observed that the suspect's pupils were constricted for the lighting conditions. Officer Hurley administered SFSTs at roadside, which included the Horizontal Gaze Nystagmus (HGN), Walk and Turn (W&T), and One Leg Stand (OLS) tests. He reported observing no clues of HGN, but he did observe three clues on the W&T and three clues on the OLS. According to Officer Hurley, throughout the tests, the suspect was unstable on his feet, and his movements were slow and sluggish. Officer Hurley arrested the suspect for DUI and transported him to the Detention Center for processing. According to Officer Hurley, who is a certified DRE, while the suspect was in the back of his patrol vehicle, he was slumped over and appeared to be on-the-nod. After obtaining a .00 BAC, he requested DRE assistance as he was needed for a crash investigation call.

5. **Initial Observation of the Suspect:** I first observed the suspect in the booking room at the Detention Center. Officer Hurley had just conducted the breath test and was completing his paperwork when I arrived. I noted the suspect was repeatedly scratching his arms and neck. His head kept nodding forward, and he appeared to be "on the nod." When he spoke, his voice was low and raspy. His pupils appeared to be constricted. His coordination and movements were poor, sluggish and deliberate. He was wearing blue jeans, a brown button-up shirt, and lace-up athletic shoes. I introduced myself and asked if he would participate in a drug evaluation, which he agreed to do. I confirmed he had been informed of his Miranda rights and that he would answer my questions. I asked if he had any injuries or physical defects that might prevent him from doing the tests, and he indicated he did not. He advised that he was not currently under the care of a doctor or dentist. He indicated he had eaten a couple of candy bars around 3 pm and had drank some water and a Big Gulp earlier. When asked if he was taking any medication or drugs, he responded "No, no medicine." He told me he was not blind in either eye and did not use eye glasses. When asked when he had last slept and for how long, he indicated last night and for a few hours. His responses to my questions were slow and at times thick and slurred. His eyelids were droopy, and his face was pale-colored.

6. **Medical Problems and Treatment:** The suspect did not report any injuries or physical problems, and none were mentioned or observed during the evaluation.

7. **Psychophysical Indicators of Impairment:** Each of the tests were explained and demonstrated to the suspect prior to him attempting them. Several times the instructions had to be repeated, as he appeared to be having attention difficulties. After each demonstration, he indicated he understood the instructions. The following tests were administered:

Modified Romberg Balance: During this test, the suspect swayed approximately three inches front to back and side to side. He had a slow time estimation, estimating the passage of 30 seconds in 44 seconds. I asked how he had estimated the 30 seconds and he replied, "I just tried to count in my head." He appeared to be on-the-nod during portions of the test and frequently scratched his arms and neck.

Walk and Turn: For this test, a painted line on the booking room floor was used. During the test, the suspect lost his balance twice during the instruction stage. During the walking stage, he took slow and deliberate steps, stopped while walking one time on the first nine steps and twice on the second nine steps. He stepped off the line to his right on the first step after making his turn, which was slow and made with deliberate steps. He also raised his arms for balance once on the first nine steps and three times on the second nine steps. He had to be reminded three times to count his steps out loud.

One Leg Stand: When the suspect stood on his left foot and raised his right foot, he counted slowly and swayed noticeably throughout the test. He also used his arms to balance throughout the test and put his foot down at 1,010 and 1,019. His count was slow, reaching 1,024 in the 30 second timed period. When he stood on his right foot and raised his left foot, he again swayed throughout the test. He also used his arms to balance during the entire test and put his foot down at 1,017. His count was again slow, reaching 1,022 in the 30 second timed period. After completing the test, he continued to scratch his arms and neck area.

Finger to Nose: During this test, the suspect leaned forward when attempting to touch his nose. He missed the tip of his nose with the tip of his index finger on five of his six attempts. He used the pad of his fingers on attempts 4, 5 and 6. He had slow hand and arm movements throughout the test.

8. **Clinical Indicators of Impairment:**
Eye Signs: The suspect's pupils were checked in three lighting conditions and were estimated at 2.0 mm in both eyes in Room Light, 2.5 mm in both eyes in Near Total Darkness, and 1.5 mm in both eyes in Direct Light. All were below the DRE average ranges. The suspect's pupil reaction to light was little or none visible. The suspect's eyes were able to converge as directed and rebound dilation was not observed.

Vital Signs: The suspect's pulse, blood pressure, and body temperature were below the DRE average ranges. His pulse rates were measured at 56, 52 and 52 beats per minute (bpm). His blood pressure was measured at 108/66 mmHg. His temperature was 97.0 F using an oral thermometer. His muscle tone was flaccid. Several times during the vital signs examinations he appeared to be on-the-nod.

9. **Signs of Ingestion:** The suspect had scars on his right inside forearm and two fresh puncture wounds on the inside of his left arm. When asked about the fresh puncture wounds, he stated, "I think they're just scratches." When asked if he injected drugs, he took a long pause and then said, "I used to." The scars and marks were photographed and were submitted with the arresting officer's report.

10. **Suspect's Statements:** After explaining my observations to the suspect, I again asked him about drug use. He responded by saying, "I'm not going to answer that."

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a Narcotic Analgesic and unable to operate a vehicle safely.

12. **Toxicological Sample:** The suspect provided a urine sample to Officer Hurley that will be forwarded to the Nevada DPS Crime Laboratory for analysis.

13. **Miscellaneous:** Refer to Officer Hurley's arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator: Trooper Marc Russell	DRE #: 16856	Rolling Log #: 22-010-0057	Evaluator's Agency: Wyoming Highway Patrol	Case#: (Session XVII - #3)
Recorder/Witness: Sgt. Duane Ellis, Wyoming HP	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Rock Springs PD	
Arrestee's Name (Last, First, Middle): Cotton, Ozzie	Date of Birth: 05/16/1986	Sex: M	Race: W	Arresting Officer (Name, ID#): Officer Amanda Clawson
Date Examined / Time /Location: 07/05/22 / 2030 / Sweetwater Co. Jail	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 59305	Chemical Test: Urine ☒ Blood ☐ Test or tests refused ☐	
Miranda Warning Given: ☒ Yes ☐ No Given by: Officer Clawson	What have you eaten today? Cheeseburger	When? 1 pm	What have you been drinking? How much? Nothing	Time of last drink? N/A
Time now/ Actual: 9 PM / 2035	When did you last sleep? Last night	How long? About 9 hours	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No "Sore elbow"		Are you under the care of a doctor or dentist? ☐ Yes ☒ No	
Are you taking any medication or drugs? ☐ Yes ☒ No "I used to take pain pills"	Attitude: Cooperative		Coordination: Poor, Slow, Unsteady	
Speech: Slow, Thick	Breath odor: Normal		Face: Pale (Beard)	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus: ☐ Yes ☒ No	Vertical Nystagmus: ☐ Yes ☒ No	Able to follow stimulus: ☒ Yes ☐ No	Eyelids: ☐ Normal ☒ Droopy

Pulse/Time

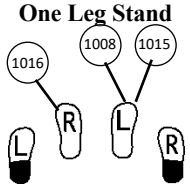
1. 58 / 2042
2. 56 / 2115
3. 56 / 2130

HGN	Left Eye	Right Eye
Lack of Smooth Pursuit	None	None
Maximum Deviation	None	None
Angle of Onset	None	None

Convergence

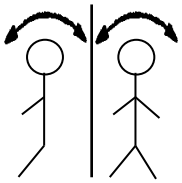
Right eye Left eye

23/30 **One Leg Stand** 21/30



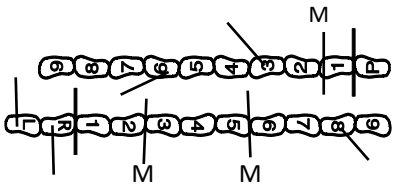
Modified Romberg Balance

Approx. 2″ 2″ Approx. 2″ 2″



Scratching arms

Walk and Turn Test



Stopped counting out loud on step #5. Reminded to count out loud. Slow deliberate steps.

Cannot keep balance: 2

Starts too soon:

	1st Nine	2nd Nine
Stops walking		
Misses heel-toe	2	1
Steps off line	1	2
Uses arms	4	2
Actual steps taken	9	9

L	R	
☒	☒	Sways while balancing
☒	☒	Uses arms for balance
☐	☐	Hopping
☒	☒	Puts foot down

Slow count.

Time Estimation

40 estimated as 30 seconds

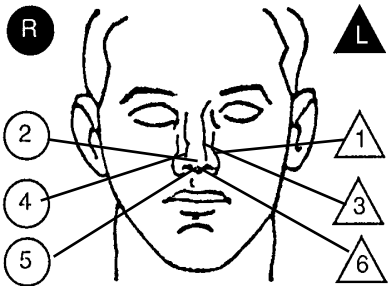
Describe turn: Slow, but as instructed

Cannot do test (explain): N/A

Type of footwear: Brown slip-on boots

Finger to Nose

(Draw lines to spots touched)



Slow arm movements. Searching for nose.

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	2.0	2.5	1.5
Right Eye	2.0	2.5	1.5

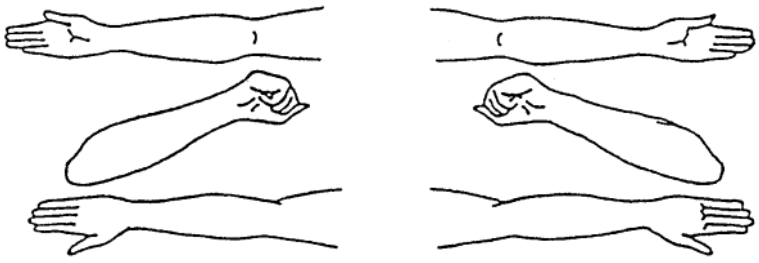
Nasal area: Clear

Oral cavity: White coating. Dry mouth.

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Little or none visible

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature
112 / 64	97.2 °F

Muscle Tone: ☐ Near Normal ☒ Flaccid ☐ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"I used to take pain pills."	A couple pills a day	Couple weeks ago	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
07/05/22 1915	1940	2030	2145	

DRE/Officer's Signature: Marc Russell | Reviewed/approved by / date: | DRE#

Opinion of Evaluator:

☐ Not Impaired	☐ Alcohol	☐ CNS Stimulant	☐ Dissociative Anesthetic	☐ Inhalant
☐ Medical	☐ CNS Depressant	☐ Hallucinogen	☒ Narcotic Analgesic	☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Cotton, Ozzie

1. **Location:** The evaluation was conducted at the Sweetwater County Jail booking room. The room is well illuminated, has a smooth concrete floor with no obstructions and has ample room for conducting a drug influence evaluation. The darkroom examinations were conducted in the staff restroom.

2. **Witnesses:** Sergeant Duane Ellis of the Wyoming Highway Patrol witnessed and recorded the evaluation. Arresting Officer Amanda Clawson witnessed the evaluation through the psychophysical tests and then had to respond to a reckless driver call.

3. **Breath Alcohol Test:** The suspect's breath test was a 0.00% and was administered prior to my arrival to the County Jail.

4. **Notification and Interview of the Arresting Officer:** I was on-duty working a holiday impaired driving enforcement detail and was requested to contact Officer Clawson of the Rock Springs PD at the Sweetwater County Detention Center regarding a drug evaluation. After contacting Officer Clawson, she advised that the suspect's vehicle was observed drifting in and out of his traffic lane and driving 15 mph under the posted speed on Gateway Blvd near College Drive. According to Officer Clawson, during the personal contact, she did not detect an alcoholic beverage odor on the suspect's breath but observed some indicators of possible drug impairment. The suspect had slow, and deliberate movements, constricted pupils, and slow, thick, slurred speech. According to Officer Clawson, the suspect did not have any medical conditions, injuries, or physical defects. The suspect consented to SFSTs and Officer Clawson administered the Horizontal Gaze Nystagmus (HGN), Walk and Turn (W&T), One Leg Stand (OLS) and Finger to Nose (FTN) tests. She reported observing no clues of HGN but did observe numerous impairment clues on the W&T and OLS tests. On the FTN test, the suspect had difficulty touching his nose as directed. At the conclusion of the SFSTs, Officer Clawson arrested the suspect for DWI, and transported him to the Detention Center for processing. After obtaining a .00 breath test result, she requested the assistance of a DRE.

5. **Initial Observation of the Suspect:** I first observed the suspect in the booking area at the Detention Center. He was sitting on a bench and was continually scratching his arms. He had a dry mouth and had a smacking sound when he spoke. When he stood, he was unstable, and several times used the wall next to the bench to steady himself. He mentioned that he was cold even though the booking area was warm. He was wearing blue jeans, a brown tee shirt, and brown slip-on boots. I introduced myself and asked if he would complete a drug evaluation, which he agreed to. I asked if he had been informed of his Miranda rights and he indicated that he had and he agreed to answer my questions. I determined that he did not have any injuries or physical defects, and he only mentioned having a sore elbow. He indicated he was otherwise healthy and was not under the care of a doctor or dentist. He told me he had eaten a cheeseburger around 1 pm and had drank a Monster energy drink at that time. When asked if he was taking any medication or drugs, he responded "No" and added "I used to take pain pills." He indicated he had slept the night before for about nine hours. Numerous times during the initial contact with the suspect, he appeared to be on the nod, and I had to repeat my questions to get a response from him.

6. **Medical Problems and Treatment:** The suspect stated he had a sore right elbow but did not require medical attention for it. When asked how he had hurt his elbow he indicated that he had slipped on some ice and fell. During the evaluation, he did not report any other injuries or medical issues, and none were observed.

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to the suspect prior to him attempting them. After each demonstration, he confirmed understanding my instructions. The following psychophysical tests were conducted:

Modified Romberg Balance: During this test, the suspect swayed approximately two inches front to back and side to side. His time estimation was slow, estimating 30 seconds in 40 seconds. He was asked how he had estimated the 30 seconds and he replied, "One Mississippi, two Mississippi. Like that." He scratched his arms numerous times during the test.

Walk & Turn: For this test, a painted line of the concrete floor was used. During the test, the suspect lost his balance twice during the instruction stage. During the walking stage he missed touching heel to toe twice on the first nine steps, stepped off the line once, and used his arms to balance four times. His turn was slow but completed as instructed. On the second nine steps, he missed touching heel to toe once, stepped off the line twice, and raised his arms to balance two times. He stopped counting his steps out loud after the 5th step on the first nine steps and several times had to be reminded to count his steps out loud.

One Leg Stand: When the suspect stood on his left foot and raised his right foot he swayed while balancing, moving side to side. He also used his arms for balance during the entire test and put his foot down at his count of 1,016. His counting was slow, counting to 1,023 in the 30 second timed period. When standing on his right foot and raising his left foot, he again swayed side to side. He used his arms for balance during the entire test and put his foot down at his counts of 1,008 and 1,015. He again counted slowly, counting to 1,021 in the 30 second timed period.

Finger to Nose: During this test, the suspect leaned forward and did not touch the tip of his nose with the tip of his index finger as instructed on three of the six attempts (Attempts 1, 3 & 4). His hand and arm movements were slow and deliberate, and he appeared to be searching for his nose on each attempt.

8. **Clinical Indicators of Impairment:**

Eye Signs: The suspect's pupil sizes were estimated in three different lighting levels and were: 2.0 in Room Light, 2.5 mm in Near Total Darkness and 1.5 mm in Direct Light. All were below the DRE average ranges for the lighting conditions. His pupil reaction to light was little or none visible. Rebound dilation was not observed and he was able to converge his eyes as instructed.

Vital Signs: The suspect's pulse rates were checked three times during the evaluation and were 58, 56 and 56 beats per minute (bpm). All three were below the DRE average range of 60 to 90 bpm. His blood pressure was measured at 112/64, which was also below the DRE average ranges. His body temperature was measured with an oral thermometer at 97.2 °F which was below the DRE average range. His muscle tone was flaccid.

9. **Signs of Ingestion:** The suspect's nasal was clear. His mouth was dry, and he had a white coating on his tongue and at the edges of his mouth. No indicators of injection signs were observed on his arms and hands.

10. **Suspect's Statements:** After reviewing my observations with the suspect, I again asked him about drug use. He denied any current drug use but indicted he used to take pain pills. He could not remember the name of the pills or the doctor that prescribed them. When asked how long ago he had used the pain pills, he was slow to respond but stated, "Maybe a couple of weeks ago." He claimed he used the pain pills for his sore elbow.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a Narcotic Analgesic and is unable to operate a vehicle safely.

12. **Toxicological Sample:** At the end of the evaluation, the suspect provided a urine sample. However, it was difficult for the suspect to provide the sample and it was eventually obtained by Officer Clawson. The sample was submitted as evidence and will be forwarded to the state crime laboratory for analysis.

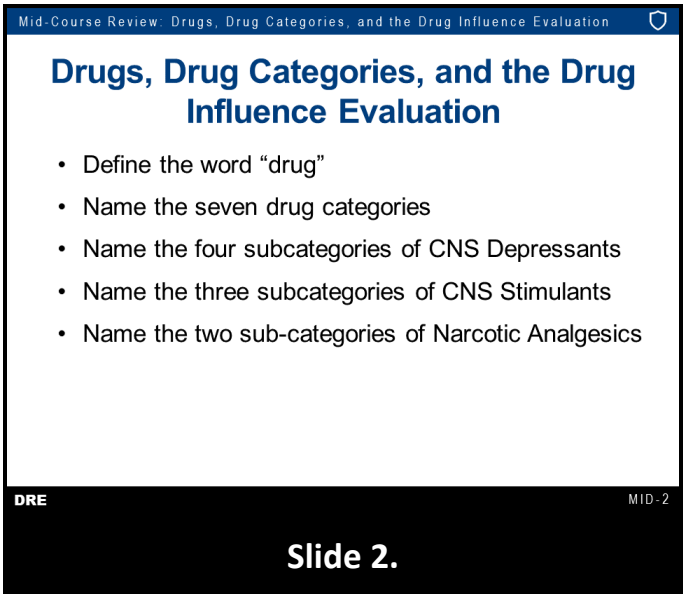
13. **Miscellaneous:** Refer to Officer Clawson's DUI arrest report for additional details.

DRE

MID-COURSE REVIEW

CONTENTS

A. Drugs, Drug Categories, and the Drug Influence Evaluation



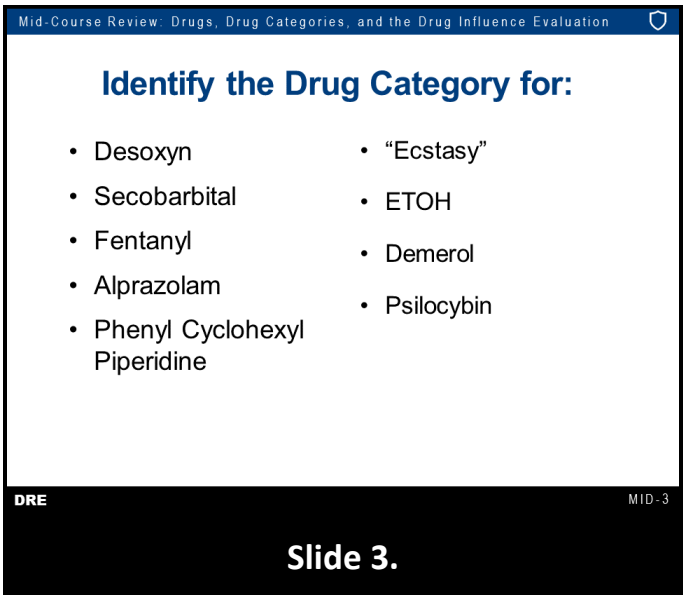
Define the word "drug."

Name the seven drug categories.

Name the subcategories of Central Nervous System (CNS) Depressants.

Name the four subcategories of CNS Stimulants.

Name the two sub-categories of Narcotic Analgesics.



Identify the category for each of the listed drugs.

Desoxyn

Secobarbital (Seconal)

Fentanyl

Alprazolam (Xanax)

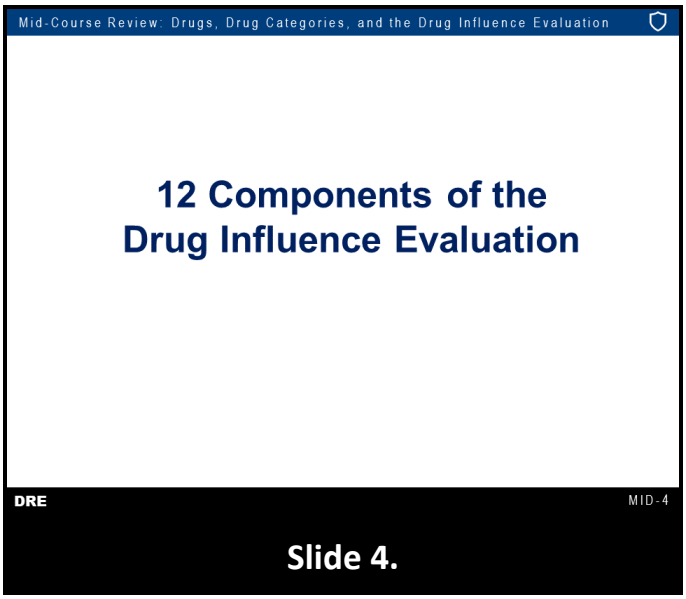
Phenyl Cyclohexyl Peperidine

“Ecstasy” (MDMA)

ETOH

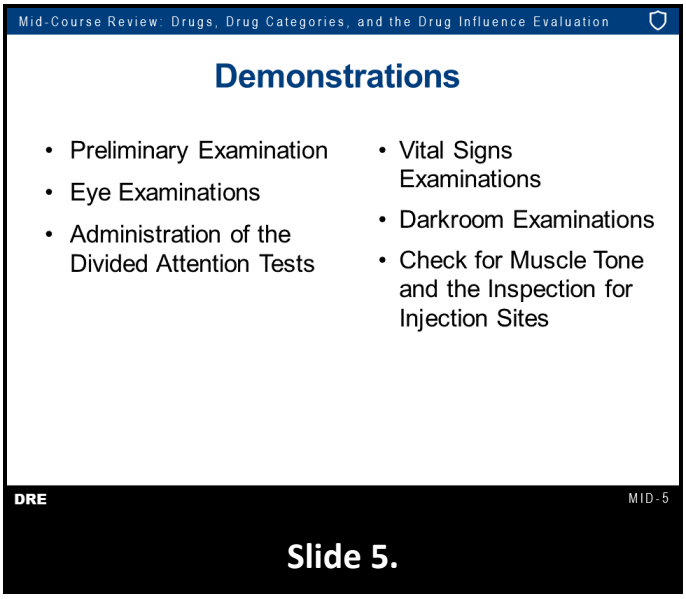
Demerol

Psilocybin



Slide 4.

List the twelve components of the Drug Influence Evaluation in the proper sequence.



Slide 5.

Demonstrate the Preliminary Examination

Demonstrate the Eye Examinations

Demonstrate the Administration of the Divided Attention Tests

Demonstrate the Vital Signs Examinations

Demonstrate the Darkroom Examinations

Demonstrate the Check for Muscle Tone and the inspection for Injection Sites

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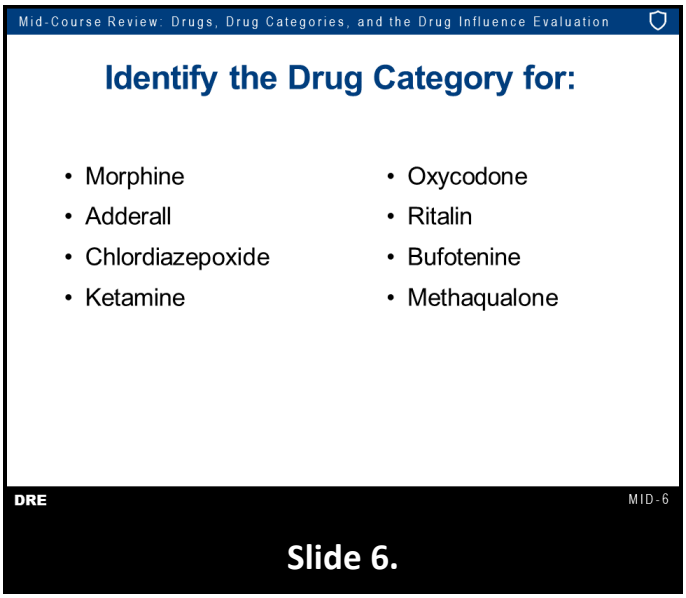


Slide 6.

Identify the category for each of the listed drugs.

Morphine

Adderall

Chlordiazepoxide

Ketamine

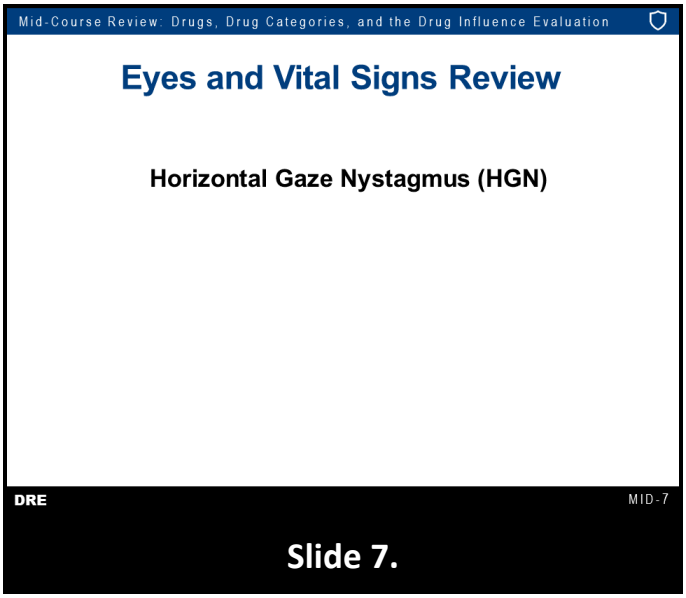
Oxycodone

Ritalin

Bufotenine

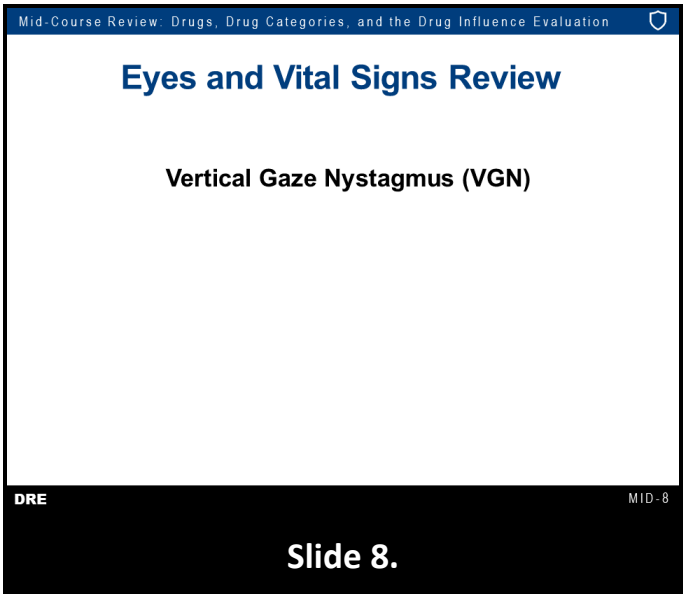
Methaqualone

B. Eyes and Vital Signs



Name the three clues of Horizontal Gaze Nystagmus (HGN).

Name the categories of drugs that cause HGN.

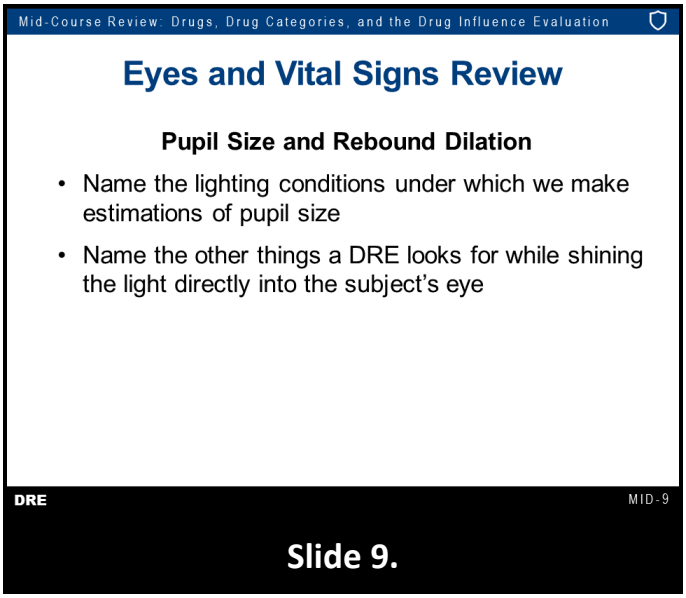


Slide 8.

Name the drug categories that will cause Vertical Gaze Nystagmus (VGN).

Name the test always administered immediately after VGN.

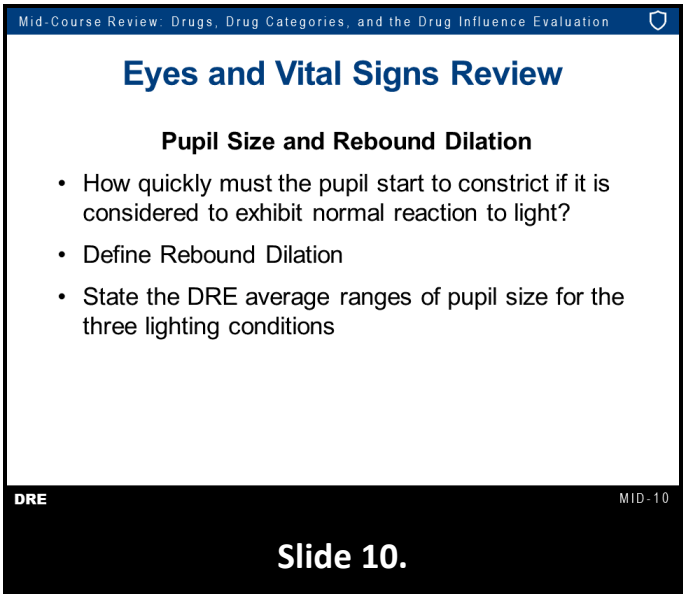
Name the categories of drugs that usually will cause slow reaction to light.



Slide 9.

Name the lighting conditions under which we make estimations of pupil size.

Name the other things a Drug Recognition Expert (DRE) looks for while shining the light directly into the subject's eye.

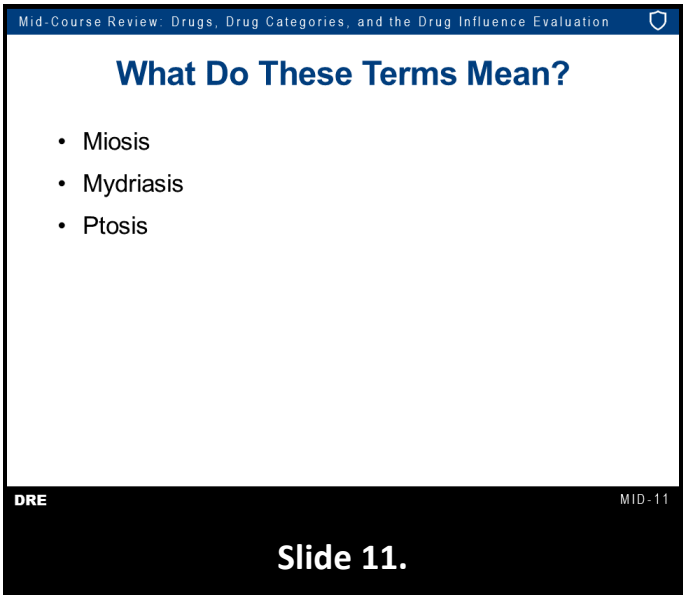


Slide 10.

How quickly must the pupil start to constrict if it is considered to exhibit normal reaction to light?

Define Rebound Dilation.

State the DRE average ranges of pupil size for the three lighting conditions.



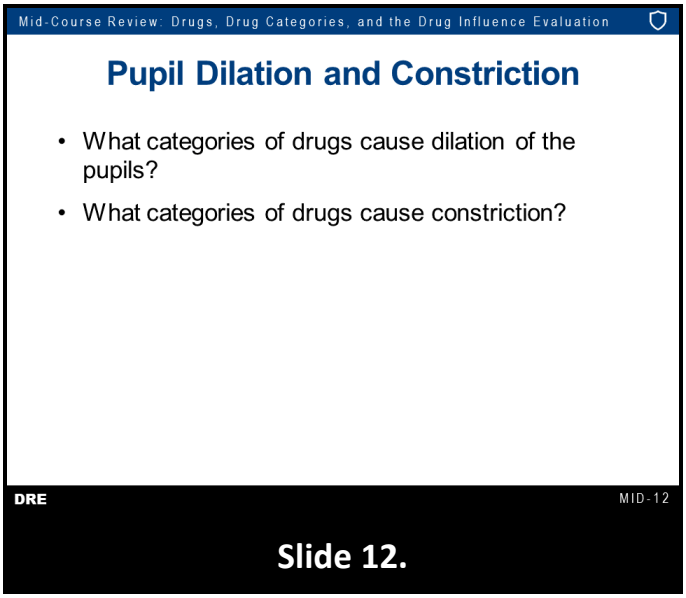
Slide 11.

Define each of the listed terms.

Miosis

Mydriasis

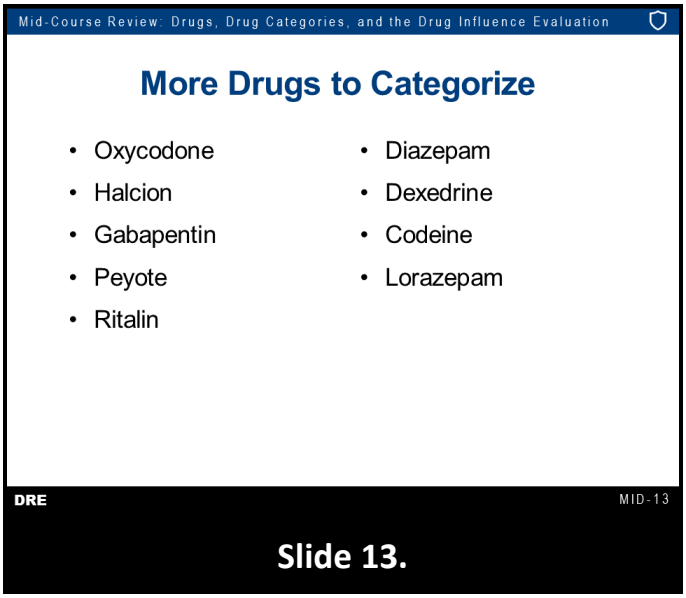
Ptosis



Slide 12.

What categories of drugs cause dilation of the pupils?

What categories of drugs cause constriction?



Slide 13.

Identify the category for each of the listed drugs.

Oxycodone

Halcion

Gabapentin

Peyote

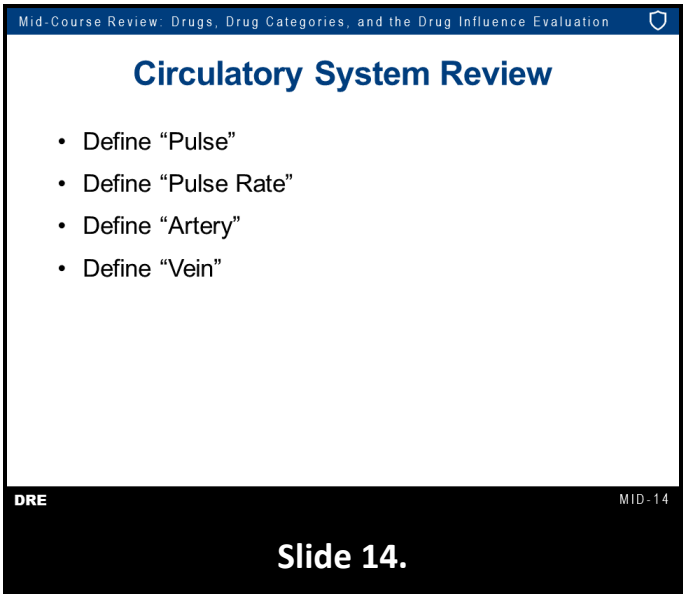
Ritalin

Diazepam

Dexedrine

Codeine

Lorazepam



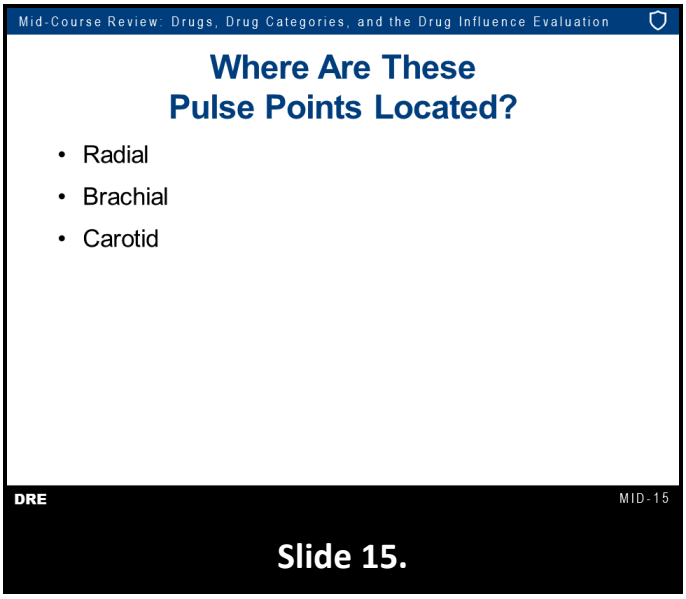
Slide 14.

Define “Pulse.”

Define “Pulse Rate.”

Define “Artery.”

Define “Vein.”

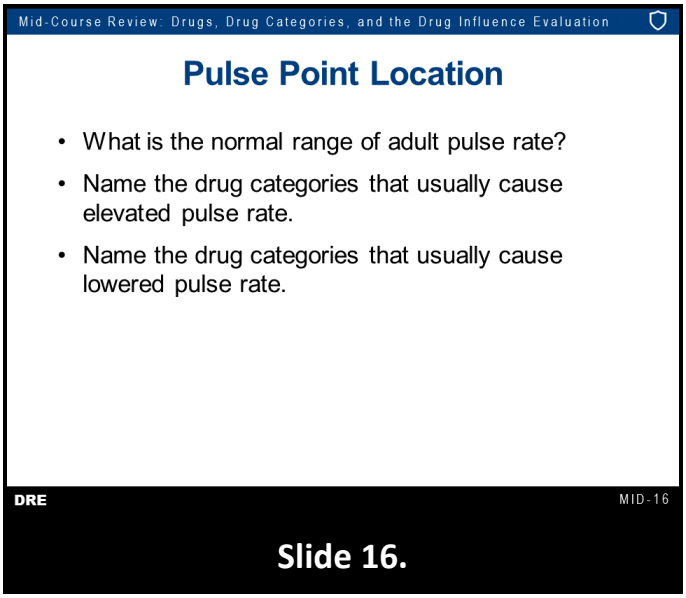


Slide 15.

Radial

Brachial

Carotid

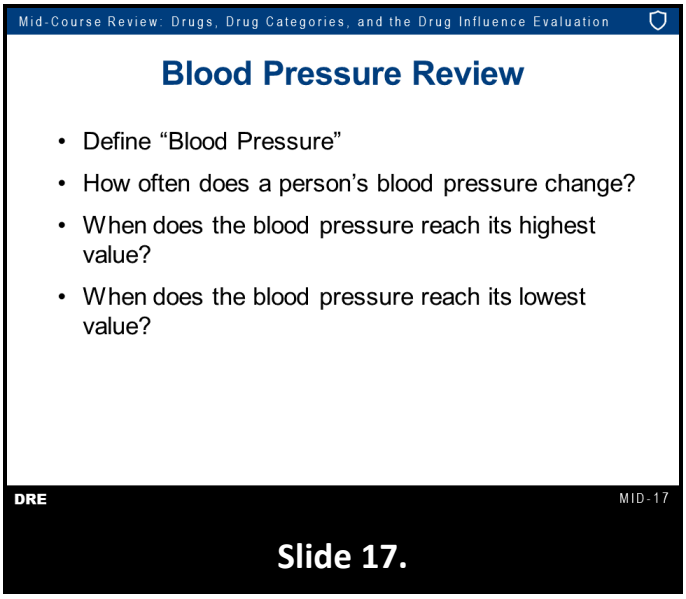


Slide 16.

What is the normal range of adult pulse rate?

Name the drug categories that usually cause elevated pulse rate.

Name the drug categories that usually cause lowered pulse rate.



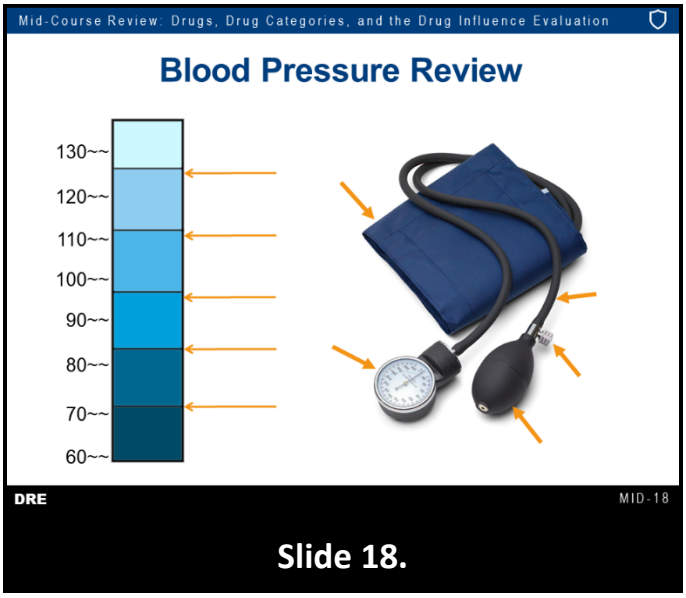
Slide 17.

Define "Blood Pressure."

How often does a person's blood pressure change?

When does the blood pressure reach its highest value?

When does the blood pressure reach its lowest value?



Slide 18.

Name the two medical instruments used to measure blood pressure.

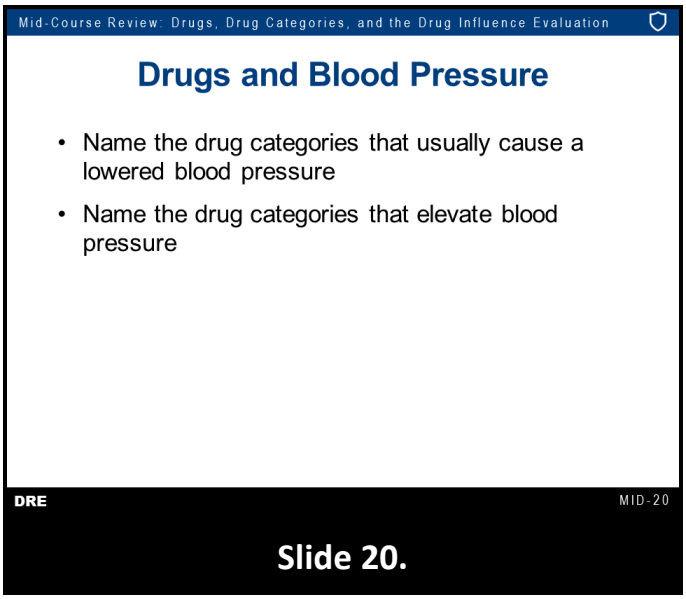
Name the sounds we hear through the stethoscope when we take a blood pressure measurement.

Slide 19.

What does this “Hg” mean?

In what units is blood pressure measured?

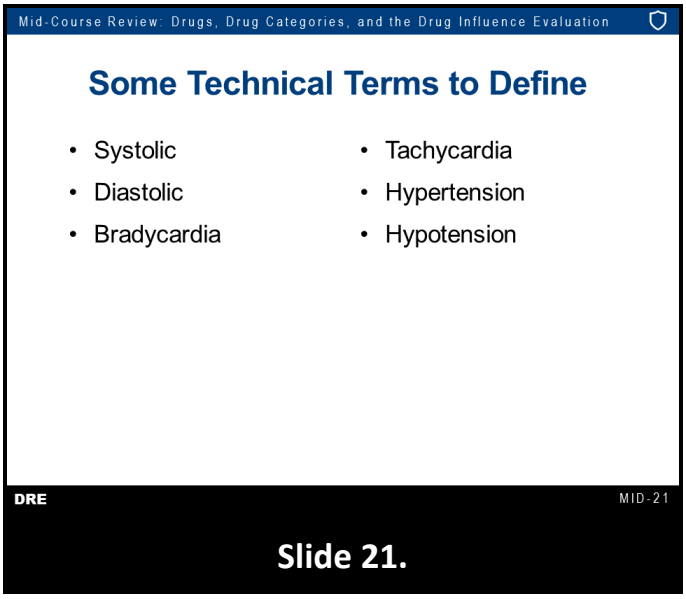
Suppose at some particular instant, a person has a blood pressure of 120 mmHg. What does “120 mmHg” mean?



Slide 20.

Name the drug categories that usually cause a lowered blood pressure.

Name the drug categories that elevate blood pressure.



Slide 21.

State the meaning of each of the listed terms.

Systolic

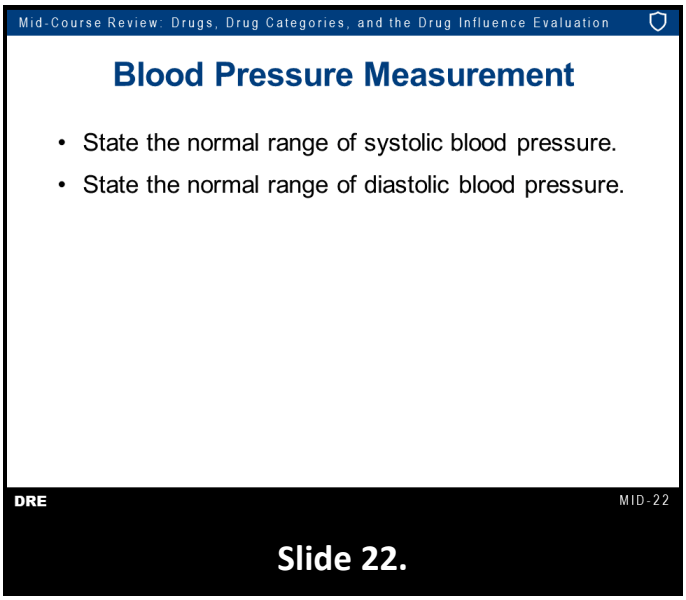
Diastolic

Bradycardia

Tachycardia

Hypertension

Hypotension

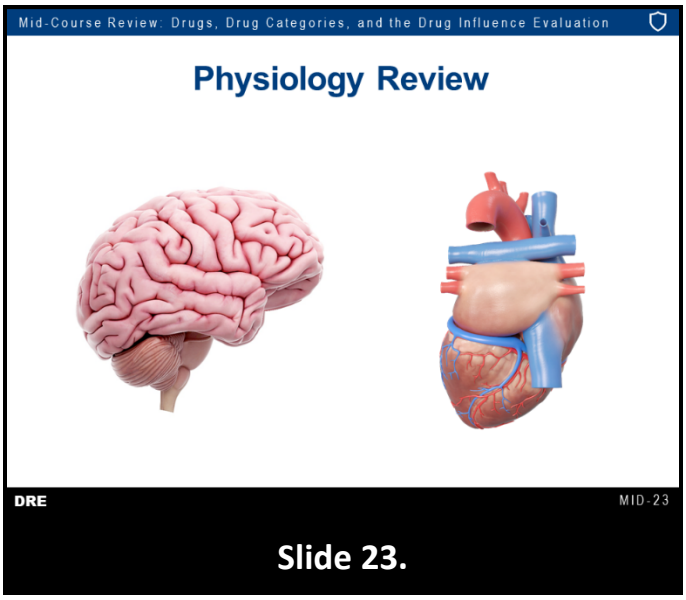


Slide 22.

State the normal range of systolic blood pressure.

State the normal range of diastolic blood pressure.

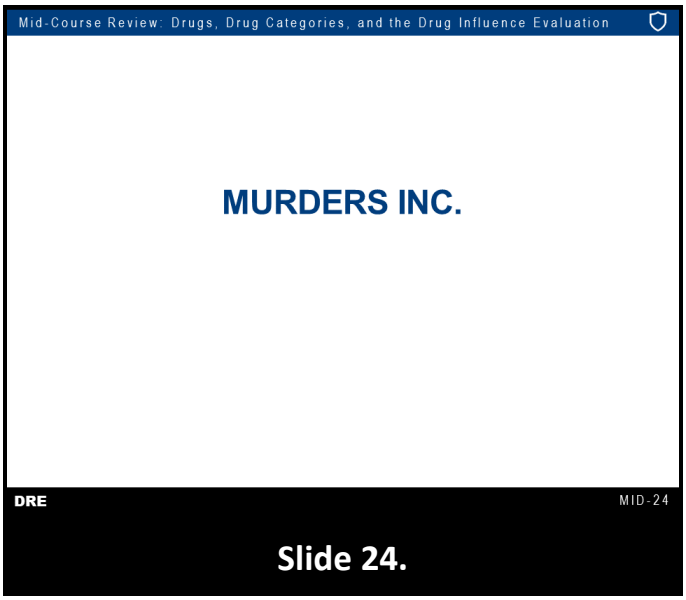
C. Physiology



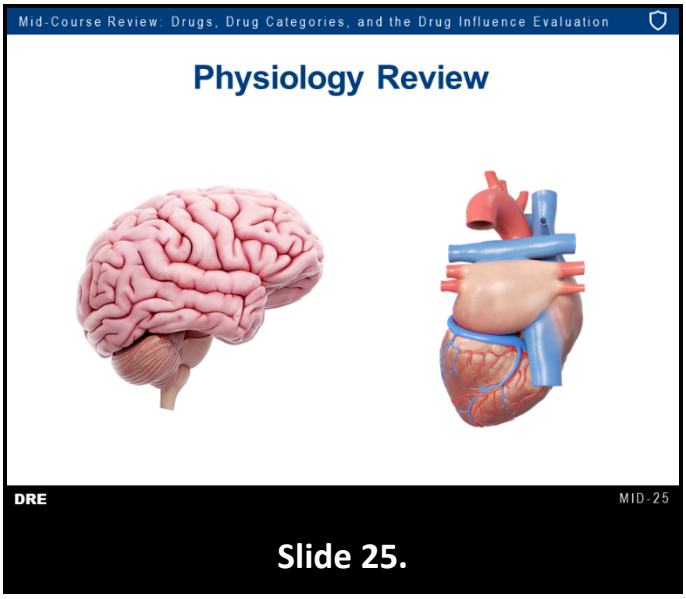
Slide 23.

Define “Physiology.”

What is the expression we use to remember the names of the ten major body systems?



Slide 24.



Slide 25.

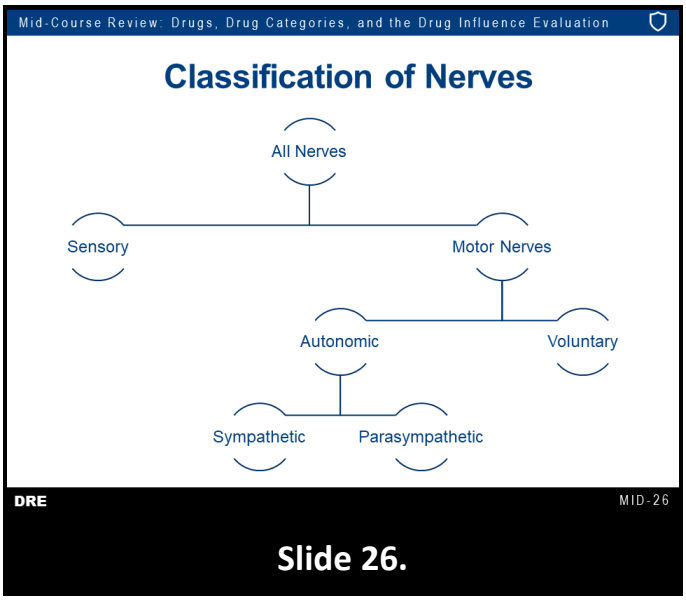
State the word that means “dynamic balance involving levels of salts, water, sugars and other materials in the body’s fluids.”

Which artery carries blood from the heart to the lungs?

What is unique about the Pulmonary artery, compared to all other arteries?

What are the Pulmonary veins?

What is unique about the Pulmonary veins?



Slide 26.

What do these terms mean?

Sensory

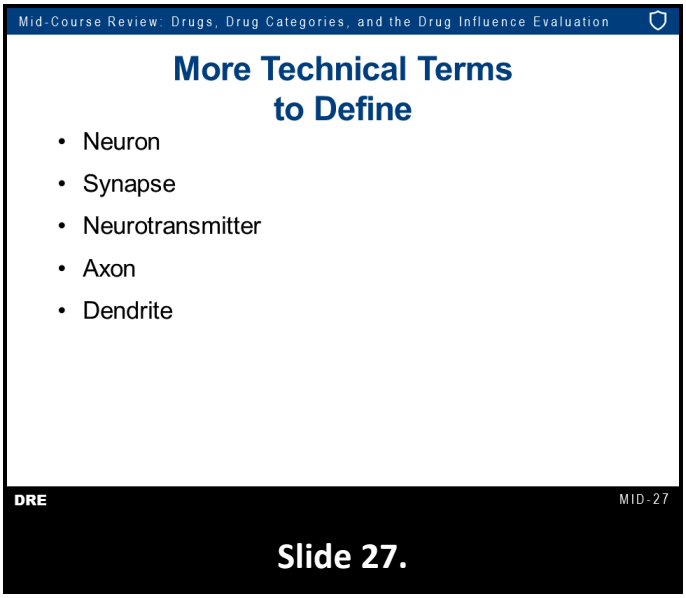
Motor Nerves

Voluntary

Autonomic

Sympathetic

Parasympathetic



Slide 27.

Define each of the listed terms.

Neuron

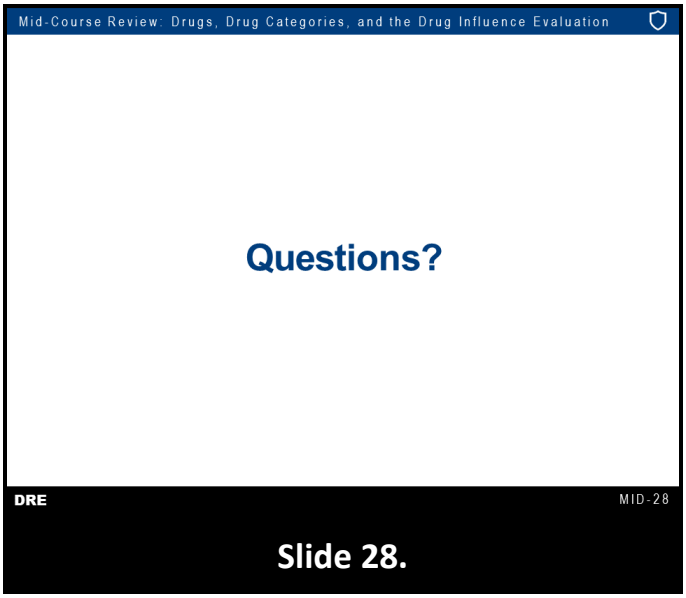
Synapse

Neurotransmitter

Axon

Dendrite

D. Questions



Slide 28.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case #

Recorder/Witness	Crash: ☐ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)

Date Examined / Time /Location / /	Breath Test: Test Refused ☐ Results: Instrument #:	Chemical Test: Urine ☐ Blood ☐ Oral Fluid ☐ Test or tests refused ☐

Miranda Warning Given Given by:	☐ Yes ☐ No	What have you eaten today? When?	What have you been drinking? How much?	Time of last drink?

Time now/ Actual /	When did you last sleep? How long?	Are you sick or injured? ☐ Yes ☐ No	Are you diabetic or epileptic? ☐ Yes ☐ No

Do you take insulin? ☐ Yes ☐ No	Do you have any physical defects? ☐ Yes ☐ No	Are you under the care of a doctor or dentist? ☐ Yes ☐ No

Are you taking any medication or drugs? ☐ Yes ☐ No	Attitude:	Coordination:

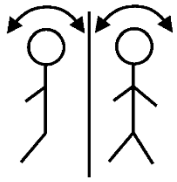
Speech:	Breath odor:	Face:

Corrective Lenses: ☐ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☐ Bloodshot ☐ Watery	Blindness: ☐ None ☐ Left ☐ Right	Tracking: ☐ Equal ☐ Unequal

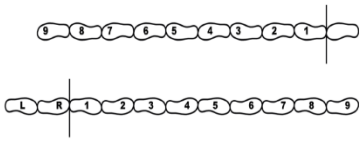
Pupil Size: ☐ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☐ No	Vertical Nystagmus ☐ Yes ☐ No	Able to follow stimulus ☐ Yes ☐ No	Eyelids ☐ Normal ☐ Droopy

Pulse and Time	HGN	Left Eye	Right Eye	Convergence	/30 One Leg Stand /30
1. ____ / ____	Lack of Smooth Pursuit				
2. ____ / ____	Maximum Deviation			Right eye Left eye	
3. ____ /	Angle of Onset				

Modified Romberg Balance
Approx. Approx.



Walk and Turn Test



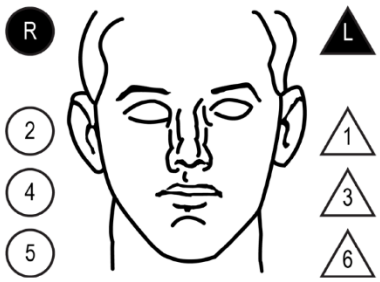
Cannot keep balance _____
Starts too soon _____

	1st Nine	2nd Nine
Stops walking		
Misses heel-toe		
Steps off line		
Uses arm(s)		
Actual steps taken		

L	R	
		Sways while balancing
		Uses arm(s) to balance
		Hopping
		Puts foot down

Time Estimation _____estimated as 30 seconds	Describe turn	Cannot do test (explain)	Type of footwear:

Finger to Nose
(Draw lines to spots touched)



PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye			
Right Eye			

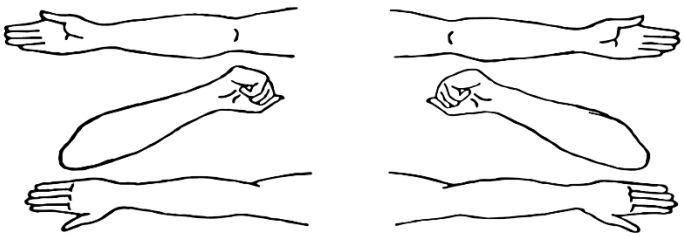
Nasal area:

Oral cavity:

Rebound Dilation: ☐ Yes ☐ No

Reaction to Light:

RIGHT ARM **LEFT ARM**



Blood Pressure /	Temperature °F

Muscle Tone: ☐ Normal ☐ Flaccid ☐ Rigid
Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)

Date / Time of arrest: /	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

Officer's Signature:	Reviewed/approved by / date:	DRE #

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant
☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

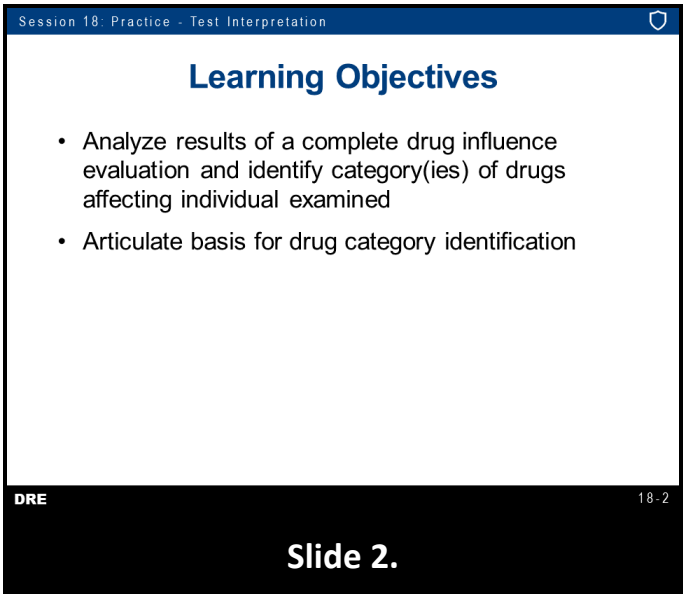
18 DRE

PRACTICE: TEST INTERPRETATION

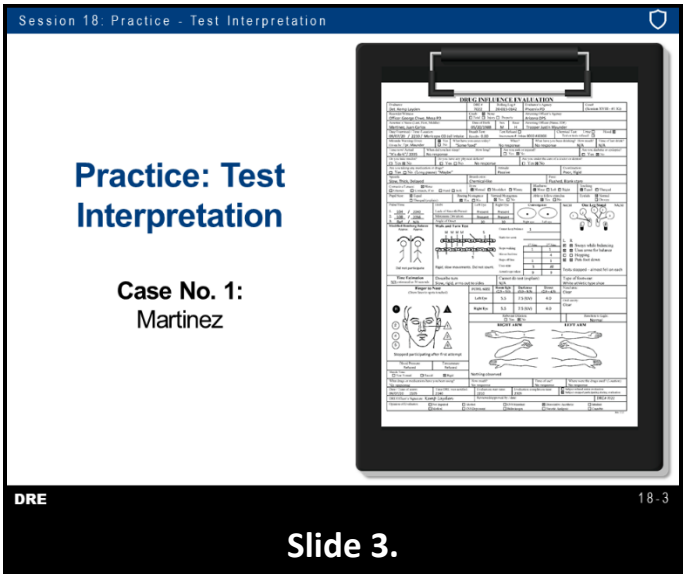
LEARNING OBJECTIVES

- Analyze the results of a complete drug influence evaluation and identify the category or categories of drugs affecting the individual examined
- Articulate the basis for the drug category identification

CONTENTS



A. Interpretation Demonstrations



Case No.1: Martinez

Preliminary Examination: Review the results of the preliminary examination of subject Martinez.

Eye Examinations: Review the results of the eye examination of subject Martinez.

Psychophysical Tests: Review the results of the psychophysical tests of subject Martinez.

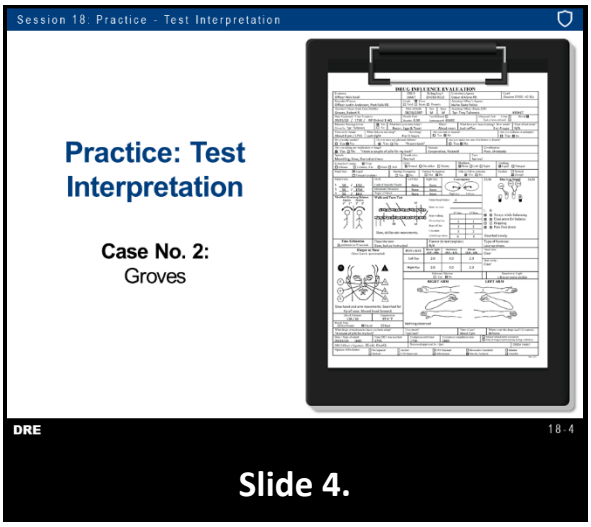
Vital Signs Examinations: Review the results of the vital signs examinations of subject Martinez.

Dark Room Examinations: Review the results of the dark room examinations of subject Martinez.

Other Evidence: Review the results of the examinations for injection sites and muscle rigidity and of the final interview of subject Martinez.

Opinion of the Evaluator

B. B. Interpretation Practice



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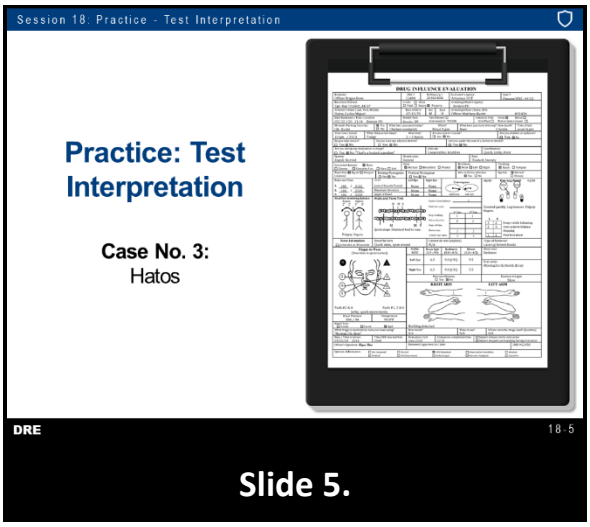

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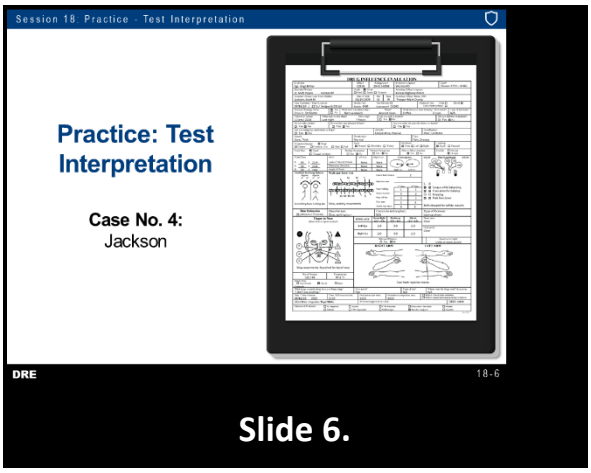

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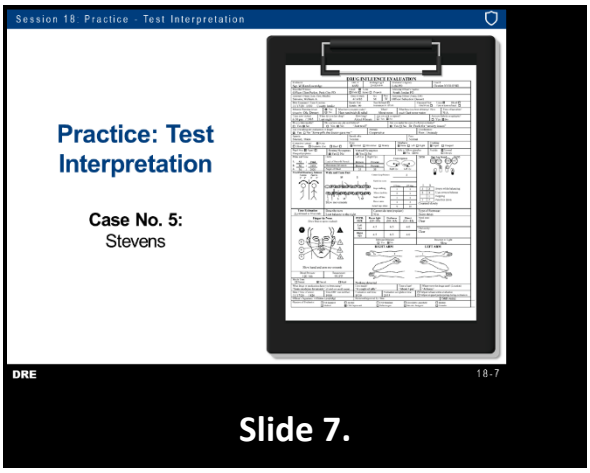

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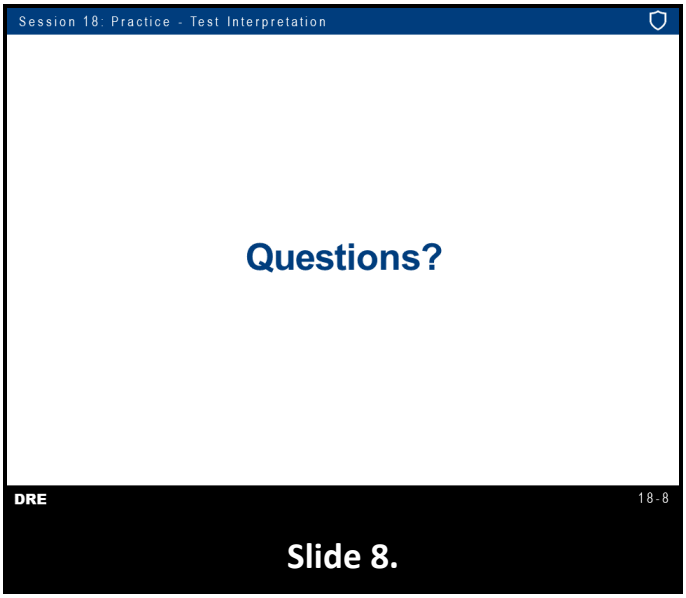

Session 18: Practice - Test Interpretation
Questions?
DRE
18-8

Slide 8.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Officer George Chwe	22213	22-015-0142	Mesa PD	(Session XVIII - #1 PM)

Recorder/Witness	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency
Trooper Justin Maunder, Arizona DPS		Gilbert PD

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Martinez, Juan Carlos	05/20/1988	M	H	Officer Joseph Rohr #23898

Date Examined / Time /Location	Breath Test: Test Refused ☐	Chemical Test: Urine ☐ Blood ☒
09/07/22 / 2210 / Mesa PD	Results: 0.00 Instrument #: Intox 8000 #30100	Test or tests refused ☐

Miranda Warning Given Given by: Officer Rohr	☒ Yes ☐ No	What have you eaten today? "Some food"	When? No response	What have you been drinking? How much? No response N/A	Time of last drink? N/A

Time now/ Actual	When did you last sleep? How long?	Are you sick or injured?	Are you diabetic or epileptic?
"It's dark"/ 2035	No response	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☐ No No response	☐ Yes ☒ No

Are you taking any medication or drugs?	Attitude:	Coordination:
☐ Yes ☐ No (Long pause) "Maybe"	Passive	Poor, Rigid

Speech:	Breath odor:	Face:
Slow, Thick, Delayed	Chemical-like	Flushed, Blank stare

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

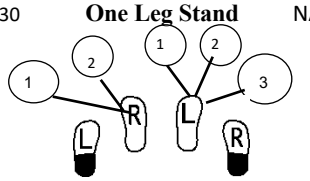
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☒ Yes ☐ No	Vertical Nystagmus ☒ Yes ☐ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☒ Normal ☐ Droopy

Pulse/Time	HGN	Left Eye	Right Eye
1. 104 / 2044	Lack of Smooth Pursuit	Present	Present
2. 108 / 2058	Maximum Deviation	Present	Present
3. Ref / N/A	Angle of Onset	30	30

Convergence

Right eye Left eye

NA/30 **One Leg Stand** NA/30

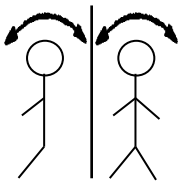


L	R	
☒	☒	Sways while balancing
☒	☒	Uses arms for balance
☐	☐	Hopping
☒	☒	Puts foot down

Tests stopped – almost fell on each

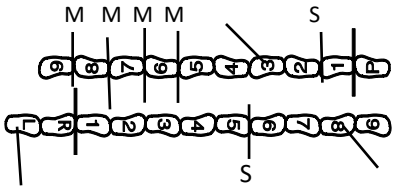
Modified Romberg Balance

Approx. Approx.



Did not participate

Walk and Turn Test



Rigid, slow movements. Did not count.

Cannot keep balance 1

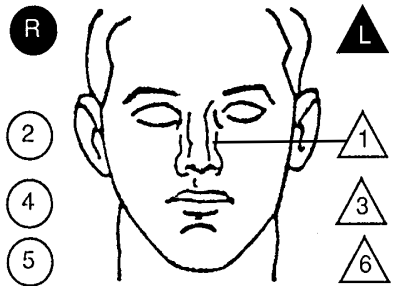
Starts too soon

	1st Nine	2nd Nine
Stops walking	1	1
Misses heel-toe		4
Steps off line	1	1
Uses arms	3	All
Actual steps taken	9	9

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
N/A estimated as 30 seconds	Slow, rigid, arms out to sides	N/A	White athletic type shoe

Finger to Nose

(Draw lines to spots touched)



Stopped participating after first attempt

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	5.5	7.5 (UV)	4.0
Right Eye	5.5	7.5 (UV)	4.0

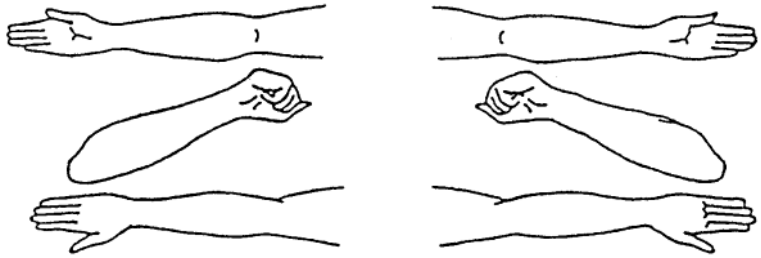
Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Normal

Nasal area: Clear

Oral cavity: Clear

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature
Refused	Refused

Muscle Tone: ☐ Near Normal ☐ Flaccid ☒ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
No response	No response	No response	No response

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☒ Subject stopped participating during evaluation
09/07/22 2105	2140	2210	2305	

DRE/Officer's Signature: George Chwe | Reviewed/approved by / date: | DRE#

Opinion of Evaluator:

☐ Not Impaired	☐ Alcohol	☐ CNS Stimulant	☐ Dissociative Anesthetic	☐ Inhalant
☐ Medical	☐ CNS Depressant	☐ Hallucinogen	☐ Narcotic Analgesic	☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Martinez, Juan Carlos

1. **Location:** The evaluation was conducted in the DRE processing area at the Mesa Police Department. The area is well illuminated and has a smooth concrete floor with no obstructions. The darkroom examinations were conducted in an adjacent room.

2. **Witnesses:** The evaluation was witnessed and recorded by Trooper Justin Maunder of the Arizona DPS. The arresting officer, Officer Joseph Rohr of the Gilbert PD witnessed the psychophysical tests and the blood draw.

3. **Breath Alcohol Test:** The suspect's breath test was conducted by Officer Rohr prior to my arrival using the Intoxilyzer 8000. The result was 0.00% BAC.

4. **Notification and Interview of the Arresting Officer:** On 09/07/22 while working a Labor Day East Valley DUI Task Force, I was dispatched to Mesa PD to assist with a suspected drugged driver arrest. The arresting officer, Officer Joseph Rohr, was requesting DRE assistance with the arrest. Upon my arrival, I spoke with Officer Rohr who reported that the suspect's vehicle had crossed into oncoming traffic on South Gilbert Road and had nearly hit another vehicle. He also reported that the vehicle did not have its headlights on as required. Officer Rohr stated that the suspect was slow to respond to his emergency lights and travelled approximately four blocks before finally stopping. When pulling to the right side of the roadway, his vehicle nearly struck several parked cars. Officer Rohr stated that when contacted, the suspect had a dazed-like appearance and had difficulty producing his operator's license and other paperwork as requested. His speech was thick and slurred and he had a strong chemical-like odor on his breath. The suspect also had poor balance and was unsteady as he stood and walked. Officer Rohr administered SFSTs and observed six clues during the HGN test with an immediate angle of onset as well as the presence of Vertical Gaze Nystagmus (VGN). The suspect was unable to complete the Walk and Turn (WAT) and One-Leg Stand (OLS) tests due to his poor balance and coordination and the tests were stopped for the suspect's safety.

5. **Initial Observation of the Suspect:** I first observed the suspect in the Mesa PD DRE processing area. He was seated in a chair and appeared disoriented. He was slow to respond to questions and was looking straight ahead most of the time. His face was flushed, and he appeared to be sweating. When he stood, several times he used his chair to maintain his balance. His movements were rigid-like and stiff. I introduced myself and confirmed there was no language barrier with the suspect and requested that he participate in a drug evaluation. He appeared to be confused and it took nearly 60 seconds for him to respond, at which time he asked, "Am I under arrest?" After explaining the procedure to him, he agreed to do the evaluation. During my initial contact with the suspect, he would occasionally stop talking, sometimes failing to complete his sentences. When asked if he was taking any medications or drugs, he stated, "maybe" after a long pause and a blank-like stare at the wall.

6. **Medical Problems and Treatment:** No medical or physical problems were reported by the suspect and none were observed or detected during the drug evaluation.

7. **Psychophysical Indicators of Impairment:** The suspect did not complete all the psychophysical tests as requested. After explaining each test to him, he appeared confused and did not attempt some of the tests. For each test, I had to repeat my instructions several times. The following psychophysical tests were requested:

   Modified Romberg Balance: After demonstrating this test, he looked up at the ceiling and appeared to be ignoring me. His stance was very rigid-like, and he did not attempt the test as requested. After several unsuccessful requests for him to attempt the test, the test was discontinued.

Walk and Turn: A line on the floor was used for this test. The suspect lost his balance to the right during the instructions. When directed to begin the test, he remained in the heel to toe starting position for about 30 seconds before taking his first step. His steps were rigid with stiff movements. He did not count out loud as directed and was reminded several times to count his steps out loud, which he failed to do. He stopped walking once and stepped off the line once on the first nine steps. His turn was slow, rigid-like and he extended his arms out to his sides when completing the turn. On the second nine steps he again did not count out loud and stopped walking after his first step. He appeared confused on what to do next and was advised to continue the test. He continued slowly and stepped off the line one time and missed touching heel to toe on steps 6, 7, 8 and 9. He used his arms to balance three times on the first nine steps and on all his steps on the second nine steps. His movements were slow and rigid throughout the test.

One Leg Stand: After explaining this test to the suspect three times, he attempted to stand on his left foot and extend his right foot off the floor as directed. He immediately put his foot down at his count of "1" and "2". He swayed badly when trying to balance and used his arms for balance. The test was stopped at that point for safety reasons. When requested to stand on his right foot and extend his left foot off the floor, he again had difficulty, putting his foot down at his counts of "1", "2" and "3". He again swayed while balancing, used his arms for balance and the test was stopped for safety reasons when he put his foot down the 3rd time and nearly fell.

Finger to Nose: After explaining the test to the suspect two times, he agreed to attempt the test. On his first attempt of touching his left finger to the tip of his nose, he opened his eyes and touched the bridge of his nose using the pad of his left index finger. His arm movement was slow and rigid, and he kept his finger to his nose until he was told to remove it. At that time, he discontinued his participation in the test and the test was stopped.

8. **Clinical Indicators of Impairment:**

Eye Signs: HGN was present with all six clues observed with an approximate 30-degree angle of onset. VGN was also present. The suspect's eyes showed a lack of convergence (LOC) with his eyes not moving from center and looking straight ahead. A second LOC test provided the same results. The suspect's pupil sizes were estimated at 5.5 mm in Room Light, 7.5 mm in Near Total Darkness and 4.0 mm in Direct Light. Due to the dark coloring of the suspect's pupils, a UV Light was used for the Near Total Darkness estimate after attempting the estimate with a normal penlight. Rebound dilation was not present and his reaction to light was normal.

Vital Signs: The suspect's pulse was checked twice during the evaluation as he refused the 3rd check. Both (104 and 108 bpm) were above the DRE average range. He refused to have his blood pressure and temperature checked claiming he was not sick.

9. **Signs of Ingestion:** I did not inspect the suspect's nasal and oral cavities because the suspect stopped participating in the evaluation when in the darkroom. The suspect had a chemical-like odor on his breath.

10. **Suspect's Statements:** The suspect had been advised of his Miranda rights after being arrested and at that time agreed to answer questions. However, when asked about drug use, he gave no responses and would only stare straight ahead or look up at the ceiling.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a _____ and is unable to operate a vehicle safely.

12. **Toxicological Sample:** After completing the evaluation and as a certified State of Arizona phlebotomist, I collected a blood sample from the suspect. The sample was turned over to Officer Rohr and submitted as evidence pending delivery to the DPS Crime Laboratory for analysis.

13. **Miscellaneous:** Refer to Officer Rohr's arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Officer Nick Knoll	16667	22-019-0112	Coeur d'Alene PD	(Session XVIII - #2 PM)

Recorder/Witness	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency
Officer Justin Anderson, Post Falls PD		Idaho State Police

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Groves, Robert R.	08/10/1987	M	W	Tpr. Troy Tulleners #30467

Date Examined / Time /Location	Breath Test: Test Refused ☐	Chemical Test: Urine ☐ Blood ☒
09/15/22 / 1730 / ISP District 1 HQ	Results: 0.00 Instrument #: 65882	Test or tests refused ☐

Miranda Warning Given	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
Given by: Tpr. Tulleners		Bacon, Eggs & Toast	About noon	Just coffee 3 or 4 cups	N/A

Time now/ Actual	When did you last sleep? How long?	Are you sick or injured?	Are you diabetic or epileptic?
About 8 pm / 1735	Last night 4 or 5 hours	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☒ Yes ☐ No "A sore back"	☐ Yes ☒ No

Are you taking any medication or drugs?	Attitude:	Coordination:
☒ Yes ☐ No "I took a couple of pills for my back"	Cooperative, Relaxed	Poor, Unsteady

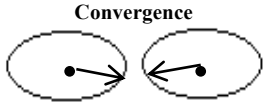
Speech:	Breath odor:	Face:
Mumbling, Slow, Slurred at times	Normal	Normal

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☐ Normal ☒ Droopy

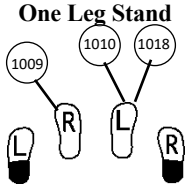
Pulse/Time	HGN	Left Eye	Right Eye
1. 58 / 1740	Lack of Smooth Pursuit	None	None
2. 56 / 1756	Maximum Deviation	None	None
3. 56 / 1815	Angle of Onset	None	None

Convergence



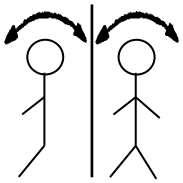
Right eye Left eye

22/30 **One Leg Stand** 24/30

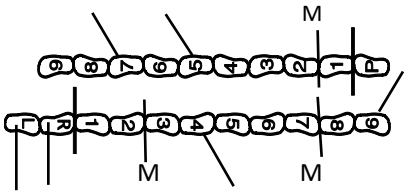


Modified Romberg Balance

Approx. 3" 3" Approx. 3" 3"



Walk and Turn Test



Slow, deliberate movements.

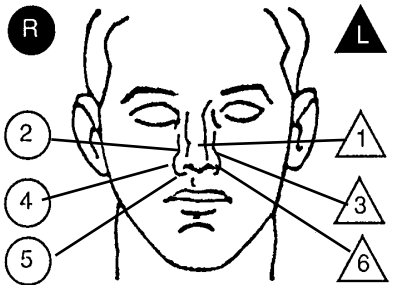
	1st Nine	2nd Nine
Cannot keep balance	2	
Starts too soon		
Stops walking		
Misses heel-toe	2	1
Steps off line	2	2
Uses arms	3	2
Actual steps taken	9	9

L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

Counted slowly.

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
36 estimated as 30 seconds	Slow, but as instructed	N/A	Lace-up shoes

Finger to Nose
(Draw lines to spots touched)



Slow hand and arm movements. Searched for tip of nose. Moved head forward.

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	2.0	3.0	2.0
Right Eye	2.0	3.0	2.0

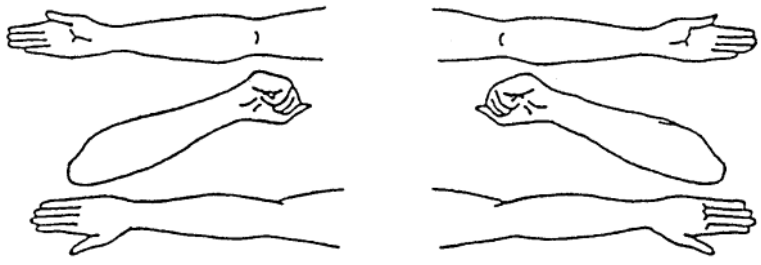
Nasal area: Clear

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Little or none visible

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature
118 / 62	97.4 °F

Muscle Tone: ☐ Near Normal ☒ Flaccid ☐ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"A couple of pills for my back"	"Just two"	About 2 pm	At home

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
09/15/22 1640	1705	1730	1845	

DRE/Officer's Signature: Nick Knoll | Reviewed/approved by / date: | DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Subject: Groves, Robert R.

1. **Location:** The drug influence evaluation was conducted at the Idaho State Police District 1 Office in Coeur d' Alene, ID. The darkroom examinations were conducted inside a restroom at that location. The area where the evaluation was conducted has smooth tile flooring and adequate lighting for conducting an evaluation.

2. **Witnesses:** Officer Justin Anderson from the Post Falls PD witnessed and recorded the entire evaluation.

3. **Breath Alcohol Test:** A breath test was administered to Groves by Trooper Tulleners prior to my arrival. The test result was a 0.00 BAC.

4. **Notification and Interview of the Arresting Officer:** On 9/15/22 at approximately 1705 hours, I was requested to contact Trooper Tulleners at the ISP District 1 Office regarding a drug influence evaluation. Upon my arrival, Trooper Tulleners advised that he had observed a vehicle operated by Groves drifting over the center line and traveling 10 mph under the posted speed limit on Highway 95. When Trooper Tulleners activated his emergency lights to stop the vehicle, it drifted over the painted fog line as if to stop but continued for approximately a half mile before finally stopping along the gravel shoulder and nearly going into a ditch. When contacted, Groves had slow, thick, slurred speech. He also noted that Groves had small, constricted pupils. He was also having difficulties with divided attention tasks which included retrieving his operator's license and vehicle registration simultaneously. When asked to exit his vehicle, Groves forgot to remove his seatbelt. Once he was able to exit his vehicle, he used it for support. Trooper Tulleners administered SFSTs and observed that Grove's balance and coordination were poor, and he was unable to complete the Walk and Turn and One Leg Stand tests as directed. Trooper Tulleners did not observe any HGN clues or VGN. During the contact with Groves, Trooper Tulleners described him as being slow and lethargic acting. While leaning against his vehicle, Groves would slowly close his eyes, and his head would lower, causing his chin to rest against his chest. No odor of an alcoholic beverage was detected on Grove's breath. When questioned about possible drug use, Groves was hesitant to answer. However, he did admit taking a couple of pills earlier in the day. Groves was arrested for DUI and transported to the ISP District Office for processing. After obtaining a breath test result of 0.00, Trooper Tulleners requested that I conduct the evaluation to free him to handle a crash investigation call.

5. **Initial Observation of the Subject:** I first observed Groves in the interview room at the ISP District Office. He appeared sleepy, and his head was nodding forward. His speech was slow, thick, slurred and faint. When he stood up from the interview chair, he lost his balance and used the desk to steady himself. He appeared to have droopy eyelids and constricted pupils. I noted that he was wearing blue jeans, lace-up brown shoes, and a black long-sleeve shirt. I informed him why I had been called and asked if he would participate in a drug evaluation. He seemed confused and I explained the process to him several times. He finally indicated that he understood my request and would participate. When asked what time he thought it was, he stated "About 8:00 pm." (The actual time was 5:35 pm). He stated that he did sleep well the night before, getting about four or five hours of sleep. He had bacon, eggs and toast about noon and drank three or four cups of coffee throughout the day.

6. **Medical Problems and Treatment:** Groves stated he had "twisted" his back about two weeks prior but had not sought medical treatment for it. When asked, he stated he felt he could perform the psychophysical tests. He further stated he had no other physical problems, and none were observed or mentioned during the evaluation. He stated he was not under the care of a doctor or dentist, was not epileptic or diabetic, and did not take insulin. He further stated he did not have any medical problems. Groves indicated he works in home remodeling and is generally in good health.

7. **Psychophysical Indicators of Impairment:** Prior to requesting Groves to perform each of the psychophysical tests, I explained and demonstrated each one and ensured that his back would not affect his ability to attempt the tests. He acknowledged that he understood the tests and could do them. The following tests were administered to Groves:

Modified Romberg Balance: During this test, Groves had a slow time estimation, estimating the passage of 30 seconds in 36 seconds. He also had a forward and backward sway and a side-to-side sway of approximately three inches in each direction.

Walk and Turn: During this test, Groves lost his balance to the right twice while in the instructions stage. During the walking stage, he missed heel to toe two times during the first nine steps on steps 3 and 8 and one time during the second nine steps at step 2. He also stepped off the line two times in each direction at steps 4 and 9 on the first nine steps, and steps 5 and 7 on the second nine steps. He also used his arms to balance three times during the first nine steps and two times on the second nine steps. His turn was completed as instructed but done with slow and deliberate steps. His walking was noticeably slow during the entire test.

One Leg Stand: While standing on his left foot and extending his right foot off the floor, Groves swayed while balancing, used his arms for balance once, and put his foot down at count 1,009. When standing on his right foot and extending his left foot off the floor, he again swayed while balancing, used his arms for balance twice, and put his foot down at counts 1,010, and 1,018. He counted slowly during the 30 second timed periods, counting to 1,022 when standing on his left foot and to 1,024 when standing on his right foot.

Finger to Nose: During this test, Groves missed the tip of his nose with the tip of his index finger on all six attempts. His arm movements were slow, and he appeared to be searching for his nose on each attempt. He touched the middle of his nose on the first attempt and missed his nose completely on the other five attempts.

8. **Clinical Indicators of Impairment:**
   Eye Signs: The eye examinations were conducted in the staff restroom which provided adequate darkness to conduct the examinations. Groves exhibited equal tracking, had equal pupil size, and did not exhibit resting nystagmus. Horizontal Gaze Nystagmus (HGN) clues and Vertical Gaze Nystagmus (VGN) were not observed. He was able to converge his eyes as instructed. During the pupil size examinations, his pupils were estimated at 2.0 mm in both eyes in Room Light, 3.0 mm in both eyes in Near Total Darkness and 2.0 mm in both eyes in Direct Light. All three estimations were below or at the low end of the DRE average ranges and constricted for the lighting conditions. Rebound dilation was not present and his reaction to light was little or none visible. He had to be reminded several times to keep his eyes open during the examinations.

   Vital Signs: Groves' pulse was measured three times during the evaluation and were 58 beats per minute (bpm), 56 bpm and 56 bpm. The results were below the DRE average range for pulse rate. His blood pressure was measured at 118/62 millimeters of mercury (mmHg), which was also below the DRE average ranges for both the systolic and diastolic range. His body temperature was measured at 97.4°, which is below the DRE average range. His muscle tone was flaccid.

9. **Signs of Ingestion:** Groves' nasal area and oral cavity were both clear. There were no indicators of injection sites on his arms and hands, and there were no other observable signs of drug ingestion.

10. **Subject's Statements:** Trooper Tulleners advised Groves of his Miranda rights and he agreed to answer questions. I confirmed he understood his rights prior to asking him questions regarding drug use. When asked what drugs he had taken, he indicated he had taken a "couple pills" at about 2 pm. When asked what kind of pills he had taken, he was not sure and only described them as helping with his back and making him sleepy. When asked if they effected his driving, he stated he "felt fine" and was driving "okay".

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that Groves is under the influence of a _____ and is unable to operate a vehicle safely.

12. **Toxicological Specimen:** As a certified phlebotomist, I collected a blood sample from Groves at approximately 1845 hours. The blood sample was submitted into evidence pending laboratory testing.

13. **Miscellaneous:** Refer to Trooper Tullener's DUI arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case #
Officer Rogan Ross	22458	22-011-0058	Arkansas DOT	(Session XVIII - #3 PM)

Recorder/Witness	Crash: ☐ None ☐ Fatal ☐ Injury ☒ Property	Arresting Officer's Agency
Cpl. Ray Triplett, Arkansas SP		Benton PD

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Hatos, Carlos Miguel	07-13-79	M	H	Officer Matthew Kuntz #31436

Date Examined / Time /Location	Breath Test: Results: .00	Test Refused ☐ Instrument #: 703558	Chemical Test: Urine ☒ Blood ☐ Oral Fluid ☐ Test or tests refused ☐
07/ 22 / 22 2110 Benton PD			

Miranda Warning Given by:	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking?	How much?	Time of last drink?
Ofc. Kuntz		Chicken sandwich	About 5 pm	Beer	1 bottle	6 pm

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
10 pm / 2115	Today	2 – 3 hours	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

Are you taking any medication or drugs?	Attitude:	Coordination:
☐ Yes ☒ No "That's a loaded question"	Cooperative, Restless	Quick, Jerky, Poor

Speech:	Breath odor:	Face:
Rapid, Slurred	Rancid	Flushed, Sweaty

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

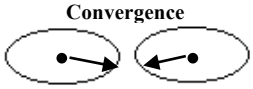
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☒ Normal ☐ Droopy

Pulse and Time

1. 108 / 2122
2. 106 / 2135
3. 106 / 2150

HGN	Left Eye	Right Eye
Lack of Smooth Pursuit	None	None
Maximum Deviation	None	None
Angle of Onset	None	None

Convergence



Right eye Left eye

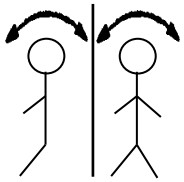
38/30 **One Leg Stand** 41/30

Counted quickly. Leg tremors. Fidgety fingers.

L	R	
3	2	Sways while balancing
2	3	Uses arms to balance
		Hopping
1	1	Puts foot down

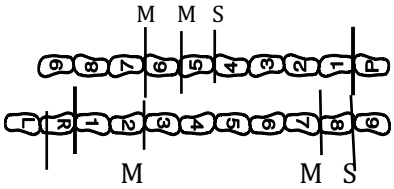
Modified Romberg Balance

Approx. 2" 2" Approx. 3" 3"



Fidgety fingers

Walk and Turn Test



Quick steps. Slammed heel to toes.

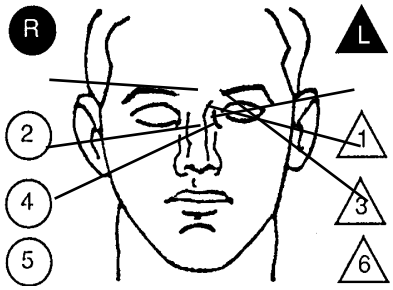
Cannot keep balance 1

Starts too soon

	1st Nine	2nd Nine
Stops walking	1	1
Misses heel-toe	2	2
Steps off line		
Raises arms	2	2
Actual steps taken	9	9

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
23 estimated as 30 seconds	Quick steps, spun around	N/A	Lace-up brown boots

Finger to Nose
(Draw lines to spots touched)



Pads #2 & 4 Pads #1 & 6

Jerky, quick movements.

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	6.5	9.0 (UV)	5.5
Right Eye	6.5	9.0 (UV)	5.5

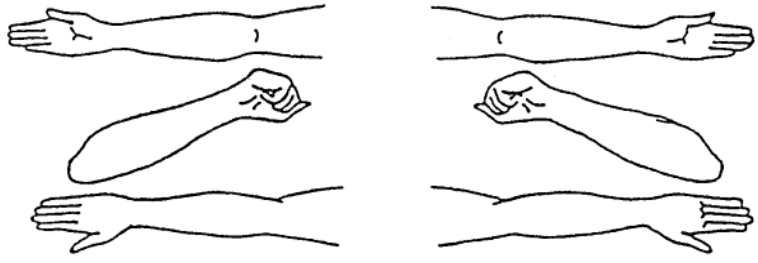
Rebound Dilation: ☐ Yes ☒ No

Nasal area: Redness

Oral cavity: Missing teeth/tooth decay

Reaction to Light: Slow

RIGHT ARM **LEFT ARM**



Nothing detected

Blood Pressure	Temperature
166 / 84	99.8°F

Muscle Tone: ☐ Normal ☐ Flaccid ☒ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"No man, I'm clean"	N/A	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
07/22/22 2015	2050	2110	2215	

Officer's Signature: *Rogan Ross*	Reviewed/approved by / date:	DRE #

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Hatos, Carlos Miguel

1. **Location:** The drug influence evaluation was conducted at the Benton Police Department in the interview room. The darkroom examinations were conducted inside a storage room at that location. The floor surface was a smooth level tile floor.

2. **Witnesses:** Cpl. Ray Triplett, a DRE instructor with the Arkansas State Police witnessed and recorded the evaluation. The arresting officer, Officer Matthew Kuntz from the Benton Police Department was present and witnessed the psychophysical and darkroom examinations.

3. **Breath Alcohol Test:** A breath test had been requested and was administered to the suspect at 2105 hours by Officer Kuntz. The result was a 0.00 % BAC.

4. **Notification and Interview of the Arresting Officer:** On 07/22/22, I was on-duty and was requested at 2050 hours to meet Officer Kuntz from the Benton PD who was requesting a DRE evaluation for a DUI suspected of being under the influence of drugs. Upon my arrival to BPD, Officer Kuntz advised he had investigated a single vehicle crash involving the suspect on N. East Street. It was determined the suspect had been driving at a high rate of speed and failed to negotiate a turn onto Military Road. His vehicle skidded across the roadway and struck a signpost and went into a ditch at that location. When contacted at the scene, the suspect appeared nervous, was very talkative, and unable to stand still. Officer Kuntz also noticed that the suspect's pupils appeared dilated for the lighting conditions. He suspected the driver may be impaired and after determining he was not injured, administered SFSTs. Neither HGN nor VGN were observed. However, the suspect showed signs of impairment on the Walk & Turn test and six clues were observed. He also had difficulty with the One Leg Stand test and two clues of impairment were observed. Officer Kuntz also conducted the Finger-to-Nose test and the suspect had quick jerky movements and was not able to touch the tip of his nose as directed. According to Officer Kuntz, the suspect was fidgety and talkative during the entire contact at the crash scene. The suspect was subsequently arrested for DUI and transported to the BPD. He consented to a breath test and after obtaining a 0.00 BAC, Officer Kuntz requested the assistance of a DRE.

5. **Initial Observation of the Suspect:** I first observed the suspect in the BPD Interview Room. I confirmed that Officer Kuntz had advised him of his Miranda warnings, and he acknowledged that he understood them. I requested the suspect to participate in a drug influence evaluation and he agreed. He was asked a few initial questions and preliminary observations were made. He stated the current time was 10:00 pm (2200 hours) and the actual time was 9:15 pm (2115 hours). He said he last slept earlier in the day for 2 or 3 hours. When asked if he had been drinking alcoholic beverages, he replied yes, explaining he drank one beer about 6:00 pm (1800 hours). His face appeared flushed and sweaty and he was very talkative. When standing, he repeatedly moved about and was frequently using his arms when talking. He was also making abrupt, quick hand movements, and was animated and restless. When he was not speaking, he appeared to be grinding his teeth. His pupils appeared dilated in the lighted room. He stated he was not blind in either eye and did not wear contacts or glasses. An initial check for HGN did not show any nystagmus clues. When asked if he was taking any medication or drugs he replied, "That's a loaded question" and then laughed. I noted he was wearing dirty jeans, a soiled white tee-shirt, and lace-up brown boots. His hands were soiled, and he looked very disheveled. I observed that his teeth were stained and several of his front teeth were missing.

6. **Medical Problems and Treatment:** The suspect stated he is not presently under the care of a doctor or dentist. He stated he is not diabetic, is not epileptic and does not take insulin. He indicated that he had no physical problems or medical issues that would prevent him from doing the drug evaluation. Nothing was observed during the evaluation to indicate he needed immediate medical care.

7. **Psychophysical Indicators of Impairment:** During the evaluation, the suspect was asked to perform each one the psychophysical tests. Prior to requesting him to perform the tests, I explained and demonstrated each one and asked if he understood the instructions. After getting a verbal confirmation, the following tests were administered to the suspect per DRE protocol:

   Modified Romberg Balance: The suspect was able to remain in the instructional position while the instructions were given. His time estimation was fast, estimating the passage of 30 seconds in 23 seconds. I asked how he had estimated the 30 seconds and he stated, "I just tried to count the numbers in my head." During the test, he swayed front to back approximately two inches in each direction, and side-to-side approximately three inches in each direction. He was also constantly moving his fingers on both hands during the test and shuffling from one foot to the other.

   Walk and Turn: The suspect did attempt to perform this test and was able to complete it. For this test a line in the tile flooring was used. During the instructions stage of the test, he was not able to maintain his balance while listening to my instructions and broke the heel-to-toe stance one time. During the walking stage of the test, he missed touching heel to toe two times during the first nine steps at steps 3 and 8 and stopped while walking at step 9. When making the turn, he took quick steps and spun around in one quick movement. On the second nine steps he stopped while walking once at step 4 and missed touching heel to toe on steps 6 and 7. He slammed his heels to his toes when walking. He also raised his arms to balance twice on the first nine steps and twice on the second nine steps. He was given the opportunity to remove his boots for the test and he elected to keep them on.

   One Leg Stand: Per DRE protocol, this test was conducted in two parts by having the suspect maintain his balance while standing on his left foot and then the right foot. While standing on his left foot and raising his right foot off the floor, he swayed while balancing three times, used his arms to balance twice, and put his foot down at count 1,014. He counted quickly, counting to 1,038 when 30 seconds had elapsed.

   During the second part of the test, standing on his right foot and extending his left foot off the floor, he swayed while balancing two times, used his arms to balance three times, and put his foot down at count 1,017. He again counted quickly, counting to 1,041 when 30 seconds had elapsed. During both attempts, leg tremors were observed. When his arms were at this sides, he constantly moved his fingers.

   Finger to Nose: The suspect was able to stand in the instructional stance while the instructions were given. The suspect did attempt to perform the test and was able to complete it. However, his finger to nose touches were not completed as instructed. He missed touching the tip of his nose with the tip of his index finger five out of six attempts (Attempts 1, 2, 4, 5, and 6). On attempt 1, he touched his upper lip. On attempt 2, he touched the right side of his nostril. On attempt 3, he did touch the tip of his nose. On attempt 4, he touched his upper lip. On attempt 5, he touched his upper lip, and on attempt 6, he touched the side of his nose. He used the pad of his fingers instead of the tip of his finger as instructed on attempts 1, 2, 4, and 6. His hand and arm movements were quick and jerky. He also talked throughout the test.

8. **Clinical Indicators of Impairment:**

   Eye Signs: The suspect's eyes were examined during the evaluation and pupil size was estimated in three different lighting conditions. He did not exhibit HGN or VGN. He was able to converge his eyes as directed. During the pupil size examinations, his pupils were estimated in Room Light at 6.5 mm in each eye, in Near Total Darkness at 9.0 mm in each eye, and in Direct Light at 5.5 mm in each eye. Because of his dark colored eyes, an ultraviolet (UV) light was used for the Near Total Darkness estimate after attempting the estimation with a normal penlight. The pupil size estimations in all three lighting levels were above the DRE average ranges. Rebound dilation was not present and he had a slow reaction to light.

Vital Signs: The suspect's pulse rates were checked three times during the evaluation and were 108, 106 and 106 beats per minute (BPM). All three results were above the DRE average range for pulse rate. His blood pressure was measured with a systolic pressure of 166 mm/Hg and a diastolic pressure of 84 mm/Hg, which were above the DRE average ranges. His body temperature was measured at 99.8° Fahrenheit, which is above the DRE average range. His muscle tone was rigid. During the vital sign examinations, he remained fidgety and was continually wiggling his legs and feet.

9. **Signs of Ingestion:** The suspect's nasal area showed redness in both nostrils. He was missing several front teeth as well as some other teeth. Tooth decay was also present. There were no indicators of injection sites on either arm.

10. **Suspect's Statements:** Officer Kuntz had advised the suspect of his Miranda rights after his arrest. I also advised him of his rights, and he agreed to answer my questions. When asked what drugs he had used, he stated, "No man, I'm clean." He then went into a lengthy discussion on how he had stopped using drugs. When asked what drugs he used when he was using them, he stated, "I used them all" then laughed.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a _____ and is unable to operate a vehicle safely.

12. **Toxicological Specimen:** After completing the evaluation, a urine sample was requested and was collected from the suspect at 2210 hours by Officer Kuntz. The sample was submitted into evidence for laboratory testing.

13. **Miscellaneous:** Refer to Officer Kuntz's report for additional details of the arrest.

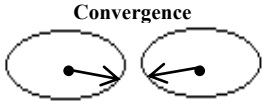
DRUG INFLUENCE EVALUATION

Evaluator: Sgt. Virgil Miller	DRE #: 10828	Rolling Log #: 22-015-0098	Evaluator's Agency: Wichita PD	Case#: (Session XVIII - #4 PM)
Recorder/Witness: Lt. Matt Payne Kansas HP	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Kansas Highway Patrol	
Arrestee's Name (Last, First, Middle): Jackson, Scott M.	Date of Birth: 06/15/1978	Sex: M	Race: W	Arresting Officer (Name, ID#): Trooper Mark Crump
Date Examined / Time /Location: 07/18/22 / 2215 / Sedgwick CO Jail	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 13240	Chemical Test: Urine ☐ Blood ☒ Test or tests refused ☐	

Miranda Warning Given ☒ Yes ☐ No Given by: Tpr Crump	What have you eaten today? Ham sandwich	When? Around noon	What have you been drinking? How much? Coffee 2 cups	Time of last drink? N/A
Time now/ Actual: 10 pm / 2218	When did you last sleep? Last night	How long? 7 hours	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☐ Yes ☒ No	
Are you taking any medication or drugs? ☐ Yes ☒ No	Attitude: Cooperative, Passive		Coordination: Poor, Unstable	
Speech: Slow, Thick	Breath odor: Normal		Face: Pale, Droopy	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☐ Normal ☒ Droopy

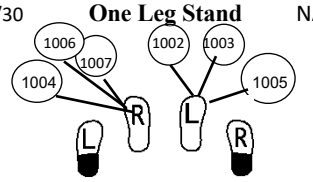
Pulse/Time	HGN	Left Eye	Right Eye
1. 54 / 2231	Lack of Smooth Pursuit	None	None
2. 54 / 2247	Maximum Deviation	None	None
3. 52 / 2309	Angle of Onset	None	None

Convergence



Right eye Left eye

NA/30 **One Leg Stand** NA/30

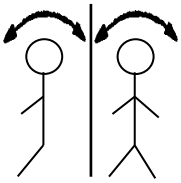


L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

Both stopped for safety reasons

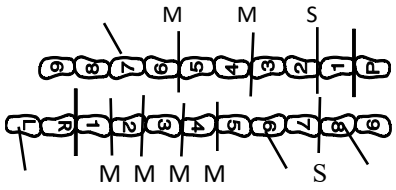
Modified Romberg Balance

Approx. 3" 3" Approx. 3" 3"



Scratching face. Licking lips

Walk and Turn Test



Slow, wobbly movements

Cannot keep balance: 1

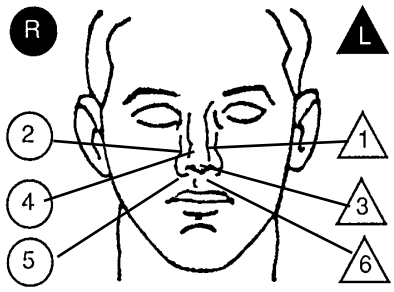
Starts too soon:

	1st Nine	2nd Nine
Stops walking	1	1
Misses heel-toe	4	2
Steps off line	2	1
Uses arms	2	3
Actual steps taken	9	9

Time Estimation 39 estimated as 30 seconds	Describe turn: Slow, walking turn	Cannot do test (explain): N/A

Type of footwear: Lace-up shoes

Finger to Nose
(Draw lines to spots touched)



Slow movements. Searched for tip of nose

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	2.0	3.0	2.0
Right Eye	2.0	3.0	2.0

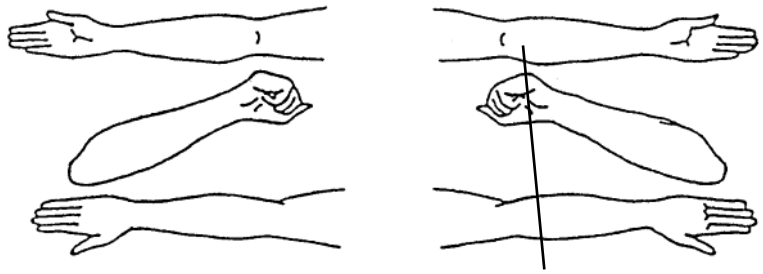
Nasal area: Clear

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Little or none visible

RIGHT ARM **LEFT ARM**



Two fresh injection marks

Blood Pressure: 122 / 68	Temperature: 97.2 °F

Muscle Tone: ☐ Near Normal ☒ Flaccid ☐ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"I didn't use anything."	N/A	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
07/18/22 2015	2110	2215	2310	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: *Virgil Miller* | Reviewed/approved by / date: | DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Rev 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Jackson, Scott M.

1. **Location:** The drug influence evaluation was conducted at the Sedgwick County Jail in Wichita, KS. The darkroom examinations were conducted inside a darkened interview room at that location. The evaluation floor surface was a level tile floor with no obstructions.

2. **Witnesses:** Lt. Matthew Payne of the Kansas Highway Patrol witnessed and recorded the evaluation.

3. **Breath Alcohol Test:** The suspect provided a breath test to Trooper Crump prior to my arrival to the jail. According to Trooper Crump, the test resulted in a .00 BAC.

4. **Notification and Interview of the Arresting Officer:** I was on-duty and requested to contact Trooper Crump of the Kansas HP at the Sedgwick County Jail regarding a DRE drug evaluation. After contacting Trooper Crump, it was determined he had observed the suspect's vehicle driving under the posted speed on Highway 36 and drifting in and out of the traffic lane. When he attempted to stop the vehicle, it continued for over a half mile before finally stopping. When Trooper Crump contacted the driver, his speech was thick and slow, and he appeared disoriented. Trooper Crump administered SFSTs at roadside and the suspect displayed poor coordination and was unable to complete the SFSTs as directed. Trooper Crump reportedly observed four clues on the Walk and Turn test and four clues on the One Leg Stand test. The driver also had difficulty touching the tip of his nose as directed on the Finger-to-Nose test. Trooper Crump did not observe HGN or VGN, but did observe that the driver had small, constricted pupils at roadside even in the darkness. The driver was subsequently arrested for DUI and transported to the Sedgwick County Jail for processing. When the breath test resulted in a .00 BAC, Trooper Crump requested a DRE for further investigation. According to Trooper Crump, the suspect denied any drug usage.

5. **Initial Observation of the Suspect:** I first observed the suspect in the Interview Room at the jail. His face appeared pale and droopy. He appeared to be cooperative and not overly concerned about his situation. When he spoke, his speech was slow, thick, and slurred. When walking to the evaluation area, his coordination was poor, and he was unsteady on his feet. He also staggered several times and used the wall to steady himself. I noticed that he had dry lips with a white coating at the corners of his mouth. He was wearing blue jeans, a blue tank top and white lace-up athletic shoes.

6. **Medical Problems and Treatment:** The suspect stated he had no physical problems and was not experiencing any medical issues. None were observed or mentioned during the evaluation.

7. **Psychophysical Indicators of Impairment:** Prior to administering the psychophysical tests, each one was demonstrated, and instructions given on how to complete the test. After each demonstration, he indicated he understood the test. Per DRE protocol, I administered the following tests:

   Modified Romberg Balance: During this test, the suspect had a slow time estimation, estimating the passage of 30 seconds in 39 seconds. Using a line in the brick wall behind and to the side of the suspect, I estimated he had an approximate 3-inch front to back and side to side sway. While completing the test, he was licking his lips and several times scratched his face and neck. At times, his head slumped forward.

   Walk and Turn: For this test, a line in the tile floor was used. The suspect lost his balance to the right once while in the instructions stage. During the walking stage he stopped while walking one time in each direction (step 7 on first nine steps and step 1 on the second nine steps). He also missed touching heel to toe four times during the first nine steps (steps 2, 3, 4, and 5) and two times during

the second nine steps (steps 4 and 6). He stepped off the line two times during the first nine steps at steps 6 and 8, and one time during the second nine steps at step 7. He also used his arms to balance two times on the first nine steps and three times during the second nine steps. He made an improper turn by using both feet in a slow deliberate walking turn. He was asked if his shoes gave him any difficulty completing the test and he stated, "No, these are my normal shoes."

One Leg Stand: During the first part of this test, standing on his left foot and extending his right foot off the floor, he swayed while balancing, used his arms for balance, and put his foot down at counts 1,004, 1,006, and 1,007. He was in danger of falling and the test was stopped for safety concerns. During the second part of the test, standing on his right foot and extending his left foot off the floor, he again swayed while balancing, used his arms for balance, and put his foot down at counts 1,002, 1,003, and 1,005. This portion of the test was also stopped for safety concerns.

Finger to Nose: During this test, the suspect missed the tip of his nose with tip of his index finger as instructed on five of the six attempts (#1, #2, #4, #5, #6). His hand and arm movements were slow, and he appeared to search for the tip of his nose on each attempt. He also brought his head forward for each attempt.

8. **Clinical Indicators of Impairment:**
   Eye Signs: Neither HGN nor VGN were present. He was able to converge his eyes as instructed. Rebound dilation was not observed. His pupils had little or none visible reaction to light. During the pupil size examinations, his pupils were estimated at 2.0 mm in each eye in Room Light (RL), 3.0 mm in each eye in Near Total Darkness (NTD), and 2.0 mm in each eye in Direct Light (DL). The RL and NTD estimations were below the DRE average ranges. The DL estimations were at the lower end of the DRE average range for the lighting condition.

   Vital Signs: The suspect's pulse rates were checked three times during the evaluation. The results were 54, 54 and 52 beats per minute (bpm). All three were below the DRE average range for pulse rate. His blood pressure was measured at 122/68, which was also below the DRE average ranges. His body temperature was measured using an oral thermometer and was 97.2°, which was below the DRE average range. The suspect was asked about his low vital signs and if he was aware of why they would be low, and he had no explanation.

9. **Signs of Ingestion:** The suspect's nasal area and oral cavity were clear. Two fresh injection marks were located on his left inner forearm. When asked about the marks, he responded "I didn't use anything." I examined the injection marks with my ski-light and both had a red, blood covering. He also had some bruising near the fresh marks.

10. **Suspect's Statements:** Trooper Crump advised the suspect of his Miranda rights and he agreed to answer questions. I readvised him of his rights prior to my questions about drug use. When asked what drugs he had taken, he again denied any usage stating, "I didn't use anything. Are we about done?"

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of a _____ and is unable to operate a vehicle safely.

12. **Toxicological Specimen:** A blood sample was collected from the suspect at 2350 hours by a certified phlebotomist and witnessed by Trooper Crump. The blood sample was submitted into evidence by Trooper Crump for laboratory testing.

13. **Miscellaneous:** After completing my evaluation, Trooper Crump advised that the suspect had an outstanding warrant for his arrest for Possession of a Dangerous Drug. Refer to Trooper Crump's report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case #
Sgt. William Loveridge	8652	22-015-0044	Lehi PD	(Session XVIII-#5 PM)

Recorder/Witness	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency
Officer Clint Parker, Park City PD		South Jordan PD

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Stevens, William A.	4/14/85	M	W	Officer Sebastion Dessert

Date Examined / Time /Location	Breath Test:	Test Refused ☐	Chemical Test: Urine ☒ Blood ☐
11/17/22 1930 County Intake	Results: .00	Instrument #: 47533	Oral Fluid ☐ Test or tests refused ☐

Miranda Warning Given	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
Given by: Ofc. Dessert		Ham sandwich & salad	About noon	Just some water	N/A

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
6:30 pm / 1935	Last night	About 8 hours	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No "Just tired"	☒ Yes ☐ No Dr. Frank for "anxiety issues"

Are you taking any medication or drugs?	Attitude:	Coordination:
☒ Yes ☐ No "Some pills the doctor gave me."	Cooperative	Poor, Unsteady

Speech:	Breath odor:	Face:
Slurred, Thick	Normal	Normal

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☒ Yes ☐ No	Vertical Nystagmus ☒ Yes ☐ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☒ Normal ☐ Droopy

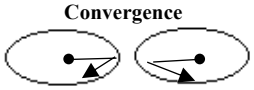
Pulse and Time

1.	52	1944
2.	56	1955
3.	56	2020

HGN

	Left Eye	Right Eye
Lack of Smooth Pursuit	Present	Present
Maximum Deviation	Present	Present
Angle of Onset	35	35

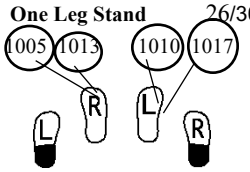
Convergence



Right eye Left eye

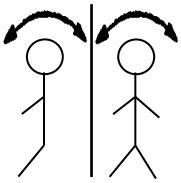
24/30

One Leg Stand 26/30

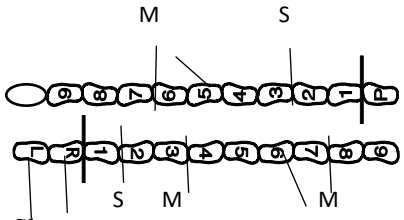


Modified Romberg Balance

Approx. 2" 2" Approx. 3" 3"



Walk and Turn Test



Slow movements

Cannot keep balance: 2

Starts too soon:

	1st Nine	2nd Nine
Stops walking	1	1
Misses heel-toe	2	1
Steps off line	1	1
Raises arms	3	2
Actual steps taken	9	10

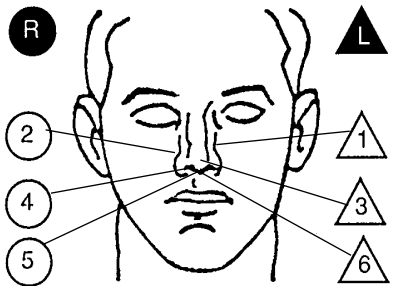
L	R	
3	2	Sways while balancing
2	3	Uses arms to balance
	1	Hopping
2	2	Puts foot down

Counted slowly

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
36 estimated as 30 seconds	Lost balance to the right	N/A	Dress shoes

Finger to Nose

(Draw lines to spots touched)



Slow hand and arm movements

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	4.5	6.5	4.0
Right Eye	4.5	6.5	4.0

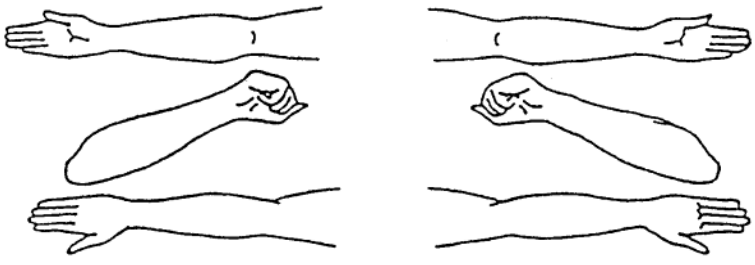
Nasal area: Clear

Oral cavity: Clear

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

RIGHT ARM **LEFT ARM**



Nothing detected

Blood Pressure	Temperature
120 / 66	99.3°F

Muscle Tone: ☐ Normal ☒ Flaccid ☐ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"Some medicine for anxiety" (Could not recall name)	"A couple of pills"	"About 5 pm"	"At home"

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
11/17/22 1826	1900	1930	2035	

Officer's Signature: William Loveridge	Reviewed/approved by / date:	DRE #

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Stevens, William A.

1. **Location:** The drug influence evaluation was conducted at the Salt Lake County Intake Center. The darkroom examinations were conducted inside a restroom at that location. The floor surface where the evaluation was conducted was a level concrete floor and free of obstructions.

2. **Witnesses:** The evaluation was witnessed and recorded by Officer Clint Parker from the Park City Police Department.

3. **Breath Alcohol Test:** A breath test was administered to the suspect by the arresting officer upon my arrival and the result was a .000 BAC.

4. **Notification and Interview of the Arresting Officer:** I was on duty and was asked to contact Officer Dessert of the South Jordan Police Department regarding a DRE evaluation. Upon my arrival, Officer Dessert advised he had observed the suspect's vehicle stopped partially in the travel lane on the South Jordan Parkway. According to Officer Dessert, the suspect was sitting in the driver's seat and had a drunk-like appearance. His speech was thick, slurred, and slow. After determining the suspect had driven his vehicle to its present location, Officer Dessert had him exit the vehicle to evaluate his sobriety. Officer Dessert requested the suspect to perform SFSTs, and he complied. Officer Dessert observed six clues of HGN, and VGN was also present. Officer Dessert was unable to detect an odor of an alcoholic beverage on the suspect's breath. The suspect had difficulty performing other SFSTs as directed. Officer Dessert observed four clues on the Walk and Turn (W&T) test and three clues on the One Leg Stand (OLS) test. Officer Dessert also had the suspect perform the Finger to Nose test, and he was unable to touch his nose as directed. Officer Dessert placed the suspect under arrest for DUI and transported him to the Salt Lake County Intake Center for processing.

5. **Initial Observation of the Suspect:** I first observed the suspect in the interview room at the Intake Center. He appeared cooperative, and when he spoke, he had slow, slurred, thick speech. His coordination was poor, and he was unsteady on his feet having to use the interview chair to steady himself and maintain his balance. He was wearing black chino pants, a long-sleeve gray dress shirt, and black slip-on dress shoes. I confirmed that he had been advised of his Miranda warnings and he agreed to answer my questions and complete the drug evaluation.

6. **Medical Problems and Treatment:** When asked about medical issues or treatment, the suspect stated he was seeing Doctor Frank for some anxiety-related issues. Other than the anxiety issues mentioned by the suspect, no other conditions were mentioned or observed during the evaluation.

7. **Psychophysical Indicators of Impairment:** Prior to asking the suspect to perform the psychophysical tests, each one was explained and demonstrated. After each demonstration, the suspect was asked if he understood the test. The following tests were administered to the suspect:

   Modified Romberg Balance: During this test, the suspect had a slow time estimation, estimating the passage of 30 seconds when 36 seconds had actually elapsed. When asked how he had estimated the passage of 30 seconds, he stated, "I just counted in my head." The suspect exhibited an approximate two-inch front to back and three-inch side to side sway.

   Walk and Turn: For this test, a painted line on the floor was used. The suspect lost his balance to the right twice while in the instructions stage. During the walking stage on the first nine steps, he stopped while walking after step one, missed touching heel to toe at step 4, stepped off the line at step 6 and missed heel to toe at step 8. He also raised his arms for balance three times. When attempting the

turn, he lost his balance to the right and had to regain his position to start the second nine steps. When attempting the second nine steps, he stopped while walking at step 2, stepped off the line at step 5, missed heel to toe at step 7. He also raised his arms for balance two times and took one additional step at the end. He had to be reminded three times to look at his feet as he walked.

One Leg Stand: This test was conducted twice, once standing on his left foot, and once standing on his right. When standing on his left foot and raising his right foot off the floor, the suspect swayed while balancing three times, used his arms to balance twice and put his foot down at 1,005 and 1,013. While standing on his right foot and raising his left foot off the floor, he swayed while balancing twice, used his arms to balance three times, hopped once, and put his foot down at 1,010, and 1,017. His counting was slow, reaching 1,024 on the left foot and 1,026 on the right.

Finger to Nose: For this test, the suspect missed the tip of his nose with the tip of his index finger as directed on attempts 1, 2 and 3. He had slow hand and arm movements.

8. **Clinical Indicators of Impairment:**
   Eye Signs: The suspect exhibited six clues of Horizontal Gaze Nystagmus (HGN) with an angle of onset of approximately 35 degrees. Vertical Gaze Nystagmus (VGN) was also present. The suspect was not able to converge his eyes as directed with both eyes moving inward then moving down and out. This test was conducted twice with the same results. During the pupil size examinations, his pupils were estimated at 4.5 mm in both eyes in Room Light, 6.5 mm in both eyes in Near Total Darkness and 4.0 mm in both eyes in Direct Light. All three are within the DRE average ranges. Rebound dilation was not present. The suspect had a slow reaction to light.

   Vital Signs: The suspect's pulse was measured three times during the evaluation. Each of the results were below the DRE average range measured at 52 bpm, 56 bpm and 56 bpm. His blood pressure was measured at 120/66 mmHg, which was below the DRE average range for the diastolic reading, and at the lower end of the DRE average range for the systolic reading. His body temperature was measured at 99.3°, which was within the DRE average range. His muscle tone was flaccid.

9. **Signs of Ingestion:** The suspect's nasal area and oral cavity were clear. There were no indicators of injection sites on his arms and hands.

10. **Suspect's Statements:** Officer Dessert had advised the suspect of his Miranda warnings when he was arrested, and he agreed to answer questions. When asked what drugs he had used, he stated he had taken "some medicine for anxiety," but insisted he was legal to drive because he had a prescription from his doctor. He could not remember the name of the medication and did not have the prescription with him when arrested. He indicated he had been using the prescription for about a week and was taking 3 or 4 pills per day. However, when asked about recent use of the medication, he stated he took "just a couple" pills at home around 5 pm.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that Stevens was under the influence of a _____ and was unable to operate a vehicle safely.

12. **Toxicological Specimen:** A urine sample was collected from the suspect by Officer Dessert. The sample was submitted into evidence pending laboratory testing.

13. **Miscellaneous:** Refer to Officer Dessert's arrest report for additional details.

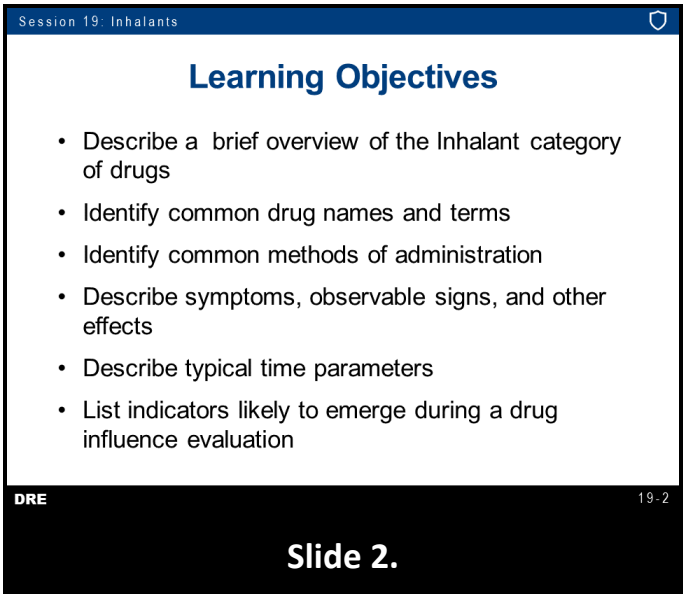
19 DRE

INHALANTS

LEARNING OBJECTIVES

- Describe a brief overview of the Inhalant category of drugs
- Identify common drug names and terms associated with this category
- Identify common methods of administration for this category
- Describe the symptoms, observable signs and other effects associated with this category
- Describe the typical time parameters, i.e., onset and duration of effects associated with this category
- List the indicators likely to emerge when the drug influence evaluation is conducted for a person under the influence of this drug category

CONTENTS



Slide 2.

A. Overview of the Category

Slide 3.

Inhalants are breathable chemicals that produce mind-altering results. Inhalants vary widely in terms of the chemical involved and the specific effects produced. Depending on the nature of the particular Inhalant, the effects produced may be similar to those of Central Nervous System (CNS) Stimulants, CNS Depressants, or Hallucinogens. There are three subcategories of Inhalants: Volatile Solvents; Aerosols; and, Anesthetic Gases.

Slide 4.

The Volatile Solvents include a large number of readily available products, none of which are intended by their manufacturers to be used as impairing substances. “Volatile” means they evaporate easily to produce fumes.

One abused Volatile Solvent is plastic cement, or “model airplane glue.” Plastic cement includes the following volatile chemicals: Phenylmethane (Toluene); Acetone; Naphtha; Aliphatic Acetates (straight-chained hydrocarbons); Hexane; Cyclohexane; and Benzene.

Other frequently-abused Volatile Solvents include: fingernail polish remover (contains Acetone); household cements and glues (rubber cements contain Benzene); lighter fluid (contains Naphtha); various glues (model airplane glue); gasoline; Kerosene; dry-cleaning fluids; paints (particularly oil or solvent based); paint thinners; spray paints; liquid correction fluid; and, engine degreasers.

Slide 5.

Aerosols are chemicals discharged from a pressurized container by the propellant force of a compressed gas. Difluoroethane (DFE) is often used for this purpose. Commonly-abused Aerosols include hair sprays, deodorants, insecticides, spray keyboard cleaner, and vegetable frying pan lubricants.

All of these abused Aerosols contain various hydrocarbon gases that produce drug effects.

Slide 6.

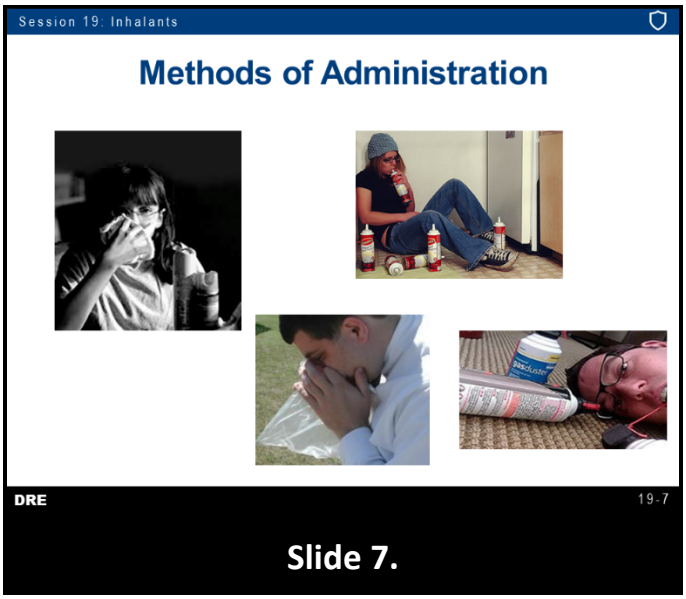
The third subcategory is Anesthetic Gases. Anesthetic Gases are drugs that abolish pain. They are used medically during surgical procedures such as childbirth, dental surgery, etc. Adults may be more frequent users of the Anesthetic Gases subcategory than of the Aerosols or Volatile Solvents.

Anesthetic Gases that sometimes are abused as Inhalants are Ether and Nitrous Oxide. Many of these substances have a long history of medical and illicit use, e.g., Ether abuse dates to the 1790's in England. Nitrous Oxide has been used since 1845. It is still used in certain dental procedures. Nitrous Oxide is a propellant for whipped cream. Drug paraphernalia stores often sell Nitrous Oxide in cartridges identical to carbon dioxide containers. They are termed by users "whippets" and are allegedly sold to purchasers as devices to propel whipped cream.

Other common Inhalants in this subcategory are Amyl Nitrite, Butyl Nitrite, and Isobutyl Nitrite. Nitrites are vasodilating substances, formally used medically to relieve heart-related chest pain. They have since been replaced by other medications. Isobutyl Nitrite and Butyl Nitrite have essentially identical effects of Amyl Nitrite. Users claim these substances enhance sexual excitement. This may occur from dilation of genital arteries (vasodilation) and relaxation of other smooth muscles. Inhalation of these produces a distinct "rush" similar to that of the related substance, Nitrous Oxide.

Anesthetic gases can dilate the blood vessels around the heart thus causing a lowered blood pressure.

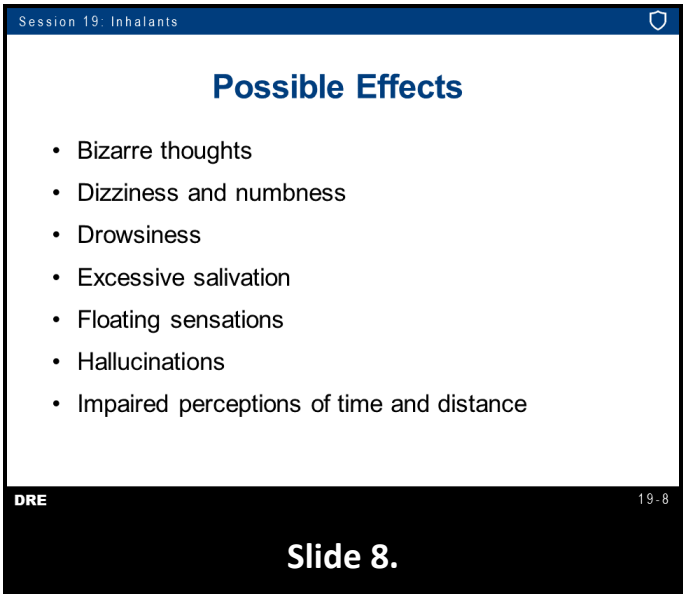
Common slang and brand names for the Nitrites are: “Rush” and “Locker Room.” Examples: Amyl Nitrite and Butyl Nitrite are sold in small glass bottles or bulbs. The user simply opens the bottle and breathes in the fumes. They have been marketed in drug paraphernalia stores as room deodorizers.



Slide 7.

Inhalants obviously are administered by breathing or inhaling the fumes. Some are administered directly from the source. Some are soaked into rags, handkerchiefs, or tissue paper for repeated inhalation. Some are placed in paper or plastic bags which the user places over the face or head. These may be placed in twist lock beverage containers. Some are used by breathing the fumes or vapors from balloons. Some common street names Inhalant users use are huffing, hacking, ballooning and glading.

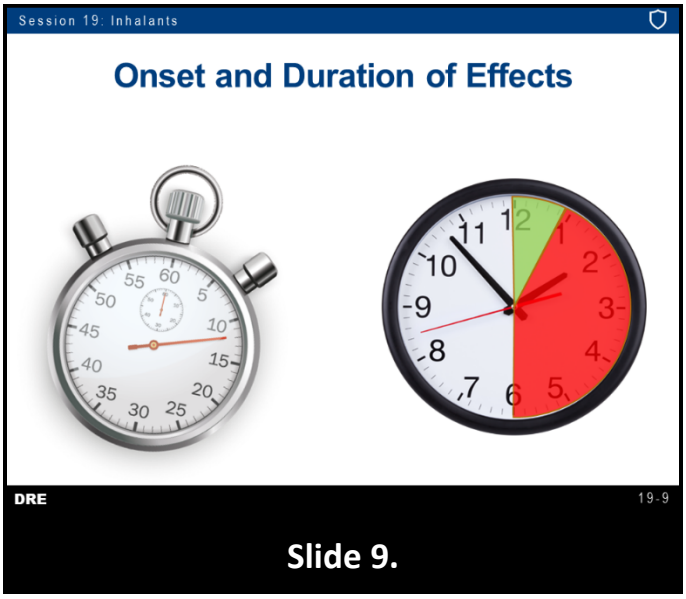
B. Possible Effects of Inhalants



Slide 8.

The effects of Inhalants vary somewhat from one substance to another. In fact, many of the Inhalants are classified as Depressants in medical texts. Their effects, consequently, often mirror alcohol intoxication. Common effects of Inhalants include bizarre thoughts, impaired perceptions of time and distance, dizziness and numbness, drowsiness, excessive salivation, floating sensations, and hallucinations. Persons under the influence of Inhalants may appear confused, disoriented, and/or lose consciousness.

C. Onset and Duration of Effects



Slide 9.

Inhalants' effects are felt virtually immediately.

Duration depends on the particular substance. The effects of Nitrous Oxide last 5 minutes or less. Amyl Nitrite and Isobutyl Nitrite produce effects that last a few seconds up to 20 minutes. Glue, paint, gasoline, and other commonly-abused Inhalants produce effects that last several or more hours.

D. Overdose Signs and Symptoms

Slide 10.

There is a risk of death due to overdose of Inhalants.

All Volatile Solvents make the heart more sensitive to adrenaline. This sometimes causes a dangerous cardiac arrhythmia. The term “Sudden Sniffing Death Syndrome” (SSDS) refers to sudden death by cardiac arrest from using inhalants.

Some Inhalants will depress the central nervous system to the point where respiration ceases. Others can produce instant death from heart failure.

Overdoses of Inhalants frequently induce nausea. If the user vomits while he or she is unconscious, death can result from aspiration of the vomitus.

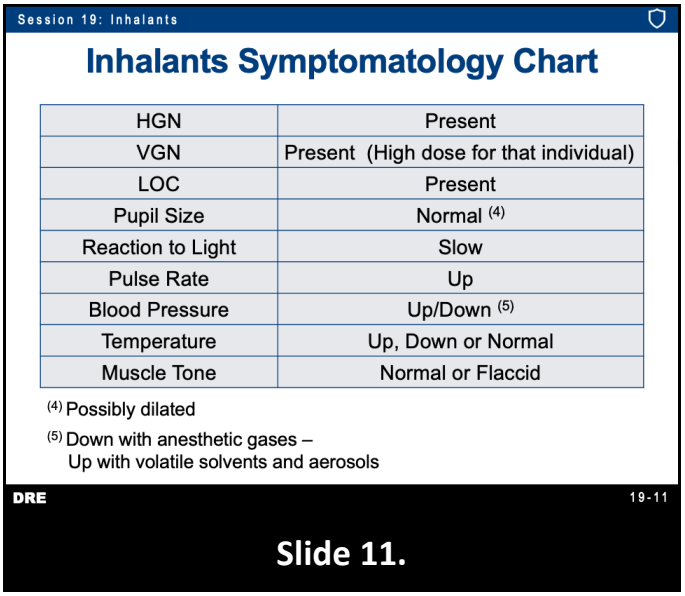
Death can also result indirectly, if a person places a plastic bag over the head, loses consciousness, and suffocates.

Long-term abuse of Inhalants can cause central nervous system dysfunction and greatly reduce mental and physical abilities.

Evidence also exists of liver, kidney, bone, and bone marrow damage resulting from long-term Inhalant abuse.

There are no well-defined withdrawal symptoms for these substances. Physical dependence has not been documented, although habituation is common.

E. Expected Results of the Evaluation



Slide 11.

With Inhalants, there is significant variation in effects from one substance to another.

Observable Evidence of Impairment: Eye Exam: Horizontal Gaze Nystagmus (HGN) will generally be present.

Vertical Gaze Nystagmus (VGN) may be present.

Lack of Convergence (LOC) will be present.

Psychophysical Exercise

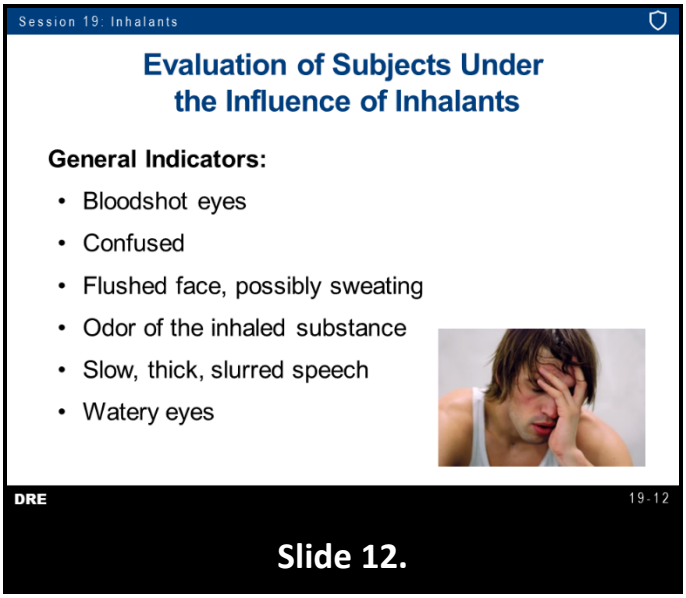
Drug Evaluation Tests: Performance on the Modified Romberg Balance (MRB), Walk and Turn (WAT), One Leg Stand (OLS), and Finger to Nose (FTN) tests will generally be impaired.

Vital Signs: Pulse will be up. Pulse increase is due to many factors, including oxygen displacement. The heart may beat faster in order to supply body tissues with a sufficient supply of oxygen. Blood pressure will be up or down.

The lowering of blood pressure by Anesthetic Gases is due to their vasodilation effect. The heart compensates for this vasodilation by increasing its heart rate. Effect on body temperature may be up, down, or DRE expected range.

Dark Room: Pupil size will be normal (DRE Expected Range) but may be dilated. Reaction to light generally will be slow. Anesthetic Gases may produce some dilation, although usually not to the extent seen with CNS Stimulants or Hallucinogens. No Inhalants produce pupillary constriction.

Muscle Tone: Muscle tone can be either normal or flaccid. Anesthetic gases normally cause the muscles to be flaccid.



Slide 12.

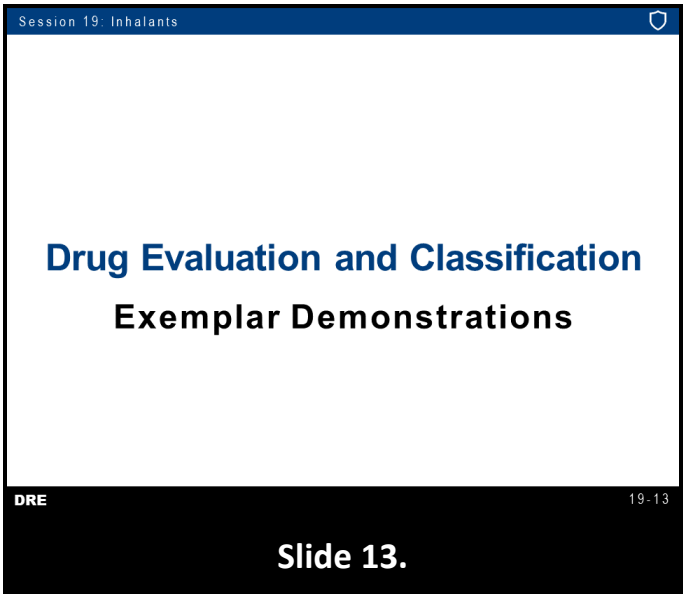
- Bloodshot eyes
- Confused
- Disoriented
- Flushed face, possibly sweating
- Intense headaches
- Muscle weakness
- Non-communicative
- Odor of the inhaled substance
- Possible nausea
- Residue of the substance around the face and nose and on the hands or clothing
- Slow, thick, slurred speech
- Watery eyes

Speech usually clears up quickly when substance is no longer being inhaled.

For more information and details regarding possible effects refer to:

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

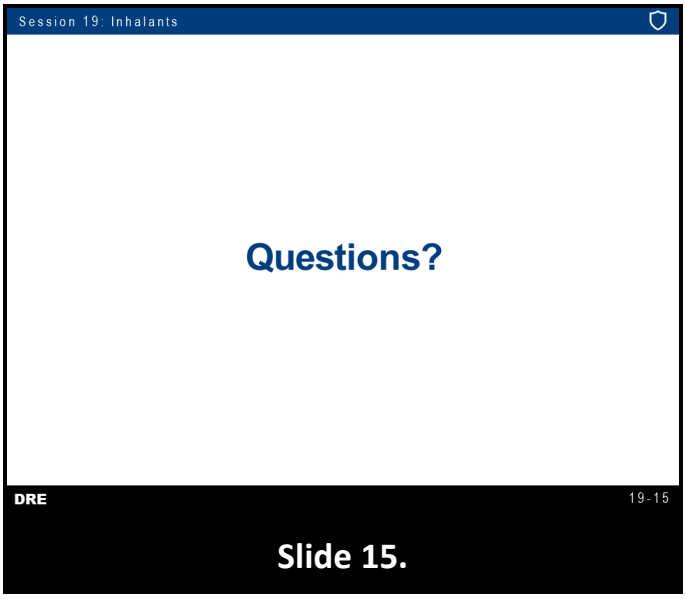
F. Review of the DEC Program Exemplars



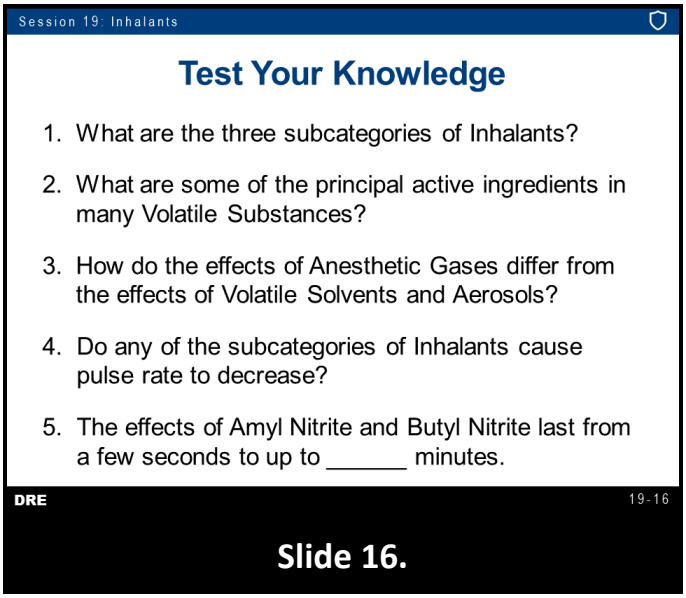
Slide 13.

The DRE narrative report should be detailed and complete, which clearly articulates the opinion of the DRE.

Slide 14.



Slide 15.



Slide 16.

Test Your Knowledge

1. What are the three subcategories of Inhalants?
2. What are some of the principal active ingredients in many Volatile Substances?
3. How do the effects of Anesthetic Gases differ from the effects of Volatile Solvents and Aerosols?
4. Do any of the subcategories of Inhalants cause pulse rate to decrease?
5. The effects of Amyl Nitrite and Butyl Nitrite last from a few seconds to up to _____ minutes.

DRUG INFLUENCE EVALUATION

Evaluator: Lt. Joel Holt	DRE #: 15182	Rolling Log #: 22-008-0062	Evaluator's Agency: Rio Rancho PD	Case#: (Session XIX - #1
Recorder/Witness: Captain Micah Doering New Mexico SP	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Albuquerque Police Department	
Arrestee's Name (Last, First, Middle): Whippets, Walter Huffen	Date of Birth: 06/10/1999	Sex: M	Race: NA	Arresting Officer (Name, ID#): Officer Tim McCarson #6694
Date Examined / Time /Location: 9/04/22 / 2240 / Albuquerque PD	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 17882	Chemical Test: Urine ☐ Blood ☒ Test or tests refused ☐	

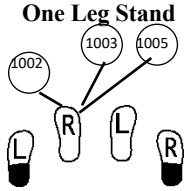
Miranda Warning Given: ☒ Yes ☐ No Given by: Ofc. McCarson	What have you eaten today? "Couple hot dogs"	When? About 4 pm	What have you been drinking? How much? Dr. Pepper Two bottles	Time of last drink? N/A
Time now/ Actual: 9 PM? / 2242	When did you last sleep? This morning	How long? 4 or 5 hours	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No	Are you under the care of a doctor or dentist? ☐ Yes ☒ No		
Are you taking any medication or drugs? ☐ Yes ☒ No	Attitude: Cooperative	Coordination: Poor, Unstable		
Speech: Slurred, Confused	Breath odor: Rancid	Face: Flushed, Gold paint on chin		
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☒ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal	
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus: ☐ Yes ☒ No	Vertical Nystagmus: ☐ Yes ☒ No	Able to follow stimulus: ☒ Yes ☐ No	Eyelids: ☒ Normal ☐ Droopy

Pulse/Time	HGN	Left Eye	Right Eye
1. 104 / 2248	Lack of Smooth Pursuit	Present	Present
2. 100 / 2319	Maximum Deviation	Present	Present
3. 96 / 2338	Angle of Onset	40	40

Convergence

Right eye Left eye

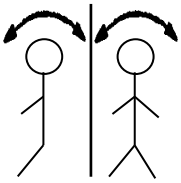
NA/30 **One Leg Stand** NA/30



L R
☒ ☐ Sways while balancing
☒ ☐ Uses arms for balance
☒ ☐ Hopping
☒ ☐ Puts foot down
Nearly fell. Test stopped

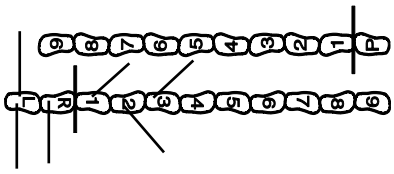
Modified Romberg Balance

Approx. 4" Approx. 4" 4" 4"



Extreme sway. Used wall.

Walk and Turn Test

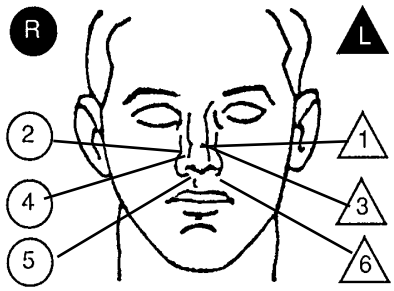


Lost balance three times. Nearly fell and test stopped.

	1st Nine	2nd Nine
Cannot keep balance	3	
Starts too soon		
Stops walking		
Misses heel-toe	3	
Steps off line	3	
Uses arms	3	
Actual steps taken	NA	

Time Estimation: 22 estimated as 30 seconds	Describe turn: N/A	Cannot do test (explain): Nearly fell after three steps
		Type of footwear: Lace-up black boots

Finger to Nose
(Draw lines to spots touched)



Done seated for safety reasons

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	4.0	7.0	3.5
Right Eye	4.0	7.0	3.5

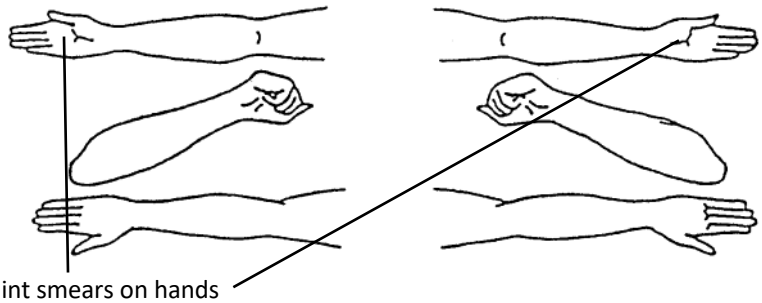
Nasal area: Redness

Oral cavity: Red

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

RIGHT ARM **LEFT ARM**



Gold paint smears on hands

Blood Pressure: 174 / 72	Temperature: 98.8 °F

Muscle Tone: ☐ Near Normal ☒ Flaccid ☐ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"I did a little Gold, but nothing else"	"About two cans"	Prior to stop	In the park

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
09/04/22 2135	2205	2240	2345	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: Lt. J. Holt | Reviewed/approved by / date: | DRE# 15182

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☒ Inhalant
☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Whippets, Walter Huffen

1. **Location:** The evaluation was conducted in the interview room at the Albuquerque Police Department. The room is well illuminated and has a smooth tile floor with no obstructions. The darkroom examinations were conducted in an adjacent interview room.

2. **Witnesses:** Captain Micah Doering of the New Mexico State Police witnessed and recorded the entire evaluation. Officer Tim McCarson, who was the arresting officer, observed the evaluation through the psychophysical tests until having to respond to a call for service.

3. **Breath Alcohol Test:** The arresting officer, Officer Tim McCarson administered a breath test to the suspect prior to the start of the evaluation obtaining a 0.00% result.

4. **Notification and Interview of the Arresting Officer:** I was on duty and requested to contact Officer McCarson at the Albuquerque PD regarding a drug evaluation. Upon my arrival, Officer McCarson advised he had observed the suspect's vehicle driving without headlights and traveling 15 mph under the posted speed on Candelaria Road NE. Officer McCarson further reported that during the initial contact, he did not detect an odor of an alcoholic beverage on the suspect's breath, but he did observe gold paint on the suspect's chin, hands, and shirt sleeve. He also noted that the suspect's speech was slurred, and he appeared to be confused and disoriented. When asked where he was, the suspect thought he was in Rio Rancho. According to Officer McCarson, when the suspect exited his vehicle, he had poor balance and coordination. After determining that the suspect had no existing medical conditions, injuries, or physical defects, Officer McCarson attempted to administer SFSTs. He was able conduct the Horizontal Gaze Nystagmus (HGN) but was unable to administer any other tests due to the suspect's poor balance. He reported observing six clues of HGN. Officer McCarson requested the suspect to count backwards from 79 to 59 and he was not able to count correctly, missing numbers and getting the order mixed up. Officer McCarson arrested the suspect for DWI and advised him of his Miranda warnings. When securing the suspect's vehicle, two partially empty cans of gold spray paint were found in the passenger seat under some clothing. When asked about the paint cans, the suspect claimed they belonged to a friend. Officer McCarson, who is a DRE, requested DRE assistance due to short staffing on his shift.

5. **Initial Observation of the Suspect:** I first observed the suspect in the interview room at the APD. I immediately noticed that his speech was slurred, and he was mumbling his words when he spoke. He was exhibiting poor balance while standing and several times used the chair and interview table to steady himself. I noted he was wearing black cargo pants, a gray sweatshirt, and black lace-up boots. He had gold paint smears on his chin and hands and had gold paint marks on his left shirt sleeve. I introduced myself and asked if he would consent to a drug evaluation, which he agreed to do after I explained the DRE evaluation process. I confirmed he had been informed of his Miranda warnings and he agreed to answer my questions. I asked if he had any physical injuries or defects and he advised that he did not but mentioned that he did have a headache and at times felt lightheaded. He advised he was not under the care of a doctor or dentist. He told me he had eaten a couple of hot dogs around 4 pm and had drank 2 or 3 Dr. Pepper's earlier in the evening. When asked if he was taking any medications or drugs, he indicated he was not, but when asked if he took insulin, he responded "What's that?" He advised he was not blind in either eye, did not wear corrective lenses and had good vision. During my initial contact with the suspect, his coordination remained poor and unstable.

6. **Medical Problems and Treatment:** The suspect was asked about any injuries or medical conditions and he indicated he had none. Other than him mentioning his headache and being lightheaded, no other conditions were reported during the evaluation. I inquired if he needed medical assistance for his headache and he indicated he did not and stated, "No, I'm okay."

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to the suspect prior to him attempting them. Prior to attempting each test, I confirmed that he understood the instructions. The following tests were requested:

   Modified Romberg Balance: When attempting this test, the suspect had extreme sway both front to back and side to side. Using a vertical line in the wall behind him, I estimated his sway at approximately 4" in each direction. When he tilted his head back to start the test, he immediately reached out to the wall to steady himself. His time estimation was fast, estimating the passage of 30 seconds in 22 seconds. When asked how he estimated the 30 seconds, he indicated he tried to picture a clock in his head.

   Walk & Turn: During this test, the suspect started out in the instructions stage. However, while in that position, he lost his balance three times. Once he was instructed to begin the walking stage, he stepped off the line with his first three steps, missing heel to toe on each step, and used his arms to balance on each of the three steps. Due to his difficulty in performing the test, it was stopped for his safety.

   One Leg Stand: During this test, when the suspect attempted to stand on his left foot and raise his right foot, he quickly put his foot down on counts 1,002, 1,003, and 1,005 to maintain his balance. He also swayed and used his arms for balance on each attempt to raise his right foot. He started hopping at count 1,006 and lost his balance and the test was stopped for safety reasons. The second part of the test, having the suspect stand on his right foot and raise his left foot, was not attempted due to his balance problems and for safety concerns.

   Finger to Nose: For safety reasons, this test was conducted with the suspect in a seated position. He was not able to touch the tip of his nose with the tip of his index finger as instructed on any of the six attempts. He also repeatedly opened his eyes even though he was instructed several times to keep his eyes closed.

8. **Clinical Indicators of Impairment:**

   Eye Signs: All six clues of HGN were observed with an estimated angle of onset of 40 degrees. Vertical Gaze Nystagmus (VGN) was not present. A Lack of Convergence (LOC) was observed with the test being conducted twice with the same results. His pupil sizes were within the DRE average ranges in all three lighting levels, estimated at 4.0 mm in both eyes in Room Light, 7.0 mm in both eyes in Near Total Darkness, and 3.5 mm in both eyes in Direct Light. His pupil reaction to light was slow. His eyes were red and bloodshot.

   Vital Signs: The suspect's pulse rates were checked three times during the evaluation and were 104 beats per minute (bpm), 100 bpm and 96 bpm. All three were above the DRE average range for pulse rate. His blood pressure of 174/72 was also above the DRE average ranges. His body temperature was measured at 98.8 °F and was within the DRE average. His muscle tone was flaccid.

9. **Signs of Ingestion:** The suspect's breath was rancid with a paint-like odor. Gold paint residue was located on the palms of both his hands and his fingers and was visible on his shirt sleeve. His nasal area was red and inflamed and his oral cavity was red.

10. **Suspect's Statements:** After explaining my observations to the suspect, I again asked him about drug use. He claimed he did not use any drugs, but stated, "I did a little Gold, but nothing else" and then laughed out loud. The suspect freely provided detailed information about his use of various inhalants and indicated that he has been "huffing" for about 5 or 6 years.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect was under the influence of an Inhalant and unable to operate a vehicle safely.

12. **Toxicological Sample:** After completing my evaluation, the suspect was transported to the UNM Hospital where a blood sample was collected. The sample was submitted to the State Crime Lab for analysis.

13. **Miscellaneous:** Refer to Officer McCarson's arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator: Trooper Tarek Chase	DRE #: 22561	Rolling Log #: 22-009-0032	Evaluator's Agency: North Dakota HP	Case#: (Session XIX - #2
Recorder/Witness: Lt. Sid Mann, Jamestown PD	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Fargo PD	
Arrestee's Name (Last, First, Middle): Poppers, Jack Dunn	Date of Birth: 09/10/2002	Sex: M	Race: W	Arresting Officer (Name, ID#): Officer Caleb Korb
Date Examined / Time /Location: 10/24/22 / 0130 / Fargo PD	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 57882	Chemical Test: Urine ☒ Blood ☐ Test or tests refused ☐	

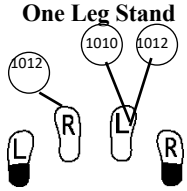
Miranda Warning Given: ☒ Yes ☐ No Given by: Ofc. Korb	What have you eaten today? Fried Chicken	When? About 6 pm	What have you been drinking? How much? Water Couple of bottles	Time of last drink? N/A
Time now/ Actual: Midnight / 0135	When did you last sleep? Yesterday afternoon	How long? 4 hours	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☐ Yes ☒ No	
Are you taking any medication or drugs? ☐ Yes ☒ No "Nope, drugs are bad for you dude"	Attitude: Cooperative		Coordination: Poor, Staggering at times	
Speech: Slow, Slurred	Breath odor: Chemical-like		Face: Flushed, Sweaty	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☒ Bloodshot ☒ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus: ☐ Yes ☒ No	Vertical Nystagmus: ☐ Yes ☒ No	Able to follow stimulus: ☒ Yes ☐ No	Eyelids: ☒ Normal ☐ Droopy

Pulse/Time	HGN	Left Eye	Right Eye
1. 98 / 0142	Lack of Smooth Pursuit	Present	Present
2. 96 / 0158	Maximum Deviation	Present	Present
3. 92 / 0228	Angle of Onset	35	35

Convergence

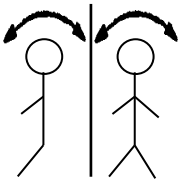
Right eye Left eye

NA/30 **One Leg Stand** NA/30



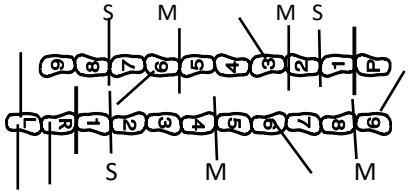
Modified Romberg Balance

Approx. 4" 4" Approx. 4" 4"



Kept eyes open

Walk and Turn Test

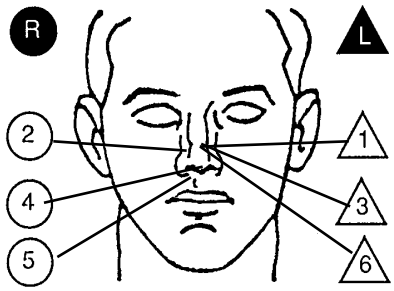


	1st Nine	2nd Nine
Cannot keep balance	3	
Starts too soon		
Stops walking	1	2
Misses heel-toe	2	2
Steps off line	2	2
Uses arms	3	2
Actual steps taken	9	9

L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down
Nearly fell. Tests stopped

Time Estimation: 36 estimated as 30 seconds	Describe turn: Lost balance to the left	Cannot do test (explain): N/A	Type of footwear: Hiking type boots

Finger to Nose
(Draw lines to spots touched)



Wrong hands with attempts 5 & 6

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	5.0	6.0	4.0
Right Eye	5.0	6.0	4.0

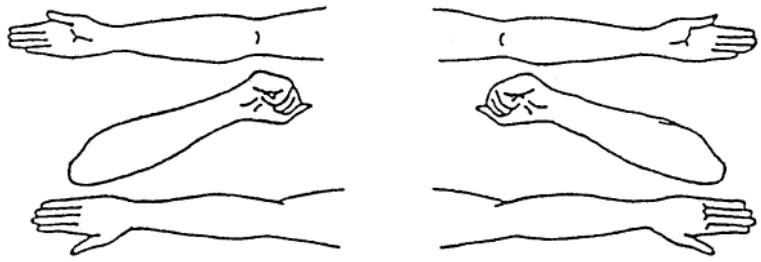
Nasal area: Red, runny nose

Oral cavity: Redness

Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure: 144 / 94	Temperature: 99.0 °F

Muscle Tone: ☐ Near Normal ☒ Flaccid ☐ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"Dust off and some other stuff"	Not sure	About midnight	Friends house

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
10/24/22 0100	0115	0130	0235	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: T.W. Chase | Reviewed/approved by / date: | DRE#

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☒ Inhalant
☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Poppers, Jack Dunn

1. **Location:** The evaluation was conducted in the Interview Room at the Fargo Police Department, Fargo, ND. The Interview Room was well illuminated and had a smooth tile floor with no obstructions. The darkroom examinations were conducted in the staff restroom.

2. **Witnesses:** Lt. Sid Mann of the Jamestown PD witnessed and recorded the evaluation. The arresting officer, Caleb Korb of the Fargo PD observed the darkroom examinations.

3. **Breath Alcohol Test:** Officer Korb administered a breath test to the suspect prior to my arrival and obtained a .00 BAC result.

4. **Notification and Interview of the Arresting Officer:** On 10/24/22 at approximately 0115 hours, I was contacted by dispatch and asked to contact Officer Korb at the Fargo PD who was requesting DRE assistance with DWI arrest. When I contacted Officer Korb he stated he had observed the suspect's vehicle cross the center line numerous times on 45th Street. When he attempted to stop the vehicle, the driver was slow to respond. The vehicle travelled approximately three blocks before pulling to the right and finally stopping. During the three block distance, the vehicle continued to drift in and out of its lane. Officer Korb stated that when he contacted the driver, he did not detect an odor of an alcoholic beverage on the driver's breath but did smell a distinct chemical-like odor coming from the vehicle. Officer Korb further stated that the driver was slow to respond to questions and appeared confused and disoriented. Officer Korb administered SFSTs and observed six HGN clues with an early angle of onset. He also observed five clues during the WAT test. The suspect was unable to complete the OLS due to poor balance and the test was stopped for safety reasons. Officer Korb also administered the Finger to Nose test and stated the suspect had a difficult time touching the tip of his nose on each of the attempts. Officer Korb asked the suspect about alcohol and drug consumption and he denied using either. He did tell Officer Korb that he occasionally likes to huff canned air duster to help him relax. Officer Korb subsequently arrested the suspect for DWI and transported him to Fargo PD for processing. After obtaining a 0.00 BAC, Officer Korb requested the assistance of a DRE.

5. **Initial Observation of the Suspect:** I first observed the suspect at Fargo PD in the Interview Room. His speech was slow and slurred at times. His coordination appeared to be poor and he was unstable on his feet. Several times he staggered and used the wall to steady himself. I also noted that the suspect's eyes were watery and bloodshot. I introduced myself and asked if he would be willing to participate in a DRE evaluation. He agreed to do so and asked about how long it would take. I asked if he had been advised of his Miranda rights and he stated, "Uh-huh. I already know them. But I'm not a criminal." The suspect stated he did not have any injuries or physical defects and that he was not under the care of a doctor or dentist. He stated he had eaten some fried chicken and drank two bottles of water around 6 p.m. When asked if he was taking any medications or drugs, he stated, "Nope, drugs are bad for you dude."

6. **Medical Problems and Treatment:** The suspect stated he felt light-headed but declined assistance when asked if he needed medical care. He did not report any other medical conditions, and none were observed during the evaluation.

7. **Psychophysical Indicators of Impairment:** Prior to each test, I explained and demonstrated the test to the suspect. Each time he acknowledged that he understood the instructions. The following psychophysical tests were administered to the suspect:

Modified Romberg Balance: The suspect had a 4-inch side-to-side and front-to-back sway. His time estimation was slow, estimating 30 seconds in 36 seconds. When asked how he estimated 30 seconds, he stated, "I counted one-Mississippi, two-Mississippi, but I got a little messed up." The suspect kept his eyes open during the entire test despite being reminded several times to keep them closed.

Walk & Turn: The suspect was given an opportunity to remove his boots before beginning the test, but he stated they were okay and wanted to keep them on. The suspect lost his balance during the instruction stage three times. Once he was told to begin, he stopped walking once, missed heel-to-toe twice, and stepped off the line twice on the first nine steps. He also used his arms to balance three times. The suspect also lost his balance while turning, staggering to his left. Once regaining his balance and continuing the test, he stopped while walking twice, missed heel-to-toe twice, and stepped off the line twice. He also used his arms to balance two times.

One Leg Stand: While standing on his left foot, the suspect swayed while balancing three times, used his arms for balance three times, and put his foot down at count 1,012 and nearly fell. At that point, the test was stopped for his safety. While standing on his right foot, the suspect swayed while balancing twice, used his arms for balance three times, and put his foot down at counts 1,010 and 1,012 and again nearly fell. This portion of the test was also stopped for safety reasons.

Finger to Nose: During this test, the suspect missed touching the tip of his nose with the tip of his index finger on five of the six attempts. He also used his left hand when instructed to use his right hand on attempt #5 and used his right hand when instructed to use his left hand on attempt #6.

8. Clinical Indicators of Impairment:

Eye Signs: The suspect had six clues of HGN with an angle of onset of approximately 35 degrees. He had a lack of convergence with his eyes moving downward then back toward center. The test was conducted twice with the same results. His pupil sizes were estimated in three lighting conditions and were: 5.0 mm in Room Light; 6.0 mm in Near Total Darkness; and 4.0 mm in Direct Light. All were within the DRE average ranges. He had a slow reaction to light. His eyes were bloodshot and watery.

Vital Signs: The suspect's pulse rates were checked three times during the evaluation and were measured at 98 beats per minute (bpm), 96 bpm, and 92 bpm. All three were above the DRE average ranges. His blood pressure was measured at 144/94, which was also above the DRE average ranges. The suspect's body temperature was measured at 99.0 degrees, which was within the DRE average range. His muscle tone was flaccid.

9. Signs of Ingestion: The suspect had a chemical-like odor on his breath and clothes. He also had a redness in his oral cavity. His nasal area was also red, and he had a runny nose.

10. Suspect's Statements: I discussed my evaluation results with the suspect and again asked him about drug use. He eventually admitted being with some friends that were using Dust Off and some "other stuff." He first claimed he did not use any of it because it made him light-headed, but then admitted using some at about midnight, but was not sure how much he had used.

11. DRE's Opinion: It is my opinion as a certified Drug Recognition Expert that the suspect was under the influence of an Inhalant and unable to operate a vehicle safely.

12. Toxicological Sample: The suspect provided a urine sample which was sealed in the lab-provided collection kit and placed into evidence pending submission to State Crime Laboratory for analysis.

13. Miscellaneous: Refer to Officer Korb's DUI arrest report for additional details.

DRUG INFLUENCE EVALUATION

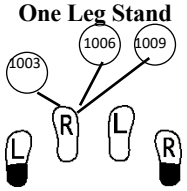
Evaluator: Tpr. Nick Schweers	DRE #: 31358	Rolling Log #: 22-013-0062	Evaluator's Agency: Maryland State Police	Case#: (Session XIX - #3)
Recorder/Witness: Cpl. Eric Trumbauer, Anne Arundel CO Police	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Maryland Transportation Authority (MTA)	
Arrestee's Name (Last, First, Middle): Huffer, Ima	Date of Birth: 06/10/1999	Sex: F	Race: W	Arresting Officer (Name, ID#): Sr. Officer William Alexander #16454
Date Examined / Time /Location: 6/14/22 / 2135 / Anne Arundel CO Police	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 17220	Chemical Test: Urine ☐ Blood ☒ Test or tests refused ☐	
Miranda Warning Given: ☒ Yes ☐ No Given by: Tpr. Schweers	What have you eaten today? Pizza	When? About 7 pm	What have you been drinking? How much? Rockstar Energy drink One can	Time of last drink? N/A
Time now/ Actual: Midnight? / 2140	When did you last sleep? Last night	How long? About 8 hours	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☐ Yes ☒ No	
Are you taking any medication or drugs? ☐ Yes ☒ No "I don't do drugs"	Attitude: Cooperative, Indifferent		Coordination: Poor	
Speech: Slurred, Rambling	Breath odor: Chemical-like		Face: Flushed	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☒ Bloodshot ☐ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus: ☐ Yes ☒ No	Vertical Nystagmus: ☐ Yes ☒ No	Able to follow stimulus: ☒ Yes ☐ No	Eyelids: ☒ Normal ☐ Droopy

Pulse/Time		HGN	Left Eye	Right Eye
1. 96	2142	Lack of Smooth Pursuit	Present	Present
2. 94	2158	Maximum Deviation	Present	Present
3. 92	2218	Angle of Onset	40	40

Convergence

Right eye Left eye

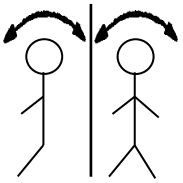
38/30 **One Leg Stand** NA/30



L R
☒ ☐ Sways while balancing
☒ ☐ Uses arms for balance
☒ ☐ Hopping
☒ ☐ Puts foot down
Nearly fell. Right foot test not attempted for safety reasons.

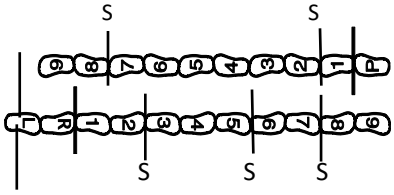
Modified Romberg Balance

Approx. 3″ 3″ Approx. 3″ 3″



Laughing during test

Walk and Turn Test

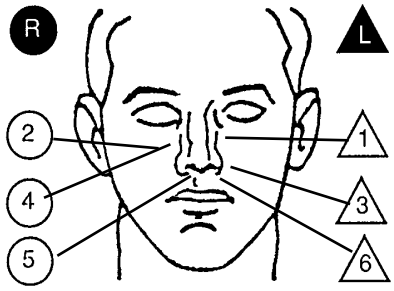


Reminded to count steps out loud. Laughed several times during test.

	1st Nine	2nd Nine
Cannot keep balance	2	
Starts too soon	1	
Stops walking	3	2
Misses heel-toe		
Steps off line		
Uses arms	3	4
Actual steps taken	9	9

Time Estimation: 33 estimated as 30 seconds	Describe turn: Slow and deliberate	Cannot do test (explain): N/A
		Type of footwear: Black lace-up boots

Finger to Nose
(Draw lines to spots touched)



Pronounced sway. Used pads of fingers. Laughing.

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	5.0	7.5	3.5
Right Eye	5.0	7.5	3.5

Nasal area: Redness

Oral cavity: Red

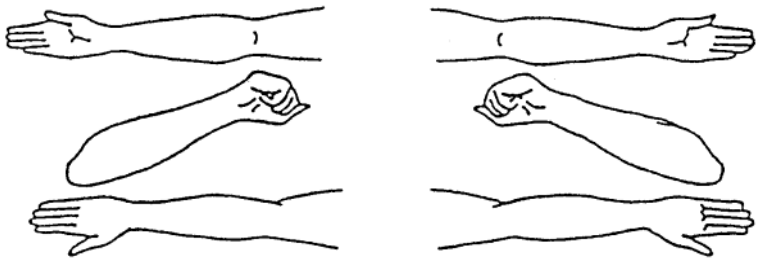
Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

Blood Pressure	Temperature
118 / 62	98.0 °F

Muscle Tone: ☐ Near Normal ☒ Flaccid ☐ Rigid

RIGHT ARM **LEFT ARM**



Chemical-like smell on hands and clothes

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"I did some whippets with friends"	"Don't remember"	About 8 pm	Friend's house

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
06/14/22 2015	2100	2135	2230	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: *Nick Schweers* | Reviewed/approved by / date: | DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☒ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Subject: Huffer, Misty Kay

1. **Location:** The evaluation was conducted in the interview area at the Anne Arundel County Police Department. The room has adequate lighting and has a smooth concrete floor with no obstructions. The darkroom room examinations were conducted in the staffrestroom.

2. **Witnesses:** Corporal Eric Trumbauer of the Anne Arundel County Police witnessed and recorded the entire evaluation.

3. **Breath Alcohol Test:** The subject's breath test was 0.00%. The test was administered prior to my arrival by the arresting officer, Sr. Officer William Alexander of the MTA Police, at 2050 hours.

4. **Notification and Interview of the Arresting Officer:** On 6/14/22 at approximately 2100 hours, I was requested to contact Sr. Officer Alexander regarding a drug evaluation at the Anne Arundel County Police Department. Upon contacting Officer Alexander, it was learned that he had observed the suspect's vehicle fail to stop at red light and driving in a hazardous manner which included weaving in and out of its traffic lane and speeding up then slamming on its brakes. When he attempted to stop the suspect's vehicle, she was slow to respond to Officer Alexander's emergency lights and was unable to maintain a single lane of travel. During the personal contact, the suspect did not have an odor of an alcoholic beverage coming from her breath. However, Officer Alexander did detect a chemical-like odor coming from her vehicle. Officer Alexander also observed that she had difficulty locating her driver's license and other documents when asked for them. She was slow to respond to Officer Alexander's questions and requests. She was not sure where she was coming from and stated she did not know what time it was. Upon getting out of her vehicle, she held onto the driver's door for support, and nearly fell into the street. Officer Alexander assisted her to the sidewalk, where she was able to regain her balance. Officer Alexander noted that she had slurred speech and had a flushed face. Officer Alexander reported that she consented to do SFSTs at roadside which included HGN, Walk and Turn (W&T), and the One Leg Stand (OLS) tests. He reported observing six clues on the HGN test, four clues on the W&T, and three clues on the OLS (Refer to Officer Alexander's DWI report). After completing the SFSTs, he arrested the suspect for DWI and transported her for processing. After obtaining a 0.00 BAC, he requested a DRE to assist with the investigation.

5. **Initial Observation of the Subject:** I first observed the suspect in the interview area at the Anne Arundel County Police Department office. She appeared to be disoriented and was responding very slowly to Officer Alexander's questions. Her speech was slurred and rambling. Her face was flushed, and she had red bloodshot eyes. There was a chemical type of odor coming from her breath and clothing. She was wearing blue cut-off jeans, a light blue blouse, and black lace-up boots. I introduced myself, explained why I been called and asked if she would consent to a drug evaluation. She agreed to the evaluation by stating, "Okay, I guess so" after a delayed pause before answering. I asked if she had been informed of her Miranda rights and after another delayed pause, stated "No, I'm not sure." I then informed her of her Miranda rights at 2137 hours. I asked if she had any injuries or physical defects that might prohibit her from doing the DRE tests. Again, after a pause, she said she did not. She stated that she was not under the care of a doctor or dentist. She told me that she had eaten pizza around 7 pm and had drank a can of Rockstar at that time. When asked if she was taking any medication or drugs, she responded "I don't do drugs." She was otherwise cooperative, but indifferent.

6. **Medical Problems and Treatment:** The suspect indicated she did not have any injuries or physical problems, and none were observed or mentioned during the evaluation. When asked, she stated she was not epileptic, was not diabetic, did not take insulin and did not have any medical problems.

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to the suspect prior to her attempting them. Each time she indicated she understood the test and agreed to attempt the test. The following tests were administered to her:

Modified Romberg Balance: For this test, the suspect swayed approximately three inches front to back and three inches side to side. While attempting the test, she would at times begin laughing and would open her eyes. She had to be reminded four times to close her eyes as she attempted the test.

Walk & Turn: This test had to be explained and demonstrated to the suspect twice. After the second explanation, she stated she understood the instructions. During this test, she lost her balance twice during the instructions stage. She also started too soon once during the instruction stage. During the walking stage, she raised her arms for balance three times on the first nine steps and four times on the second nine steps. She also stopped while walking three times on the first nine steps at steps 2, 5 and 7 and twice on the second nine steps at steps 1 and 7. On the turn, she was slow and deliberate with her movements, but made the turn by taking a series of small steps as instructed. On both walking portions she was reminded several times to count her steps out loud. She also laughed out loud several times while attempting the test.

One Leg Stand: On this test, when she stood on her left foot and raised her right foot, she swayed side to side and front to back approximately three inches. She used her arms for balance during the entire time her foot was up. She put her foot down quickly at counts 1,003, 1,006 and 1,009 and displayed poor balance nearly falling. However, she did complete the test and counted out loud to 38 seconds in the 30 second timed period. When asked if she thought she could do the test while standing on her right foot, she replied, "I'm a little dizzy. Maybe not." Therefore, the remainder of the test was discontinued.

Finger to Nose: During this test, she missed the tip of her nose with the tip of her index finger on all six attempts, missing her nose completely. She also had a pronounced sway throughout the test. She exhibited slow arm movements and touched her face with the pad of her fingers each time. She laughed out loud several times when attempting to touch the tip of her nose.

8. **Clinical Indicators of Impairment:**

Eye Signs: The eye examinations were conducted in the staff restroom which provided adequate darkness for the examinations. The suspect exhibited equal tracking, had equal pupil size, and did not exhibit resting nystagmus. She exhibited all six clues of HGN with an approximate 40-degree angle of onset. VGN was not observed. She was not able to converge her eyes as instructed. The test was conducted twice, and on both attempts, her eyes would start towards her nose, but then drifted outward and downward. Her pupil sizes were checked in the three lighting levels and were estimated at 5.0 mm in both eyes in Room Light, 7.5 mm in both eyes in Near Total Darkness, and 3.5 mm in both eyes in Direct Light. All three were within the DRE average ranges. She exhibited a slow reaction to light and rebound dilation was not observed.

Vital Signs: The suspect's pulse rates were checked three times during the evaluation. All three were above the DRE average range, at 96, 94 and 92 beats per minute (bpm). Her blood pressure was measured at 118/62 millimeters of mercury (mmHg), which was below the DRE average ranges. Her body temperature was measured at 98.0 degrees Fahrenheit using a digital oral thermometer and was within the DRE average range. Her muscle tone was flaccid.

9. **Signs of Ingestion:** The suspect's nasal and oral cavities were red and inflamed. She had a chemical-like odor on her breath and clothing. When asked about the odor on her breath and clothing, she indicated that she was hanging out with some friends who were "huffing". When asked what she had been huffing, she stated, "Nitrous. Everybody liked it!"

10. **Subject's Statements:** I explained my observations and the results from the drug evaluation and then asked the suspect about drug use and specifically inhalants. She admitted doing some "whippets" with some friends at about 8 pm. I asked if "whippets" was the same as nitrous oxide. She laughed out loud and said yes. She said she likes to use nitrous because it relaxes her, it is not illegal, and it usually makes her happy and feeling good. When asked about taking medication or drugs, she stated, "I don't do drugs."

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect was under the influence of an Inhalant and was unable to operate a vehicle safely.

12. **Toxicological Sample:** After the evaluation, Officer Alexander advised the suspect of her implied consent rights and she consented to a blood test. The sample was collected by a certified phlebotomist and was submitted as evidence pending delivery to the Crime Lab for analysis.

13. **Miscellaneous:** Refer to Officer Alexander's DUI report for additional details regarding the arrest.

20 DRE

PRACTICE: EXAMINATION OF VITAL SIGNS

LEARNING OBJECTIVES

- Conduct examinations of pulse, blood pressure, and temperature
- Describe the vital signs examination procedures
- Document the results of the vital signs examinations

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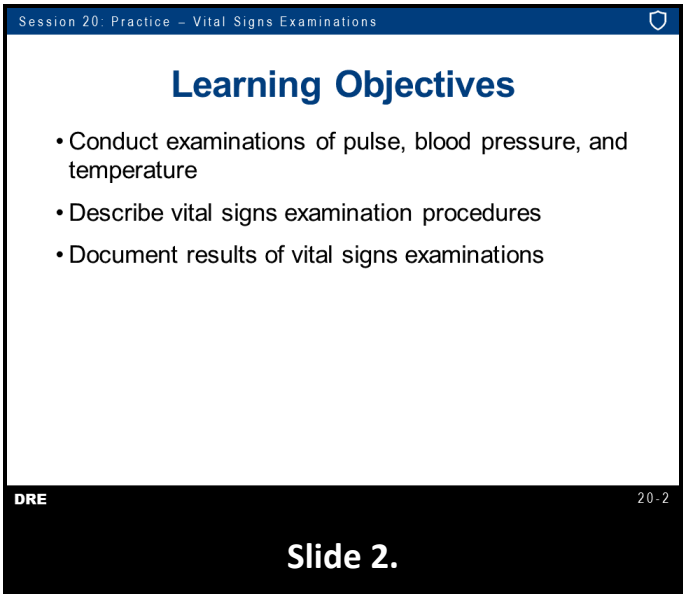
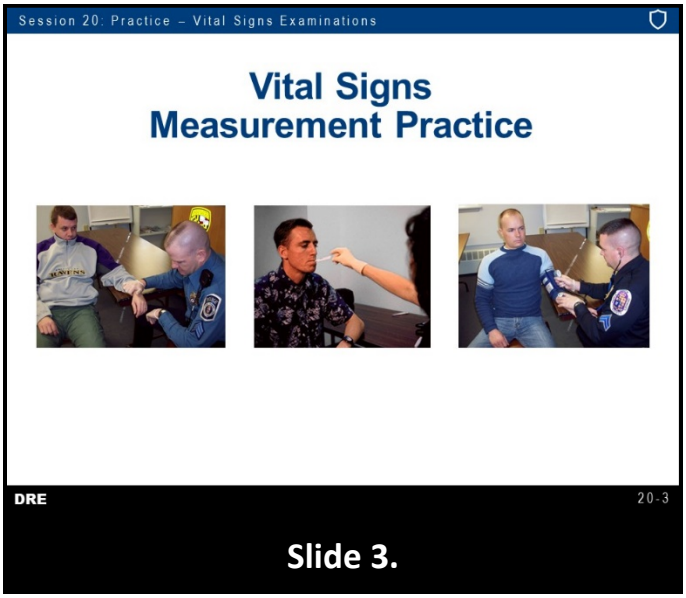


Slide 2.

A. Procedures for this Session



Slide 3.

Team Assignments: Participants will work in three or four member teams.

At any given time, one member of the team will be engaged in conducting and recording vital signs examinations of another member. The remaining member(s) will help coach and critique the participant who is conducting the examinations.

Participants will take turns serving as test administrator, test subject, and coach.

Participants will record their measurements using the Vital Signs Examination Data Sheet.

B. Pulse Measurements

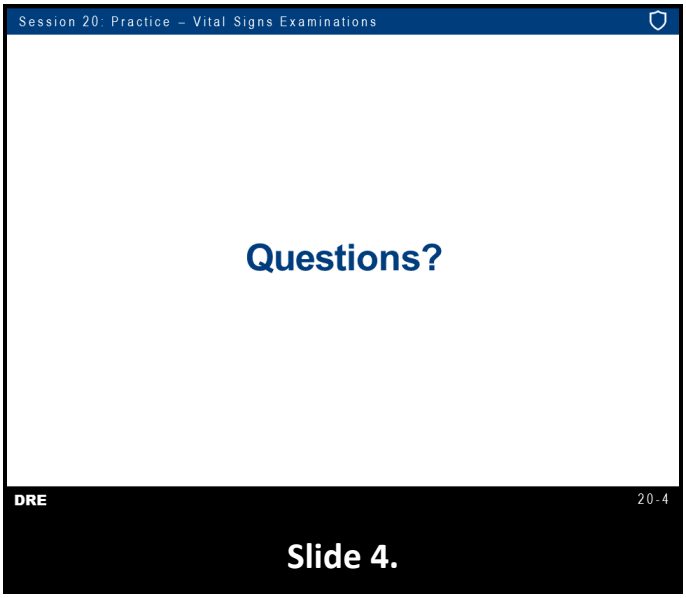
Vital Signs Practice: Teams initially will practice taking one another's pulse.

Pulse Measurements

C. Blood Pressure Measurements

D. Temperature

E. Session Wrap-Up



Slide 4.

VITAL SIGNS EXAMINATIONS DATA SHEET

EXAMINER'S NAME: _____

DATE _____/_____/_____

PULSE MEASUREMENTS

SUBJECT'S NAME _____

TIME _____

PULSE POINT USED _____

BEATS PER MINUTES _____

BLOOD PRESSURE MEASUREMENTS

SUBJECT'S NAME _____

TIME _____

SYSTOLIC/DIASTOLIC_____

TEMPERATURE_____

SUBJECT'S NAME _____

TIME _____

PULSE POINT USED _____

BEATS PER MINUTES _____

SUBJECT'S NAME _____

TIME _____

SYSTOLIC/DIASTOLIC_____

TEMPERATURE_____

SUBJECT'S NAME _____

TIME _____

PULSE POINT USED _____

BEATS PER MINUTES _____

SUBJECT'S NAME _____

TIME _____

SYSTOLIC/DIASTOLIC_____

TEMPERATURE_____

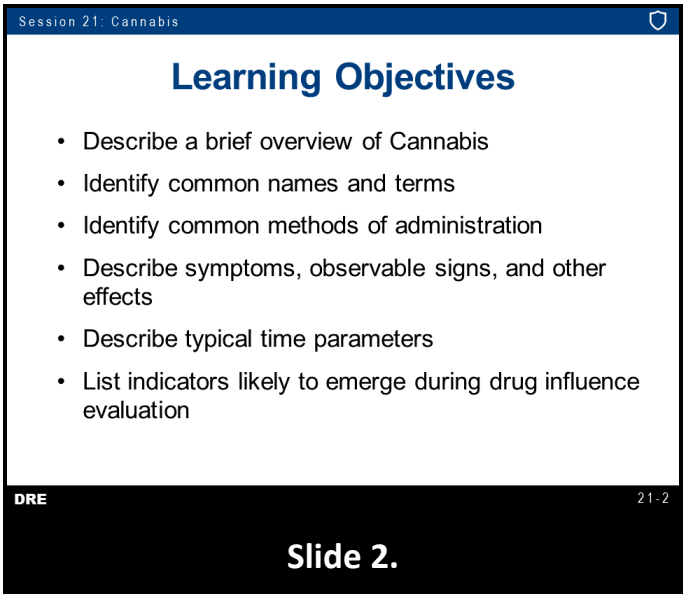
21 DRE

CANNABIS

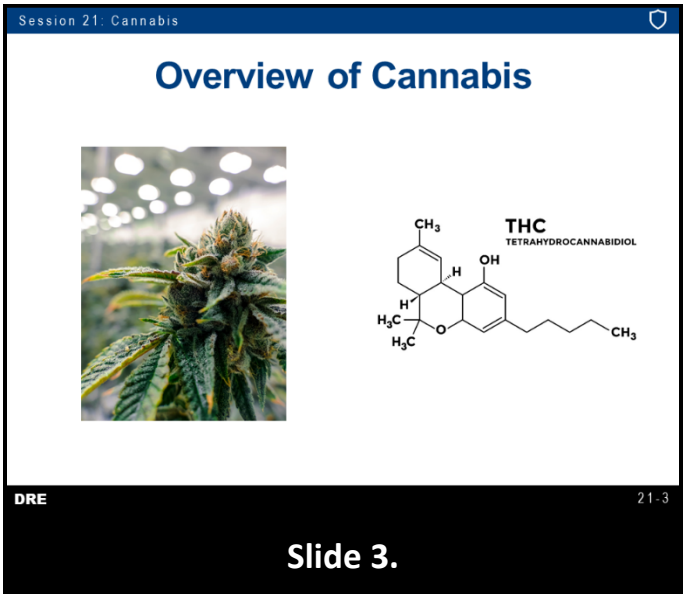
LEARNING OBJECTIVES

- Describe a brief overview of Cannabis
- Identify common names and terms associated with Cannabis
- Identify common methods of administration for Cannabis
- Describe the symptoms, observable signs, and other effects associated with this category
- Describe the typical time parameters, i.e., onset and duration of effects associated with Cannabis
- List the indicators likely to emerge when the drug influence evaluation is conducted for a person under the influence of Cannabis

CONTENTS



A. Overview of the Category



Cannabis is a category of drugs derived primarily from various species of plants, such as Cannabis Sativa, which generally grow tall and thin, outdoors and Cannabis Indica plants, which generally grow short and wide and are better grown indoors. Cannabis grows readily throughout the temperate zones of the world.

No matter its form or label, all Cannabis products contain the primary psychoactive (mind-altering) chemical delta-9-tetrahydrocannabinol (THC). Marijuana contains more than 400 other chemicals. THC is the chemical in Marijuana responsible for producing the euphoria or "the high." In its commercial form, Cannabidiol (CBD), another chemical in Marijuana, is considered non-psychoactive and lacks the intoxicating properties of THC. There is some evidence CBD may hold medicinal value to treat several medical conditions such as neurological disorders (i.e., seizures and epilepsy), psychosis, and anxiety.

Over two decades, the DEA found the potency of illicit cannabis consistently rose from approximately 4% THC in 1995 to approximately 12% in 2014. The CBD content fell on average from approximately 0.28% in 2001 to <0.15% in 2014. Dabs and oils are even more potent cannabis products (up to 90% THC) that can be vaped in e-cigarettes.

The primary psychoactive ingredient in Cannabis is Delta-9 Tetrahydrocannabinol.

THC is found principally in the leaves and flowers of the plant, rather than in the stem or branches.

Different varieties of the Cannabis have different concentrations of THC.

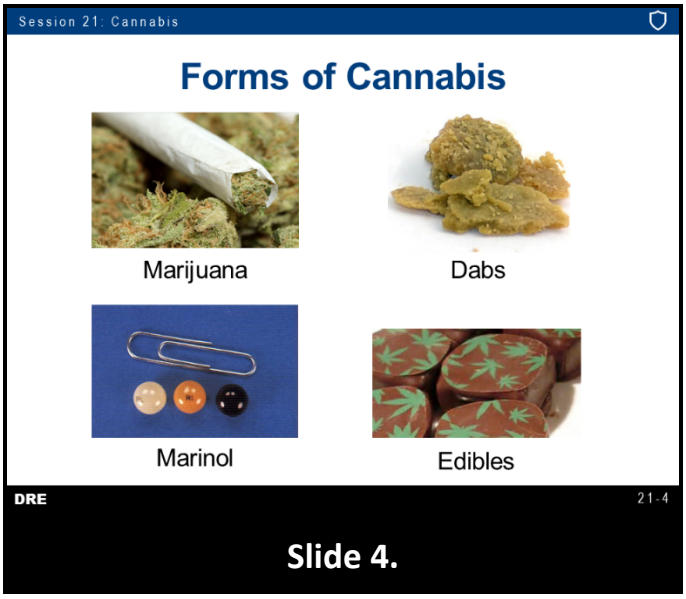
One variety that has a relatively high concentration of THC is Sinsemilla, which is the unfertilized female Cannabis Sativa plant. Explanatory note: "Sinsemilla" in Spanish means "without seeds".

Sativa, Indica, and Hybrid Cannabis: Sativa Cannabis is known for causing an energetic and emotional uplifted high. It is often referred to as a "cerebral high." Indica Cannabis is better known for having a "body high". It is reported to cause deep relaxation often leading to a term called "couch-lock". Hybrids are a combination of the two types.

Sources:

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

Marnell, T. (2022). *Drug Identification Bible* (2022/2023 ed.).



Slide 4.

There are four principal forms of Cannabis. The first is Marijuana which is the dried leaves of the plant. Second is Hashish which is a form of Cannabis made from the dried and pressed resin of a Marijuana plant. The third form is Hash Oil, sometimes referred to as "Marijuana Oil," it is a highly concentrated syrup-like oil extracted from Marijuana. It is normally produced by soaking Marijuana in a container of solvent, such as acetone or alcohol for several hours until the solvent has evaporated. A thick syrup-like oil is produced with a higher THC content. The average THC content of hash oil seized in the U.S. in 2010 was 30.3%.

Fourth is Dronabinol (Marinol and Syndros), a synthetic form of THC commonly prescribed to treat nausea, vomiting, and certain cancer patients undergoing chemotherapy.

Sources indicate "wax", "dabs", and "shatter" are some of the purest forms of Cannabis concentrate. It involves the use of butane or other various chemicals to heat and refine the THC. This process results in product that contains 80% or greater THC, making it much more potent than a Marijuana bud on a Cannabis plant. The concentrate is then heated or put into a vaporizing pen and inhaled. Dabbing is a way to get the quickest, long-lasting high with a single inhale. A single puff from a pipe or vaping pen can give the effect of smoking many joints.

Cannabis tinctures, sometimes known as **green dragon**, is an alcohol-based extract of cannabis and sometimes used in the production of specific extracts. The tincture is typically made by soaking the dried flowers of the female hemp plant (marijuana) in ethanol. The tetrahydrocannabinol (THC) and other cannabinoids dissolve into the alcohol. Some preparations also extract some of the water-based plant products such as chlorophyll, resulting in a dark green or brown liquid. Baking or dying the cannabis to decarboxylate prior to the alcohol bath increases the amount of THC in the resulting preparation.

Topical cannabis, or topicals, are simply cannabis-infused products for use on the surface of the skin. They can come in the form of balms, lotions, oils, tinctures, or personal lubricants and can be applied directly to the skin.

Edibles are food products infused with Marijuana. Though smoking Marijuana is the most prevalent method of consumption, eating Marijuana is quickly becoming a popular way to consume the drug. In addition to placing Marijuana directly in food, Marijuana-infused cooking oil can be used when frying or searing food and Marijuana-infused butter can be spread directly on prepared food. These Marijuana edibles are more common in States that have legalized Marijuana and also States that permit medical Marijuana use. The amount of THC is very difficult to measure and is often unknown in these food products.

Source:

Marnell, T. (2022). *Drug Identification Bible* (2022/2023 ed.).

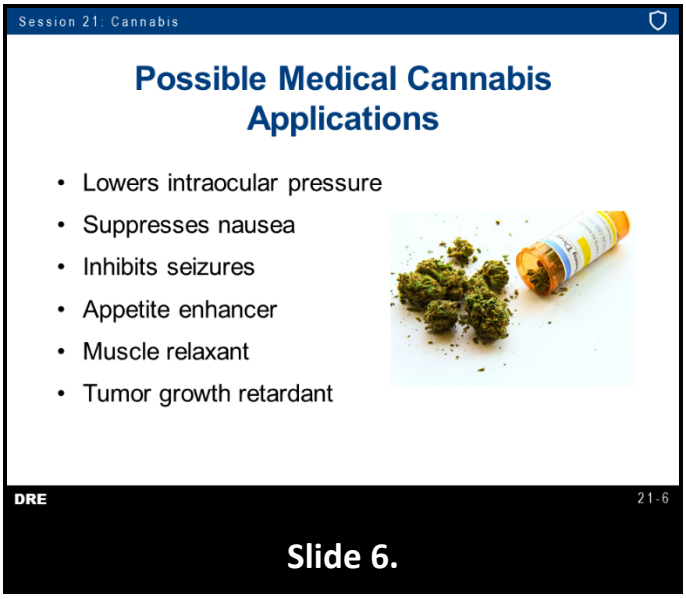
Slide 5.

Synthetic Marijuana or synthetic Cannabinoids have quickly become a worldwide concern. They came on the market in the early 2000's and continue to evolve. These products go by many different names or identifiers. Spice, which is sometimes also called K2, herbal incense, or "fake weed," is one of the more popular or more familiar synthetic Cannabinoids.

Spice and similar products consists of shredded dried plant material that has been sprayed with chemicals designed to act on the same brain cell receptors as THC but are often much more powerful and unpredictable. These products are typically labeled "not fit for human consumption," and most are illegal. But their manufacturers are constantly creating new chemical compounds to sidestep legal restrictions.

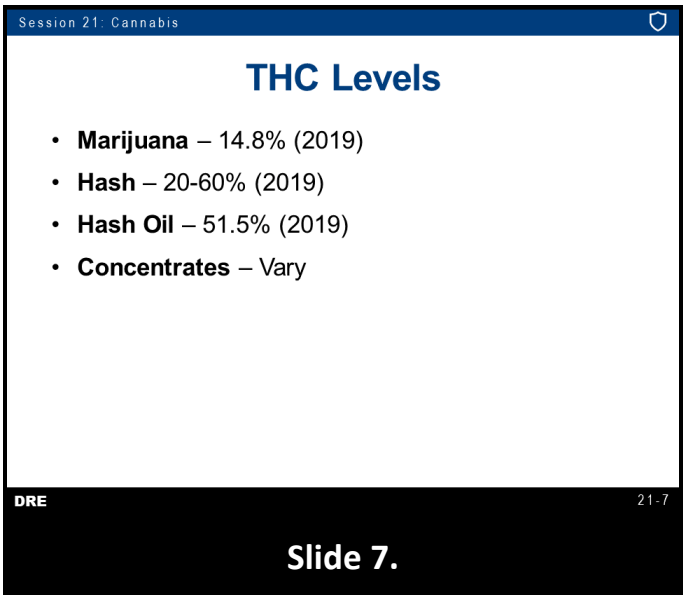
When smoked, synthetic Cannabinoid products can also produce stimulant and/or hallucinogenic effects.

Common brand names for synthetic Cannabinoids include K2, Spice, Spice Gold, Spice Diamond, Yucatan Fire, Solar Flare, K2 Summit, Genie, PEP Spice, and Fire n Ice, to name a few.



Slide 6.

Cannabis may have some limited medical applications however many experts vary in their opinions on them. A possible application may include lowering of intraocular ("Intraocular" – within the eyeball) pressure, which can be helpful for glaucoma patients. Cannabis lowers the intraocular pressure by dilating in size the blood vessels of the eyes (more size – less pressure). This causes red, bloodshot eyes. Another possible application is suppressing nausea and sometimes is recommended for cancer patients to relieve the nausea accompanying chemotherapy. Also, Cannabidiol, a non-psychoactive ingredient found in Cannabis, is used in treating Epilepsy; it helps to inhibit seizures. Other possible applications include appetite enhancer, muscle relaxant, and a tumor growth retardant.



Slide 7.

Potency, Purity and Dose: Average THC concentration in Marijuana: Marijuana – 14.8% (2019); Hash – 30-60% (2019); Hash Oil – 51.5% (2019); Concentrates – Vary.

THC levels can vary greatly depending upon areas of the country.

According to the *Drugs and Human Performance Fact Sheets*, "Recreational doses are highly variable and users often titer [titrate] their own dose. A single intake of smoke from a pipe or joint is called a hit (approximately 1/20th of a gram). The lower the potency or THC content, the more hits are needed to achieve the desired effects; 1-3 hits of high potency sinsemilla is typically enough to produce the desired effects. In terms of its psychoactive effect, a drop or two of hash oil on a cigarette is equal to a single "joint" of marijuana."

Sources:

Marnell, T. (2022). *Drug Identification Bible* (2022/2023 ed.).

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

Slide 8.

Marijuana usually is smoked.

Marijuana, Hash, and Hash Oil also can be administered orally, for example, baked in cookies or brownies and eaten.

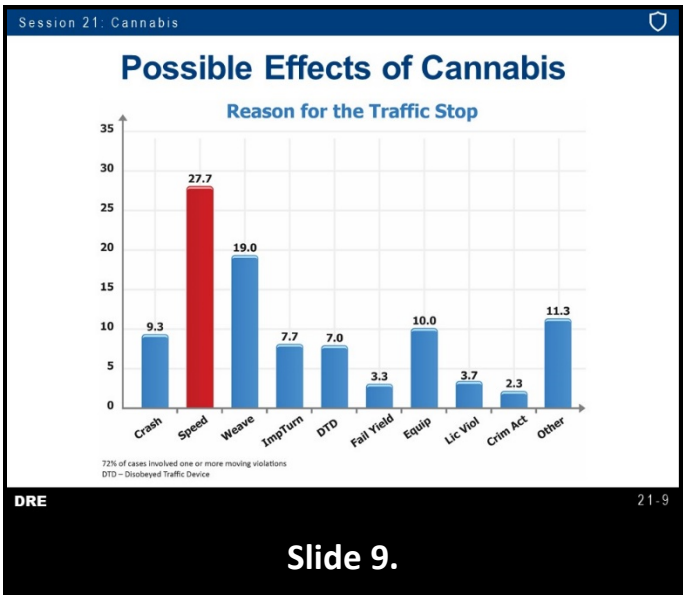
THC can also be absorbed through the skin using transdermal absorption patches or rub-on ointments.

Research related to passive inhalation of Marijuana smoke causing behavioral effects as well as measurable amounts in toxicology samples is mixed and is generally dependent on the amount of smoke inhaled.

Source:

Marnell, T. (2022). *Drug Identification Bible* (2022/2023 ed.).

B. Possible Effects of Cannabis



Slide 9.

Effects of marijuana can vary with the cannabis strain, dose, route of administration, and tolerance of the user. One major effect of Cannabis is it appears to interfere with a person's ability to divide attention. People under the influence of Cannabis have difficulty paying attention. In particular, they have difficulty dividing their attention. **Clarification: They have a difficult time dealing with more than one or two tasks at once.**

This can make them unsafe drivers since driving requires the ability to divide attention among many simultaneous tasks. Short attention span could be indicated by varying speeds, failing to maintain a single lane, and difficulty with depth perception. Loss of depth perception could be demonstrated by stopping improperly. Because Cannabis impairs attention, the Standardized Field Sobriety Tests (SFSTs) like Walk and Turn (WAT) and the One Leg Stand (OLS), as well as the Finger to Nose (FTN) are excellent tools for recognizing people under the influence of Cannabis. People under the influence of Cannabis may attend to one or a few of these driving tasks, but simply ignore the other tasks.

According to a study by the British Medical Journal, even small amounts of Marijuana can double the chances of a driver's involvement in a motor vehicle crash and larger doses can more than triple the risk.

According to the Columbia University School of Public Health, the risk of an automobile crash is almost 2.7 time higher among Marijuana users than non-users. The more Marijuana smoked in terms of frequency and potency, the greater likelihood of a crash.

Pharmacological effects of Cannabis will vary with dose, route of administration, experience of user, and other factors. At recreational doses, effects include relaxation, euphoria, relaxed inhibitions, disoriented, altered time and distance perception, lack of concentration, impaired memory, incomplete thought process, drowsiness, sedation, and mood changes.

Synthetic Cannabinoid products have many adverse effects that include panic attacks, agitation, anxiety, violent behavior, and seizures. Users report effects lasting 2 to 6 hours.

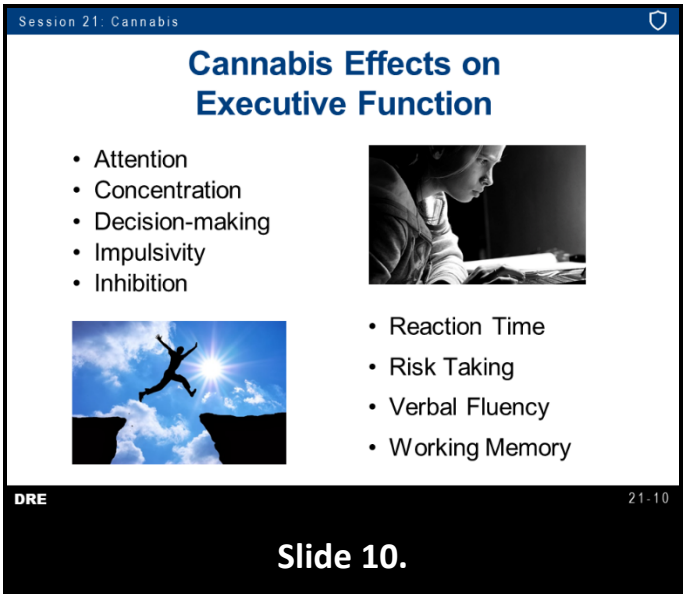
Sources:

Hartman, R. L., Richman, J. E., Hayes, C. E., & Huestis, M. A. (2016). Drug Recognition Expert (DRE) examination characteristics of cannabis impairment. *Accident Analysis and Prevention, 92*, 219-229. Retrieved from https://doi.org/10.1016/j.aap.2016.04.012

BMJ-British Medical Journal. (2012, February 10). Cannabis use doubles chances of vehicle crash, review finds. *ScienceDaily*. Retrieved May 14, 2022, from www.sciencedaily.com/releases/2012/02/120210111254.htm

Mu-Chen, L., Brady, J. E., DiMaggio, C. J., Lusardi, A. R., Tzong, K. Y., & Guohua, L. (2012, January). Marijuana Use and Motor Vehicle Crashes. *Epidemiologic Reviews, 34*(1), 65-72. Retrieved May 16, 2022, from https://doi.org/10.1093/epirev/mxr017

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.



Slide 10.

According to *Julien's Primer of Drug Action*, the "best-known psychoactive effect of [cannabis] is that it produces memory impairment. [...] The ability to focus attention and filter out irrelevant information is disrupted. Marijuana users' speech and presumably their underlying thought patterns become fragmented. Because of the distracting intrusions of other ideas, users forget what they or others have recently said. This difficulty in concentration impairs performance on many cognitive tasks. Furthermore, marijuana may also reduce the motivation to perform well."

According to *An Evidence Based Review of Acute and Long-Term Effects of Cannabis Use on Executive Cognitive Functions*, "THC intoxication has been shown to impair cognitive function on a number of levels—from basic motor coordination to more complex tasks, such as the ability to plan, organize, solve problems, make decisions, remember, and control emotions and behavior. The higher level cognitive functions, termed executive functions, are critically important, particularly when dealing with novel situations in which decisions must be made. This array of higher cognitive functions are vital for overriding and inhibiting responses that otherwise would be automatic or require little thought, such as continued substance abuse."

Some examples of executive function include: Attention - Selectively attending to one cue while ignoring others, including divided and sustained attention; Concentration - Intense mental application; Decision-making - Process of selecting a course of action; Impulsivity - Initiation of behavior without adequate forethought; Inhibition - Imposing restraint on behavior or another mental process; Reaction Time - Lapse of time between presentation of a stimulus and a response; Risk Taking - Engaging in behaviors that have the potential to be harmful or dangerous; Verbal Fluency - Generating multiple, verbal responses associated with specified conceptual category; and, Working Memory - Ability to hold and manipulate information and remember it after a short delay.

Sources:

Advokat, C. D., Comaty, J. E., & Julien, R. M. (2019). *Julien's Primer of Drug Action* (14th ed.). Macmillan Learning.

Crean, R. D., Crane, N. A., & Mason, B. J. (2011, March). An Evidence Based Review of Acute and Long-Term Effects of Cannabis Use on Executive Cognitive Functions. *Journal of Addiction Medicine, 5*(1), 1-8. doi:10.1097/ADM.0b013e31820c23fa

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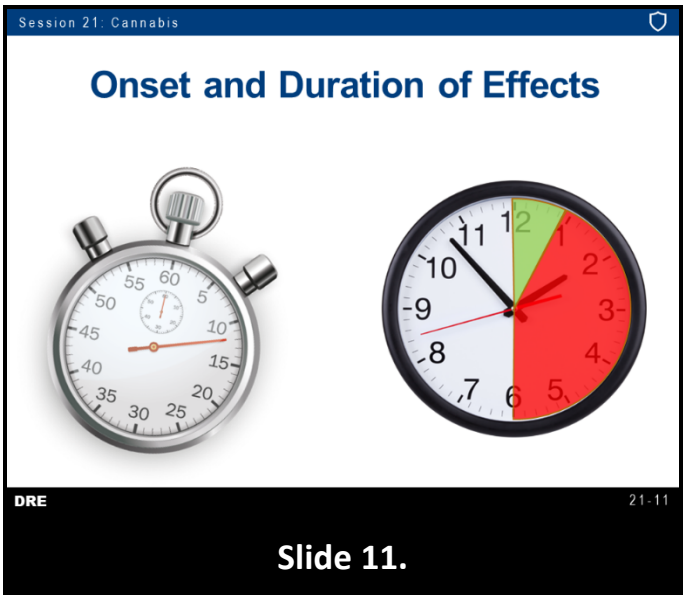
C. Onset and Duration of Effects



Slide 11.

Effects from smoking Cannabis are felt within minutes and reach their peak in 10-30 minutes after smoking. Typical Marijuana smokers experience a high that lasts approximately 3 hours. Most behavioral and physiological effects return to baseline within 3-4 hours after drug use, although some residual effects in specific behaviors can last up to 24 hours.

A 1985 Stanford University study showed pilots had difficulty in holding patterns and in lining up with runways for up to 24 hours after using Marijuana.

In 1990, a second Stanford University study showed Marijuana-impaired performance at .25, 4, 8, and 24 hours after smoking. While 7 of the 9 pilots showed some degree of impairment at 24 hours after smoking Cannabis, only one reported any awareness of the drug's effects.

Generally, the person will feel "normal" within 3–4 hours after smoking Marijuana. The user may be impaired long after the euphoric feelings have ceased.

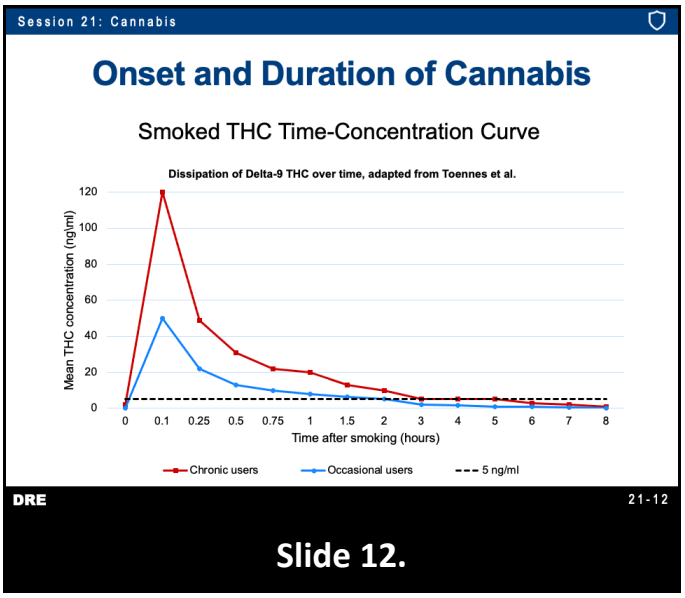
Edibles, however, take between 1-3 hours to reach their peak because food is absorbed into the bloodstream. Because it takes longer, the user may end up consuming larger amounts of the drug while thinking the drug isn't working. Edibles can last up to 8 hours.

Sources:

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

Drug Alert: Marijuana Edibles. (n.d.). Retrieved May 16, 2022, from Just Think Twice: https://www.justthinktwice.gov/article/drug-alert-marijuana-edibles

Marnell, T. (2022). *Drug Identification Bible* (2022/2023 ed.).



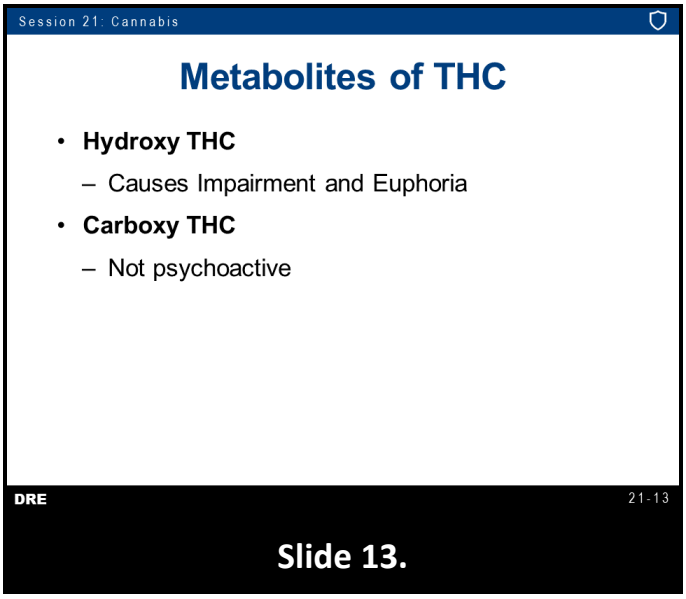
Generally, THC levels in the blood will decline rapidly within 30 minutes of inhalation. THC concentrations fall to about 60% of their peak within 15 minutes after the end of smoking and to about 20% of their peak 30 minutes after the end of smoking.

However, blood and urine tests may continue to disclose evidence of the use of Cannabis long after the effects of Cannabis have disappeared. Blood tests may disclose Cannabis use for up to 3 days after smoking. This could vary depending upon the frequency of use.

Urine tests may indicate the presence of inactive THC metabolites for up to a month. This could vary depending upon the frequency of use.

Source:

Toennes, S. W., Ramaekers, J. G., Theunissen, E. L., Moeller, M. R., & Kauert, G. F. (2008, September). Comparison of Cannabinoid Pharmacokinetic Properties in Occasional and Heavy Uses Smoking a Marijuana or Placebo Joint. *Journal of Analytical Toxicology, 32*(7), 470-477. doi:10.1093/jat/32.7.470



Slide 13.

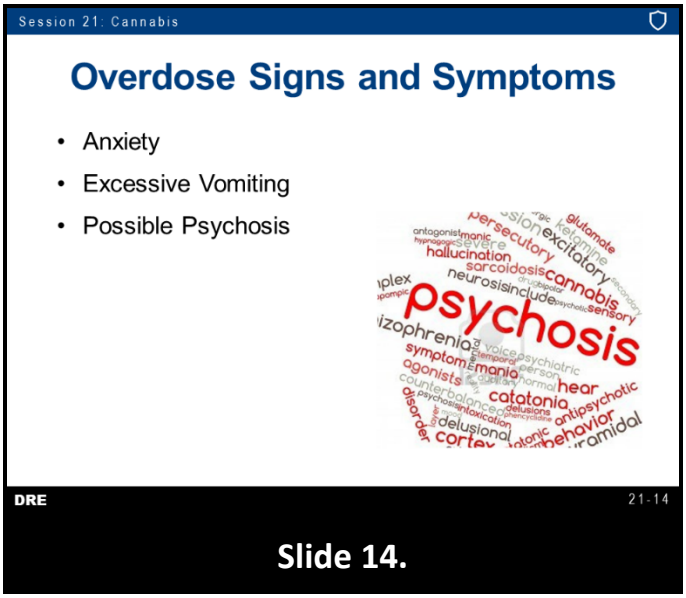
There are two important metabolites, or chemical byproducts, of THC.

Instructor Note

Write "Hydroxy THC: Causes Impairment and Euphoria" on the dry erase board or easel/easel pad.

Hydroxy-THC (11-Hydroxy-THC) causes the user to feel euphoric. Hydroxy THC is the main psychoactive metabolite of THC formed in the body after Marijuana consumption. Carboxy THC may be found in the blood plasma for several days following Marijuana use. There is no evidence at this time that Carboxy THC is psychoactive. Cannabis is fat soluble (i.e., it dissolves easily into fatty tissue); therefore, it can remain for long periods in the brain tissue, which is about one-third fat. Cannabis principally is eliminated from the body in feces and urine.

D. Overdose Signs and Symptoms



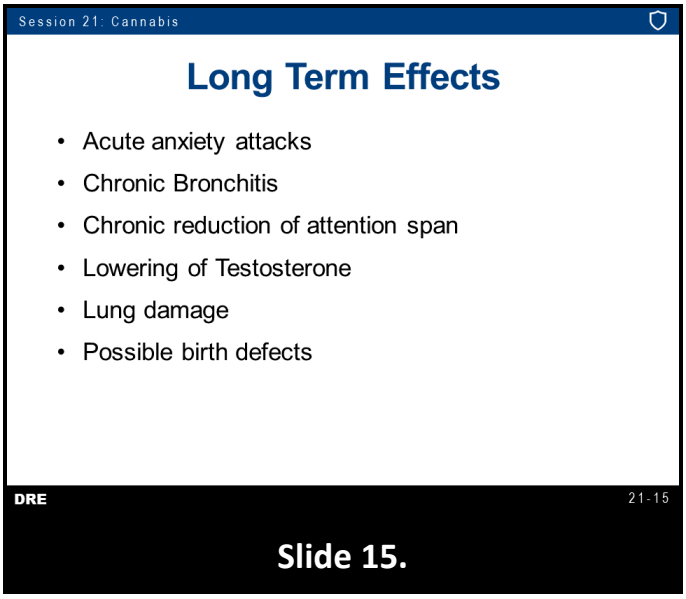
Slide 14.

Excessive or long-term use of Marijuana can have very undesirable consequences. Marijuana has been observed to produce sharp personality changes, especially in adolescent users.

Overdose signs and symptoms can include anxiety, panic attacks, extreme confusion and memory problems, hallucinations, and possible psychosis. Cannabinoid Hyperemesis Syndrome may include excessive vomiting, compulsive bathing, abdominal pain, nausea, and excessive thirst.

Source:

Price, S. L., Fisher, C., Kumar, R., & Hilgerson, A. (2011, March). Cannabinoid Hyperemesis Syndrome as the Underlying Cause of Interactable Nausea and Vomiting. *Journal of Osteopathic Medicine, 111*(3), 166-169. Retrieved May 16, 2022, from https://doi.org/10.7556/jaoa.2011.111.3.166



Slide 15.

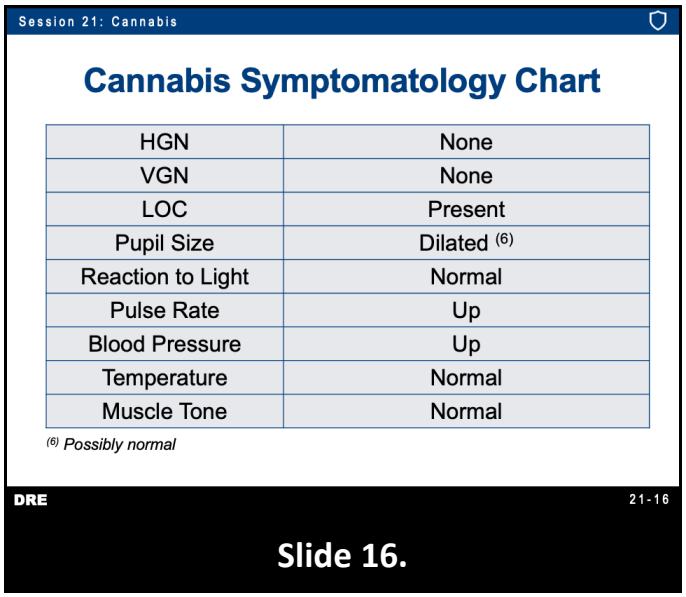
Long term effects include lung damage, chronic Bronchitis, lowering of Testosterone (male sex hormone), possible birth defects, still births and infant deaths, acute anxiety attacks, and chronic reduction of attention span.

Research indicates life threatening overdoses rarely if ever occur.

Withdrawal – is similar to alcohol dependence withdrawal.

Physical dependence can occur with chronic use.

E. Expected Results of the Evaluation



Slide 16.

Observable Evidence of Impairment: Clinical Indicators: Neither Horizontal Gaze Nystagmus (HGN) or Vertical Gaze Nystagmus (VGN) will generally be present.

Lack of Convergence (LOC) will generally be present.

Performance on the Modified Romberg Balance (MRB), WAT, OLS, and FTN tests will generally be impaired.

Vital Signs: Pulse will generally be elevated; Blood pressure will generally be elevated; Body temperature will generally be normal.

Muscle tone will generally be normal.

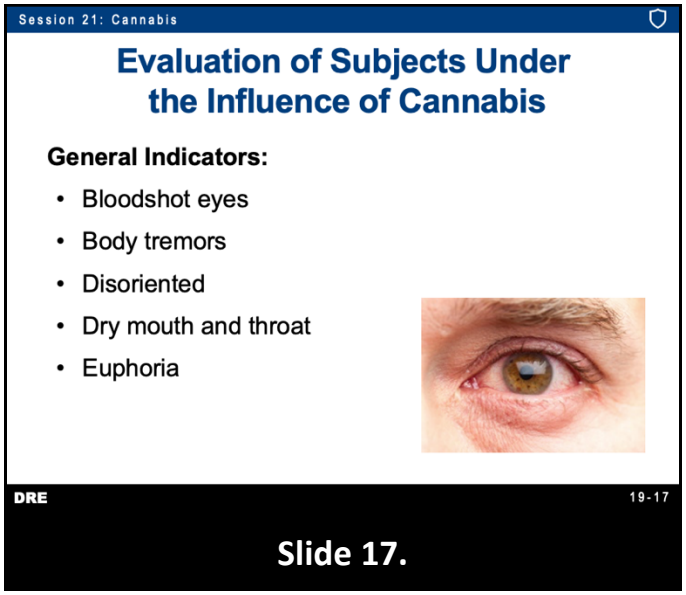
Pupil size will generally be dilated or possibly normal (within DRE average ranges). The content and potency could affect pupil size.

Pupil reaction to light will generally be normal.

Although "Rebound Dilation" is possible in any drug that causes pupil dilation, DREs frequently report it occurring in subjects under the influence of Cannabis. Clarification: "Rebound Dilation" A period of pupillary constriction followed by a period of pupillary dilation where the pupil steadily increases in size and the range between minimum and maximum is equal to or greater than 1mm and does not return to its original constricted size. In a study analyzing 302 Cannabis DRE evaluations, Rebound Dilation was present in 204 of the 302 cases (70.9%).

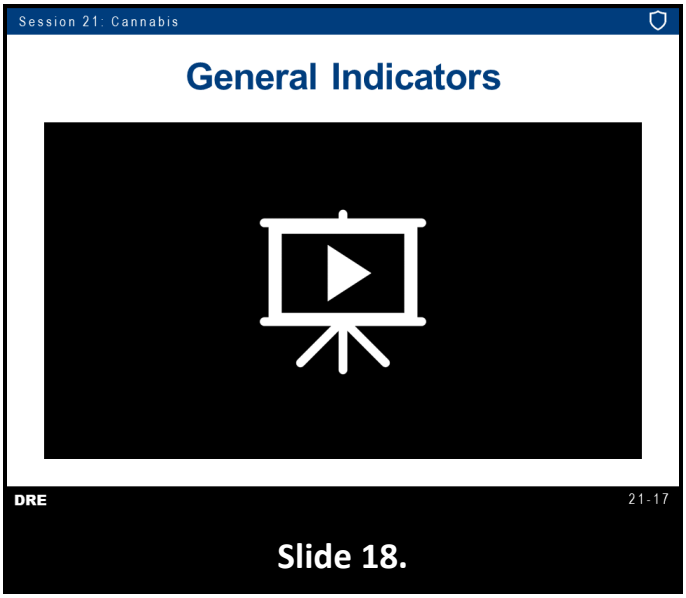
Source:

Hartman, R. L., Richman, J. E., Hayes, C. E., & Huestis, M. A. (2016). Drug Recognition Expert (DRE) examination characteristics of cannabis impairment. *Accident Analysis and Prevention, 92*, 219-229. Retrieved from https://doi.org/10.1016/j.aap.2016.04.012



Slide 17.

- Bloodshot eyes
- Body tremors
- Disoriented
- Drowsiness
- Dry mouth and throat
- Euphoria



Slide 18.

- Eyelid tremors
- Greenish coating on the tongue
- Impaired memory
- Impaired perception of time and distance
- Incomplete verbal responses
- Increased appetite
- Lack of concentration
- Mood changes
- Odor of Marijuana
- Panic reactions
- Paranoia
- Relaxed inhibitions
- Sedation

Sources:

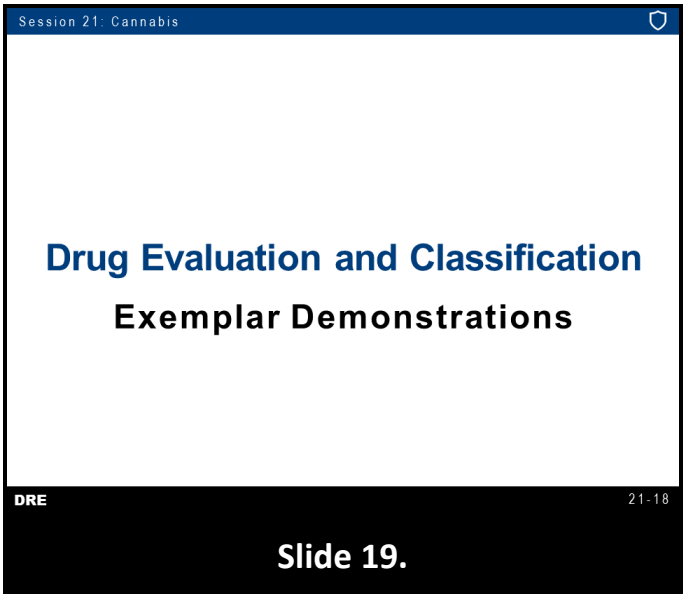
Kosnoski, E. M., Yolton, R. L., Citek, K., Hayes, C. E., & Evans, R. B. (1998). The Drug Evaluation Classification Program: using ocular and other signs to detect drug intoxication. *Journal of American Optometric Association, 69*(4), 211-227.

Declues, K., Perez, S., & Figueroa, A. (2018). A Two-Year Study of Δ 9 Tetrahydrocannabinol Concentrations in Drivers; Part 2: Physiological Signs on Drug Recognition Expert (DRE) and non-DRE Examinations. *Journal of forensic sciences, 63*(2), 583-587. Retrieved from https://doi.org/10.1111/1556-4029.13550

For additional information refer the participants to:

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

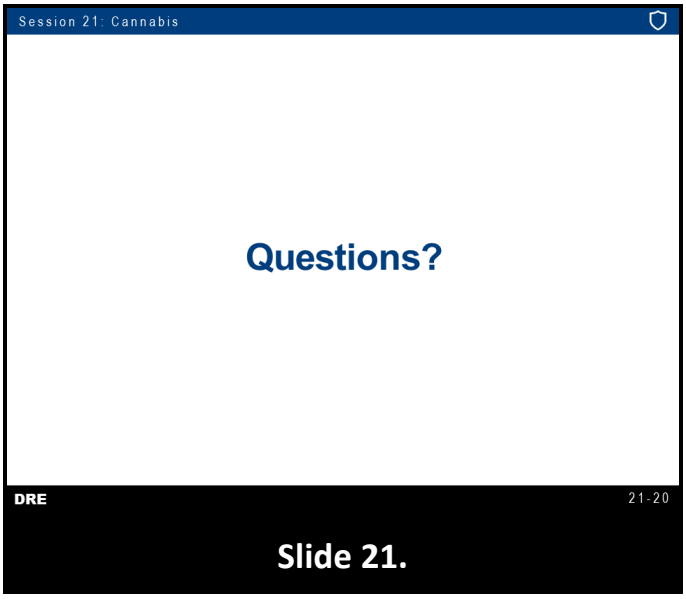
F. Review of the DEC Program Exemplars



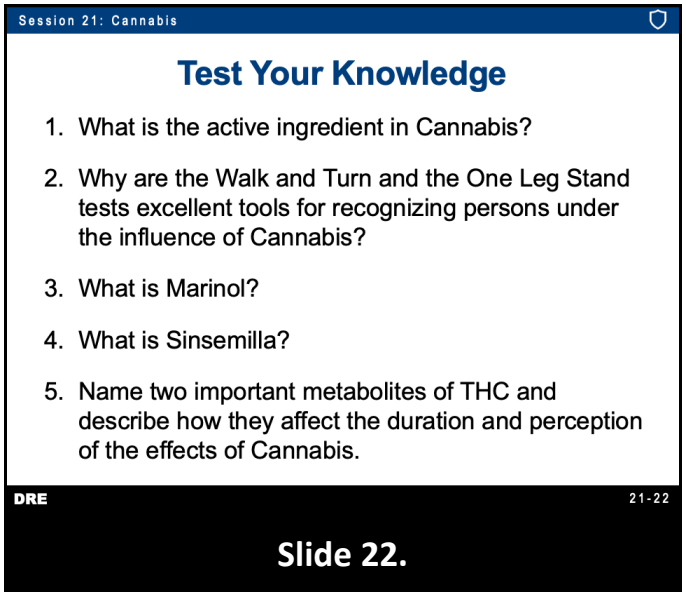
Slide 19.

The DRE narrative report should be detailed and complete, which clearly articulates the opinion of the DRE.

Slide 20.



Slide 21.



Slide 22.

Test Your Knowledge

1. What is the active ingredient in Cannabis?
2. Why are the Walk and Turn and the One Leg Stand tests excellent tools for recognizing persons under the influence of Cannabis?
3. What is Marinol?
4. What is Sinsemilla?
5. Name two important metabolites of THC and describe how they affect the duration and perception of the effects of Cannabis.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Officer Chad Streiff	27178	22-012-0097	Eden Prairie PD	(Session XXI - #1)

Recorder/Witness	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency
Sgt. Tyler Milless, Minnesota SP		Minnesota State Patrol

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Blunt, Mary Jane	10/20/1990	F	W	Trooper Jennifer Barron #30946

Date Examined / Time /Location	Breath Test: Test Refused ☐	Chemical Test: Urine ☐ Blood ☒
04/20/22 / 1753 / Hennepin CO Jail	Results: 0.00 Instrument #: 159305	Test or tests refused ☐

Miranda Warning Given Given by: Tpr. Bormann	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
		Potato chips & Funyuns	About 5 pm	Nothing	N/A

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
7 PM / 1755	Last night	About 6 hours	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

Are you taking any medication or drugs?	Attitude:	Coordination:
☒ Yes ☐ No "Just marijuana"	Cooperative, Carefree	Unsteady

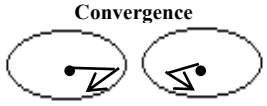
Speech:	Breath odor:	Face:
Slow, Thick	Marijuana	Normal

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☒ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☐ Normal ☒ Droopy

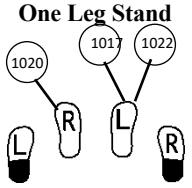
Pulse/Time	HGN	Left Eye	Right Eye
1. 104 / 1805	Lack of Smooth Pursuit	None	None
2. 102 / 1818	Maximum Deviation	None	None
3. 102 / 1832	Angle of Onset	None	None

Convergence



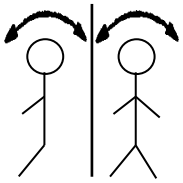
Right eye Left eye

25/30 **One Leg Stand** 26/30



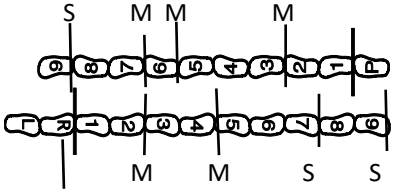
Modified Romberg Balance

Approx. 3" 3" Approx. 3" 3"



Circular sway. Eyelid tremors

Walk and Turn Test



Laughing out loud. Swaying. Leg tremors throughout.

	1st Nine	2nd Nine
Cannot keep balance	1	
Starts too soon	2	
Stops walking	2	1
Misses heel-toe	2	3
Steps off line		
Uses arms	1	2
Actual steps taken	9	9

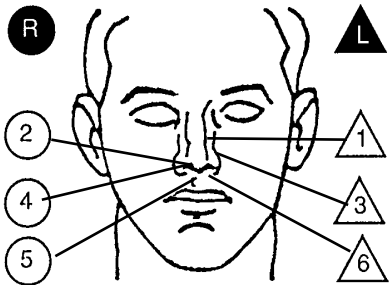
L	R	
☒	☒	Sways while balancing
☒	☒	Uses arms for balance
☐	☐	Hopping
☒	☒	Puts foot down

Laughing. Leg tremors

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
39 estimated as 30 seconds	Stopped. Asked what to do.	N/A	Open toe sandals

Finger to Nose

(Draw lines to spots touched)



Used pad of finger on 5 & 6. Eyelid tremors. Laughing during test

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	5.5	9.0	5.0 – 6.5
Right Eye	5.5	9.0	5.0 – 6.5

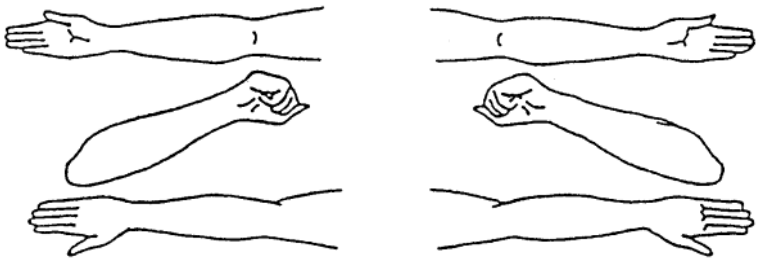
Nasal area: Clear

Oral cavity: Green coating on back of tongue

Rebound Dilation: ☒ Yes ☐ No

Reaction to Light: Normal

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature
154 / 96	98.2 °F

Muscle Tone: ☒ Near Normal ☐ Flaccid ☐ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"I smoked a little marijuana. What's the big deal?"	"Shared a baggie with friends"	Around 3 pm	White Bear Lake

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
04/20/22 1620	1720	1753	1855	

DRE/Officer's Signature: Chad Streiff	Reviewed/approved by / date:	DRE#

Opinion of Evaluator:

☐ Not Impaired	☐ Alcohol	☐ CNS Stimulant	☐ Dissociative Anesthetic	☐ Inhalant	
☐ Medical	☐ CNS Depressant	☐ Hallucinogen	☐ Narcotic Analgesic	☒ Cannabis	

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Blunt, Mary Jane

1. **Location:** The evaluation was conducted in the booking area at the Hennepin County Jail. The area is well illuminated and has a smooth concrete floor with no obstructions. The darkroom examinations were conducted in the adjacent staff restroom.

2. **Witnesses:** Sergeant Tyler Millness with the Minnesota SP was present and recorded the evaluation. The arresting officer, Trooper Jennifer Barron of the Minnesota SP observed the darkroom examinations only.

3. **Breath Alcohol Test:** A breath test had been requested and was administered to the suspect by Trooper Barron prior to my arrival. The result was a 0.00 BAC.

4. **Notification and Interview of the Arresting Officer**: I was on-duty and participating in a special "4/20" impaired driving emphasis patrol. At approximately 1720 hours, I was requested to assist Trooper Barron with a drug influence evaluation at the Hennepin County Jail. Once I contacted Trooper Barron, she advised me that she had arrested the suspect for DUI and had obtained a .00 breath test result. The breath test was inconsistent with the suspect's level of impairment and she was showing indicators of possible cannabis impairment. According to Trooper Barron, she observed the suspect's vehicle traveling westbound on SR 55 near Penn Avenue and her vehicle was drifting in and out of the outside traffic lane. In addition, she was traveling 20 mph over the posted speed limit. After contacting the suspect, Trooper Barron observed that she seemed unconcerned about her driving and told her she was "a little tired, but everything is cool." Trooper Barron noted that she had bloodshot eyes and droopy eyelids. She also detected an odor of burnt marijuana coming from inside the suspect's vehicle. After determining the suspect did not have any medical issues or injuries, Trooper Barron requested her to perform SFST's, which she agreed to do but several times pointed out to Trooper Barron that she was not drunk. Trooper Barron administered the Horizontal Gaze Nystagmus (HGN), Walk and Turn (W&T) and the One Leg Stand (OLS) tests to the suspect. According to Trooper Barron, she did not observe any clues of HGN, but noted that on the W&T test the suspect had difficulty maintaining her balance. On the OLS test, she again had difficulty with her balance and several times started laughing while attempting the test. Trooper Barron also administered the Modified Romberg Balance (MRB) and Finger-to-Nose (FTN) tests and the suspect had difficulty maintaining her balance and was not able to touch her nose as directed. Trooper Barron also observed eyelid and body tremors when the suspect was attempting the MRB and FTN tests. After placing the suspect under arrest for DUI and securing her vehicle, Trooper Barron observed a glass pipe between the front seats of her vehicle. The pipe was warm to the touch and smelled of marijuana. After advising the suspect of her Miranda warnings, she was asked about the pipe, and she indicated it was hers. She told Trooper Barron that she had been driving a long way, coming from the White Bear Lake area where she was celebrating the day with friends. When asked what she and her friends were celebrating, the suspect stated, "Come on, you know, 4/20". Trooper Barron is a DRE and through her training and suspecting possible Cannabis impairment and having received training regarding the rapid dissipation of THC in a person's blood, she arranged for a phlebotomist to meet her at the Hennepin County Jail. After arriving at the jail and obtaining a 0.00 BAC breath test result, a blood sample was obtained prior to the start of my evaluation.

5. **Initial Observation of the Suspect:** I first observed the suspect in the booking area at the Hennepin County Jail. I confirmed that she had been advised of her Miranda warnings and acknowledged that she understood them. I requested that she participate in a drug evaluation to which she replied, "Okay, but they already took my blood" and pointed to her arm. After some discussion about the observations made by Trooper Barron, and the drug evaluation process, she agreed to participate in the evaluation. She was asked a few initial questions and preliminary observations were made.

She stated the present time was 7:00 pm and the actual time was 5:55 pm (1755 hours). She stated she last slept last night for about 6 hours. When asked about drinking any alcoholic beverages she replied, "Only water". When asked about taking any medication or drugs, she replied, "Just marijuana". Her attitude was cooperative and carefree. At times, she was laughing and seemed unconcerned about her circumstances. I observed that she had red bloodshot eyes and droopy eyelids. Her pupils were equal in size but appeared dilated. An initial check for HGN did not show any clues of nystagmus. She was wearing cut-off blue jean shorts, a green tee-shirt, and sandals.

6. **Medical Problems and Treatment:** The suspect indicated she was not sick or injured and claimed to be an avid hiker. She stated she is not diabetic, not epileptic and does not take insulin. She also advised that she was not under the care of a doctor or dentist and did not have any injuries or other physical conditions that would prevent her from doing the tests.

7. **Psychophysical Indicators of Impairment:** During the evaluation, the suspect was requested to perform four psychophysical tests. Each of the tests were explained and demonstrated to her prior to attempting them. After each demonstration, she confirmed that she understood the instructions. She was given the opportunity to remove her sandals for the tests, but she elected to keep them on. The following psychophysical tests were administered to the suspect:

   Modified Romberg Balance: The suspect was able to remain in the instructional position while the instructions for the test were given. During this test, she had an approximate three-inch circular sway. Pronounced eyelid tremors were present. Her time estimation was slow, estimating 30 seconds in 39 seconds. When asked how she estimated the 30 seconds, she stated, "I was just counting in my head and kinda lost track" and then she laughed out loud.

   Walk and Turn: For this test, a line in the concrete floor was used. During the instructions stage, she lost her balance moving her right foot off the line to regain her balance. She attempted to start the test twice before being instructed to do so. During the walking stage, she missed touching heel to toe twice at steps 3 and 5. She stopped while walking at steps 7 and 9. She also used her arms to balance once during the first nine steps. At the end of the first nine steps, she stopped and asked what to do, claiming she had forgot. I instructed her again on how to make the turn and she continued with the test. On the second nine steps she missed touching heel to toe three times at steps 3, 6 and 7. She also stopped while walking once at step 8 and used her arms to balance twice. While attempting the test, several times she laughed out loud. Leg tremors were present as she attempted the test.

   One Leg Stand: This test was performed in two parts. While raising her right foot and standing on her left foot, she swayed noticeably and used her arms for balance. She lost her balance and put her foot down at her count of 1,020. She began laughing during the test and leg tremors were observed. She counted to 1,025 when 30 seconds had elapsed.

   When raising her left foot and standing on her right foot, she again swayed noticeably and used her arms for balance three times. She put her foot down at her counts of 1,017 and 1,022. She counted to 1,026 when 30 seconds had elapsed. When asked about her laughing during the test, she stated, "These tests are stupid, they make me laugh."

   Finger to Nose: For this test, the suspect missed touching the tip of her nose with the tip of her index finger as instructed on four of the six attempts. On attempt #1 she touched the left side of her nose below her left eye. On attempt #2, she touched the tip of her nose as directed. On attempt #3, she touched the side of her nose. On attempt #4, she touched the tip of her nose as directed. She touched below her nose on attempts #5 and #6 using the pads of her fingers. She was slow to react to which hand to use on all the commands. She again laughed several times while completing the test. Eyelid tremors were present during the test.

8. **Clinical Indicators of Impairment:**

Eye Signs: Neither HGN nor VGN were observed. The suspect's pupil sizes were estimated in three lighting conditions. In Room Light, her pupils were estimated at 5.5 mm in both eyes and 9.0 mm in both eyes in Near Total Darkness. In Direct Light, she exhibited Rebound Dilation with her pupil sizes ranging from 5.0 mm and then expanding to 6.5 mm in each eye. All three estimates were above the DRE average ranges for the lighting conditions. Her pupil reaction to light was normal. She was not able to converge her eyes as directed with both eyes moving in towards the center and then moving downward and back toward the center. The test was conducted twice, and the same results occurred both times.

Vital Signs: The suspect's pulse rates were checked three times during the evaluation. All three were above the DRE average range at 104, 102, and 102 beats per minute. Her systolic and diastolic blood pressures were also above the DRE average ranges, measured at 154/96 mm/hg. Her body temperature was checked at 98.2 degrees Fahrenheit, which was within the DRE average range. Her muscle tone was normal.

9. **Signs of Ingestion:** The suspect's nasal area was checked and appeared normal. Her oral cavity was checked and showed a greenish colored coating on the back of her tongue. When asked about the greenish color on her tongue, she replied, "I don't know. You tell me." She was checked for injection sites and none were found.

10. **Suspect's Statements:** When first asked about what drugs she had used, she stated, "Just marijuana". She later freely described smoking marijuana with friends as they celebrated "4/20" while at White Bear Lake. When asked how much marijuana she had smoked, she stated, "I smoked a little marijuana. What's the big deal." Several times she stated that it was okay to drive after smoking marijuana. The suspect did not report any other type of drug use.

11. **DRE's Opinion**: It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of Cannabis and unable to operate a vehicle safely.

12. **Toxicological Sample:** As previously described, Trooper Barron suspected cannabis impairment and applied for a search warrant for the suspect's blood soon after her arrest. After obtaining the search warrant, Sergeant Tyler Millness of the Minnesota State Patrol, who is a certified phlebotomist, drew a blood sample from the suspect at 1725 hours. The blood sample was entered into evidence by Trooper Barron and will be forwarded to the Crime Lab for analysis.

13. **Miscellaneous:** Refer to Trooper Barron's arrest report for additional details regarding the arrest and blood draw.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Deputy Jason Moser	19172	22-011-0077	Washington County S.O.	(Session XXI - #2)

Recorder/Witness	Crash	Arresting Officer's Agency
Sr. Tpr. Ryan Clarke, Oregon State Police	☒ None ☐ Fatal ☐ Injury ☐ Property	Oregon State Police

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Toker, Bud A.	02/21/1988	M	W	Sr. Trooper Dessa DeForest #17865

Date Examined / Time /Location	Breath Test	Test Refused	Chemical Test
09/07/22 / 1752 / Portland OSP Office	Results: 0.00	Instrument #: 87014	Urine ☒ Blood ☐ Test or tests refused ☐

Miranda Warning Given / Given by: Sr. Tpr. DeForest	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
		Burger & chips	Around noon	Big Gulp A couple	15 min ago

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
About 5 pm / 1758	Last night	7 or 8 hours	☐ Yes ☒ No	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

Are you taking any medication or drugs?	Attitude:	Coordination:
☒ Yes ☐ No "I just smoke pot"	Cooperative, Care-free	Slow, Swaying, Unsteady

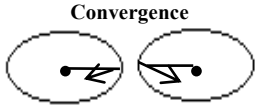
Speech:	Breath odor:	Face:
Slow, Thick, Slurred	Marijuana	Normal

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☒ Bloodshot ☒ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

Pupil Size: ☒ Equal ☐ Unequal (explain)	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☐ Normal ☒ Droopy

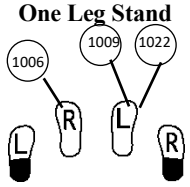
Pulse/Time	HGN	Left Eye	Right Eye
1. 94 / 1812	Lack of Smooth Pursuit	None	None
2. 94 / 1828	Maximum Deviation	None	None
3. 92 / 1840	Angle of Onset	None	None

Convergence



Right eye Left eye

24/30 **One Leg Stand** 25/30

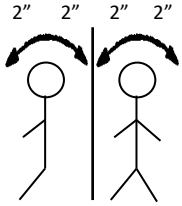


L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

Leg tremors

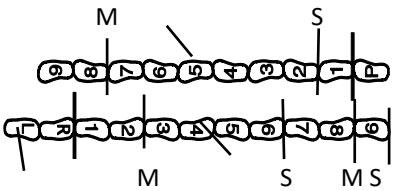
Modified Romberg Balance

Approx. 2" 2" Approx. 2" 2"



Circular sway & Eyelid tremors

Walk and Turn Test



Leg tremors. Walked slowly. Failed to count steps out loud.

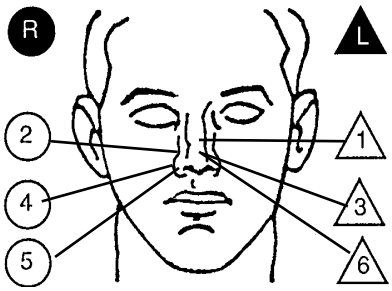
Cannot keep balance: 1

Starts too soon:

	1st Nine	2nd Nine
Stops walking	2	1
Misses heel-toe	2	1
Steps off line	1	1
Uses arms		
Actual steps taken	9	9

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
24 estimated as 30 seconds	Stopped. Walked in a circle.	N/A	Slip-on boots

Finger to Nose
(Draw lines to spots touched)



Eyelid tremors. Pads of fingers on 2, 4 & 5

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	7.0	9.0	5.5 – 7.0
Right Eye	7.0	9.0	5.5 – 7.0

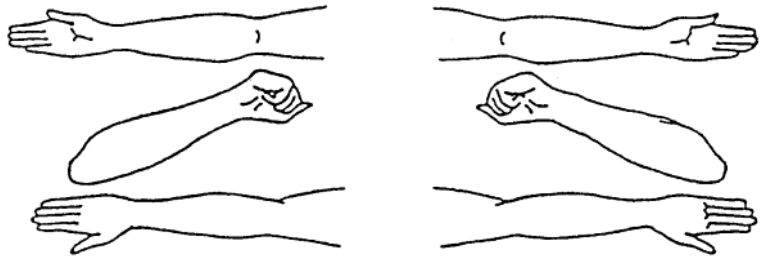
Nasal area: Clear

Oral cavity: Green coating on tongue & Dry mouth

Rebound Dilation: ☒ Yes ☐ No

Reaction to Light: Normal

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature
168 / 92	98.4 °F

Muscle Tone: ☒ Near Normal ☐ Flaccid ☐ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"I smoke pot. I'm not going to lie to you."	"A good-sized bowl"	"About 3 pm"	"Rest area south of Portland"

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
09/07/22 1622	1720	1752	1850	

DRE/Officer's Signature: Jason Moser

Reviewed/approved by / date:

DRE#

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant
☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☒ Cannabis

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Toker, Bud A.

1. **Location:** The drug evaluation was conducted in the DUI processing area at the Portland Oregon State Police Area Command office. The darkroom examinations were conducted in the staff restroom. Both areas have adequate lighting for conducting a drug evaluation and both have a smooth tile floor.

2. **Witnesses:** The evaluation was witnessed and recorded by Sr. Trooper Ryan Clarke of the Oregon State Police. The arresting officer, Sr. Trooper Dessa DeForest of the Oregon State Police witnessed the psychophysical tests.

3. **Breath Alcohol Concentration:** Sr. Trooper DeForest had administered the breath test to the suspect prior to my arriving at the Portland OSP Area Command Office. Using the Intoxilyzer 8000, Serial #87104, she obtained a 0.00% BAC result.

4. **Notification and Interview of the Arresting Officer**: I was on-duty and requested to contact Sr. Trooper DeForest at the Portland Area Command office for a drug evaluation. When contacted, it was determined that the suspect had been reported as a possible impaired driver traveling northbound on I-205. It was reported that the suspect's vehicle could not maintain a single lane of travel and was driving over the speed limit. Senior Trooper DeForest who was working a Labor Day holiday enforcement saturation patrol, located the suspect's vehicle on I-205 near the Oregon City exit. She observed the suspect's vehicle cross over the painted fog line two times and then drift into the middle lane of I-205. She activated her overhead lights and stopped the suspect's vehicle as it turned onto the Oregon City exit. When contacted, Sr. Trooper DeForest noted that the suspect appeared relaxed and seemed unconcerned about being stopped. She also noted that the suspect had difficultly retrieving his operator's license, vehicle registration and proof of insurance. According to Sr. Trooper DeForest, the suspect had red, bloodshot eyes, and his pupils appeared to be dilated. He also had difficulty with his balance and used the side of his vehicle for support when he exited his vehicle. After determining that the suspect was not injured and had no physical problems, Sr. Trooper DeForest administered SFSTs. According to Sr. Trooper DeForest, who is a certified DRE, the suspect had difficulty performing and completing the SFSTs as directed. No clues of Horizontal Gaze Nystagmus (HGN) were observed. However, four clues on the Walk and Turn (W&T) test and two clues on the One Leg Stand (OLS) test were observed. Sr. Trooper DeForest also had the suspect complete several other tests which also revealed poor balance and coordination. She arrested the suspect for DUII and transported him to the Portland Area Command Office for processing. After obtaining a 0.00 BAC, she requested the assistance of a DRE to continue the investigation so that she could respond to a crash on U.S. Highway 26.

5. **Initial Observation of the Suspect:** I first observed the suspect in the processing area at the Portland Area Command Office. He appeared to be calm, relaxed, and carefree acting. His eyes were bloodshot and watery, and his pupils appeared to be dilated. When he stood, his movements were slow and deliberate. Several times he used the interview table to steady himself. I noted that he was wearing brown pants, a black Bob Marley tee-shirt and slip-on brown boots. He was also wearing a cap with the words "Wacky Weed Dispensary" on the front. I introduced myself and advised him that I had been requested to conduct a drug influence evaluation. The suspect seemed unconcerned and said, "Sure, whatever dude."

6. **Medical Problems and Treatment:** The suspect indicated he was not sick or injured and had no conditions that would interfere with his ability to do the evaluation. He told me he was not under the care of a doctor or dentist. When asked if he was taking any medication or drugs, he replied, "I just smoke pot". He further stated that he was not taking any other medication or drugs and had not been consuming any alcoholic beverages.

7. **Psychophysical Indicators of Impairment:** Prior to administering the psychophysical tests, I gave the suspect verbal instructions and demonstrated each test. I confirmed he understood the instructions prior to him attempting each test. The following psychophysical tests were administered:

Modified Romberg Balance: During this test, the suspect had an approximate two-inch circular sway. His time estimation was fast, estimating 30 seconds in 24 seconds. When asked how he estimated the 30 seconds, he stated, "I started out one Mississippi, two Mississippi, but I lost my concentration." Eyelid tremors were present during the entire test.

Walk and Turn: For this test, a line in the tile floor was used. The suspect lost his balance once during the instructions stage stepping out of position with his right foot. After starting the walking stage, the suspect missed heel to toe between steps two and three. He stepped off the line to his right on step four and then stopped while walking at step six. He also missed touching heel to toe between steps eight and nine. When he reached step nine, he stopped and appeared to be confused on what to do next. When reminded, he walked around in a circle instead of making the turn as instructed. During the second nine steps the suspect stopped after step one and asked, "How many steps?". When reminded to take nine steps and count his steps out loud, he continued walking and stepped off the line at step 5 and missed touching heel to toe between steps seven and eight. Even after reminding him to count his steps out loud, he failed to count as directed during the second nine steps. Leg tremors were observed as he attempted the test.

One Leg Stand: While standing on his left foot and extending his right foot, the suspect swayed, used his arms for balance, and put his foot down at his count of 1,006. He counted slowly counting to 1,024 in the 30 second time-period. While standing on his right foot and extending his left foot, he swayed while balancing, used his arms for balance three times, and put his foot down at his counts of 1,009 and 1,022. He again counted slowly, counting to 1,025 in 30 seconds. Leg tremors were observed during the test.

Finger to Nose: During this test, the suspect did not touch the tip of his nose with the tip of his index finger on all six attempts, touching in the following manner: #1 - bridge of the nose; #2 - side of the nose; #3 - bridge of the nose; #4 - right side of the nose; #5 - outside edge of the right nostril; #6 - bridge of the nose. He also used the pads of his fingers on attempts 2, 4 and 5. Eyelid tremors were present during the test.

8. **Clinical Indicators of Impairment:**

Eye Signs: Neither HGN nor VGN were present. The suspect had watery, bloodshot eyes. A lack of convergence (LOC) was present. The LOC test was conducted twice with the same results. His pupils were dilated in all three lighting conditions estimated at 7.0 mm in both eyes in Room Light and 9.0 mm in both eyes in Near Total Darkness. Rebound Dilation was present in Direct Light, with his pupil size dilating from 5.5 mm to 7.0 mm in both eyes. His pupil reaction to light was normal and he had droopy eyelids.

Vital Signs: The suspect's pulse rates where checked three times and were 94 beats per minute (bpm), 94 bpm, and 92 bpm. All were above the DRE average ranges. His B/P of 168/92 mm Hg was above the DRE average ranges. His body temperature of 98.4 was within DRE average ranges. His muscle tone was normal.

9. **Signs of Ingestion:** The suspect had a greenish coating on his tongue. When asked about it, he stated, "Probably from the pot I smoked" then laughed out loud. No injection indicators were observed.

10. **Suspect's Statements:** The suspect admitted smoking marijuana about 3 pm. When asked how much he had smoked, he stated, "A good-sized bowl." When asked if he felt the effects of the marijuana, he said, "It relaxed me. It was good weed." When asked how often he smokes marijuana, he replied, "Anytime I can dude."

11. **DRE's Opinion**: It is my opinion as a certified Drug Recognition Expert that the suspect is under the influence of Cannabis and is unable to operate a vehicle safely.

12. **Toxicological Sample:** A urine sample was collected from the suspect and will be forwarded to the Oregon State Police Crime Laboratory for analysis.

13. **Miscellaneous**: Refer to Sr. Trooper DeForest's arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator: Deputy Scott Newell	DRE #: 17789	Rolling Log #: 22-010-0048	Evaluator's Agency: Yellowstone County S.O.	Case#: (Session XX1 - #3)
Recorder/Witness: Lt. Robert Lester Yellowstone Co. S.O.	Crash: ☐ None ☐ Fatal ☐ Injury ☒ Property		Arresting Officer's Agency: Yellowstone National Park Police	
Arrestee's Name (Last, First, Middle): Duby, Sharon A.	Date of Birth: 12/20/1995	Sex: F	Race: W	Arresting Officer (Name, ID#): Ranger Arrah LaBolle #33188
Date Examined / Time /Location: 07/18/22 / 1820 / Red Lodge PD	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 313305	Chemical Test: Urine ☐ Blood ☒ Test or tests refused ☐	
Miranda Warning Given: Given by: Ranger LaBolle	☒ Yes ☐ No	What have you eaten today? Sandwich & chips	When? About 6 pm	What have you been drinking? How much? Energy drink (1 can) 4 pm / Time of last drink? N/A
Time now/ Actual: About 5 pm / 1824	When did you last sleep? Last night	How long? About 7 or 8 hours	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☐ Yes ☒ No	
Are you taking any medication or drugs? ☒ Yes ☐ No "Just medical marijuana"	Attitude: Cooperative, Relaxed		Coordination: Slow, Unsteady	
Speech: Slow, Thick	Breath odor: Marijuana		Face: Normal	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☒ Bloodshot ☐ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus: ☐ Yes ☒ No	Vertical Nystagmus: ☐ Yes ☒ No	Able to follow stimulus: ☒ Yes ☐ No	Eyelids: ☐ Normal ☒ Droopy

Pulse/Time

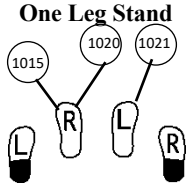
1. 96 / 1830
2. 96 / 1846
3. 94 / 1915

HGN	Left Eye	Right Eye
Lack of Smooth Pursuit	None	None
Maximum Deviation	None	None
Angle of Onset	None	None

Convergence

Right eye Left eye

25/30 **One Leg Stand** 24/30

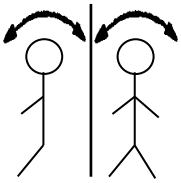


L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

Leg Tremors. Laughing at times

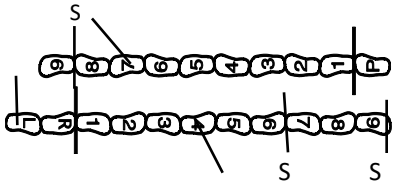
Modified Romberg Balance

Approx. 3" 3" Approx. 2" 2"



Eyelid Tremors

Walk and Turn Test



Slow movements. Laughing at times. Leg tremors.

Cannot keep balance: 1

Starts too soon:

	1st Nine	2nd Nine
Stops walking	2	1
Misses heel-toe		
Steps off line	1	1
Uses arms	2	2
Actual steps taken	9	9

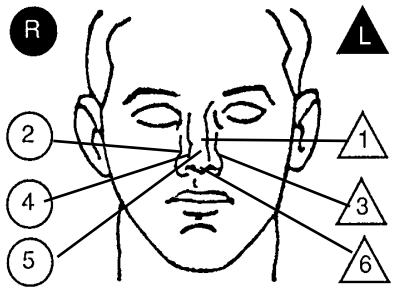
Time Estimation
41 estimated as 30 seconds

Describe turn - Stopped. Walked around in circle

Cannot do test (explain) N/A

Type of footwear: Lace-up hiking boots

Finger to Nose
(Draw lines to spots touched)



Eyelid tremors. Used pads of fingers on 1, 2, 4 & 5

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	6.0	8.5	6.0 – 7.5
Right Eye	6.0	8.5	6.0 – 7.5

Rebound Dilation: ☒ Yes ☐ No

Reaction to Light: Normal

Nasal area: Clear

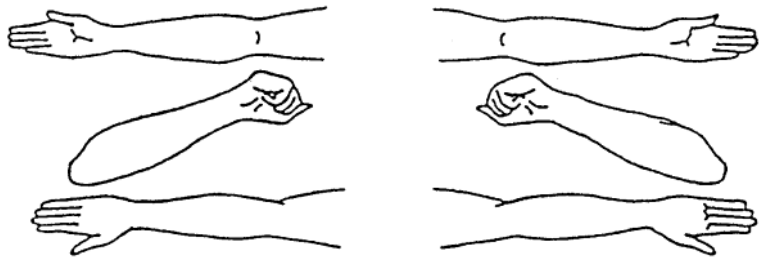
Oral cavity: Green coating on tongue

Blood Pressure	Temperature
170 / 94	98.0 °F

Muscle Tone: ☒ Near Normal ☐ Flaccid ☐ Rigid

Comments:

RIGHT ARM **LEFT ARM**



Nothing observed

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"I use medical marijuana"	"About 2 or 3 grams today"	About 2 hours ago	In car while in the park

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
07/18/22 1725	1750	1820	1930	

DRE/Officer's Signature: *Scott Newell* Reviewed/approved by / date: DRE#

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant
☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☒ Cannabis

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Duby, Sharon A.

1. **Location:** The drug evaluation was conducted in the interview room at the Red Lodge Police Department, Red Lodge, Montana. The darkroom examinations were conducted in the staff restroom. Both areas have adequate lighting and have a smooth tile flooring with no obstructions.

2. **Witnesses:** The evaluation was witnessed and recorded by Lt. Robert Lester from the Yellowstone County S.O.

3. **Breath Alcohol Test:** Duby provided a breath sample to NPS Ranger LaBolle prior to my arrival and she obtained a 0.00 BAC result.

4. **Notification and Interview of the Arresting Officer**: I was on duty and requested to contact Ranger LaBolle regarding a drug evaluation at the Red Lodge PD. When contacted, Ranger LaBolle reported that Duby's vehicle had driven off the roadway on Highway 212 near the entrance to Yellowstone Park and struck a road sign. Duby was not injured and did not require medical treatment. While investigating the incident, Ranger LaBolle detected an odor of marijuana coming from the interior of Duby's vehicle. Duby claimed to be a Montana medical marijuana permittee and admitted smoking marijuana a short time prior to driving. Ranger LaBolle, who is a certified DRE, observed that Duby's eyes were red and bloodshot, and her speech was slow and thick. After confirming that Duby was not injured, Ranger LaBolle administered SFSTs to her. No HGN clues were observed. Three clues were observed on the W&T and three clues on the OLS test. Ranger LaBolle also administered the Finger to Nose (FTN) and Modified Romberg Balance (MRB) tests. On the FTN test, Duby had difficulty maintaining her balance when she tilted her head backwards and was not able to touch her nose as directed. Duby had a noticeable circular sway during the MRB test, and her time estimation was slow. According to Ranger LaBolle, Duby had distinct eyelid tremors while performing the FTN and MRB tests. Ranger LaBolle arrested Duby for DUI and transported her to the Red Lodge PD and administered a breath test. After obtaining a .00 BAC, she requested the assistance of a DRE to conduct a drug evaluation and allowing her to return to Park. Being a DRE trained in the rapid dissipation of THC in blood, Ranger LaBolle applied for a search warrant for the Duby's blood. After obtaining the search warrant, Ranger LaBolle, who is a certified phlebotomist, obtained a blood sample from Duby prior to my evaluation.

5. **Initial Observation of the Suspect:** My first contact with Duby was upon entering the interview room at the PD where Ranger LaBolle had just completed the blood draw. Duby appeared to be relaxed and had a dazed-like appearance. Her eyes were red and bloodshot, and her pupils appeared dilated. She also had droopy eyelids. When she stood, she had unsteady balance and several times leaned against a chair to steady herself. Her speech was slow and thick. I introduced myself and explained why I had been called to assist Ranger LaBolle. I requested that Duby complete a drug evaluation which she agreed to do by stating, "Okay, but I'm not drunk, I'm just tired." I noted that she was wearing blue jeans, a blue sweatshirt, and brown hiking boots.

6. **Medical Problems and Treatment:** Duby indicated she occasionally gets migraine headaches and uses marijuana for them. She indicated she was not diabetic and had no injuries or physical defects. She also advised that she was not injured from the earlier collision. She was not under the care of a doctor or dentist. When asked if she was taking any medication or drugs, she indicated she only uses "medical marijuana."

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to Duby prior to her attempting them. After each demonstration, she confirmed that she understood the instructions. The following tests were administered to Duby:

Modified Romberg Balance: During this test, Duby had an approximate three-inch front to back and an approximate two-inch side to side sway. While doing the test, she exhibited eyelid tremors. Her time estimation was slow, estimating the passage of 30 seconds in 41 seconds according to my timing device. I asked how she estimated the 30 seconds and she stated, "I started counting in my head, but I think I lost track."

Walk and Turn: For this test, a line in the tile floor was used. During the instruction stage, Duby lost her balance and stepped off the line to her left with her left foot. During the walking stage on the first nine steps, she used her arms for balance twice. She stepped off the line to the right on step four and stopped while walking at steps six and nine. After taking her ninth step, she seemed unsure of what to do next and stopped walking. She then made an incorrect turn by taking slow, small steps using both feet turning in a circle. On the second nine steps she started laughing and used her arms to balance twice and stepped off the line to her right on step seven. She also stopped walking at step 8 and appeared confused on what to do. When she completed the test, she began laughing and stated, "Wow, that was really weird." She was given the opportunity to remove her boots for this test and she requested to keep them on.

One Leg Stand: During this test and while standing on her left foot and raising her right foot, Duby swayed and used her arms for balance three times. She put her foot down at count 1,015 and 1,020. Her count was slow, reaching 1,025 in 30 seconds. When standing on her right foot and raising her left foot, she swayed and used her arms for balance two times. She put her foot down at 1,021. Her counting was again slow, counting to 1,024 in 30 seconds. Several times she laughed out loud and leg tremors were present.

Finger to Nose: Duby exhibited eyelid tremors during this test. She did not touch the tip of her nose with the tip of her index finger as instructed on five of the six attempts. On the first attempt, she touched the left side of her nose with the pad of her finger. She touched the right side of her nose with the pad of her finger on the second attempt. She used the pad of her finger on attempts four and five, touching the side of her right nostril. She did touch the tip of her nose with the tip of her index finger on the sixth attempt.

8. **Clinical Indicators of Impairment:**
Eye Signs: Duby's eyes were bloodshot, and she had droopy eyelids. Neither HGN nor VGN were observed. She had a lack of convergence in both eyes. Her eyes moved inward and then both moved downward when the stimulus was moved inward to the bridge of her nose. This test was conducted twice with the same results. Her pupils were dilated in all three lighting levels, estimated at 6.0 mm in both eyes in Room Light, and estimated at 8.5 mm in both eyes in Near Total Darkness. Rebound dilation was present in Direct Light with her pupils dilating from 6.0 mm to 7.5 mm in both eyes. Her reaction to light was normal.

Vital Signs: All three of Duby's pulse rates were above the DRE average ranges and were measured at 96, 96 and 94 beats per minute (bpm). Her blood pressure was also above the DRE average range for both the Systolic and Diastolic ranges at 170/94 mm Hg. Her temperature was measured at 98.0 degrees and was within the DRE average range. Her muscle tone was normal.

9. **Signs of Ingestion:** Duby had a greenish coating on her tongue. When asked about the green coating, she replied, "Could be from the marijuana I smoked." No other signs of ingestion or injection were observed.

10. **Suspect's Statements:** When asked about her self-medicating with marijuana, she admitted smoking "about 2-3 grams" of marijuana on her way to the Park. She stated she smokes marijuana almost every day and did not think the marijuana had affected her. She admitted smoking marijuana for the past 5 to 6 years and prefers Indica because of the relaxing effects.

11. **DRE's Opinion**: It is my opinion as a certified Drug Recognition Expert that Duby was under the influence of Cannabis and unable to operate a vehicle safely.

12. **Toxicological Sample:** Ranger LaBolle obtained a blood sample from Duby prior to my evaluation. The sample will be submitted to Montana State Crime Laboratory for analysis.

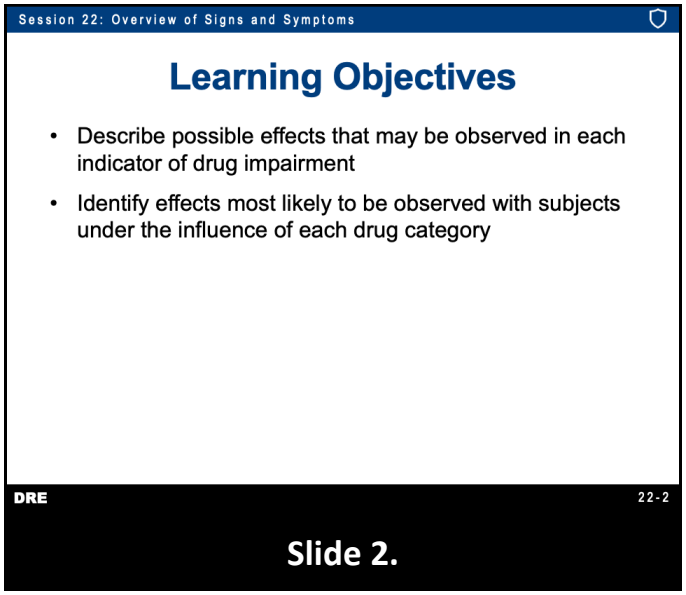
22 DRE

OVERVIEW OF SIGNS AND SYMPTOMS

LEARNING OBJECTIVES

- Describe the possible effects that may be observed in each major indicator of drug impairment
- Identify the effects that will most likely be observed with subjects under the influence of each drug category

CONTENTS


Session 22: Overview of Signs and Symptoms
Learning Objectives
• Describe possible effects that may be observed in each indicator of drug impairment
• Identify effects most likely to be observed with subjects under the influence of each drug category
DRE
22-2

Slide 2.

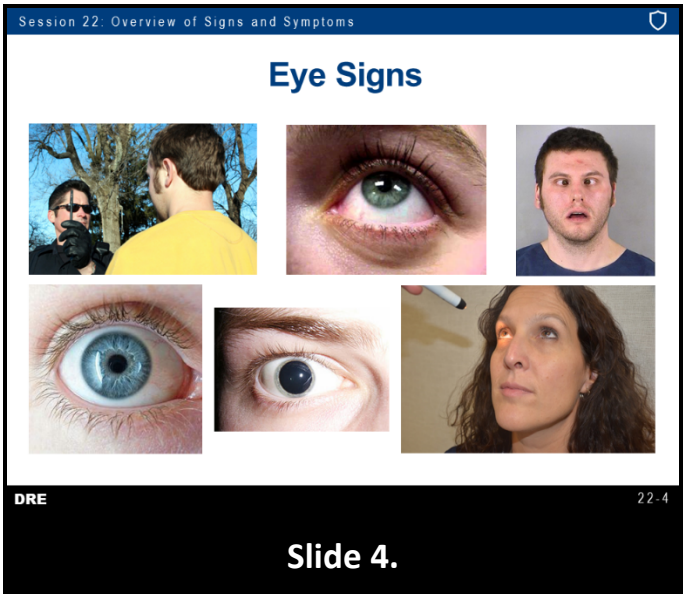
A. The Major and General Indicators and their Possible Effects Associated with the Drug Categories

Slide 3.

For DRE purposes, Major Indicators are physiological signs specifically addressed and are, for the most part, involuntary, reflecting the status of the Central Nervous System (CNS) homeostasis. For DRE purposes, General Indicators are behaviors or observations of the subject observed and not specifically tested for. Both are of equal value in making a decision in the totality of the evaluation.

The Major Indicators of drug impairment are:

- Horizontal Gaze Nystagmus (HGN)
- Vertical Gaze Nystagmus (VGN)
- Lack of Convergence (LOC)
- Pupil Size
- Reaction to Light
- Pulse Rate
- Blood Pressure
- Body Temperature
- Muscle Tone



Slide 4.

Possible Effects – HGN: Possible effects that might be observed with **nystagmus**. With HGN, there are only two possible effects that might be observed. Either HGN will be **present**. Or it will be **none (meaning it is not present)**. There is no drug that stops HGN. Some drugs cause HGN to be present, others do not; but there is no drug that "cures" HGN.

Possible Effects – VGN:

With VGN, there are also only two possible effects. Either it will be **present**. Or it will be **none (meaning it is not present)**.

Possible Effects – LOC:

For LOC, there are also only two possible effects. Either LOC will be **present**. Or it will be **none (meaning it is not present)**.

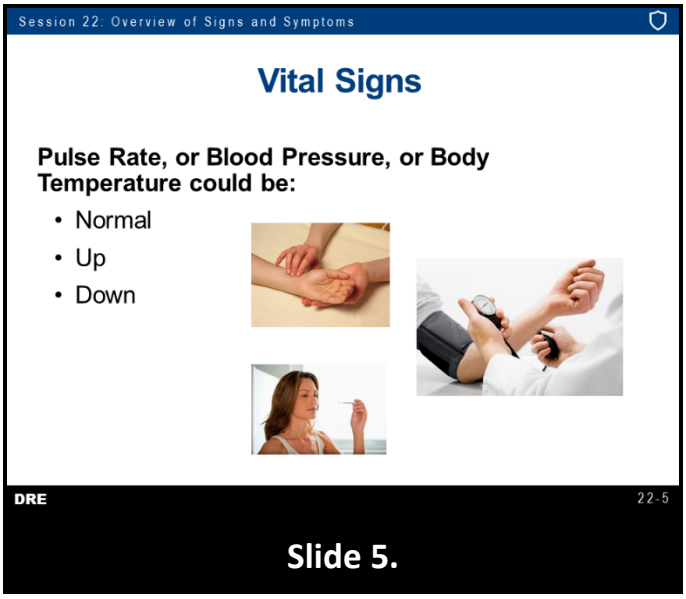
Just as with nystagmus, there is no drug that "cures" LOC.

Possible Effects – Pupil Size

For **Pupil Size**, there are three possible effects that might be seen. The pupils might be **normal** (within the DRE average ranges). Or, the pupils might be **dilated**. Or, they might be **constricted**.

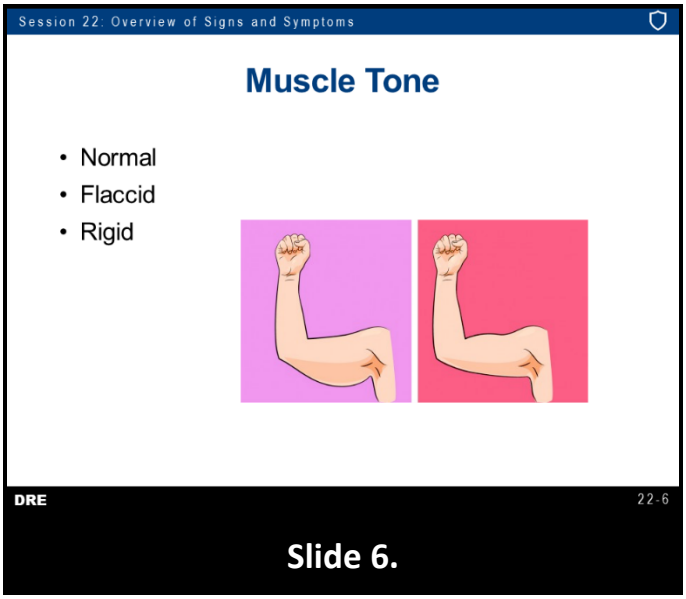
Possible Effects – Reaction to Light:

There are a number of effects that might be observed in the pupils' **Reaction to Light**. The pupils might react in a **normal** manner, i.e., by constricting somewhat in one second or less. Or, the pupils might react **slow**, i.e., by constricting somewhat, but requiring more than one second to do so. Or, little to no reaction.



Slide 5.

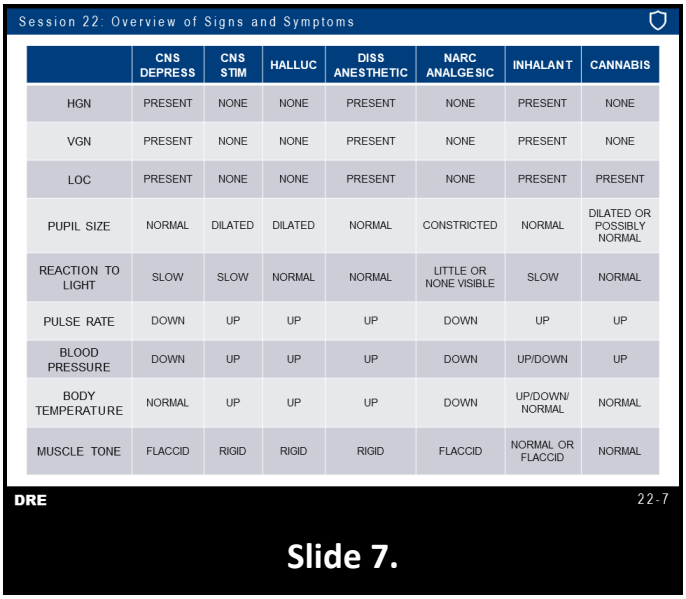
For each of the **Vital Signs**, there are three possible effects. The pulse rate, or blood pressure, or body temperature could be NORMAL (within the DRE average ranges). Or, it could be **UP**, or it could be **DOWN**.



Slide 6.

For **Muscle Tone**, there are three possible effects that might be seen: Normal (meaning nothing unusual); Flaccid; Rigid.

B. Effects Associated with the Drug Categories and Developing a Drug Symptomatology Matrix



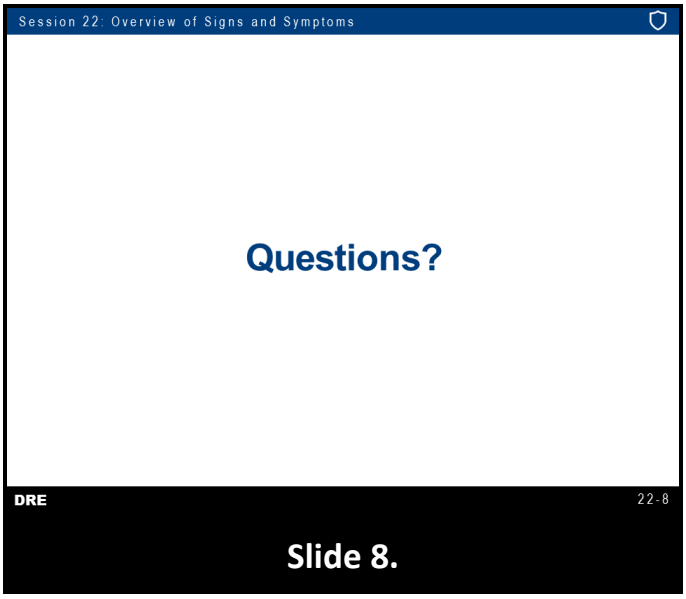
	CNS DEPRESS	CNS STIM	HALLUC	DISS ANESTHETIC	NARC ANALGESIC	INHALANT	CANNABIS
HGN	PRESENT	NONE	NONE	PRESENT	NONE	PRESENT	NONE
VGN	PRESENT	NONE	NONE	PRESENT	NONE	PRESENT	NONE
LOC	PRESENT	NONE	NONE	PRESENT	NONE	PRESENT	PRESENT
PUPIL SIZE	NORMAL	DILATED	DILATED	NORMAL	CONSTRICTED	NORMAL	DILATED OR POSSIBLY NORMAL
REACTION TO LIGHT	SLOW	SLOW	NORMAL	NORMAL	LITTLE OR NONE VISIBLE	SLOW	NORMAL
PULSE RATE	DOWN	UP	UP	UP	DOWN	UP	UP
BLOOD PRESSURE	DOWN	UP	UP	UP	DOWN	UP/DOWN	UP
BODY TEMPERATURE	NORMAL	UP	UP	UP	DOWN	UP/DOWN/ NORMAL	NORMAL
MUSCLE TONE	FLACCID	RIGID	RIGID	RIGID	FLACCID	NORMAL OR FLACCID	NORMAL

Slide 7.

- HGN: **present**
- VGN: **present** (i.e., at high dose for that individual)
- LOC: **present**
- Pupil Size: **normal** (within the average DRE ranges) except Soma, Quaaludes (Methaqualone), and some antidepressants usually **dilate** pupils
- Reaction to Light: **slow**
- Pulse Rate: down **except** Quaaludes (Methaqualone), ETOH, and some antidepressants may **elevate**
- Blood Pressure: **down**
- Body Temperature: **normal** (within the average DRE ranges)
- Muscle Tone: **flaccid**
- HGN: **none** (Not present)
- VGN: **none** (Not present)
- LOC: **none** (Not present)
- Pupil Size: **dilated**
- Reaction to Light: **slow**
- Pulse Rate: **up**
- Blood Pressure: **up**
- Body Temperature: **up**
- Muscle Tone: **rigid**

- HGN: **none** (Not present)
- VGN: **none** (Not present)
- LOC: **none** (Not present)
- Pupil Size: **dilated**
- Reaction to Light: **normal**, certain psychedelic amphetamines may cause slowing
- Pulse Rate: **up**
- Blood Pressure: **up**
- Body Temperature: **up**
- Muscle Tone: **rigid**
- HGN: **present**
- VGN: **present** (i.e., at high doses; however, it is more common to see VGN in someone under the influence of a **Dissociative Anesthetic**)
- LOC: **present**
- Pupil Size: **normal** (within the DRE average ranges)
- Reaction to Light: **normal**
- Pulse Rate: **up**
- Blood Pressure: **up**
- Body Temperature: **up**
- Muscle Tone: **rigid**
- HGN: **none** (Not present)
- VGN: **none** (Not present)
- LOC: **none** (Not present)
- Pupil Size: **constricted**
- Reaction to Light: **little or none visible**
- Pulse Rate: **down**
- Blood Pressure: **down**
- Body Temperature: **down**
- Muscle Tone: **flaccid**
- HGN: **present**
- VGN: **present** (high dose for that individual)
- LOC: **present**
- Pupil Size: **normal** (within the DRE average ranges) but may be dilated
- Reaction to Light: **slow**
- Pulse Rate: **up**
- Blood Pressure: **up/down** (the Volatile Solvents and the Aerosols usually cause blood pressure to be **above the average ranges**; but the Anesthetic Gases can cause blood pressure to be **below the average ranges**, even though they **elevate** the pulse rate)
- Body Temperature: **up/down/normal**
- Muscle Tone: **normal or flaccid**

- HGN: **none** (not present)
- VGN: **none** (not present)
- LOC: present
- Pupil Size: **dilated or possibly normal** (within the DRE average ranges)
- Reaction to Light: **normal**
- Pulse Rate: **up**
- Blood Pressure: **up**
- Body Temperature: **normal** (within the DRE average ranges)
- Muscle Tone: **normal**



Slide 8.

Drug Symptomatology Sources: Not all signs and symptoms associated with a drug category will be observed in all subjects in all cases. The excerpts from the references are consistent with DRE instruction and experience.

Indicators Consistent with Drug Categories

	CNS DEPRESSANTS	CNS STIMULANTS	HALLUCINOGENS	DISSOCIATIVE ANESTHETICS	NARCOTIC ANALGESICS	INHALANTS	CANNABIS
HGN	Present	None	None	Present	None	Present	None
VGN	Present (High Dose)	None	None	Present	None	Present (High Dose)	None
LOC	Present	None	None	Present	None	Present	Present
Pupil Size	Normal (1)	Dilated	Dilated	Normal	Constricted	Normal (4)	Dilated (6)
Reaction to Light	Slow	Slow	Normal (3)	Normal	Little or None Visible	Slow	Normal
Pulse Rate	Down (2)	Up	Up	Up	Down	Up	Up
Blood Pressure	Down	Up	Up	Up	Down	Up/Down (5)	Up
Body Temperature	Normal	Up	Up	Up	Down	Up/Down/Normal	Normal
Muscle Tone	Flaccid	Rigid	Rigid	Rigid	Flaccid	Normal or Flaccid	Normal
General Indicators	Disoriented Droopy eyelids Drowsiness Drunk-like behavior Impaired judgment Relaxed inhibitions Slow, sluggish reactions Thick, slurred speech Uncoordinated Unsteady walk Variety of emotional effects	Anxiety Body tremors Dry mouth Euphoria Exaggerated reflexes Excited Eyelid tremors Grinding teeth (Bruxism) Hyperactivity Increased alertness Insomnia Irritability Redness to the nasal area Restlessness Runny nose Talkative	Body tremors Dazed appearance Difficulty with speech Disoriented Hallucinations Impaired perception of time and distance Memory loss Nausea Paranoia Perspiring Piloerection Synesthesia Uncoordinated	Blank stare Chemical odor (PCP) Confused Cyclic behavior Disoriented Hallucinations Incomplete verbal responses Increased pain threshold Non-communicative Perspiring Possibly violent Sensory distortions Slow, slurred speech Slowed responses	Depressed Reflexes Difficulty concentrating Droopy eyelids Drowsiness Dry mouth Euphoria Itching Nausea “On the nod” Puncture marks Slow, low, raspy speech Slowed breathing Slow deliberate movements	Bloodshot eyes Confused Disoriented Flushed face Intense headaches Muscle weakness Non-communicative Odor of substance Possible nausea Residue of substance Slow, thick, slurred speech Watery eyes	Bloodshot eyes Body tremors Disoriented Drowsiness Euphoria Eyelid tremors Greenish coating on the tongue Impaired memory Impaired perception of time and distance Incomplete verbal responses Increased appetite Lack of concentration Mood changes Paranoia Rebound dilation Relaxed inhibitions Sedation
Duration of Effects	Ambien: 4-5 hours Klonopin: 6-12 hours Xanax: 6-8 hours Others: Vary	Cocaine: Up to 2 hours Methamphetamine: Up to 12 hours	LSD: 6-8 hours MDMA: 1-3 hours Psilocybin: Up to 5 hours	PCP: 4-6 hours DXM: 3-6 hours Ketamine: Up to 2 hours	Fentanyl: 2-3 hours Heroin: 3-5 hours Methadone: 6-8 hours Others: Vary	Several hours for most volatile solvents Anesthetic gases and aerosols – very short duration	Smoked: 3-4 hours Edibles: Up to 8 hours
Usual Methods of Administration	Injected Insufflation Oral	Injected Insufflation Oral Smoked	Insufflation Oral Smoked Transdermal	Injected Insufflation Oral Smoked Transdermal	Injected Insufflation Oral Smoked Transdermal	Inhalation	Oral Smoked Transdermal
Overdose Signs	Clammy skin Coma Rapid, weak pulse Shallow breathing	Hallucinations Psychosis Violent behavior	Condition similar to heat stroke Convulsions Intense bad “trip”	Coma Seizures	Cold, clammy skin Coma Convulsions Slow and shallow breathing	Cardiac arrhythmia Respiration ceases Nausea/vomiting Risk of death	Acute anxiety attacks Excessive vomiting Possible psychosis

FOOTNOTE: These indicators are the most consistent with the category. There may be variations due to individual reaction, dose taken, and drug interactions.

1) Soma, Quaaludes, and some anti-depressants usually dilate
2) ETOH, Quaaludes, and some anti-depressants may elevate
3) Certain psychedelic amphetamines may cause slowing
4) Possibly dilated
5) Down with anesthetic gases, up with volatile solvents and aerosols
6) Possibly normal

23 DRE

CURRICULUM VITAE PREPARATION & MAINTENANCE

LEARNING OBJECTIVES

- Describe and discuss the purpose of a Curriculum Vitae (CV)
- Identify the elements of a Curriculum Vitae
- Prepare a basic Curriculum Vitae summarizing relevant training, education, experience, and accomplishments to date
- Update and maintain the Curriculum Vitae

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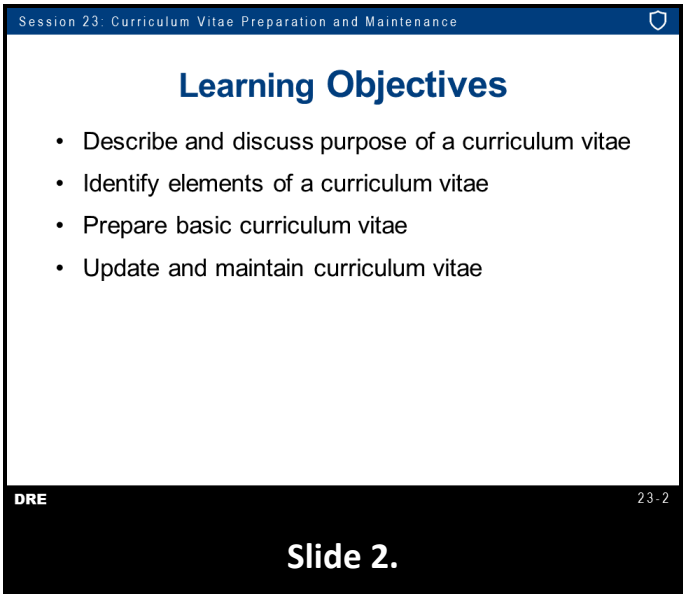


Slide 2.

A. Preparation for Court Qualification

Slide 3.

Prior to testifying and being qualified as an expert witness, there are certain tasks a DRE should perform prior to trial. Being qualified as an expert may be as simple as stating your occupation or take several hours of exhausting questioning by both the prosecutor and defense attorney.

Although knowledge only greater than what the public has is required to qualify you as an expert, your testimony will carry much more "weight" if you have good credentials. Accurate, up-to-date information is essential for an officer who is called upon to give his or her qualification as an expert in any field.

DREs will base their expertise on the following areas:

- Formal education and training
- Relevant experience
- Outside readings and studies

B. Purpose of the Curriculum Vitae (CV)

Slide 4.

The basic purpose of the CV is to record education, training, skills and experience in one document. A CV may be used to establish expert qualifications. Generally, a lay witness can testify to personal knowledge only.

Prior to becoming certified as a DRE, a candidate must prepare a CV.

Slide 5.

A person skilled in some art, trade, science, or profession, having a knowledge of matters not within the knowledge of persons of average education, learning, and experience may assist a judge or jury by expressing an opinion on a state of facts shown by the evidence and based upon his or her special knowledge.

A witness is not qualified as an expert witness unless it is shown he or she is familiar with the subject upon which he or she is asked to give an opinion.

An expert witness' qualification is achieved through Voir Dire Examination. In a law or court context, this is used to question a witness to assess his or her qualifications to be considered an expert in some matter pending before the court. Only the court can determine whether a witness is qualified to testify as an expert. Where a witness is qualified to give expert testimony, any question as to degree of knowledge goes to weight rather than admissibility.

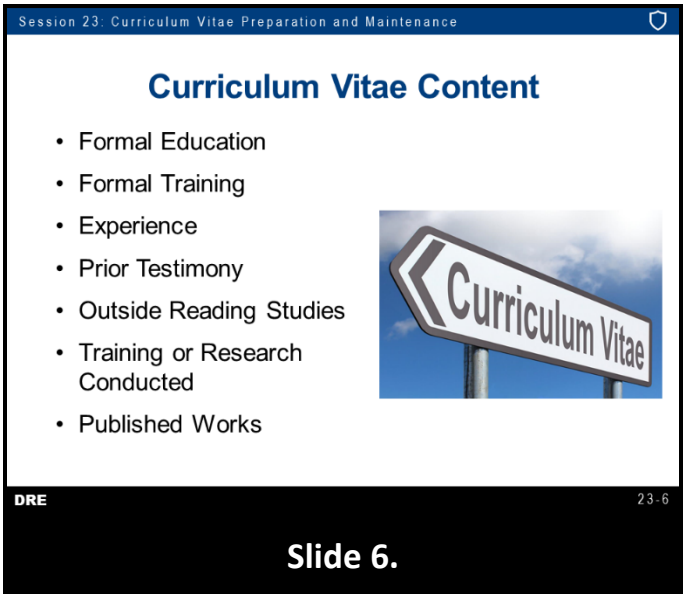
Sources:

People v. Willis, 70 Cal.App. 465, 233 P. 812 (Cal. Ct. App 1924).

People v. McLean, 16 Cal.Rptr. 347,56 Cal.2d 660,365 P.2d 403 (1961).

People v. Perry, 7 Cal.3d 756, 789-790, 103 Cal.Rptr. 161, 499 P.2d 129 (1972).

C. Curriculum Vitae Content



Slide 6.

Formal Education: Provide a list of formal education, beginning with the most recent:

- Specialized college
  - List dates, length, major topics covered, etc.
  - Highlight classes which provided knowledge or skills in the area of drugs
- University-level courses
  - List dates, instructor, subject(s) covered, credits, etc.
- Colleges and universities attended
  - List dates, instructor, subject(s) covered, credits, etc.
- High school(s) attended
  - List dates – highlight classes which provided knowledge in the area of drugs

Formal Training: Provide a list of formal training, beginning with the most recent:

- Lectures and seminars
  - List dates, length, instructor(s), subject(s) covered, etc.
  - Highlight training which provided knowledge or skills in the area of drugs
- Specialized police training or in-service training
  - List dates, length, instructor(s), subject(s) covered, etc. beginning with the most recent
  - Highlight training which provided knowledge or skills in the area of drugs
- Other specialized training
- Police academy (recruit training)
- Military training

Experience: Provide a list of job experience, beginning with the most recent position/assignment:

- Job experience – years
  - List dates, division, duties, etc., include loans to specialized units
- Assignments
  - List agencies, dates, responsibilities, etc.
- Prior law enforcement experience
  - List employer, dates, duties, assignments, etc.
- Other job related experience

Prior Testimony: For bulleted items below, list dates, courts, jurisdiction, judges, charges, case number, case name, areas qualified, etc.

- Municipal court
- Superior court
- Number of times qualified as an expert in drug cases
- Number of times qualified as an expert in other cases

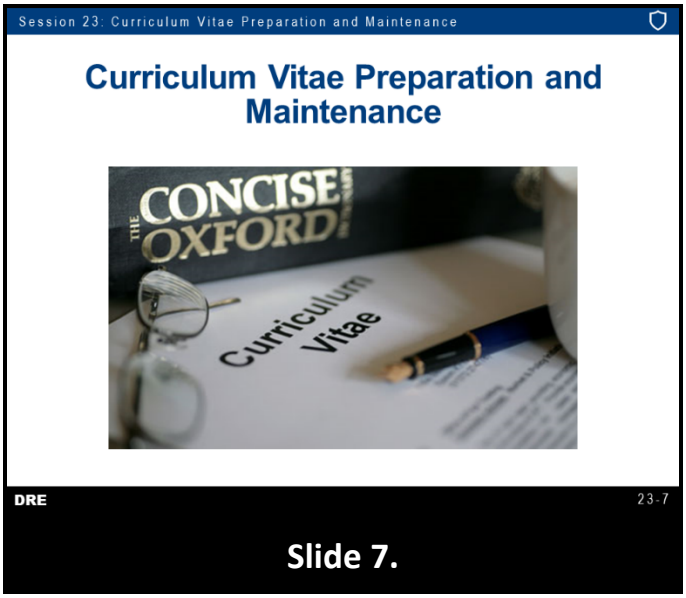
Outside Reading and Studies:

- Drug-related texts read
- List title(s), author(s), subject(s), citation(s), etc.
- Departmental training bulletins
- Journals
- Research papers
- Drug-related videos viewed

Training or Research Conducted (if applicable): List classes, briefings, training officer assignments, etc. where you served as an instructor or coach, etc. or conducted or participated in research, e.g., Alcohol Workshop.

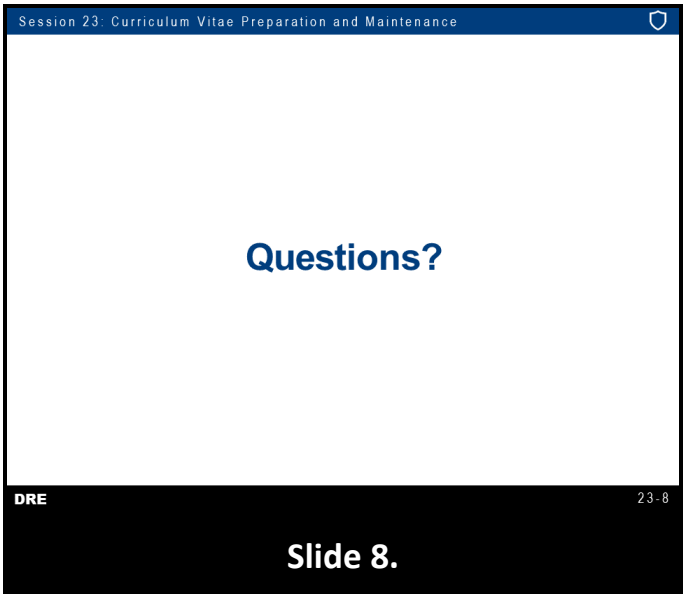
Published Works (if applicable): List all relevant writings you authored or co-authored, including departmental briefing papers, training manuals/bulletins, magazine articles, books, etc.

D. Guidelines for Curriculum Vitae Preparation and Maintenance



Slide 7.

List information in chronological order. Formal education should be normal chronological order. Training should be in reverse chronological order (most recent training first). Review and update CV frequently and record date in footer.


Session 23: Curriculum Vitae Preparation and Maintenance
Questions?
DRE
23-8

Slide 8.

Officer Brian Cooper

Drug Recognition Expert

Golden Police Department
Patrol Division
District 2
351 Wichita Road
Golden, CA 80517
BCooper@Golden.gov
(555) 303-4318

INTRODUCTION

Before starting my career in law enforcement, I attended the University of Texas at Arlington where I earned a degree in Criminology and Criminal Justice. I am in the University of California's leadership in policing master's program and expect to graduate May 2021.

My first job in law enforcement was as a police agent with the Woodland Park Police Department. While serving as a police agent, I helped the Department re-establish its Drug Recognition Expert (DRE) unit and create an honor guard team.

Now, at the Golden Police Department, I specialize in the prevention and enforcement of impaired driving offenses as member of the Golden Police Department Special Operations Division, Traffic Operations Section, DUI/DRE Enforcement Unit. I am an advisor for Golden's Impaired Driving Enforcement Steering Committee and a member of the Governor's Standing Committee on First Responder Safety.

EDUCATION

09/2006 - 06/2010 **University of Texas-** Arlington, TX
Bachelor of Arts in Criminal Justice; Minor: Spanish
Dean's List: Fall 2007, Spring 2008

LAW ENFORCEMENT EXPERIENCE

01/2017 - Present **Golden Police Department-** Golden, CA
Work with community members on impaired driving prevention projects, enforce impaired driving laws, train new officers on impaired driving matters, organize and supervise DUI checkpoints, execute search warrants, conduct drug influence evaluations, investigate crashes and testify for legal tribunals.

06/2010 - 01/2017 **Woodland Park Police Department-** Woodland Park, CA
Police agent for 586 square mile municipality comprised of urban, suburban, and farming areas where I responded to calls for service, detected impaired drivers, conducted investigations, performed drug influence evaluations, and taught in-service courses related to traffic enforcement.

TRAINING

06/15-23/2014 **Drug Recognition Expert Course**
(56 Hrs.)- California Highway Patrol (CHP) Sacramento, CA
Included an overview of the drug evaluation procedures, expanded sessions on each drug category, drug combinations, examination of vital signs, case preparation, courtroom testimony, curriculum vitae preparation, and written examination.

06/13-14/2014 **Drug Evaluation and Classification (Preliminary School) (16 Hrs.)-** CHP Sacramento, CA

Overview of the drug recognition expert (DRE) evaluation procedures, the seven drug categories, eye examinations, and proficiency in conducting the Standardized Field Sobriety Tests (SFSTs).

05/15-16/2013 **Advanced Roadside Impaired Driving Enforcement (ARIDE) (16 Hrs.)-** Jackson County Sherriff's Office Walden, CA

The SFST curriculum trains officers to identify and assess drivers suspected of being under the influence of alcohol while the Drug Evaluation and Classification (DEC) Program provides more advanced training to evaluate suspected drug impairment. ARIDE is intended to bridge the gap between these two programs by providing officers with enhanced knowledge related to drug impairment and by promoting the use of DREs in states that have the DEC Program. One of the more significant aspects of ARIDE is its review and required student demonstration of the SFST proficiency requirements.

08/01-04/2012 **DWI Detection & SFST Instructor Development Course (32 Hrs.)-** CHP Sacramento, CA

Learned techniques for instructing adults and how to apply those to the SFST training program.

11/01-03/2010 **DWI Detection and Standardized Field Sobriety Testing (SFST) (24 Hrs.)-** CHP Sacramento, CA

Since its inception in the early 1980s (developed under the auspices and direction of the National Highway Traffic Safety Administration and the International Association of Chiefs of Police), this training curriculum prepares police officers to conduct the SFSTs for use in DUI investigations.

SFST Accreditation Status: Accredited from 11/03/2010 to Present
Expiration: 01/03/2020

INSTRUCTION

12/14-17/2018 **DWI Detection and SFST (24 Hrs.)-** LEAD Impairment Training Breckenridge, CA

Taught Sessions 1: Introduction and Overview, 8: Concepts and Principles of the SFSTs, and 16: Program Conclusion.

EXPERT TESTIMONY

10/15/2019 **Drug Recognition Expert**
People v. Maria Edwards, 19T3409 (DUI)
21st Judicial District Mesa County Court- Grand Mesa, CA
Judge Christina Smith

01/27/2018	**Expert in the administration and interpretation of the Horizontal Gaze Nystagmus Test** *People v. Johnny Gifford*, 17M4507 (DUI & Careless Driving) 11th Judicial District Custer County Court- Westcliffe, CA Magistrate Thomas Dublin
02/09/2017	**Expert in phencyclidine impairment** *People v. Curtis Matthews*, 17CR1018 (Vehicular Homicide) 18th Judicial District Douglas County District Court- Fireside, CA Judge Lucas Baranovic

OUTSIDE READINGS AND STUDIES

Citek, K., Ball, B., Rutledge, D.A., 2003. Nystagmus testing in intoxicated individuals. Optometry 74 (11).

Blencowe, T. et al. An analytical evaluation of eight on-site oral fluid drug screening devices using laboratory confirmation results from oral fluid. Forensic Science International. 2011; 20; 208(1):173-9.

Hartman, R.L., Huestis, M.A., et al., Effect of Blood Collection Time on Measured Δ^9 Tetrahydrocannabinol Concentrations: Implications for Driving Interpretation and Drug Policy, Clinical Chemistry, 62:2, 367-377, doi:10.1373/clinchem.2015.248492 (2016).

PUBLICATIONS/RESEARCH

Cooper, Brian H., "The Impact of In-Car Mobile Video System On Policing;" Michigan Digital Library. August 2016.

Deputy Casey R. Martin

Drug Recognition Expert Instructor

Broomfield Sheriff's Office
Sector A
8101 W. 68th Ave.
Broomfield, CO 80002
cmartin@email.gov
(555) 123-4567

INTRODUCTION

After graduating from the Michigan State Police Training Academy, I became a patrol officer with the Ann Arbor Police Department. I strived to continue my education and training while serving a culturally diverse population with a focus on traffic and DWI enforcement.

I was hired by the Broomfield Sheriff's Office in 2015 where I am a member of the traffic unit. As a Drug Recognition Expert (DRE) Instructor, I have provided impaired driving enforcement and drug recognition related trainings to law enforcement, prosecutors, and others throughout Colorado. I am also a member of the DRE Training Steering Committee.

EDUCATION

09/2006 - 02/2010 **Michigan State Police Training Academy- Lansing, MI**

08/2003 - 05/2006 **West High School – Traverse City, MI**
Honor Roll

LAW ENFORCEMENT EXPERIENCE

02/2015 - Present **Arvada Police Department- Arvada, CO**
DUI/DRE Enforcement Unit
DRE Instructor
SFST Instructor

04/2010 - 02/2015 **Ann Arbor Police Department- Ann Arbor, MI**
SFST Instructor
Drug Recognition Expert
Patrol Officer

TRAINING

03/12/2018 **Impaired Driving Hot Topics (8 Hrs.)-** Golden, CO
Topics included: Advanced Courtroom Testimony, Eyes - Impairment Indicators, Widmark Equation vs. Back Extrapolation, DAX Impairment Evidence Recorder and 2018 SFST and DRE Updates. Instructors Jim Camp, Roger Meyers, Jennifer Plutt

03/09-08/2017 **Drug Recognition Expert Instructor Development Course (40 Hrs.)-** Lead Impairment Durango, CO
The goal of this course is to prepare DRE-trained officers who are proficient in the DRE process to effectively teach and provide feedback to learners. Officers must be recommended by their agencies to be eligible for this training.

10/24-11/01/2014 **Drug Recognition Expert Course (56 Hrs.)-** Michigan Office of Highway Safety Planning Auburn Hills, MI

Included an overview of the drug evaluation procedures, expanded sessions on each drug category, drug combinations, examination of vital signs, case preparation, courtroom testimony, curriculum vitae preparation, and written examination.

10/21-23/2014 **Drug Evaluation and Classification (Preliminary School) (16 Hrs.)-** Michigan Office of Highway Safety Planning Auburn Hills, MI

Overview of the drug recognition expert (DRE) evaluation procedures, the seven drug categories, eye examinations and proficiency in conducting the Standardized Field Sobriety Tests (SFSTs).

03/20-25/2014 **DWI Detection & SFST Instructor Development Course (32 Hrs.)-** Michigan Department of Transportation Jackson, MI

Learned techniques for instructing adults and how to apply those to the SFST training program.

04/16-17/2012 **Advanced Roadside Impaired Driving Enforcement (ARIDE) (16 Hrs.)-** Michigan State Police Cadillac, MI

The SFST curriculum trains officers to identify and assess drivers suspected of being under the influence of alcohol while the Drug Evaluation and Classification (DEC) Program provides more advanced training to evaluate suspected drug impairment. ARIDE is intended to bridge the gap between these two programs by providing officers with enhanced knowledge related to drug impairment and by promoting the use of DREs in states that have the DEC Program. One of the more significant aspects of ARIDE is its review and required student demonstration of the SFST proficiency requirements.

06/12-17/2010 **DWI Detection and Standardized Field Sobriety Testing (SFST) (24 Hrs.)-** Michigan State Police Lansing, MI

Since its inception in the early 1980s (developed under the auspices and direction of the National Highway Traffic Safety Administration and the International Association of Chiefs of Police), this

training curriculum prepares police officers to conduct the SFSTs for use in DUI investigations.

SFST Accreditation Status: Accredited from 06/17/2010 to Present
Expiration:03/12/2020

INSTRUCTION

10/21-31/2019 **Drug Recognition Expert Course (56 Hrs.)-** Colorado Department of Transportation Aurora, CO

Sessions 7: Examination of Vital Signs and 11: Practice: Eye Examinations

06 /11-15/2018 **DWI Detection and SFST (24 Hrs.)-** Golden Police Department Golden, CO
Sessions 1: Introduction and Overview, 8: Concepts and Principles of the SFSTs, and 16: Program
Conclusion.

EXPERT TESTIMONY

04/19/2019 **Drug Recognition Expert**
People v. Michael Jon, 18T3409 (DUI)
10th Judicial District Pueblo County Court- Pueblo, CO
Judge Dana Murray

10/07/2014 **Expert in DUI, SFSTs, and DRE Investigations**
People v. Renee Plum, 17M4507 (DUI & Reckless Driving)
1st Judicial District Gilpin County Court- Black Hawk, CO
Judge Robert Clark

03/04/2009 **Expert in Central Nervous System Depressants**
People v. Davis Chancellor, 16T3633 (DUI)
2nd Judicial District County Court- Denver, CO
Judge Jared Castor

OUTSIDE READINGS AND STUDIES

Citek, K., Ball, B., Rutledge, D.A., 2003. Nystagmus testing in intoxicated individuals. Optometry 74 (11).

PUBLICATIONS

Correlation Between SFSTs and Impairment The Colorado DRE. Issue 2, October 2016.

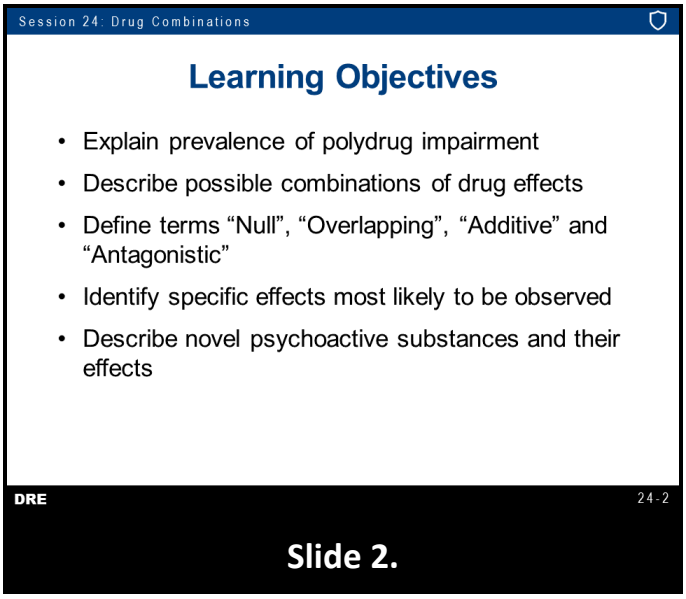
24 DRE

DRUG COMBINATIONS

LEARNING OBJECTIVES

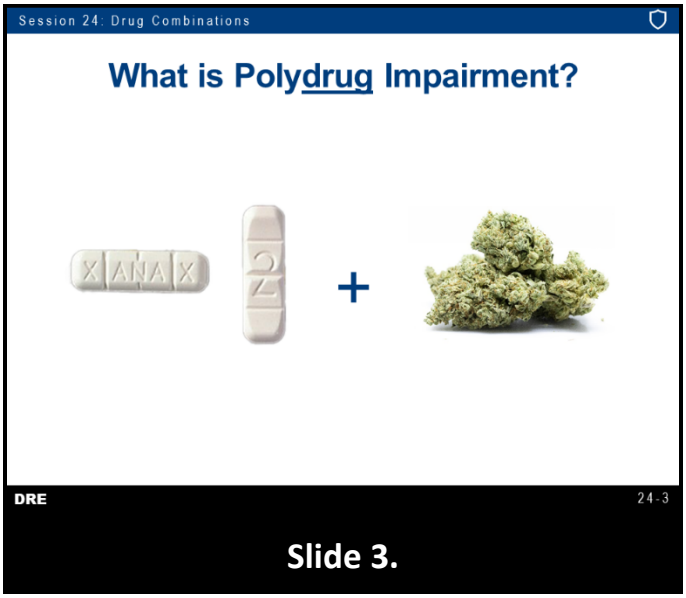
- Explain the prevalence of polydrug impairment among drug-impaired subjects and identify common combinations of drugs abused by those subjects
- Describe the possible effects combinations of drugs can produce on the clinical indicators of drug impairment
- Define the terms “Null,” “Overlapping,” “Additive,” and “Antagonistic” as they relate to polydrug effects
- Identify the specific effects most likely to be observed in persons under the influence of particular drug combinations
- Describe novel psychoactive substances and their effects

CONTENTS



Slide 2.

A. The Prevalence of Polydrug and Polycategory Impairment



Slide 3.

Polydrug impairment means being under the combined influence of two or more different drugs, which may be in the **same or different categories**. In many cases, one substance is used as a base or primary drug with additional drugs to achieve the desired effect(s).

Prevalence of Polydrug Impairment: It is common for a DRE to encounter polydrug users. In the Los Angeles Field Study (1985), 72% of the suspects had two or more drugs in them. If we discount alcohol, nearly half (45%) of the Field Study suspects had two or more other drugs in them.

When polydrug impairment involves drugs from **two or more drug categories**, it may be referred to as **polycategory impairment**. Polycategory can produce any of the four drug combination effects (Null, Overlapping, Additive, or Antagonistic).

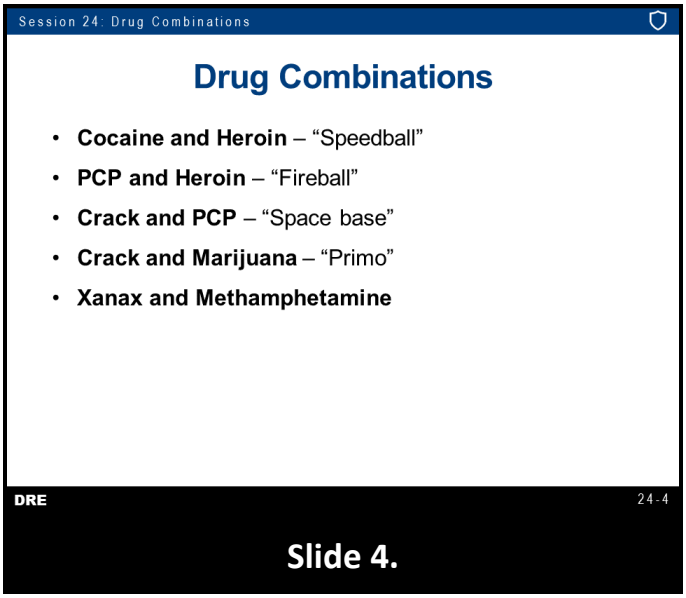
A common type of polydrug mix is marijuana and alcohol. The combination of alcohol and cannabis produce significantly higher THC levels in the blood than cannabis use alone.

Alcohol is often found in combination with one or more drugs. The NHTSA DRE Data System indicates more than a third of all DRE-reported cases revealed two or more drug categories detected.

Source:

Research Shows That Any Dose of Alcohol Combined With Cannabis Significantly Increases Levels of THC in the Blood. (2015, May 27). Retrieved May 16, 2022, from AACC: https://www.aacc.org/media/press-release-archive/2015/alcohol-combined-with-cannabis-significantly-increases-levels-of-thc-in-the-blood

B. Possible Effects of Drug Combinations

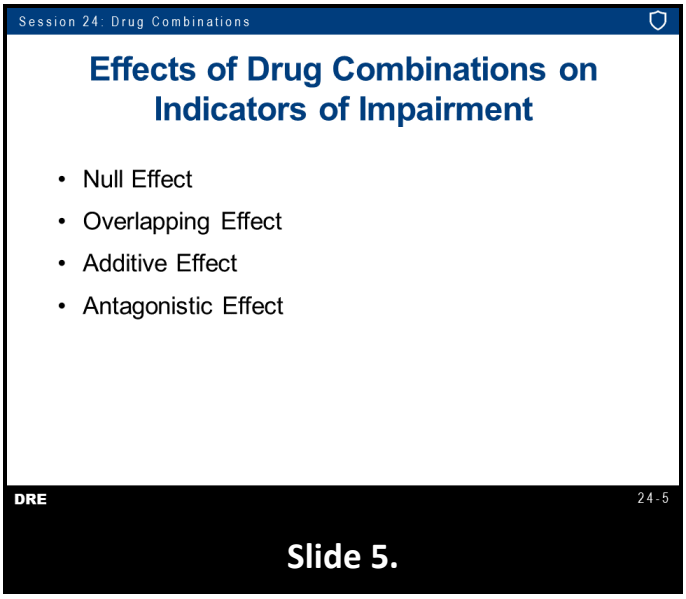


Slide 4.

Let us examine the possible ways in which two or more drug categories might interact.

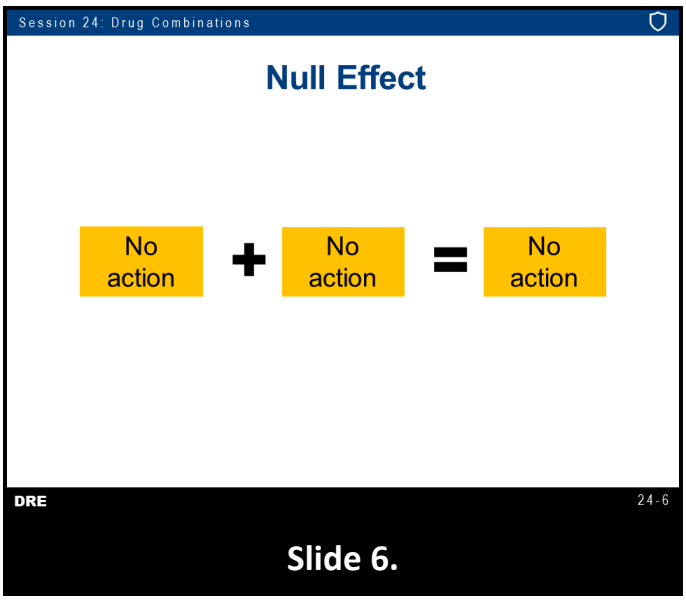
Some common combinations of drug categories and their street names include:

- Cocaine and Heroin – "Speedball"
- PCP and Heroin – "Fireball"
- Crack and PCP – "Space base"
- Crack and Marijuana – "Primo"
- Xanax and Methamphetamine



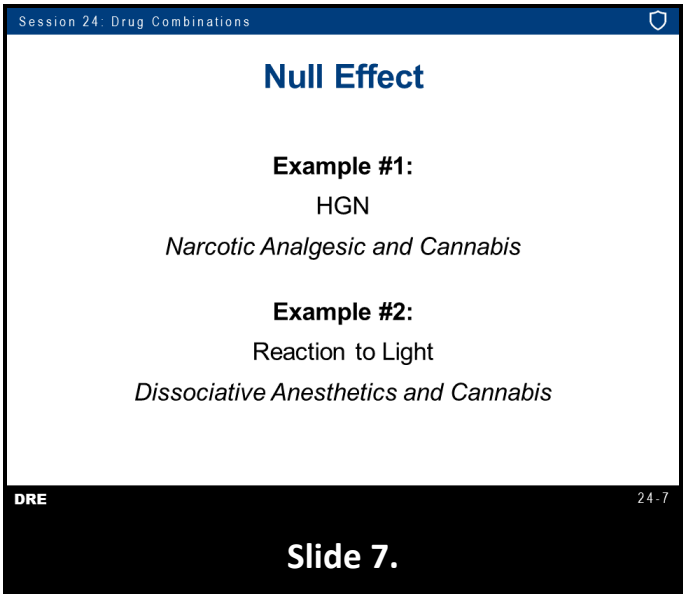
Slide 5.

There are four effects of drug combinations on indicators of impairment: Null Effect; Overlapping Effect; Additive Effect; Antagonistic Effect.



Slide 6.

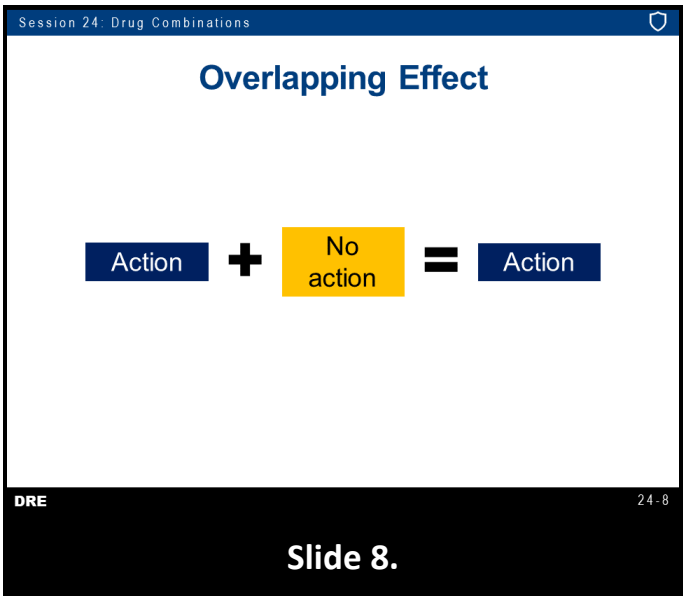
The first effect is called the Null Effect. This occurs when neither drug affects a particular indicator of impairment, and their combination also will not affect that indicator. This could be described as “No action plus no action equals no action.”



Slide 7.

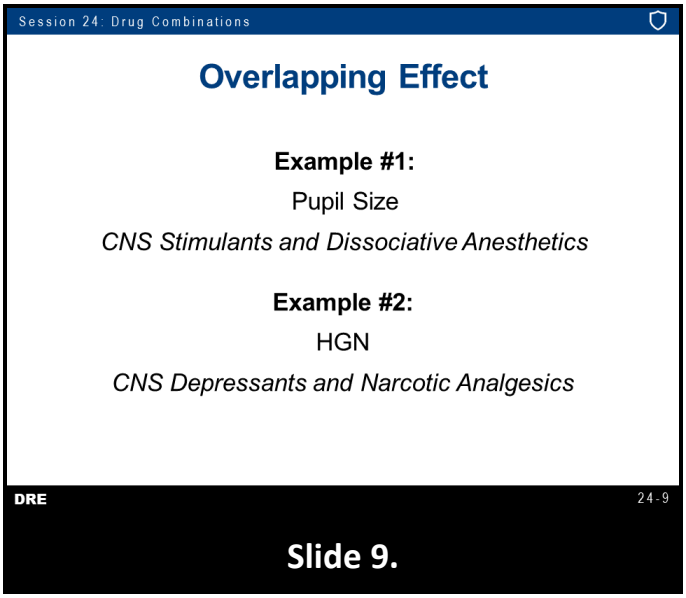
Example #1: Horizontal Gaze Nystagmus (HGN) – Narcotic Analgesic and Cannabis: An example of the Null Effect: Neither drug affects HGN; The combination would not result in HGN being present.

Example #2: Reaction to Light - Dissociative Anesthetics and Cannabis: Another example of the Null Effect: Neither drug affects reaction to light.



Slide 8.

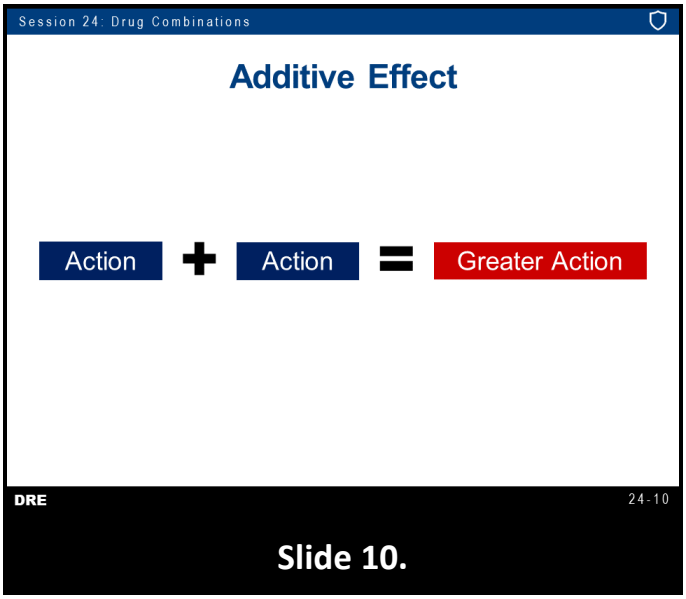
The second effect is called the Overlapping Effect. This occurs when one drug causes an affect and the other does not. This could be described as "action plus no action equals action."



Slide 9.

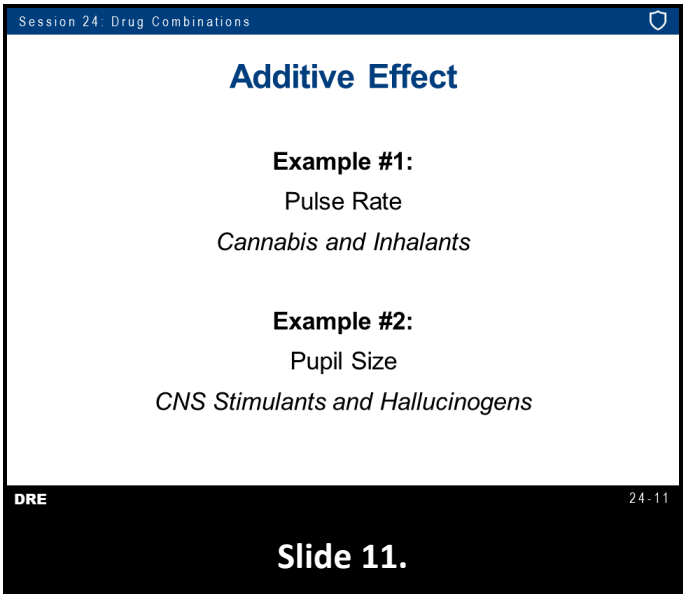
Example #1: Pupil Size - CNS Stimulants and Dissociative Anesthetics: One drug affects pupil size, but the other does not. CNS Stimulants dilate pupils, Dissociative Anesthetics do not affect pupil size. Therefore, pupils should be dilated.

Example #2: HGN - CNS Depressants and Narcotic Analgesics: A CNS Depressant will cause HGN, but a Narcotic Analgesic will not cause HGN; a person under the combined influence of a CNS Depressant and a Narcotic Analgesic will usually have HGN.



Slide 10.

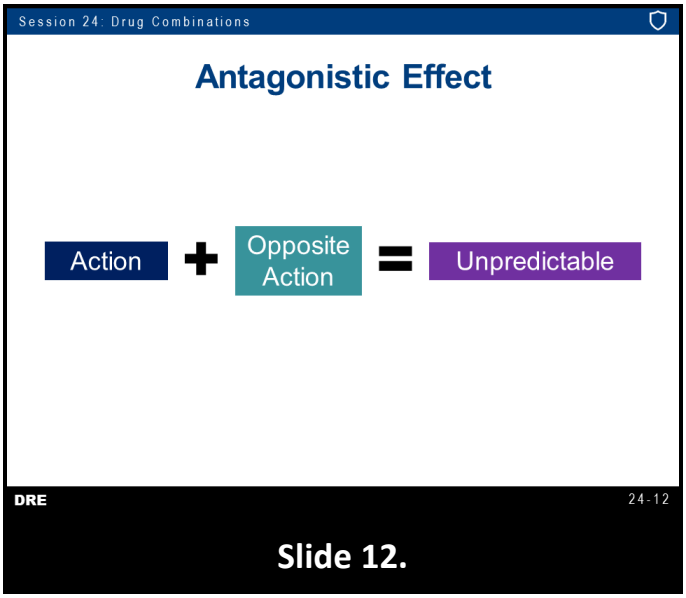
The third effect is called the Additive Effect. This occurs when the drugs independently affect some indicator in the same way and their use in combination will also affect the indicator and the effect may be reinforced. This could be described as “action plus the same action produces reinforced action.”



Slide 11.

Example #1: Pulse Rate - Cannabis and Inhalants: Cannabis and Inhalants both elevate pulse rate. Therefore, pulse rate should be elevated, or up.

Example #2: Pupil Size - CNS Stimulants and Hallucinogens: CNS Stimulants and Hallucinogens both dilate the pupils. Therefore, pupils should be dilated.



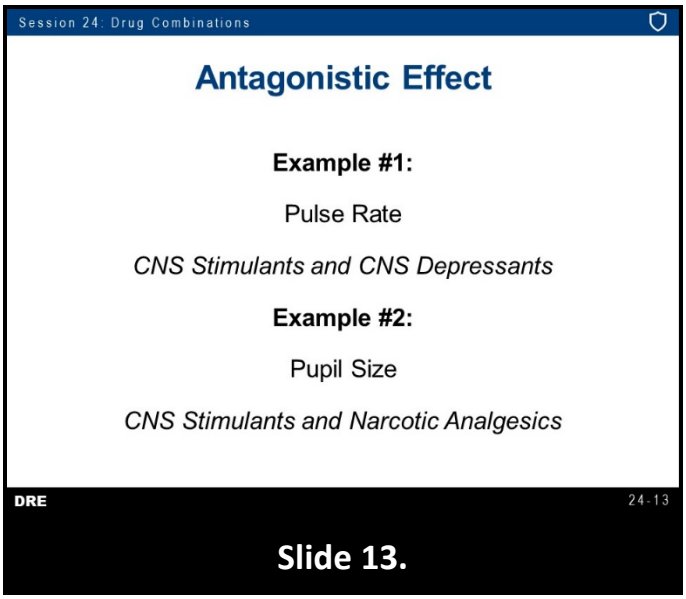
Slide 12.

The fourth effect is called the Antagonistic Effect. This occurs when a drug causes an action and another causes an opposite action, the effect cannot be predicted. This can be described as "action versus opposite action – an unpredictable outcome."

When two drugs produce an "Antagonistic Effect," they tend to try to override or compete with the effect of the other drug(s).

Whichever drug is more psychoactive at the time determines what likely will be observed. This is based upon the potency of the drug, the quantity administered, the time of administration, and the onset and duration of effects.

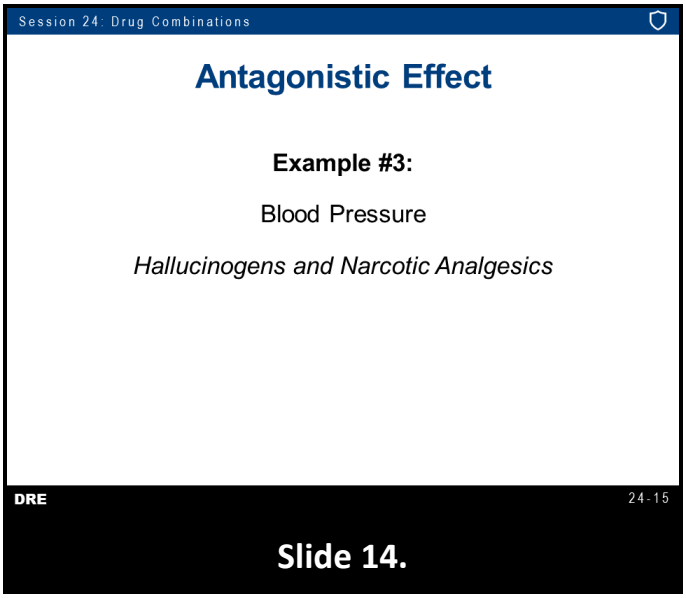
There is not an Antagonistic Effect for: HGN; Vertical Gaze Nystagmus (VGN); LOC; Reaction to Light.



Slide 13.

Example #1: Pulse Rate - CNS Stimulants and CNS Depressants: CNS Stimulants elevate pulse rate; CNS Depressants depress pulse rate. Therefore, pulse rate will be up, down or within the DRE average ranges.

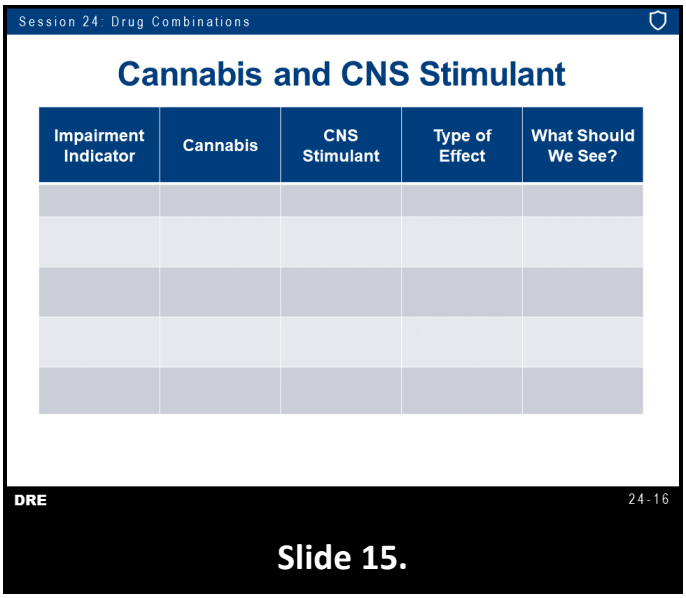
Example #2: Pupil Size - CNS Stimulants and Narcotic Analgesics: Pupil Size. CNS Stimulants dilate pupils, Narcotic Analgesics constrict pupils. Pupil size will be dilated, constricted or within the DRE average ranges.



Slide 14.

Example #3: Blood Pressure- Hallucinogens and Narcotic Analgesics: Hallucinogens elevate blood pressure; Narcotic Analgesics lowers blood pressure. Blood pressure will be up, down or within the DRE average ranges

With an "Antagonistic Effect," we just can't predict what we will see. In summary, when drugs from two or more drug categories are taken together, they tend to produce a combination of Null Effects, Overlapping Effects, Additive Effects and Antagonistic Effects.



Slide 15.

HGN: A specific example: consider a person who is under the influence of a combination of Cannabis and a CNS Stimulant.

Neither Cannabis nor a CNS Stimulant causes HGN.

This is a case of no action plus no action equals no action. This is an example of the Null Effect. We will not see HGN with this combination.

VGN: Neither Cannabis nor a CNS Stimulant causes VGN. This is another Null Effect. We won't see VGN.

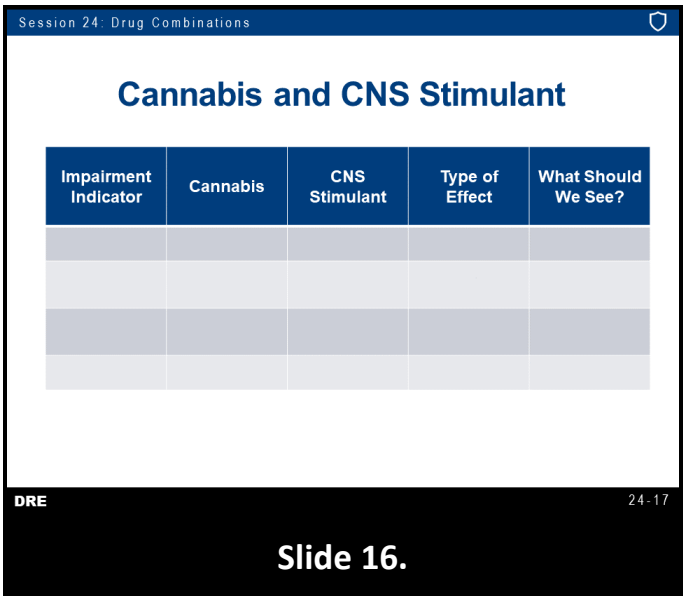
LOC: Cannabis causes LOC; a CNS Stimulant does not.

This is a case of action plus no action equal's action. We will see LOC with this combination.

Pupil Size: CNS Stimulants dilate pupils; Cannabis either dilates pupils or has no effect on them.

This may be a case of action plus no action equal's action. Or it may be a case of action plus same action reinforces action. In either case, we should see dilated pupils with this combination.

Reaction to Light: CNS Stimulants slow the pupils' Reaction to Light; Cannabis usually doesn't affect the pupils' reaction. Here we have another Overlapping Effect. We should observe a slowed reaction of the pupils.



Slide 16.

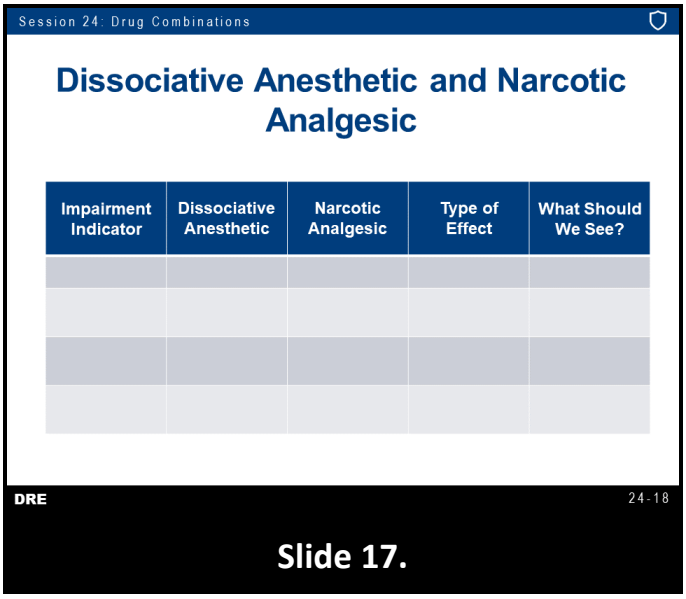
Pulse Rate: Both Cannabis and CNS Stimulants usually elevate pulse rate. This is an Additive Effect. We should see a pulse rate that is up or elevated.

Blood Pressure: Cannabis usually causes blood pressure to be up or elevated; so, does a CNS Stimulant. This is another Additive Effect. We should see a blood pressure that is up or elevated.

Body Temperature: Cannabis usually does not affect body temperature. But CNS Stimulants usually elevate temperature.

This is another case of action plus no action equals action. We can expect to see an elevated temperature with this combination.

Muscle Tone: Cannabis usually does not affect muscle tone. CNS Stimulants cause muscle tone to be rigid. This is another case of action plus no action equals action. We can expect to see rigid muscle tone with this combination.



Slide 17.

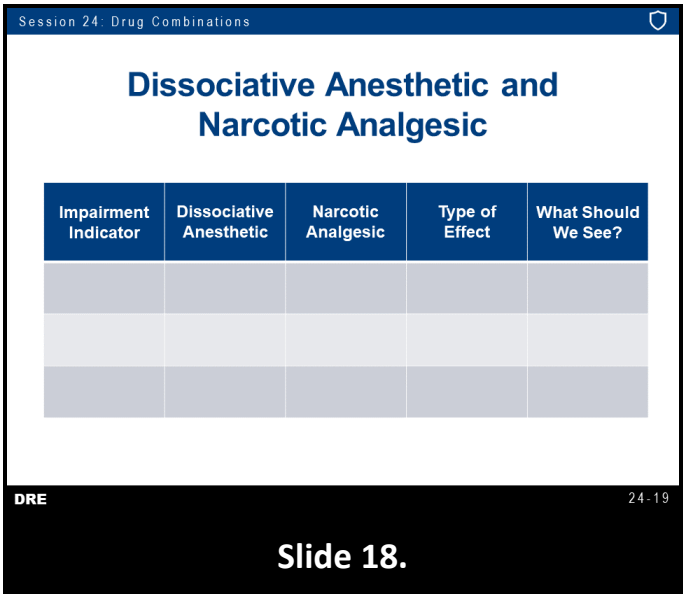
Another specific example: consider a person under the influence of a combination of a Dissociative Anesthetic and a Narcotic Analgesic.

HGN: A Dissociative Anesthetic causes HGN, Narcotic Analgesics do not. This is an Overlapping Effect. We can expect to see HGN with this subject.

VGN: A Dissociative Anesthetic should cause VGN. A Narcotic Analgesic will not cause VGN. This is another Overlapping Effect. We should see VGN in this subject.

LOC: A Dissociative Anesthetic causes LOC; Narcotic Analgesics do not. Another Overlapping Effect. We can expect to see LOC.

Pupil Size: A Dissociative Anesthetic doesn't affect pupil size, but a Narcotic Analgesic constricts pupils. This is another Overlapping Effect. We can expect to see constricted pupils with this subject.



Slide 18.

Reaction to Light: A Dissociative Anesthetic doesn't affect pupil's Reaction to Light; but a Narcotic Analgesic usually produces a "little or nonvisible" reaction.

This, too, is an Overlapping Effect. We can expect a "little or nonvisible" reaction in this subject's pupils.

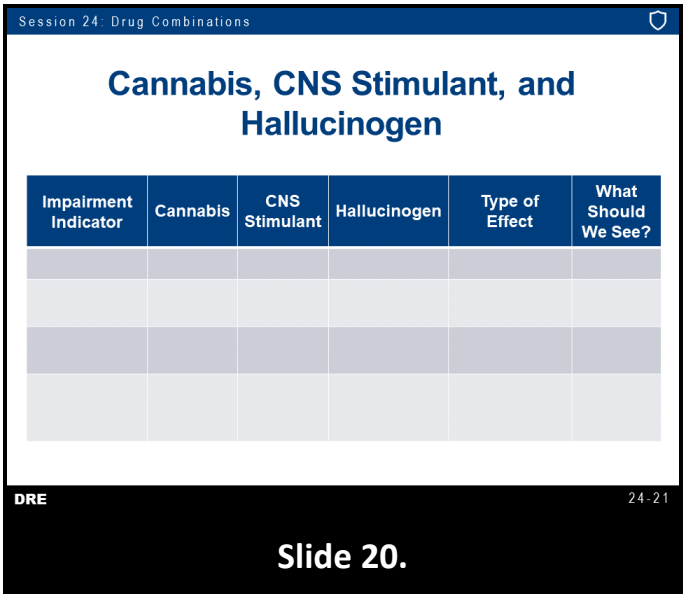
Pulse Rate: A Dissociative Anesthetic usually causes pulse rate to be elevated; a Narcotic Analgesic usually produces a depressed or lower pulse rate. This is our first Antagonistic Effect. We cannot predict what this subject's pulse rate will be. The pulse rate could be elevated, or depressed, or within the DRE average ranges. This subject's pulse rate will depend on many factors, including: How much of each drug was taken; How and when each drug was taken; How tolerant the subject is of each drug.

Blood Pressure: A Dissociative Anesthetic usually elevates blood pressure; a Narcotic Analgesic usually lowers blood pressure. This is another Antagonistic Effect. We can't predict what the blood pressure will be. It could be above DRE average ranges, below DRE average ranges, or within the DRE average ranges.

Slide 19.

Temperature: A Dissociative Anesthetic usually elevates temperature; a Narcotic Analgesic usually lowers it. This, too, is an Antagonistic Effect. The temperature could be elevated (up), or depressed (down) or within the DRE average range.

Muscle Tone: A Dissociative Anesthetic usually causes rigid muscle tone. A Narcotic Analgesic usually causes flaccid muscle tone. This is an Antagonistic Effect. Muscle tone could be normal, rigid, or flaccid.



Slide 20.

Another specific example: consider a person under the influence of Cannabis, a CNS Stimulant, and a Hallucinogen.

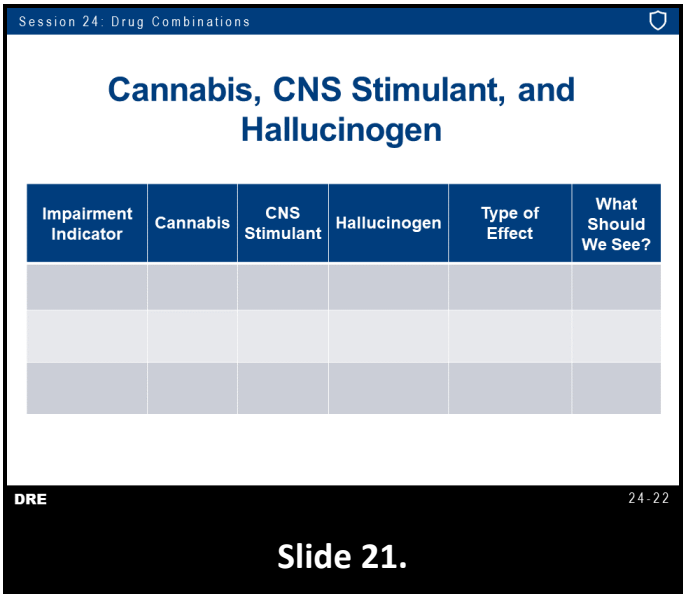
HGN: None of the three categories causes HGN. This is an example of the Null Effect.

VGN: None of the three drug categories cause VGN, another example of the Null Effect.

LOC: Cannabis causes a LOC while CNS Stimulants and Hallucinogens do not. This is an example of an Overlapping Effect and LOC should be present.

Pupil Size: Cannabis usually dilates pupils. CNS Stimulants and Hallucinogens also dilate the pupils. This is an example of an Additive or Overlapping Effect.

The pupils should be dilated.



Slide 21.

Reaction to Light: Cannabis does not affect the Reaction to Light. CNS Stimulants will slow down the reaction. Most Hallucinogens, with some exceptions, will cause a normal Reaction to Light. This is an example of either an Overlapping or Additive Effect.

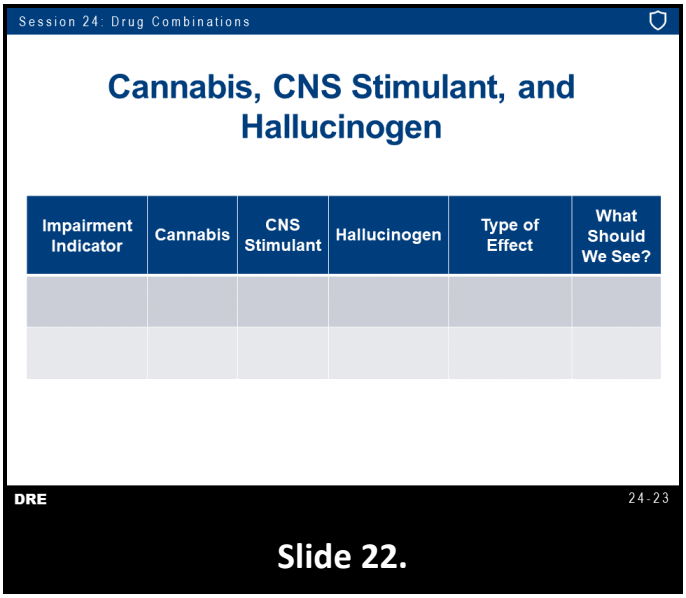
We could probably see a slow Reaction to Light.

Pulse Rate: Cannabis will normally elevate the pulse rate as will CNS Stimulants and Hallucinogens. This is an example of an Additive Effect.

The result would be an elevated pulse rate.

Blood Pressure: All three drug categories will elevate blood pressure. This is an example of an Additive Effect.

Blood pressure should be elevated with this combination.



Slide 22.

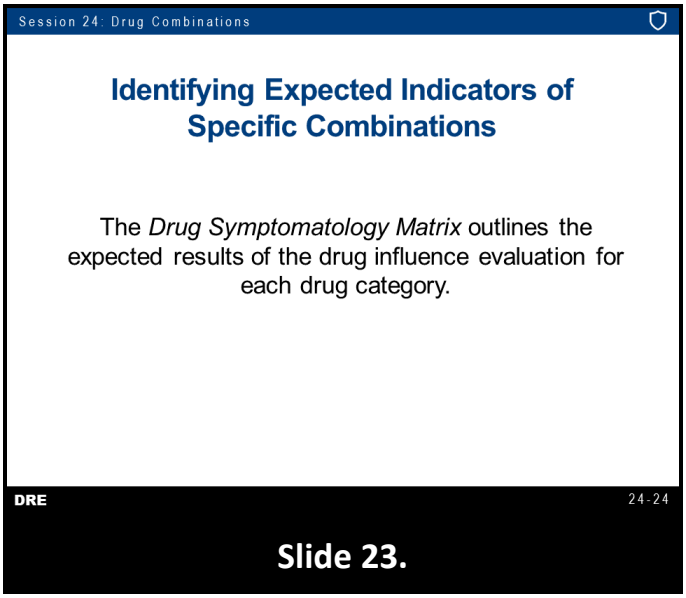
Body Temperature: Cannabis usually causes a body temperature in the average range. CNS Stimulants and Hallucinogens elevate body temperature. This would be an example of an Additive or Overlapping Effect.

The body temperature should be elevated with this combination.

Muscle Tone: Cannabis causes a normal muscle tone, while CNS Stimulants and Hallucinogens will cause rigid muscle tone. This would be an example of an Additive or an Overlapping Effect.

The muscle tone should be rigid with this combination.

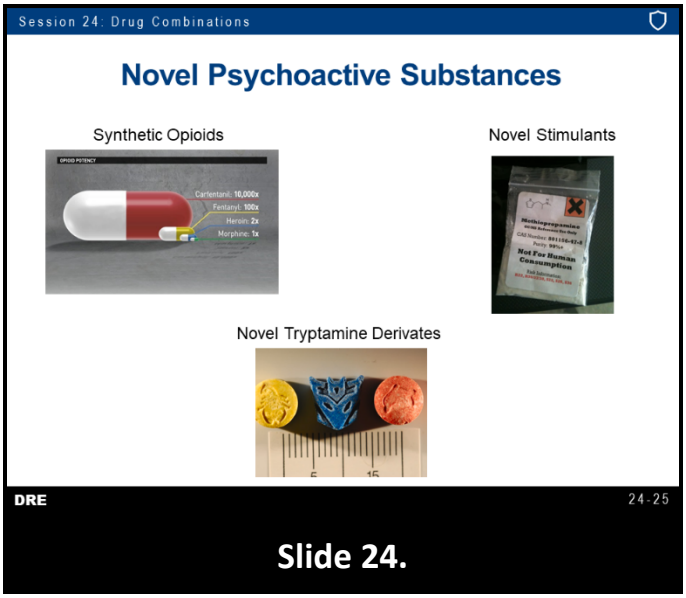
C. Identifying Expected Indicators of Specific Combinations



Slide 23.

Drug Symptomatology Matrix: The Matrix outlines the expected results of the drug influence evaluation for each drug category.

D. Novel Psychoactive Substances



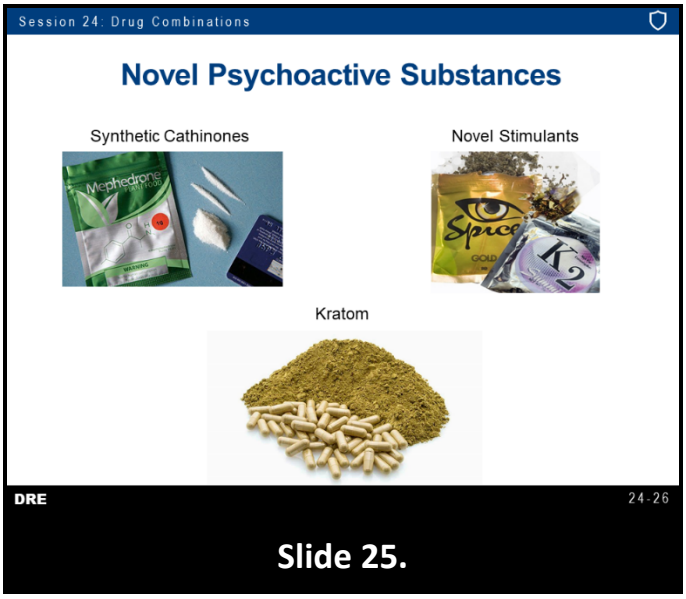
Slide 24.

Novel Psychoactive Substances (NPS) include Synthetic Cannabinoids, Cathinone Derivatives, Psychedelic Phenethylamines, novel Stimulants, novel Synthetic Opioids, Tryptamine Derivatives, psychoactive plants/herbs, and many more. The ever-increasing number of NPS emerging and the parallel changes in drug scenarios represent a challenge for DREs. Subjects under the influence of an NPS may exhibit effects of a drug combination.

Users are typically attracted by these substances due to their intense psychoactive effects and unlikely detection in routine drug screenings. These drugs act on a range of neurotransmitter receptors including Dopamine, Cannabinoid, and Opioid receptors, resulting in effects from multiple drug categories.

Following are examples of Novel Psychoactive Substances.

Synthetic Cannabinoids – Generally dried plant base sprayed with a mixture of synthetic Cannabimimetics compounds. Within any given package, there may be a range of different psychoactive compounds. Batches of the same brand may also possess highly variable concentrations. The popularity of these drugs in recent years has been driven by the lack of legal restrictions in many States. Hundreds of different Synthetic Cannabinoids have been synthesized with effects sometimes over 100 times greater than THC – leading to drastically varying effects. Examples of Synthetic Cannabinoids include JWH-018, JWH-133, and HU-210 and are sold under product names such as Spice, K-2, Kronic, and others.



Slide 25.

Synthetic Cathinones are structurally similar to amphetamines and chemically related to cathinone, with subtle variations that alter their chemical properties, potency, pharmacokinetics and pharmacodynamics. Their popularity was driven by the lack of legal restrictions and difficulties detecting the drug in routine drug screens. Each synthetic cathinone has variable effects and potency levels. Examples of synthetic cathinones include MDPV, methcathinone, mephedrone, and methylone.

Novel Stimulants include substances similar to amphetamine-type stimulants, methamphetamine analogs, and cocaine substitutes. Stimulants prevent the transport of dopamine or they can induce or enhance the release of Serotonin. Examples of Novel Stimulants include “Bath Salts,” “Flakka,” “Cloud Nine,” and others.

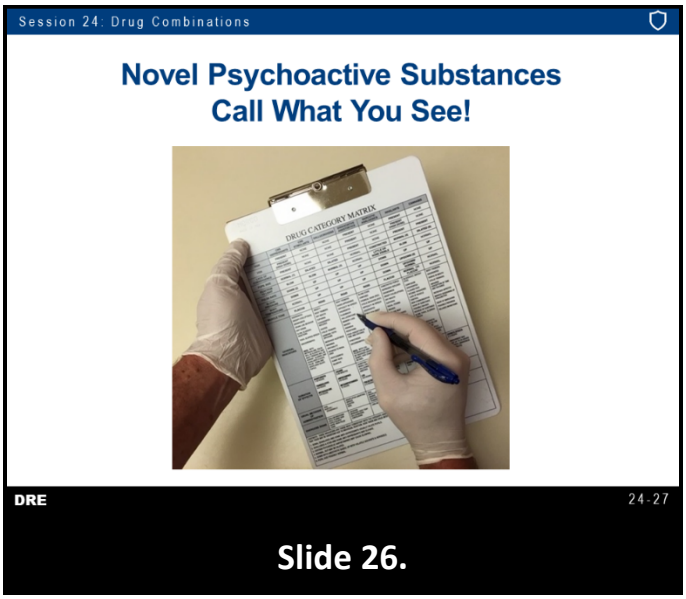
Synthetic Opioids share with Morphine most of their clinical pharmacological effects, including analgesia, sedation, euphoria and risk of respiratory depression. Examples of Synthetic Opioids include U-47700, AH-7921, and the Fentanyl analogs.

Novel Tryptamine Derivatives can cause visual hallucinations, alterations in sensory perception, distortion of body image, depersonalization, anxiety, and panic. Examples of tryptamine derivatives are 4-HO-MET, 5-MeO-DET, and NMT.

Kratom (Mitragyna Speciosa) is produced from the leaves of tropical trees native to Indonesia, Malaysia, Thailand, and other areas of Southeast Asia. Kratom is often used for its stimulant and analgesic effects including feelings of euphoria, relief of chronic pain, treatment of depression and anxiety, and to fight fatigue. At low doses, it has a stimulant effect, increasing alertness, talkativeness, and outward behaviors. At high doses, it delivers Opioid-like effects, inhibits smooth muscle control, and reduces pain. In the U.S., it is easily obtained and is most likely to be consumed in tea or chewed. It is not a federally controlled substance in the U.S. but is illegal in some States and several countries.

Source:

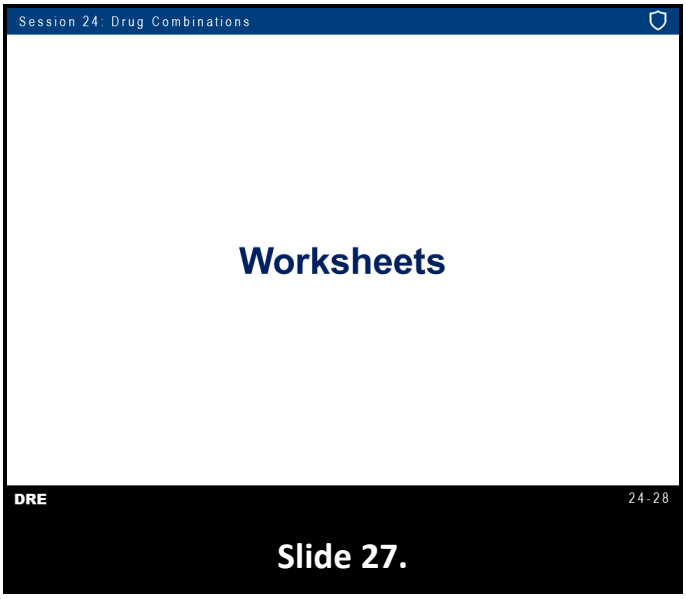
Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.



Slide 26.

NPS may appear to a DRE similar to a polycategory case, though the effects in this case are actually only caused by the NPS drug. “Polycategory” refers to administering drugs from two or more drug categories simultaneously. DREs are reminded that their opinion should be based upon the evidence they collect during the evaluation, and there will be occasions when the symptomatology of NPS impairment could mimic multiple drug categories. If the DRE observes impairment that appears as multiple drug categories, he/she should include the relevant drug categories in their opinion. For example, Spice is considered to be a synthetic cannabinoid. The unique drug effects of some synthetic cannabinoids may include symptomatology associated with more than one category of drugs. Likewise, synthetic cathinones are considered to be a CNS Stimulant, yet the variations in the chemicals may similarly cause a user to exhibit the signs of multiple drug categories.

Although NPS drugs are presented within the category the drug was intended to mimic, it is possible the indicators observed by a DRE may not always fit within that category. A DRE should render an opinion based upon the unique evidence observed during the drug influence evaluation, and, if the observations are consistent with more than one drug category, should include them in the final opinion. A DRE should call the category(ies) based upon the indicators exhibited. For example, if a DRE opines Hallucinogens, and is clearly able to articulate the observed signs and symptoms of this category, then the DRE should call Hallucinogens. Toxicology may fail to confirm the presence of Hallucinogens; however, the DRE should be able to articulate the basis for opining Hallucinogens. Remember: toxicology supports the DRE's opinion, it does not confirm it.

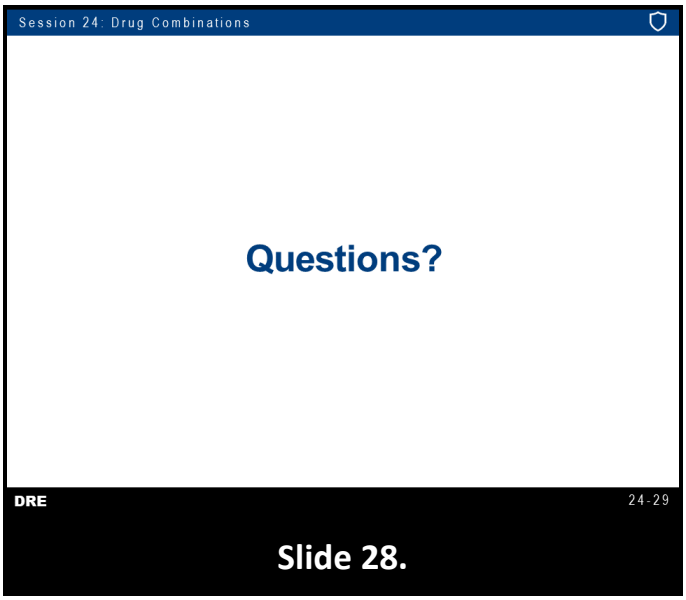


Slide 27.

Worksheet #1: Alcohol (BAC 0.06) and Cannabis

Worksheet #2: Cannabis and CNS Depressant

Worksheet #3: CNS Depressant and CNS Stimulant



Slide 28.

Specific Examples of Drug Combinations: An Exercise for the Participant

On the final five pages of this session, you will find examples of specific drug combinations. The expected results for the first two of these combinations (Cannabis and Stimulants, and Dissociative Anesthetic and Narcotic Analgesic) have been worked out for you. Study those examples, then complete the work sheets for the three remaining combinations.

CANNABIS AND CNS STIMULANT
IN COMBINATION

Impairment Indicator	Effect Due to Cannabis	Effect Due to CNS Stimulant	Type of Combined Effect	Expected Result
Horizontal Gaze Nystagmus	None	None	Null	None
Vertical Gaze Nystagmus	None	None	Null	None
Lack of Convergence	Present	None	Overlapping	Present
Pupil Size	Dilated or Normal	Dilated	Overlapping or Additive	Dilated
Reaction to Light	Normal	Slow	Overlapping	Slow
Pulse Rate	Up	Up	Additive	Up
Blood Pressure	Up	Up	Additive	Up
Body Temperature	Normal	Up	Overlapping	Up
Muscle Tone	Normal	Rigid	Overlapping	Rigid

DISSOCIATIVE ANESTHETIC AND NARCOTIC ANALGESIC IN COMBINATION

Impairment Indicator	Effect Due to Dissociative Anesthetic	Effect Due to Narcotic Analgesic	Type of Combined Effect	Expected Result
Horizontal Gaze Nystagmus	Present	None	Overlapping	Present
Vertical Gaze Nystagmus	Present	None	Overlapping	Present
Lack of Convergence	Present	None	Overlapping	Present
Pupil Size	Normal	Constricted	Overlapping	Constricted
Reaction to Light	Normal	Little or None Visible	Overlapping	Little or None Visible
Pulse Rate	Up	Down	Antagonistic	Down/Normal/Up
Blood Pressure	Up	Down	Antagonistic	Down/Normal/Up
Body Temperature	Up	Down	Antagonistic	Down/Normal/Up
Muscle Tone	Rigid	Flaccid	Antagonistic	Rigid/Flaccid/ Normal

WORKSHEET #1

INSTRUCTOR: ALCOHOL (BAC 0.06) AND CANNABIS

Impairment Indicator	Effect Due to Alcohol	Effect Due to Cannabis	Type of Combined Effect*	Expected Result
Horizontal Gaze Nystagmus				
Vertical Gaze Nystagmus				
Lack of Convergence				
Pupil Size				
Reaction to Light				
Pulse Rate				
Blood Pressure				
Body Temperature				
Muscle Tone				

WORKSHEET #2

INSTRUCTOR: CANNABIS AND CNS DEPRESSANT

Impairment Indicator	Effect Due to Cannabis	Effect Due to CNS Depressant	Type of Combined Effect*	Expected Result
Horizontal Gaze Nystagmus				
Vertical Gaze Nystagmus				
Lack of Convergence				
Pupil Size				
Reaction to Light				
Pulse Rate				
Blood Pressure				
Body Temperature				
Muscle Tone				

WORKSHEET #3

INSTRUCTOR: CNS STIMULANT AND CNS DEPRESSANT

Impairment Indicator	Effect Due to CNS Stimulant	Effect Due to CNS Depressant	Type of Combined Effect*	Expected Result
Horizontal Gaze Nystagmus				
Vertical Gaze Nystagmus				
Lack of Convergence				
Pupil Size				
Reaction to Light				
Pulse Rate				
Blood Pressure				
Body Temperature				
Muscle Tone				

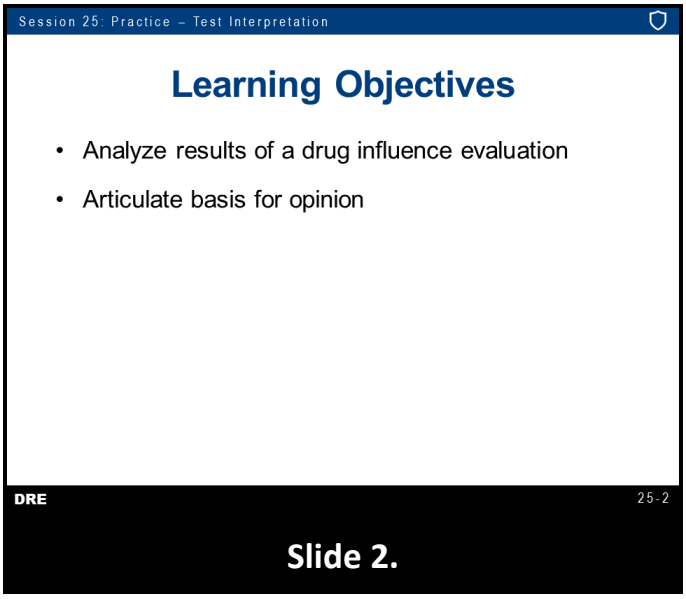
25 DRE

PRACTICE: TEST INTERPRETATION

LEARNING OBJECTIVES

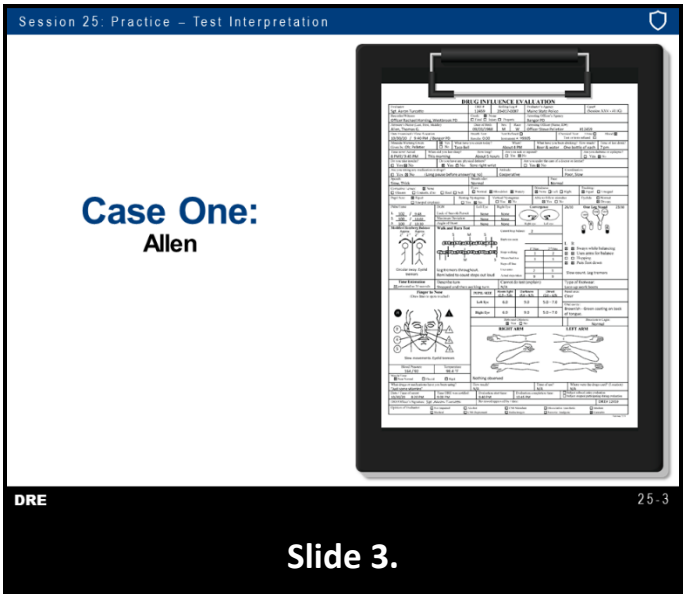
- Analyze results of a drug influence evaluation
- Articulate basis for the opinion

CONTENTS

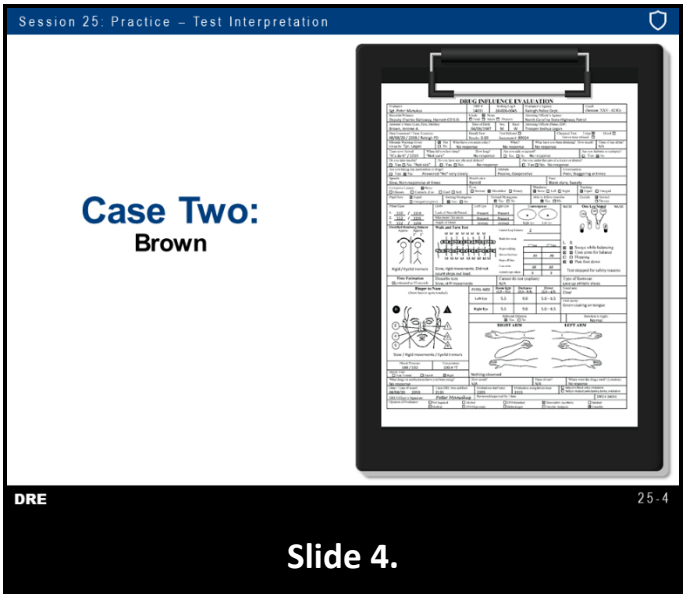


Slide 2.

A. Interpretation Practice



Slide 3.



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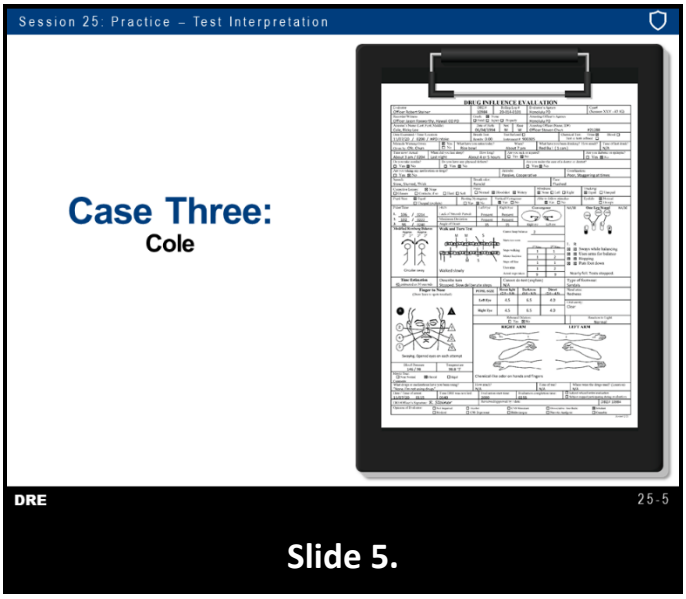
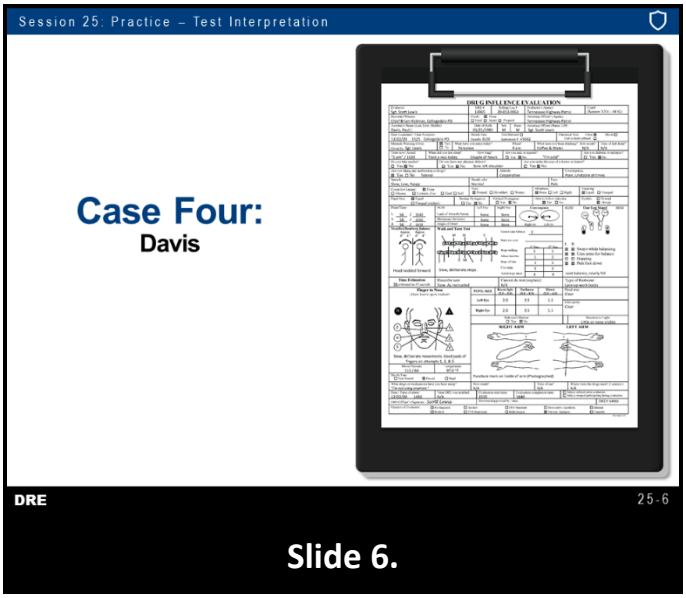


Slide 5.



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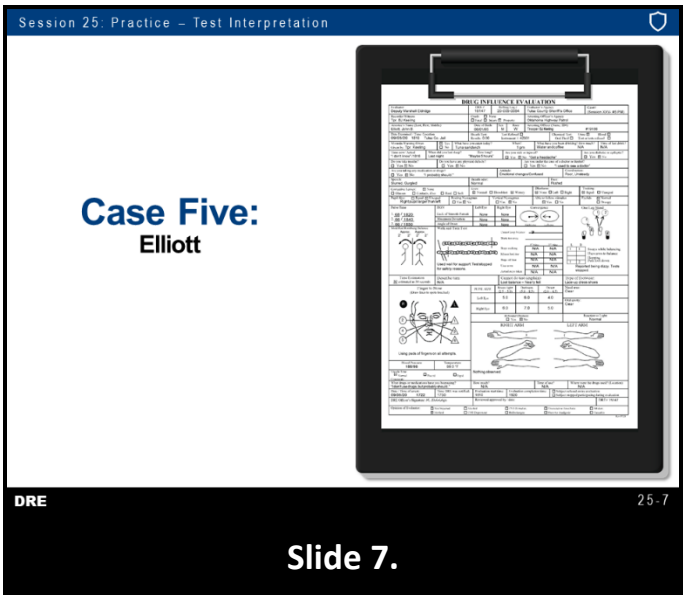

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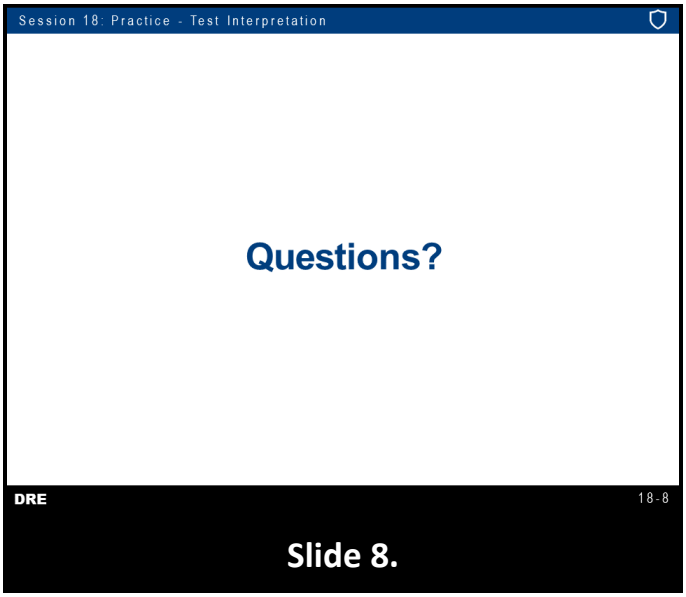


Slide 8.

DRUG INFLUENCE EVALUATION

Evaluator: Sgt. Aaron Turcotte	DRE #: 12459	Rolling Log #: 22-017-0087	Evaluator's Agency: Maine State Police	Case#: (Session XXV - #1 PM)
Recorder/Witness: Officer Rachael Horning, Westbrook PD	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Bangor PD	
Arrestee's Name (Last, First, Middle): Allen, Thomas G.	Date of Birth: 09/03/1988	Sex: M	Race: W	Arresting Officer (Name, ID#): Officer Steve Pelletier #12459
Date Examined / Time /Location: 10/30/22 / 9:40 PM / Bangor PD	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 99305	Chemical Test: Urine ☐ Blood ☒ Test or tests refused ☐	

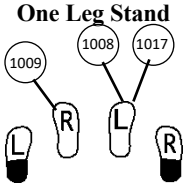
Miranda Warning Given Given by: Ofc. Pelletier	☒ Yes ☐ No	What have you eaten today? Taco Bell	When? About 4 PM	What have you been drinking? How much? Beer & water One bottle of each	Time of last drink? 7 pm
Time now/ Actual: 8 PM?/ 9:45 PM	When did you last sleep? This morning	How long? About 5 hours	Are you sick or injured? ☐ Yes ☒ No		Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☒ Yes ☐ No Sore right wrist		Are you under the care of a doctor or dentist? ☐ Yes ☒ No		
Are you taking any medication or drugs? ☐ Yes ☒ No (Long pause before answering no)	Attitude: Cooperative	Coordination: Poor, Slow			
Speech: Slow, Thick	Breath odor: Normal	Face: Normal			
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☒ Bloodshot ☒ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal		
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☐ Normal ☒ Droopy	

Pulse/Time	HGN	Left Eye	Right Eye
1. 102 / 9:48	Lack of Smooth Pursuit	None	None
2. 100 / 10:09	Maximum Deviation	None	None
3. 100 / 10:30	Angle of Onset	None	None

Convergence

Right eye Left eye

26/30 **One Leg Stand** 23/30

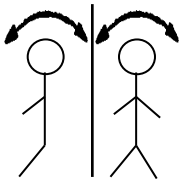


L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

Slow count. Leg tremors

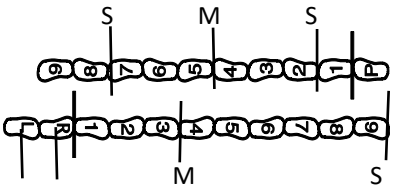
Modified Romberg Balance

Approx. 3" 3" Approx. 3" 3"



Circular sway. Eyelid tremors

Walk and Turn Test



Leg tremors throughout.
Reminded to count steps out loud

Cannot keep balance: 2

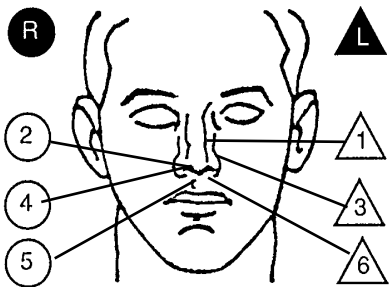
Starts too soon:

	1st Nine	2nd Nine
Stops walking	1	2
Misses heel-toe	1	1
Steps off line		
Uses arms	2	3
Actual steps taken	9	9

Time Estimation 38 estimated as 30 seconds	Describe turn: Stopped and then walking turn	Cannot do test (explain): N/A

Type of footwear: Lace-up work boots

Finger to Nose
(Draw lines to spots touched)



Slow movements. Eyelid tremors

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	6.0	9.0	5.0 – 7.0
Right Eye	6.0	9.0	5.0 – 7.0

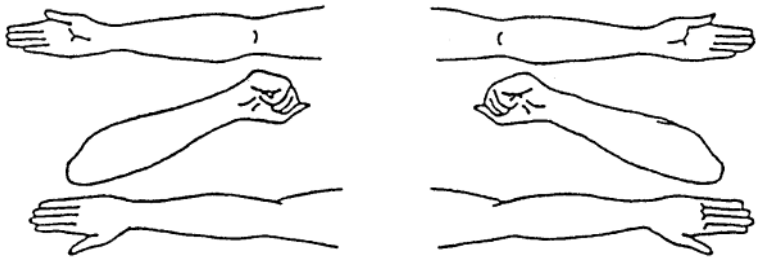
Nasal area: Clear

Oral cavity: Brownish - Green coating on back of tongue.

Rebound Dilation: ☒ Yes ☐ No

Reaction to Light: Normal

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure: 164 / 92	Temperature: 98.4 °F

Muscle Tone: ☒ Near Normal ☐ Flaccid ☐ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"Just some vitamins"	N/A	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
10/30/22 8:20 PM	9:00 PM	9:40 PM	10:45 PM	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: Sgt. Aaron Turcotte | Reviewed/approved by / date: | DRE#

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant
☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Allen, Thomas G.

1. **Location:** The evaluation was conducted in the Bangor Police Department interview room. The room had adequate lighting with a smooth tile floor with no obstructions. The darkroom examinations were conducted in an adjacent interview room where the lighting level could be adequately darkened.

2. **Witnesses:** Officer Rachael Horning of the Westbrook Police Department witnessed the entire evaluation.

3. **Breath Alcohol Test:** Arresting officer, Steve Pelletier of the Bangor Police Department administered a breath test to the suspect at 8:45 pm obtaining a 0.00% BAC.

4. **Notification and Interview of the Arresting Officer:** At approximately 9:00 pm, I was contacted by dispatch requesting a drug evaluation at the Bangor Police Department. I met Officer Pelletier at the PD, where it was determined he had arrested the suspect for DUI after observing his vehicle being operated without headlights and drifting over the center divider line on State Street. Upon contacting the driver, Officer Pelletier observed he was disoriented and had slow, lethargic movements. The suspect was slow to respond to Officer Pelletier's questions, and when he did reply, his responses were thick and slurred. When the suspect exited his vehicle, he had poor balance and coordination. Suspecting possible impairment, Officer Pelletier administered the Horizontal Gaze Nystagmus (HGN), Walk and Turn (W&T) and One Leg Stand (OLS) tests to the suspect. No clues of HGN were observed, but he did observe impairment clues on the W&T and OLS tests. Officer Pelletier also observed that the suspect had red, bloodshot, watery eyes, and his pupils were dilated. After arresting the suspect, a .00 BAC breath test was obtained, and Officer Pelletier requested the assistance of a DRE.

5. **Initial Observations of the Suspect:** I first observed the suspect sitting in a chair in the interview room at the Bangor PD. He seemed disinterested and unconcerned about his circumstances. When he stood, he was unstable on his feet and appeared disoriented. Numerous times he asked Officer Pelletier why he had been arrested and what he was being charged with. His speech was slow and thick. His eyes were bloodshot and watery, and his pupils appeared to be dilated. I introduced myself and asked the suspect if he would complete a drug influence evaluation, which he agreed to do, but again asked what he had been arrested for.

6. **Medical Problems and Treatment:** The suspect advised that he had a sore wrist from some yard work he had done about 2 or 3 weeks ago. When questioned about the injury, he said he did not require medical assistance and that it would not affect his ability to do the drug evaluation. No other medical conditions were mentioned by the suspect and none were observed during the evaluation.

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to the suspect prior to him attempting them. After each demonstration, he confirmed understanding the instructions. The following psychophysical tests were administered to the suspect:

   Modified Romberg Balance: During this test, the suspect exhibited an approximate three-inch circular sway. He had a slowed time estimation, estimating the passage of 30 seconds in 38 seconds. When asked how he had estimated the 30 seconds, he stated, "I was just counting in my head". Eyelid tremors were present throughout the test.

   Walk and Turn: During this test, the suspect lost his balance to the right two times during the instruction stage. Once starting the walking stage, he missed touching heel to toe once on the first nine steps and once on the second nine steps. He also stopped while walking at step 4 on the first nine steps and twice on the second nine steps at steps 5 and 8. He used his arms to balance two times on first nine steps and three times on the second nine steps. He made an improper turn by walking around slowly in a circular manner instead of the turn he was instructed to do. Leg tremors were present throughout and he had to be reminded three times to count his steps out loud.

One Leg Stand: Per DRE protocol, this test was conducted once while standing on his left foot and once standing on his right foot. When standing on his left foot and raising his right foot off the floor, the suspect swayed while balancing, used his arms for balance twice, and put his foot down once at count 1,009. While standing on his right foot and raising his left foot off the floor, he again swayed while balancing, used his arms for balance once and put his foot down at counts 1,008 and 1,017. His count was slow on each part of the test counting to 1,026 while standing on his left foot and 1,023 when standing on his right foot. Leg tremors were observed throughout the test.

Finger to Nose: During this test, the suspect's arm and hand movements towards his nose were slow and deliberate. He did not touch the tip of his nose with the tip of his index finger as instructed on any of the six attempts. Eyelid tremors were present throughout the test.

8. **Clinical Indicators of Impairment:**
Eye Signs: The eye examinations were conducted in one of the BPD interview rooms, which could be darkened for the examinations. No clues of HGN were observed. The suspect's pupils were dilated in all three lighting conditions. They were estimated at 6.0 mm in both eyes in Room Light and 9.0 mm in both eyes in Near Total Darkness. In Direct Light, rebound dilation was present with his pupils ranging from 5.0 mm to 7.0 mm in both eyes. A lack of convergence was also present in both eyes. The test was conducted twice with the same results where his eyes moved inward towards his nose then moved back out and down. The suspect's eyes were watery and bloodshot, and he had droopy eyelids.

Vital Signs: The suspect's pulse rates were checked three times per DRE protocol and were measured at 102, 100 and 100 beats per minute (bpm). All three results were above the DRE average range. His blood pressure was checked at 164/92 mmHg, which were above the DRE averages for the systolic and diastolic ranges. His body temperature was 98.4 degrees, which was within the DRE average range. The suspect was asked about his elevated pulse rates and blood pressure, and he indicated he was not aware of why they would be elevated. He also indicated he did not have a history of high blood pressure.

9. **Signs of Ingestion:** The suspect's nasal area was clear. However, he did have a brownish-green coating on the back of his tongue, which can be an indicator of someone who has recently smoked marijuana. When questioned about the coating on his tongue, he had no explanation. No indicators of injection sites were located on his arms and hands.

10. **Suspect's Statements:** The suspect denied using any drugs. When I described the findings of my evaluation and asked about possible drug use, he stated, "Just some vitamins." At no time during the evaluation did he indicate he had used drugs. Additional questions about drug use were ignored by the suspect.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that, at the time of my evaluation, the suspect was under the influence of _____ and unable to operate avehicle safely.

12. **Toxicological Sample:** After completing the drug influence evaluation, the suspect was transported to the Saint Joseph Hospital by Officer Pelletier where a blood sample was collected.

13. **Miscellaneous:** Refer to Officer Pelletier's arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Sgt. Peter Manukus	14031	22-006-0045	Raleigh Police Dept.	(Session XXV - #2 PM)

Recorder/Witness	Crash	Arresting Officer's Agency
Charles Galloway, NC Forensic Testing	☒ None ☐ Fatal ☐ Injury ☐ Property	North Carolina State Highway Patrol

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Brown, Jerome A.	04/06/1987	M	W	Trooper Joshua Legan

Date Examined / Time /Location	Breath Test:	Test Refused ☐	Chemical Test: Urine ☒ Blood ☐
08/08/22 / 2208 / Raleigh PD	Results: 0.00	Instrument #: 89014	Test or tests refused ☐

Miranda Warning Given	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink?
Given by: Tpr. Legan		No response	No response	No response	N/A

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
"It's dark" / 2210	"Not sure"	No response	☐ Yes ☐ No No response	☐ Yes ☒ No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☐ No "Not sick"	☐ Yes ☐ No No response	☐ Yes ☐ No No response

Are you taking any medication or drugs?	Attitude:	Coordination:
☐ Yes ☒ No Answered "No" very slowly	Passive, Cooperative	Poor, Staggering at times

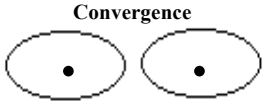
Speech:	Breath odor:	Face:
Slow, Non-responsive at times	Rancid	Blank stare, Sweaty

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☒ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☒ Yes ☐ No	Vertical Nystagmus ☒ Yes ☐ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☒ Normal ☐ Droopy

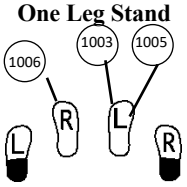
Pulse/Time	HGN	Left Eye	Right Eye
1. 110 / 2219	Lack of Smooth Pursuit	Present	Present
2. 112 / 2236	Maximum Deviation	Present	Present
3. 112 / 2248	Angle of Onset	Immed	Immed

Convergence



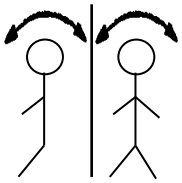
Right eye Left eye

NA/30 **One Leg Stand** NA/30



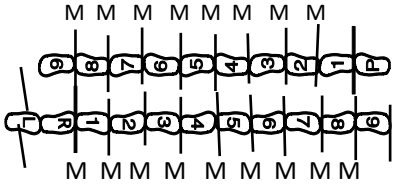
Modified Romberg Balance

Approx. 2" Approx. 2"



Rigid / Eyelid tremors

Walk and Turn Test



Slow, rigid movements. Did not count steps out loud.

Cannot keep balance 2

Starts too soon

	1st Nine	2nd Nine
Stops walking		
Misses heel-toe	All	All
Steps off line		
Uses arms	All	All
Actual steps taken	9	9

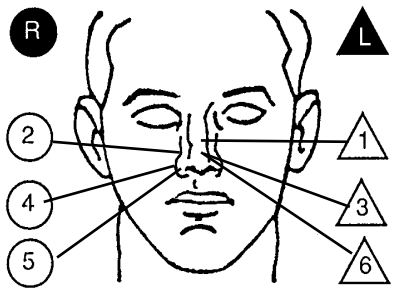
L	R	
☒	☒	Sways while balancing
☒	☒	Uses arms for balance
☐	☐	Hopping
☒	☒	Puts foot down

Test stopped for safety reasons

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
55 estimated as 30 seconds	Slow, stiff movements	N/A	Lace up athletic shoes

Finger to Nose

(Draw lines to spots touched)



Slow / Rigid movements / Eyelid tremors

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	5.5	9.0	5.0 – 6.5
Right Eye	5.5	9.0	5.0 – 6.5

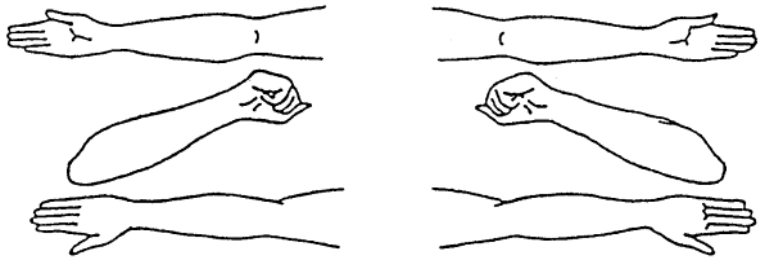
Rebound Dilation: ☒ Yes ☐ No

Reaction to Light: Normal

Nasal area: Clear

Oral cavity: Green coating on tongue

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature
188 / 102	100.4 °F

Muscle Tone: ☐ Near Normal ☐ Flaccid ☒ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
No response	N/A	N/A	No response

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
08/08/22 2050	2135	2205	2315	

DRE/Officer's Signature: Peter Manukus Reviewed/approved by / date: DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Brown, Jerome A.

1. **Location:** The evaluation was conducted in Raleigh Police Department Interview Room, Raleigh, NC. The room was well illuminated and had short pile carpeting and no obstructions. The darkroom examinations were conducted in a separate interview room adjacent to the main interview room.

2. **Witnesses:** Charles Galloway of the NC Forensic Testing for Alcohol witnessed and recorded the evaluation.

3. **Breath Alcohol Test:** The arresting officer, Trooper Joshua Legan of the North Carolina State HP administered a breath test to the suspect at 2130 hours obtaining a 0.00% BAC result.

4. **Notification and Interview of the Arresting Officer:** On 08/08/22 at approximately 2135 hours I was contacted by Trooper Legan requesting a DRE evaluation at the Raleigh Police Department. Upon my arrival, I met Trooper Legan and Deputy Galloway, and it was determined the suspect had nearly hit a North Carolina trooper while on a traffic stop on SR 55. The suspect was later found parked in the Burger Shack parking lot. When contacted by Trooper Legan, the suspect appeared dazed and confused. He was non-responsive, had a blank stare, and was sweating profusely. When asked for his operator's license, vehicle registration and proof of insurance, he handed Trooper Legan a traffic ticket he had received several weeks prior for disobeying a stop sign. Suspecting that the suspect might be impaired, Trooper Legan requested that he perform SFSTs. According to Trooper Legan, the suspect had difficulty understanding the test instructions and completing them as instructed. However, six clues of Horizontal Gaze Nystagmus (HGN) were observed as was Vertical Gaze Nystagmus (VGN). According to Trooper Legan, the suspect's balance and coordination were extremely poor and the Walk and Turn (W&T) and One Leg Stand (OLS) tests had to be stopped for safety purposes. The suspect was subsequently arrested for DUI and transported to RPD for processing. After obtaining a .00 BAC, I was requested to assist with the investigation.

5. **Initial Observation of the Suspect:** I first observed the suspect in the main interview room at RPD. He was looking straight ahead with a blank stare. When asked questions, he responded slowly, and at times did not respond at all. His speech was slow and thick, and several times he repeated his responses. When he stood, he was unstable on his feet and staggered to the side. Several times he reached out to use the interview table to brace himself. The suspect was perspiring heavily even though the room was being cooled by the air conditioning. I also noted that his eyes were red and bloodshot. I introduced myself to the suspect and asked if he would participate in a drug evaluation. He was slow to respond, but stated, "Okay. I will try it". He was wearing jeans with holes in both knees, a white tee-shirt, and lace-up athletic shoes.

6. **Medical Problems and Treatment:** When questioned about any medical conditions the suspect may be suffering from, he was again slow to respond and I had to repeat the question several times. He eventually responded, "Not sick." I asked if there was anything that would prevent him from participating in the evaluation and he again replied, "I'm not sick." He did not report any medical conditions during the evaluation, and none were observed or detected during the evaluation.

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to the suspect prior to him attempting them. After each demonstration, he confirmed understanding the instructions sometimes verbally and other times with a head nod. However, I did have to repeat the instructions for the W&T test multiple times. The following psychophysical tests were administered to the suspect:

   Modified Romberg Balance: The suspect had an approximate two-inch side to side sway and had a slow time estimation, estimating the passage of 30 seconds in 55 seconds. I asked how he had estimated the passage of 30 seconds and he looked straight ahead and did not answer. He was rigid throughout the test, and eyelid tremors were present.

Walk & Turn: For this test, a line on the flooring was used. The suspect had difficulty understanding the test and I had to repeat my instructions to him multiple times. Once he started the test, he was very rigid and lost his balance twice during the instructions stage. Once he began the walking stage, he walked slowly with rigid movements. He missed touching heel to toe on every step on the first nine steps and the second nine steps. He also extended his arms out to his sides using his arms for balance during the entire test. His turn was slow and deliberate with stiff-like movements but was completed as instructed.

One Leg Stand: The suspect displayed balance problems while attempting this test. When attempting to stand on his left foot and raise his right foot off the floor, he swayed while balancing multiple times, used his for balance three times and nearly fell putting his foot down at 1,006. The test was stopped at that point for safety reasons. While attempting to stand on his right foot and raise his left foot off the floor, he again swayed while balancing, used his arms for balance and put his left foot down at his counts of 1,003 and 1,005, and the test was stopped for safety reasons.

Finger to Nose: On this test, the suspect missed the tip of his nose with the tip of his index finger as directed on all six attempts. He also kept his finger in contact with his face on each attempt and had to be reminded multiple times to return his arm back at his side after each attempt. His arm movements were slow and rigid. Eyelid tremors were observed throughout the test.

8. **Clinical Indicators of Impairment:**
   Eye Signs: The eye examinations were conducted in the BPD interview room which was adequately darkened for the dark room examinations. Six clues of HGN were present with an immediate angle of onset. VGN was also present. The suspect's pupils were dilated in all three lighting conditions. They were estimated at 5.5 mm in both eyes in Room Light and 9.0 mm in both eyes in Near Total Darkness. Rebound dilation was present in Direct Light with his pupils ranging from 5.0 mm to 6.5 mm in both eyes. He was unable to converge his eyes and looked straight ahead during the test. The test was conducted twice with the same results.

   Vital Signs: The suspect's pulse rates were checked three times and were 110, 112 and 112 beats per minute. All three results were above the DRE average range for pulse rate. His blood pressure was checked at 188/102, which was also above the DRE average range. His body temperature was measured at 100.4 degrees, which was above the DRE average range. He was asked about his elevated pulse rates and blood pressure and he had a long blank stare and indicated he was not aware of why they would be elevated. His muscle tone was rigid.

9. **Signs of Ingestion:** The suspect's nasal area was clear, and his breath was rancid smelling. He had a greenish coating on the back of his tongue. When questioned about the green coating, he had no explanation and shrugged his shoulders. No indicators of injection sites were located on his arms and hands.

10. **Suspect's Statements:** The suspect did not respond when asked about drug use. Each time I asked the question, he would look straight ahead without a response.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect was under the influence of a _____ and unable to operate a vehicle safely.

12. **Toxicological Sample:** After completing the evaluation, the suspect was requested to provide a urine sample, which he provided. The sample was collected at 2310 hours and was placed into evidence pending delivery to the state laboratory for analysis.

13. **Miscellaneous:** Due the suspect's elevated pulse and B/P, he was transported to UNC REX Hospital and examined by ER staff. Refer to Trooper Legan's arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator: Officer Robert Steiner	DRE #: 10984	Rolling Log #: 22-014-0101	Evaluator's Agency: Honolulu PD	Case#: (Session XXV - #3 PM)
Recorder/Witness: Officer Jason Foxworthy, Hawaii CO PD	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Honolulu PD	
Arrestee's Name (Last, First, Middle): Cole, Ricky Lee	Date of Birth: 06/04/1994	Sex: M	Race: W	Arresting Officer (Name, ID#): Officer Steven Chun #21288
Date Examined / Time /Location: 11/07/22 / 0200 / HPD Intake	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 900305	Chemical Test: Urine ☒ Blood ☐ Test or tests refused ☐	

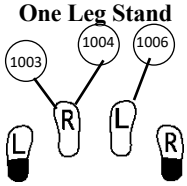
Miranda Warning Given: Given by: Ofc. Chun	☒ Yes ☐ No	What have you eaten today? Rice bowl	When? About 7 pm	What have you been drinking? How much? Red Bull (1 can) / Time of last drink? N/A
Time now/ Actual: About 3 am / 0204	When did you last sleep? Last night	How long? About 4 or 5 hours	Are you sick or injured? ☐ Yes ☒ No	Are you diabetic or epileptic? ☐ Yes ☒ No
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No		Are you under the care of a doctor or dentist? ☐ Yes ☒ No	
Are you taking any medication or drugs? ☐ Yes ☒ No	Attitude: Passive, Cooperative		Coordination: Poor, Staggering at times	
Speech: Slow, Slurred, Thick	Breath odor: Rancid		Face: Flushed	
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☒ Bloodshot ☒ Watery		Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus: ☐ Yes ☒ No	Vertical Nystagmus: ☒ Yes ☐ No	Able to follow stimulus: ☒ Yes ☐ No	Eyelids: ☒ Normal ☐ Droopy

Pulse/Time		HGN	Left Eye	Right Eye
1. 106	0215	Lack of Smooth Pursuit	Present	Present
2. 102	0228	Maximum Deviation	Present	Present
3. 96	0245	Angle of Onset	35	35

Convergence

Right eye Left eye

NA/30 **One Leg Stand** NA/30

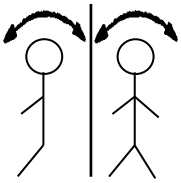


L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☒ ☒ Hopping
☒ ☒ Puts foot down

Nearly fell. Tests stopped.

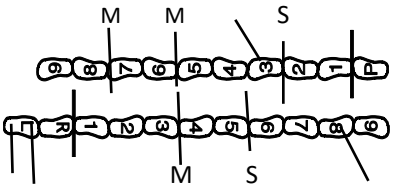
Modified Romberg Balance

Approx. 2" 2" Approx. 2" 2"



Circular sway

Walk and Turn Test



Walked slowly

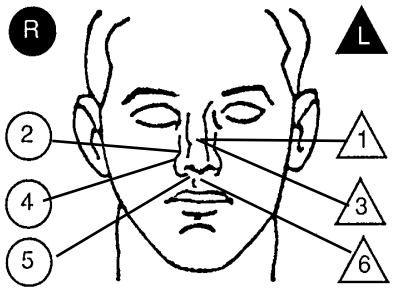
Cannot keep balance: 2

Starts too soon:

	1st Nine	2nd Nine
Stops walking	1	1
Misses heel-toe	1	2
Steps off line	1	1
Uses arms	1	2
Actual steps taken	9	9

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
45 estimated as 30 seconds	Stopped. Slow deliberate steps	N/A	Sandals

Finger to Nose
(Draw lines to spots touched)



Swaying. Opened eyes on each attempt

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	4.5	6.5	4.0
Right Eye	4.5	6.5	4.0

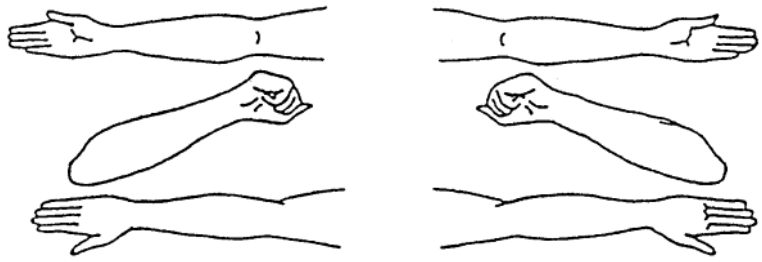
Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Slow

Nasal area: Redness

Oral cavity: Clear

RIGHT ARM **LEFT ARM**



Chemical-like odor on hands and fingers

Blood Pressure	Temperature
146 / 98	98.8 °F

Muscle Tone: ☐ Near Normal ☒ Flaccid ☐ Rigid

Comments:

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)
"None. I'm not using drugs"	N/A	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
11/07/22 0115	0140	2000	0255	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: *R. Steiner* | Reviewed/approved by / date: | DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Cole, Ricky Lee

1. **Location:** The evaluation was conducted in the Interview/Booking Room at the Honolulu Police Department. The room is well illuminated and has a smooth tile floor with no obstructions. The darkroom examinations were conducted in the staff restroom.
2. **Witnesses:** Officer Jason Foxworthy of the Hawaii County PD witnessed and recorded the drug evaluation.
3. **Breath Alcohol Test:** Arresting Officer Steven Chun of the Honolulu PD administered a breath test to the suspect at the HPD at 0135 hours obtaining a 0.00% BAC result.
4. **Notification and Interview of the Arresting Officer:** On 11/07/22 at approximately 0140 hours, I was dispatched to HPD to assist Officer Chun with a drug influence evaluation. I arrived and spoke with Officer Chun and it was determined he had stopped the suspect's vehicle for failing to stop at a red light at King Street and University Ave. He stated that the suspect's speech was slurred and thick. He also had difficulty concentrating and appeared confused. Officer Chun requested the suspect to submit to SFSTs, which he agreed to do. Officer Chun observed six clues of HGN and also observed VGN. The suspect had difficulty completing the W&T and OLS tests and nearly fell several times while attempting them. Officer Chun did not detect an odor of an alcoholic beverage on the suspect's breath but did smell a strong chemical odor on his hands and clothing. The suspect was arrested for DWI and after obtaining a .00 BAC, Officer Chun requested DRE assistance. Officer Chun is a certified DRE but was on a special enforcement detail and was unable to complete the evaluation.
5. **Initial Observation of the Suspect:** I first observed the suspect at HPD in the Interview/Booking Room. He appeared passive and cooperative. His speech was slow, thick-tongued, and at times slurred. His balance appeared to be poor and he was unsteady on his feet. He swayed and wobbled as he stood and walked. Numerous times he steadied himself against the wall and the interview table. His face was flushed, and his eyes were bloodshot and watery. I introduced myself and asked if he would participate in a drug evaluation. He was slow to respond and appeared to have concentration problems. He agreed to the evaluation and stated, "Yeah, okay." When standing near him, I detected a chemical odor on his clothing.
6. **Medical Problems and Treatment:** I questioned the suspect about medical issues and any other conditions which might prohibit him from doing the evaluation. He reported that he was "a little dizzy" but was okay. I asked if he needed medical assistance and he said he did not. The suspect did not report any other medical issues, and none were observed during the evaluation.
7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to the suspect prior to him attempting them. After each demonstration, he acknowledged that he understood the instructions. The following tests were given:

   Modified Romberg Balance: During this test, the suspect swayed approximately 2" in a circular motion. His time estimation was slow, estimating the passage of 30 seconds in 45 seconds.

   Walk and Turn: For this test, a line in the tile floor was used. While in the instructions stage, the suspect lost his balance to the right two times. When instructed to begin the walking stage on the first nine steps he missed heel-to-toe once at step 4, stopped walking at step 5, and stepped off the line once at step 8. He used his arms to balance once during the first nine steps. While attempting the turn, he stopped and appeared confused on what to do. When he resumed the test, he took very slow deliberate steps, but turned as instructed. On the return nine steps, he stopped while walking once at step 2, stepped off the line with his next step, missed heel-to-toe twice at steps 6 and 8, and used his arms to balance twice.

One Leg Stand: While standing on his left foot and extending his right foot off the floor, the suspect swayed while balancing once, used his arms for balance once, hopped once, and put his foot down at 1,003 and 1,004 and nearly fell. The test was stopped for the suspect's safety. I asked if he was able to continue and he replied he could. While standing on his right foot and extending his left foot off the floor, the suspect swayed while balancing once, used his arms for balance once, hopped once, and put his foot down at 1,006. Due to the suspect's poor balance and him again nearly falling, the test was stopped. After the test was stopped, the suspect stated, "I'm a little dizzy" and then laughed out loud.

Finger to Nose: During this test, the suspect swayed noticeably. He opened his eyes on each attempt despite being told repeatedly to keep them closed. He missed the tip of his nose with the tip of his index finger on all six attempts. I also had to remind him to lower his hand after each attempt. His arm movements were slow and rigid.

8. **Clinical Indicators of Impairment:**

   Eye Signs: The suspect's eyes were bloodshot and watery. All six clues of HGN were present with an approximate 35-degree angle of onset. VGN and a Lack of Convergence were present with his eyes moving inward to the nose, and then moving downwards and back toward center. The test was conducted twice with the same results. His pupil size estimations were all within the DRE average ranges for each of the lighting conditions and were 4.5 mm in RL, 6.5 mm in NTD and 4.0 mm in DL. His reaction to light was slow and he did not exhibit rebound dilation.

   Vital Signs: The suspect's pulse rates were above the DRE average range on all three checks at 106, 102, 96 bpm. His blood pressure was measured at 146/98, which was above the DRE average range for both the systolic and diastolic ranges. He was asked about his high pulse rates and blood pressure and he appeared to be confused with the question and had no explanation. The suspect's temperature was measured with a 98.8 degrees result, which was within the DRE average range for temperature.

9. **Signs of Ingestion:** The suspect had a severe redness to his nasal area. He also had a strong chemical-like odor on his clothing and hands. When asked about the odor, he indicated that earlier in the day he was helping a friend clean his car engine and they were using engine cleaner and he must have gotten the cleaner on his hands and clothes.

10. **Suspect's Statements:** The suspect denied using any medications or drugs. He admitted smoking marijuana occasionally but claimed he had not smoked marijuana in over a month. When asked about other impairing substances, he did not respond.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect was under the influence of an _____ and was unable to operate a vehicle safely.

12. **Toxicological Sample:** A urine sample was collected from the suspect at 0255 hours and will be forwarded to the Crime Laboratory for analysis.

13. **Miscellaneous:** An arrest warrant for Failure to Appear for Possession of Marijuana was served on the suspect. Refer to Officer Chun's DUI arrest report for additional details.

DRUG INFLUENCE EVALUATION

Evaluator: Officer Jessie Loy	DRE #: 15621	Rolling Log #: 22-013-0063	Evaluator's Agency: Nashville Police Department	Case#: (Session XXV - #4 PM)
Recorder/Witness: Lt. Dwayne Stanford, Tennessee HP	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property		Arresting Officer's Agency: Tennessee Highway Patrol	
Arrestee's Name (Last, First, Middle): Davis, Paul J.	Date of Birth: 01/21/1985	Sex: M	Race: W	Arresting Officer (Name, ID#): Sgt. Scott Lewis 14965
Date Examined / Time /Location: 12/22/22 1525 Nashville HP Barracks	Breath Test: Results: 0.00	Test Refused ☐ Instrument #: 45662	Chemical Test: Urine ☒ Blood ☐ Test or tests refused ☐	
Miranda Warning Given: ☒ Yes ☐ No Given by: Sgt. Lewis	What have you eaten today? Pancakes	When? 9 am	What have you been drinking? How much? Coffee & Water N/A	Time of last drink? N/A
Time now/ Actual: "5 pm" / 1530	When did you last sleep? How long? Took a nap today Couple of hours	Are you sick or injured? ☐ Yes ☒ No "I'm cold"	Are you diabetic or epileptic? ☐ Yes ☒ No	
Do you take insulin? ☐ Yes ☒ No	Do you have any physical defects? ☐ Yes ☒ No Sore left shoulder	Are you under the care of a doctor or dentist? ☐ Yes ☒ No		
Are you taking any medication or drugs? ☒ Yes ☐ No Tylenol	Attitude: Cooperative	Coordination: Poor, Unstable at times		
Speech: Slow, Low, Raspy	Breath odor: Normal	Face: Pale		
Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☒ Normal ☐ Bloodshot ☐ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal	
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☐ Normal ☒ Droopy

Pulse/Time

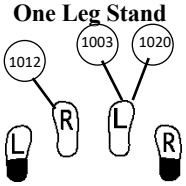
1.	56	1542
2.	58	1550
3.	56	1618

HGN	Left Eye	Right Eye
Lack of Smooth Pursuit	None	None
Maximum Deviation	None	None
Angle of Onset	None	None

Convergence

Right eye Left eye

41/30 **One Leg Stand** 39/30

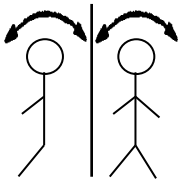


L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down

Lost balance, nearly fell

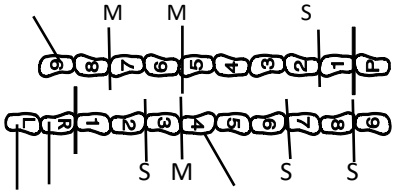
Modified Romberg Balance

Approx. 4" 4" Approx. 4" 4"



Head nodded forward

Walk and Turn Test



Slow, deliberate steps.

Cannot keep balance: 2

Starts too soon:

	1st Nine	2nd Nine
Stops walking	3	1
Misses heel-toe	1	2
Steps off line	1	1
Uses arms	3	3
Actual steps taken	9	9

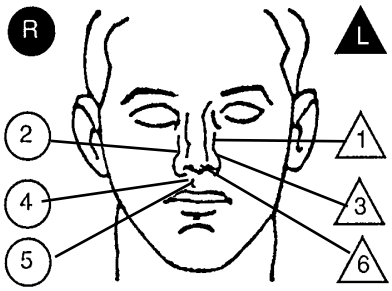
Time Estimation: 58 estimated as 30 seconds

Describe turn: Slow. As instructed

Cannot do test (explain): N/A

Type of footwear: Lace-up work boots

Finger to Nose
(Draw lines to spots touched)



Slow, deliberate movements. Used pads of fingers on attempts 1, 3, & 5

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	2.0	2.5	1.5
Right Eye	2.0	2.5	1.5

Nasal area: Clear

Oral cavity: Clear

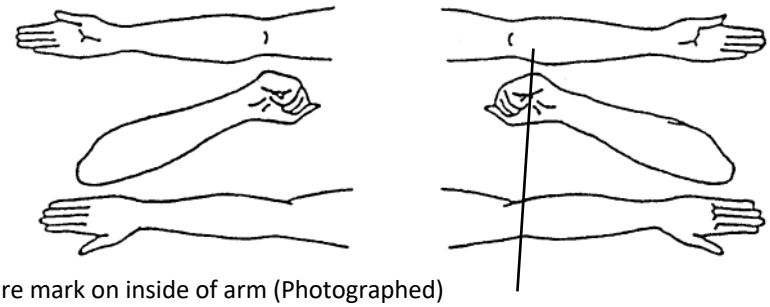
Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Little or none visible

Blood Pressure	Temperature
112 / 64	97.0 °F

Muscle Tone: ☐ Near Normal ☒ Flaccid ☐ Rigid

RIGHT ARM **LEFT ARM**



Puncture mark on inside of arm (Photographed)

What drugs or medications have you been using? "I'm not using anymore."

How much? N/A

Time of use? N/A

Where were the drugs used? (Location) N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
12/22/22 1430	N/A	1525	1640	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: Jessie Loy

Reviewed/approved by / date:

DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Subject: Davis, Paul J.

1. **Location:** The evaluation was conducted in the DUI processing room at the Nashville Highway Patrol office in Nashville, TN. The room had adequate overhead lighting and had a tile floor with no obstructions. The staff restroom was used for the dark room examinations.

2. **Witnesses:** Lt. Dwayne Stanford from the TN HP was present and witnessed and recorded the entire evaluation.

3. **Breath Alcohol Test:** At 1450 hours, the arresting officer, Sgt. Scott Lewis administered a breath test to the suspect at the Nashville HP office and obtained a 0.00% BAC result.

4. **Notification and Interview of the Arresting Officer:** On 12/22/22, I was on duty working a special DUI patrol in the Nashville area. While on patrol I was requested to assist Sgt. Lewis of the TN HP with a suspected drug impaired driver arrest. Upon contacting Sgt. Lewis, it was learned that he had located the suspect slumped over the steering wheel of his vehicle parked along the shoulder of Route 155 near Belmont Blvd. When he approached the vehicle, he observed that it was in gear and the engine was running. The vehicle was up against a roadside cement barrier and was not moving. Sgt. Lewis knocked on the driver's window and the suspect leaned back, opened his eyes and appeared to be startled by his presence. He was asked to roll down his window and put the vehicle into Park, which he did after noticeably fumbling with the window control and the transmission lever. The suspect was coherent but appeared dazed and confused. When asked, he stated he was not sure where he was. Sgt. Lewis noted that his speech was slow, low, and raspy. His movements were also slow and deliberate. Sgt. Lewis noted that his pupils were constricted. When he exited the vehicle, his movements were slow, and he was unsteady on his feet, and he used the side of his vehicle as support. Sgt. Lewis did not detect an odor of alcoholic beverage on his breath. When asked, he stated he was feeling alright, but a little tired. He stated he was not sick and was not injured. There were no overt indicators of a medical problem. Sgt. Lewis attempted to administer SFSTs at roadside, which included the HGN, VGN, Walk and Turn and One Leg Stand tests. He did not exhibit HGN or VGN. He was uncoordinated during the Walk and Turn and One Leg Stand tests. Throughout the testing, he had difficulty maintaining his balance and displayed poor coordination. After completing the SFSTs, the suspect was placed under arrest for DUI. When placing the suspect into custody Sgt. Lewis observed what appeared to be a bloody spot on his forearm area on the inside of his left shirt sleeve. When asked about the bloody spot, he stated that he had cut himself on a nail earlier in the day. After being placed under arrest for DUI and securing him in Sgt. Lewis' patrol vehicle, the suspect appeared to be "on the nod" at times. The suspect was advised of his Miranda Rights by Sgt. Lewis. While securing his vehicle, Sgt. Lewis located a syringe laying on the passenger side floorboard. The syringe was seized as evidence. After securing his vehicle, the suspect was transported to the Nashville HP office for processing and additional testing. After obtaining a .00 BAC result, Sgt. Lewis requested DRE assistance. (Refer to Sgt. Lewis' DUI arrest report for additional details).

5. **Initial Observation of the Subject:** Upon my arrival at the Nashville HP office, I observed that the suspect was having difficulty keeping his eyes open and his head was continually nodding forward. I noted that he had droopy eyelids and his pupils appeared constricted. When he spoke, his voice was slow, low, and raspy. He was continually scratching his face and arms, and he complained of being cold. I explained the DRE process and asked if would participate in the evaluation, which he agreed to do by stating, "Yeah, okay, whatever." The suspect appeared to be "on the nod" and numerous times I had to repeat my questions and wait for his delayed responses. When asked if he was taking any medications or drugs, the suspect indicated that he sometimes takes Tylenol for a sore shoulder. He stated several times he was cold and at times felt nauseous. The room temperate was set at approximately 70 degrees, which is the normal setting for the time of year. His face was pale, and he did not have any distinctive breath odor. When asked, he stated he did not need any medical attention. I noted that the suspect was wearing jeans, a long sleeve plaid

shirt and black lace-up boots. When asked, he told me he thought it was about 5:00 PM when the actual time was 3:30 PM. He stated he last slept earlier in the day taking a nap but did not say when.

6. **Medical Problems and Treatment:** The suspect was asked about any medical conditions he may be experiencing, and he was slow to respond. He finally indicated that he was tired, and sometimes takes Tylenol for his shoulder. When asked about his shoulder condition, he explained that he had hurt it about two or three months ago while moving pallets at work but was not under doctor's care for the injury. When asked if he needed medical assistance for his shoulder or any other medical condition he may be experiencing, he stated, "No, I'm okay. Thanks for asking." During the evaluation, no medical issues or concerns were detected, and none were mentioned by the suspect.
7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to the suspect prior to him attempting them. After each demonstration, he confirmed that he understood the instructions. The following psychophysical tests were administered:

   Modified Romberg Balance: During this test, the suspect swayed approximately four inches front to back and side to side. I estimated his sway by lining him up using a line in the brick wall behind him and to the side. His head also nodded forward during the test, and it appeared he was on the nod. His time estimation was slow, estimating 30 seconds in 58 seconds. When asked how long of time he estimated, he stated, "about 30 seconds." I asked how he estimated the 30 seconds and he said, "I just counted in my head."

   Walk and Turn: During this test, the suspect lost his balance to the right twice during the instructions stage. Once he began the walking stage, on the first nine steps he stopped while walking three times on steps 2, 6 and 8. He missed touching heel to toe between steps 3 and 4, used his arms to balance three times and stepped off the line at step 4. As he made his turn, he took slow deliberate steps, but completed the turn as instructed. On the second nine steps, he stopped while walking once at step 1, missed touching heel to toe twice at steps 6 and 8, and stepped off the line at step 9. He used his arms to balance three times on the second nine steps.

   One Leg Stand: On this test, the suspect had difficulty maintaining his balance while standing on both his left and right foot. While attempting to stand on his left foot and raise his right foot off the floor, he began swaying, used his arms for balance, and put his foot down at 1,012 losing his balance. His count was slow, counting to 1,041 in the 30 second period. When attempting to stand on his right foot and raise his left foot off the floor, he again swayed, used his arms for balance, and put his foot down on counts 1,003 and 1,020. He again counted slowly reaching 1,039 in the 30 second period. Each time after the test ended, he would start scratching his arms, neck, and face.

   Finger to Nose: On this test, the suspect made slow and deliberate arm movements. He was not able to touch the tip of his nose with the tip of his index finger as directed on five of the six attempts. The only attempt where he touched the tip of his nose as instructed was attempt 6. He used the pads of his fingers for attempts 1, 3, and 5. At times during the test, he appeared to be on the nod. His knees were bent throughout the test, and at times he would lean forward. After completing the test, he again began scratching his arms, neck, and face.

8. **Clinical Indicators of Impairment:**
   Eye Signs: The suspect exhibited equal tracking, had equal pupil size, and did not exhibit resting nystagmus. No clues of HGN were observed. Vertical Gaze Nystagmus was not observed. The suspect was able to converge his eyes as directed both times the test was conducted. His pupils were constricted in all three lighting conditions and were estimated at 2.0 mm in both eyes in Room Light, 2.5 mm in both eyes in Near Total Darkness, and 1.5 mm in both eyes in Direct Light. His pupil reaction to light was little or none visible. Rebound Dilation was not observed. His eyelids were droopy throughout and several times I had to remind him to keep his eyes open during the eye examinations.

Vital Signs: The suspect's pulse rates were checked at 56, 58 and 56 beats per minute (bpm). All three were below the DRE average ranges. His B/P was measured at 112/64 mm Hg, which was below the DRE average range for both the systolic range and the diastolic range. His body temperature was measured at 97.0 degrees Fahrenheit, which was also below the DRE average range. His muscle tone was flaccid.

9. **Signs of Ingestion:** An injection mark was located on the inside of the suspect's left arm. When questioned about the mark, he indicated he had scratched himself on a nail when loading wooden pallets at work. He was asked about the possibility of it being a drug injection mark and he again stated that it was a nail that caused it. His oral and nasal cavities appeared clear.

10. **Suspect's Statements:** After completing the evaluation and explaining my observations, I again asked the suspect about possible drug use. The suspect admitted that he once used prescription pain pills, but stated, "I'm not using them anymore." He denied any illicit drug use, stating he does not use drugs.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that the suspect was under the influence of a _____ and was unable to operate a vehicle safely.

12. **Toxicological Specimen:** A urine sample was collected from the suspect at 1638 hours and was entered into evidence pending analysis by the State Crime Lab.

13. **Miscellaneous:** After completing my evaluation, a records check of the suspect indicated he was on probation for an illicit drug possession conviction. His probation officer was contacted regarding his arrest. The syringe located in his vehicle was logged into evidence pending analysis by the state crime laboratory.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Deputy Marshall Eldridge	19147	22-009-0084	Tulsa County Sheriff's Office	(Session XXV-#5 PM)

Recorder/Witness	Crash	Arresting Officer's Agency
Tpr. BJ Keeling, OK Highway Patrol	☐ None ☐ Fatal ☐ Injury ☒ Property	Oklahoma Highway Patrol

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Elliott, John B.	04/10/1990	M	W	Tpr. Robert James #22555

Date Examined / Time /Location	Breath Test	Chemical Test
09/05/22 / 1810 / Tulsa Co. Jail	Results: 0.00 Test Refused ☐ Instrument #: 68460	Urine ☒ Blood ☐ Test or tests refused ☐

Miranda Warning Given / Given by: Tpr. James	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last
		Tuna Sandwich	About 1 pm	Nothing, just water	N/A

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
"Don't know"/1816	Last night	"Maybe 5 hours"	☐ Yes ☒ No "Got a headache"	No

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No "I used to see a doctor"

Are you taking any medication or drugs?	Attitude:	Coordination:
☐ Yes ☒ No "I probably should"	Emotional / Confused	Poor, Unsteady

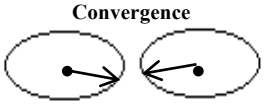
Speech:	Breath odor:	Face:
Slurred / Thick / Confused	Normal	Flushed

Corrective Lenses:	Eyes:	Blindness:	Tracking:
☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	☒ Normal ☐ Bloodshot ☐ Watery	☒ None ☐ Left ☐ Right	☒ Equal ☐ Unequal

Pupil Size:	Resting Nystagmus	Vertical Nystagmus	Able to follow stimulus	Eyelids
☒ Equal ☐ Unequal (explain)	☐ Yes ☒ No	☐ Yes ☒ No	☒ Yes ☐ No	☒ Normal ☐ Droopy

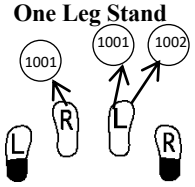
Pulse/Time	HGN	Left Eye	Right Eye
1. 68 / 1820	Lack of Smooth Pursuit	None	None
2. 66 / 1840	Maximum Deviation	None	None
3. 66 / 1850	Angle of Onset	None	None

Convergence



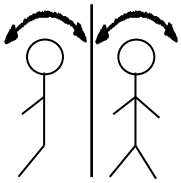
Right eye Left eye

N/A **One Leg Stand** N/A

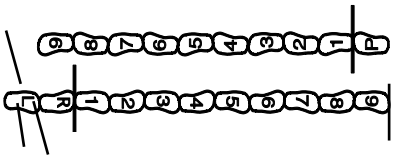


Modified Romberg Balance

Approx. 2″ Approx. 2″ 2″ 2″



Walk and Turn Test



Used wall for support. Test stopped.

Cannot keep balance 3

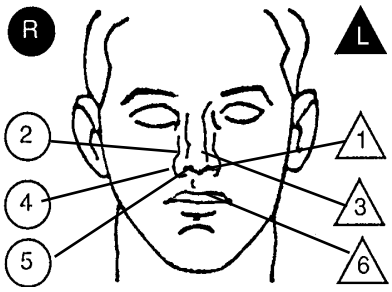
Starts too soon

	1st Nine	2nd Nine
Stops walking	N/A	N/A
Misses heel-toe	N/A	N/A
Steps off line	N/A	N/A
Uses arms	N/A	N/A
Actual steps taken	N/A	N/A

L R
☒ ☒ Sways while balancing
☐ ☐ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down
Claimed being dizzy. Tests stopped for safety reasons.

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
32 estimated as 30 seconds	N/A	N/A	Lace-up dress shoes

Finger to Nose
(Draw lines to spots touched)



Used pads of fingers on all attempts

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	5.0	7.0	4.5
Right Eye	5.0	7.0	4.5

Nasal area: Clear

Oral cavity: Clear

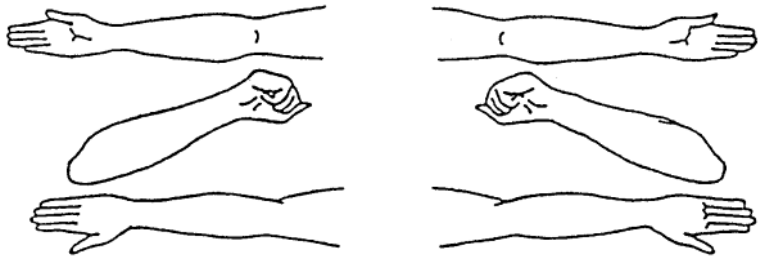
Rebound Dilation: ☐ Yes ☒ No

Reaction to Light: Normal

Blood Pressure	Temperature
188 / 98	99.0 °F

Muscle Tone: ☒ Near Normal ☐ Flaccid ☐ Rigid

RIGHT ARM **LEFT ARM**



Nothing observed

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used?
"I don't use drugs, but I probably should"	N/A	N/A	N/A

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	
09/05/22 1722	1750	1810	1920	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

DRE/Officer's Signature: M. Eldridge | Reviewed/approved by / date: | DRE#

Opinion of Evaluator: ☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant ☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Elliott, John B.

1. **Location:** The evaluation was conducted in the booking area at the Tulsa County Jail in Tulsa, OK. The room is well illuminated and has smooth concrete flooring with no obstructions. The darkroom examinations were conducted in the staff restroom.

2. **Witnesses:** The evaluation was observed and recorded by Oklahoma Highway Patrol Trooper BJ Keeling.

3. **Breath Alcohol Test:** The arresting officer, Trooper James had administered a breath test to Elliott prior to my arrival and obtained a 0.00% result.

4. **Notification and Interview of the Arresting Officer:** On 09/05/22, at approximately 1750 hours, I was on duty and requested to contact Trooper James regarding a drug evaluation at the Tulsa County Jail. After contacting Trooper James, it was determined that the driver, John Elliott, had been involved in a minor collision in a construction zone on I-244. Construction workers at the scene reported that Elliott was acting strangely and appeared to be confused and disoriented. When Trooper James arrived at the scene, he found Elliott wandering along the roadway near his vehicle. According to Trooper James, Elliott's speech was slurred and gurgled, and at times incoherent. He also had difficulties maintaining his balance and several times staggered as he walked. Trooper James determined that Elliott was not injured and was able to perform SFSTs. Trooper James attempted to administer the Horizontal Gaze Nystagmus (HGN), Walk and Turn (W&T), and One Leg Stand (OLS) tests. No clues of HGN were observed. However, Elliott did have difficulty completing the other SFSTs as directed and both tests had to be stopped for safety reasons. According to Trooper James, Elliott was found to be driving with a suspended operator's license and had an outstanding misdemeanor warrant for his arrest for Failure to Appear. Elliott was taken into custody and transported to the Tulsa County Jail for processing. After obtaining a .00 BAC, I was requested to assist with the investigation.

5. **Initial Observation of the Suspect:** I first observed Elliott in the interview room at the County Jail. He was having problems with his balance and was unsteady on his feet. He was talking to himself, and his speech was mumbled and at times incoherent. I introduced myself and I requested to conduct a drug evaluation, which he agreed to do stating, "Alright, but I'm not drunk." I observed that his mood seemed to be changing at times, going from being cooperative to depressed acting. He was wearing blue dress pants, a light blue long sleeve shirt and black lace-up shoes.

6. **Medical Problems and Treatment:** When I attempted to discuss any medical problems with Elliott, he got evasive, appeared to be confused, and at times would not answer my questions. He did indicate that he was not currently taking any medication or drugs, but commented, "I probably should." I asked if he needed medical assistance and he responded, "For what, a headache."

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to Elliott prior to him attempting them. After each demonstration, he confirmed that he understood the test and the instructions. The following psychophysical tests were administered:

   Modified Romberg Balance: During this test, Elliott swayed approximately two inches front to back and side to side. He estimated 30 seconds in 32 seconds.

   Walk and Turn: During this test, Elliott could not maintain his balance in the instructions stage, losing his balance three times. He extended his right arm out and used the wall for support and the test was stopped for safety reasons. After trying to complete the test, he began rubbing his head and was mumbling to himself.

One Leg Stand: For this test, Elliott was not able maintain his balance on either his left or right foot and nearly fell several times attempting to do so. He claimed to be dizzy and due to his poor balance, the tests were stopped for safety reasons. He appeared to be frustrated that he could not do the tests and was mumbling to himself.

Finger to Nose: On this test, Elliott could not touch the tip of his nose with the tip of his index finger as directed. He used the pads of his fingers on all six attempts. He also swayed noticeably while attempting to touch his nose. I noticed that his movement when using his left arm and hand was noticeably slower and required more of an effort than when using his right arm and hand.

8. **Clinical Indicators of Impairment:**
   Eye Signs: No clues of HGN were present and Vertical Gaze Nystagmus was not observed. Elliott was able to converge his eyes as instructed. Rebound dilation was not observed. His pupils were estimated at 6.0 mm in Room Light (RL), 7.0 mm in Near Total Darkness (NTD), and 4.0 mm in Direct Light (DL). His reaction to light was normal.

   Vital Signs: Elliott's pulse rates were checked three times per DRE protocol and were 68, 66 and 66 beats per minute. All three results were within the DRE average range for pulse rate. His blood pressure was checked at 188/98, which was above the DRE average range for blood pressure. His body temperature was 99.0 degrees, which was within the DRE average range. Elliott was asked about his elevated blood pressure and he indicated he was not aware of why it would be elevated. He also indicated that he did not have a history of high blood pressure.

9. **Signs of Ingestion:** Elliott's nasal and oral cavities were clear. There were no indicators of injection marks on his hands or arms.

10. **Suspect's Statements:** Elliott denied using drugs or medications. He did indicate that used to use drugs prescribed by his doctor. When asked what those drugs were, he could remember the names and appeared confused. He was further questioned about his headache, dizziness and unequal pupil sizes and he could not explain them. However, he did indicate that his dizziness could have caused the collision he was involved in. He claimed to be in good health and did not have a history of medical problems.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that Elliott was under the influence of a _____ and unable to operate a vehicle safely.

12. **Toxicological Sample:** A urine sample was collected from the subject and will be forwarded to State Crime Laboratory for analysis.

13. **Miscellaneous:** Refer to the arrest report by Trooper James for additional details. After the completion of my evaluation, Elliott was referred to the jail medical staff for further observation.

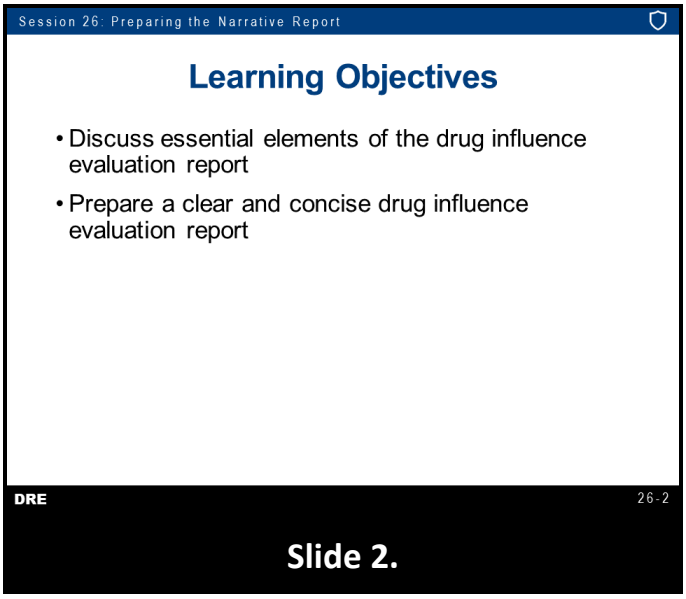
26 DRE

PREPARING THE NARRATIVE REPORT

LEARNING OBJECTIVES

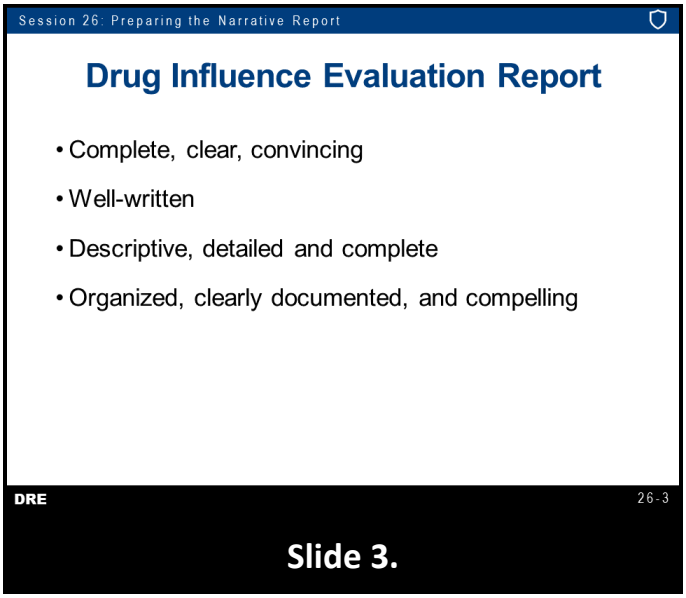
- Discuss the essential elements of the drug influence evaluation report
- Prepare a clear and concise drug influence evaluation report

CONTENTS



Slide 2.

A. Components of the Process

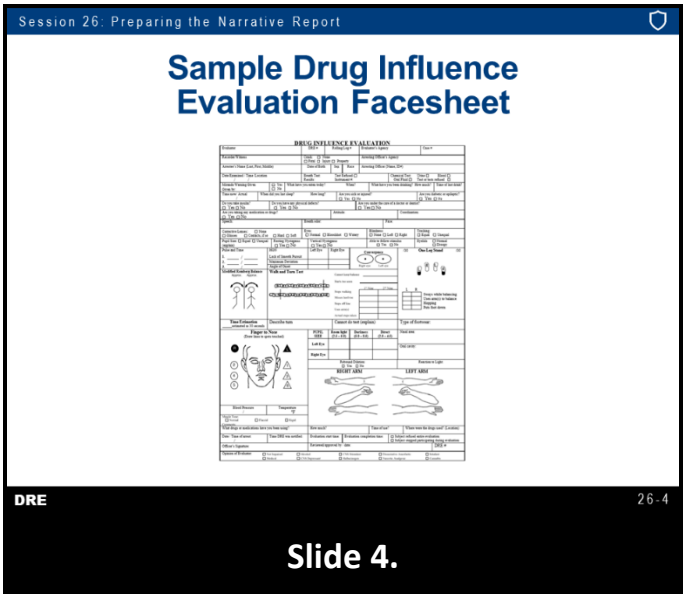


Slide 3.

Successful prosecution depends on how clearly, completely, and convincingly the DRE presents their observations, measurements, and conclusions. A well-written, clear, and convincing drug influence evaluation report increases the likelihood that the case will be properly adjudicated. A prosecutor is more likely to file the charge if the evidence is organized, clearly documented, and compelling.

The defense is less likely to contest the charge when the report is descriptive, detailed, and complete.

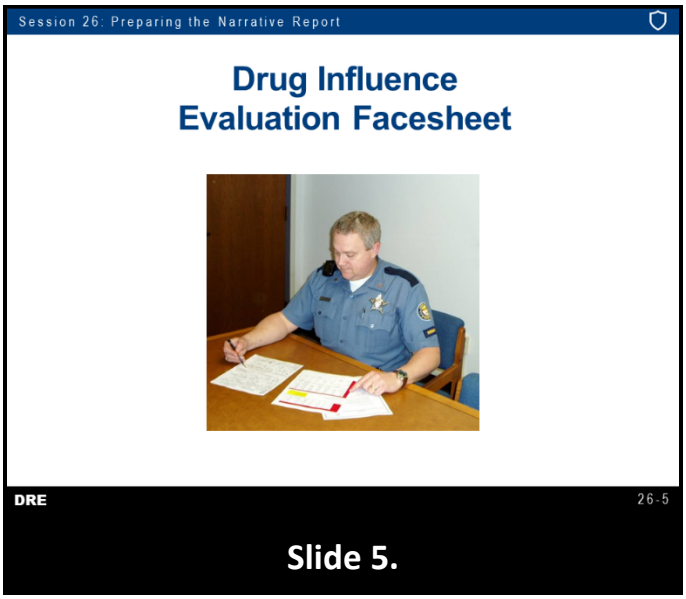
B. Components of the Drug Influence Evaluation Report



Slide 4.

The Drug Influence Evaluation Facesheet is part of your drug influence evaluation report; but it is not the entire report. The Facesheet contains some very important information, for example, the subject's pulse rate was elevated on all three measurements, the subject's eyes failed to converge, and the subject's pupils were constricted.

However, it is important to remember the DRE Facesheet does not contain all of the important information available concerning this subject.

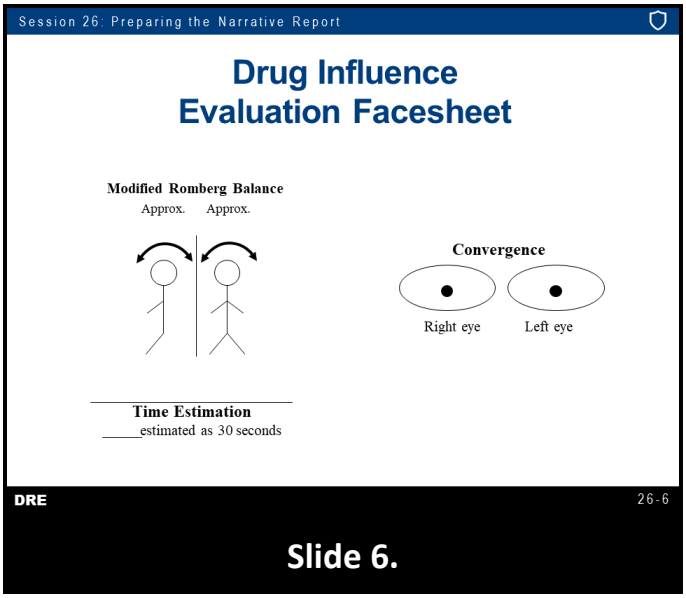


Slide 5.

Most importantly, the Drug Influence Evaluation Facesheet is a technical document. Trained DREs know how to complete and interpret the Facesheet. Boxes on the Facesheet should not be left blank. It is recommended "N/A" or "None Observed" be used.

Examples include information obtained during the interview of the arresting officer, elaborate or lengthy statements made by the subject, paraphernalia found in the subject's possession, etc.

Many prosecutors, judges, and jurors won't know how to interpret the Facesheet. It is up to you to take all of the information you work so hard to obtain and put it into a clear, easily understood, report so the prosecutor, the judge, and the jury will understand what you observed and what it means.



Slide 6.

To ensure the information contained on the Facesheet is systematic and standardized, the results of the tests should be recorded as follow below.

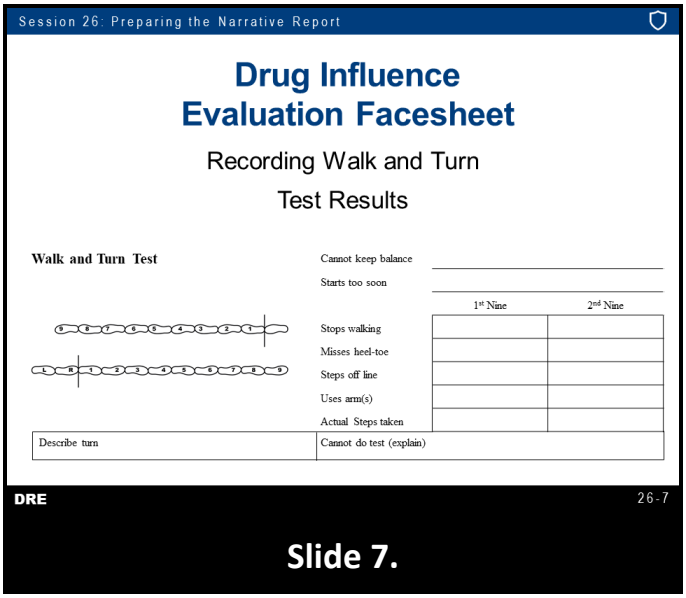
Lack of Convergence (LOC): A dot should be made where the pupil starts and draw an arrow to indicate the movement and where the pupil stops.

Modified Romberg Balance (MRB): The first figure indicates the sway from front to back and should be estimated in inches from center.

The second figure indicates the sway from side to side and is estimated in inches from center.

Put the approximate number of inches from center the subject's sways on either end of the arrows. If the subject exhibits a circular sway, record the approximate number of inches from center. Record actual elapsed time of the time estimation.

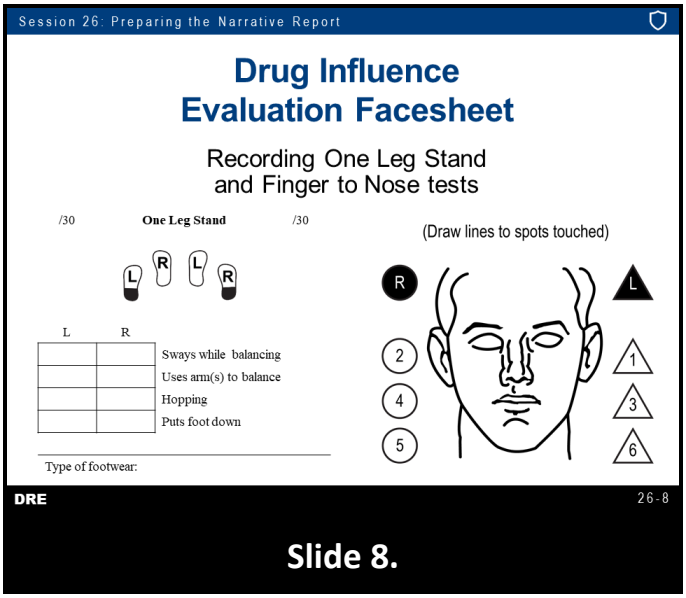
DREs are not limited to only documenting the above evidence during the test. DREs are encouraged to record sufficient evidence to deliver effective testimony in court.



Slide 7.

Walk and Turn (WAT): The first two – cannot keep balance and starts too soon – are observed during the instruction stage. Indicate the number of times the subject stops, misses heel-to-toe, steps off line, or uses arm(s). Record the actual number of steps taken. If the subject takes additional steps, draw in the additional steps to reflect the actual number of steps taken. If the subject takes less than nine steps, place an (x) in the missing steps. If the subject stops walking, indicate where with a vertical slash mark and an "S" under that mark. If the subject steps off the line, indicate with half of a slash mark at an angle in the direction the step was off the line. If the subject misses heel-to-toe, indicate with a vertical slash mark and an "M" under that mark. Describe the turn.

DREs are not limited to only documenting the above evidence during the test. DREs are encouraged to record sufficient evidence to deliver effective testimony in court.



Slide 8.

One Leg Stand (OLS): Indicate in the OLS box the number the subject counted to when the foot touched the floor (if applicable). Check marks should be made to indicate the number of times the subject swayed, used arms, hopped, or put foot down. Indicate how far the subject counted in 30 seconds in the top area of the box above the foot raised. Add any other indicators observed such as tremors, falling, etc.

Finger to Nose (FTN): A line should be drawn to the appropriate triangle or circle to indicate where the subject touched their nose. Suggestion – If the DRE draws the line from the place where the subject touched to the triangle/circle, it enables them to draw a straighter line

DREs are not limited to only documenting the above evidence during the test. DREs are encouraged to record sufficient evidence to deliver effective testimony in court.

C. Drug Influence Evaluation Narrative Report Components

Slide 9.

The typical Drug Influence Evaluation Narrative Report format contains 13 components.

First component – Location: For example, where the evaluation was conducted.

Second component – Witnesses: List the person who served as the evaluator and the recorder and their agency. List officers who helped to conduct the evaluation. List who observed the evaluation. Include any instructors who witnessed the evaluation.

Third component – the Breath Alcohol Test: Indicate Breath Alcohol Concentration (BAC) result. List who administered the breath alcohol test. List the time the test was administered.

Fourth component – Notification and Interview of the Arresting Officer: List when you were first notified of the request for the drug influence evaluation. Summarize the information you were given at that time. Summarize the information provided by the arresting officer. Document the details of your interview with the arresting officer and other witnesses.

Fifth component – Initial Observation of the Subject: Describe where you first saw the subject. Describe noteworthy aspects of your initial observations. List the findings of the Preliminary Examination of the subject.

Sixth component – Medical Problems and Treatment: Describe your observations or indications of any apparent injury or illness affecting the subject. Describe any statements of injury or illness. Summarize any medical treatment offered to the subject.

Seventh component – Psychophysical Indicators of Impairment: Summarize performance of the MRB, WAT, OLS, and FTN tests. Describe any relevant behaviors on the tests not included on the Facesheet. Document any other pertinent observations, such as eyelid tremors, leg tremors, miscounting, etc.

Eighth component – Clinical Indicators of Impairment

Eye Signs: Briefly summarize your observations of Horizontal Gaze Nystagmus (HGN), Vertical Gaze Nystagmus (VGN), LOC, Pupil Size, Reaction to Light, and appearance of the subject's eyes.

Vital Signs: Briefly summarize the subject's pulse rate, blood pressure, and temperature.

Ninth component – Signs of Administration: Record the results of examinations of oral and nasal cavities. Document the results of examinations for injection marks. Document any odors detected on subject's breath, hands, clothing, etc. Document physical debris of drugs or drug paraphernalia found on subject's person.

Tenth component – Subject's Statements and other Observations: "Miranda" waiver and responses.

Document any volunteered or spontaneous statements. Record any statements made as a result of your interview. Include any admissions or denial of drug use, time, location drugs were used, and any statements made relating to the subject's perception of their impairment, if applicable.

Eleventh component – DRE's Opinion:

State the category or categories of drugs you believe is/are affecting the subject. State your opinion concerning the subject's ability to operate a vehicle safely, if applicable to this case.

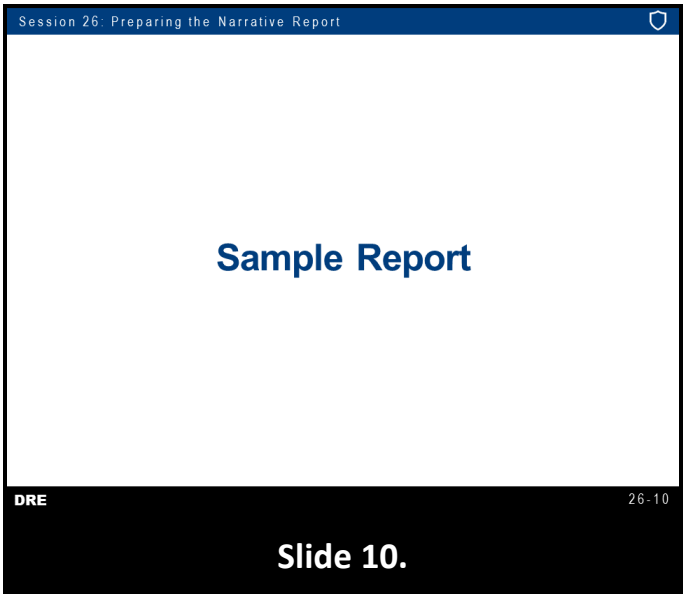
"It is my opinion as a certified Drug Recognition Expert that (name) is under the influence of (drug category) and unable to operate a vehicle safely."

Twelfth component – Toxicological Sample

The narrative report should include: What sample was obtained; The time the sample was collected (if known); Information on who collected the sample or observed the collection of the sample; Where the sample was taken and to whom it was given; If the subject refused to provide a sample, state that fact.

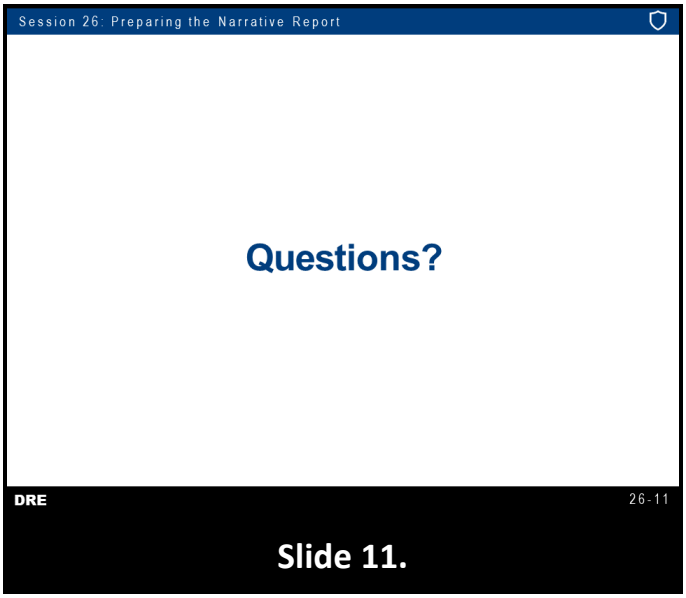
Thirteenth component – Miscellaneous: Include any other pertinent information such as drugs or drug paraphernalia found in the subject's possession, additional charges, etc.

D. Sample Report



Slide 10.

A copy of this report is found at the end of this session, for your reference. This report is a suggested guide for preparing clear, concise, detailed reports. Even if your State or prosecutor requires a different narrative report format, you should still include all 13 reporting components in a detailed manner.



Slide 11.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case#
Officer Robert Smith	17516	22-018-0155	California Highway Patrol	(Session XXVI)

Recorder/Witness	Crash: ☒ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency
Sgt. Gary Mertens, CHP		CHP

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)
Roach, Robert D.	04/10/1990	M	W	Officer Eric Stayer #18738

Date Examined / Time /Location	Breath Test: Test Refused ☐	Chemical Test: Urine ☐ Blood ☒
08/07/22 / 1730 / Valley CHP	Results: 0.00 Instrument #: 68460	Test or tests refused ☐

Miranda Warning Given Given by: Officer Stayer	☒ Yes ☐ No	What have you eaten today?	When?	What have you been drinking? How much?	Time of last drink? N/A
		Burger, Doritos & cookies	About 4 pm	Water	

Time now/ Actual	When did you last sleep?	How long?	Are you sick or injured?	Are you diabetic or epileptic?
6 pm? / 1733	Last night	About 8 hours	☐ Yes ☒ No	

Do you take insulin?	Do you have any physical defects?	Are you under the care of a doctor or dentist?
☐ Yes ☒ No	☒ Yes ☐ No Sore back	☐ Yes ☒ No

Are you taking any medication or drugs?	Attitude:	Coordination:
☒ Yes ☐ No "I smoke pot for my back and to relax"	Cooperative, Carefree	Slow, Unsteady

Speech:	Breath odor:	Face:
Slow, Thick, Low	Marijuana	Normal

Corrective Lenses: ☒ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☒ Bloodshot ☒ Watery	Blindness: ☒ None ☐ Left ☐ Right	Tracking: ☒ Equal ☐ Unequal

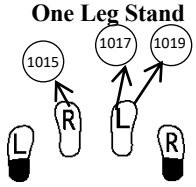
Pupil Size: ☒ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☒ No	Vertical Nystagmus ☐ Yes ☒ No	Able to follow stimulus ☒ Yes ☐ No	Eyelids ☐ Normal ☒ Droopy

Pulse/Time	HGN	Left Eye	Right Eye
1. 98 / 1742	Lack of Smooth Pursuit	None	None
2. 96 / 1758	Maximum Deviation	None	None
3. 98 / 1812	Angle of Onset	None	None

Convergence

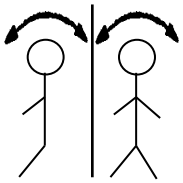
Right eye Left eye

24/30 **One Leg Stand** 22/30



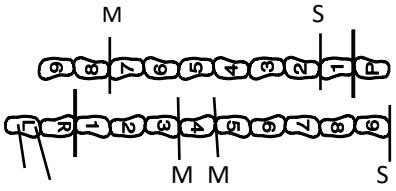
Modified Romberg Balance

Approx. 3″ 3″ Approx. 3″ 3″



Circular sway/Eyelid tremors

Walk and Turn Test



Walked slowly / Leg tremors

Cannot keep balance 2

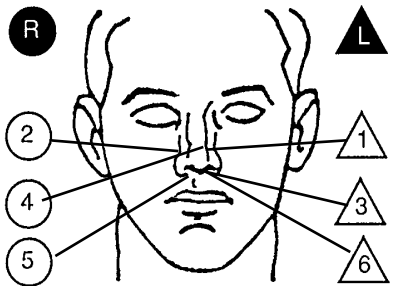
Starts too soon

	1st Nine	2nd Nine
Stops walking	1	1
Misses heel-toe	2	1
Steps off line		
Uses arms	1	3
Actual steps taken	9	9

L R
☒ ☒ Sways while balancing
☒ ☒ Uses arms for balance
☐ ☐ Hopping
☒ ☒ Puts foot down
Leg tremors / Counted incorrectly

Time Estimation	Describe turn	Cannot do test (explain)	Type of footwear:
42 estimated as 30 seconds	Walking turn with multiple steps	N/A	Brown hiking boots

Finger to Nose
(Draw lines to spots touched)



Slow movements / Eyelid tremors /Laughing

PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye	6.0	9.0	5.0 - 7.0
Right Eye	6.0	9.0	5.0 - 7.0

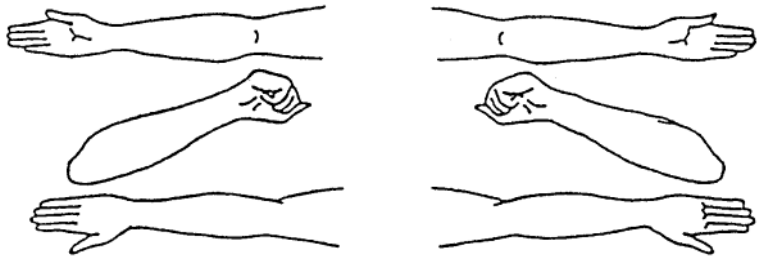
Nasal area: Clear

Oral cavity: Green coating on tongue

Rebound Dilation: ☒ Yes ☐ No

Reaction to Light: Normal

RIGHT ARM **LEFT ARM**



Nothing observed

Blood Pressure	Temperature
162 / 98	98.2 °F

Muscle Tone: ☒ Near Normal ☐ Flaccid ☐ Rigid

What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used?
"I smoke pot to relax"	"A bowl with friends and part of a joint"	"10 am & 1 PM"	"At the lake and in my car"

Date / Time of arrest:	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation
08/07/22 1615	1705	1730	1825	

DRE/Officer's Signature: Robert Smith

Reviewed/approved by / date:

DRE#

Opinion of Evaluator:

☐ Not Impaired	☐ Alcohol	☐ CNS Stimulant	☐ Dissociative Anesthetic	☐ Inhalant
☐ Medical	☐ CNS Depressant	☐ Hallucinogen	☐ Narcotic Analgesic	☒ Cannabis

Revised 2/23

DRUG INFLUENCE EVALUATION NARRATIVE

Suspect: Roach, Robert D.

1. **Location:** The drug influence evaluation was conducted at the CHP Valley Office in Sacramento, CA. The evaluation was primarily conducted in the interview room which had adequate lighting for conducting a drug evaluation and had smooth tile flooring with no obstructions. The darkroom examinations were conducted in the staff restroom.

2. **Witnesses:** CHP Sergeant Gary Mertens witnessed and recorded the evaluation. The arresting officer, Officer Eric Stayer of the CHP witnessed the psychophysical tests and dark room examinations.

3. **Breath Alcohol Test:** Officer Stayer administered a breath test to the suspect at 1650 hours and obtained a 0.00 BAC result.

4. **Notification and Interview of the Arresting Officer:** On 08/07/22, I was on duty and at approximately 1705 hours was requested to contact Officer Stayer at the CHP Valley Office regarding a drug evaluation. After contacting Officer Stayer, it was determined he had received a possible impaired driver dispatch call describing the suspect's vehicle as speeding and unable to maintain a single lane of travel southbound on I-5 near the Woodland exit. Officer Stayer located the vehicle traveling south at the Del Paso Road interchange and followed the vehicle at approximately 75 mph for over a mile. He also observed the vehicle drift in and out of the outside and middle lanes of I-5. According to Officer Stayer, when he activated his overhead lights to stop the vehicle, it continued without stopping for approximately a half mile. When the vehicle pulled over, it nearly struck a roadway fog marker and stopped at the far edge of the graveled shoulder. When contacted, the driver appeared confused, and several times asked Officer Stayer why he had been stopped. When asked for his operator's license, vehicle registration and proof of insurance, the driver (Identified as Robert Roach) had slowed and deliberate movements. When asked to exit his vehicle, Roach had to steady himself with his hand against his vehicle several times. According to Officer Stayer, he did not detect an odor of an alcoholic beverage on Roach's breath. When asked about consuming alcohol, Roach denied consuming any. Officer Stayer administered SFSTs, which included the Horizontal Gaze Nystagmus (HGN), Walk and Turn (W&T) and One Leg Stand (OLS) tests. According to Officer Stayer, no HGN clues were observed. However, Roach had difficultly performing the W&T and OLS tests as instructed. Officer Stayer observed four clues on the W&T test and three clues on the OLS test. When in close contact with Roach, Officer Stayer detected an odor of marijuana on his clothing and breath. He also noted that Roach had bloodshot watery eyes and droopy eyelids. When asked about marijuana use, Roach indicated that he had smoked marijuana earlier in the day with friends at Shasta Lake and several times mentioned to Officer Stayer that marijuana was legal in California. After completing the SFSTs, Officer Stayer placed Roach under arrest for DUI and advised him of his Miranda Warnings. Officer Stayer, who is a certified DRE, suspected cannabis impairment and having been trained that THC levels dissipate in a person's blood quickly after smoking, transported Roach to the Mercy General Hospital and obtained a search warrant for a blood sample. After obtaining a telephonic search warrant and collecting the blood sample, Roach was transported to the Valley CHP Office for a breath test and processing. After obtaining a .00 BAC result, Officer Stayer requested a DRE to continue the investigation.

5. **Initial Observation of the Suspect:** I first observed Roach in the interview room at the Valley CHP Office. He appeared to be cooperative and relaxed acting. He was slow to respond to questions and numerous times appeared confused when trying to relate information to Officer Smith. His speech was slow, slurred, and at times difficult to hear. When he stood up, he used the chair to steady himself. His pupils appeared to be dilated, and his eyes were bloodshot and watery. He was wearing tan colored shorts, a tie-dyed tee-shirt, and brown hiking boots. I introduced myself to Roach and asked if he would participate in a drug evaluation. He agreed by stating, "Sure, what the hell. You do know that marijuana is legal, right?" I asked if he remembered being advised of his Miranda Warnings and he replied that he did, and he agreed to answer my questions.

6. **Medical Problems and Treatment:** When Roach was asked about any medical conditions he may have, he indicated that at times he had a "sore back." When asked if his back issue would prevent him from participating in the drug evaluation, he stated it would not. When asked how he got his sore back he stated, "Probably too much hiking." I asked if he required any medical assistance for his back or any other condition and he indicated he did not. He did not report any other medical conditions, and none were observed during the evaluation.

7. **Psychophysical Indicators of Impairment:** Each of the psychophysical tests were explained and demonstrated to Roach prior to him attempting them. After each demonstration, he confirmed that he understood the test instructions. The following psychophysical tests were administered:

   Modified Romberg Balance: During this test, Roach exhibited a circular sway of approximately three inches. His time estimation was slow, estimating 30 seconds in 42 seconds. When asked how he had determined that 30 seconds had passed, he stated, "I was just counting in my head" and then laughed out loud. Eyelid tremors were present throughout the test.

   Walk and Turn: Prior to starting this test, Roach was asked if his boots would create any issues in completing the test. He replied he did not think so and wanted to keep them on. For the test, a line in the flooring was used. During the instructions stage of the test, Roach lost his balance to the right twice and laughed out loud. After regaining his balance and starting the walking stage, his steps were slow and deliberate. He missed touching heel to toe as instructed on his 4th and 5th steps. He used his arms to balance once and stopped while walking on the 9th step and appeared to be confused on how to continue. He then asked what to do and began laughing out loud. He was reminded to make his turn as he had been instructed and continue with the remainder of the test. He then made an improper turn by taking multiple steps using both feet instead of leaving his left foot on the line as directed. On the second nine steps, he stopped walking after his 1st step and again appeared to be confused about what to do. After being reminded of what to do, his steps were again slow and deliberate. He used his arms to balance three times on the second nine steps and missed touching heel to toe on his 8th step. Leg tremors were present throughout the test. Several times he laughed out loud as he attempted the test.

   One Leg Stand: Per DRE protocol, this test was conducted once while standing on the left foot and once standing on the right foot. While standing on his left foot and raising his right foot off the floor, Roach counted out loud slowly, counting to 1,024 when the test was stopped after 30 seconds. He swayed while balancing once and twice used his arms for balance. He lost his balance once putting his foot down at count 1,015. While standing on his right foot and raising his left foot off the floor, he again counted slowly reaching 1,022 when 30 seconds had elapsed. He swayed while balancing once, used his arms for balance once, and put his foot down at counts 1,017 and 1,019. Leg tremors were present throughout the test. He also counted incorrectly while standing on his right foot, skipping 1,012 and 1,020. After skipping the numbers in his count, he began laughing out loud.

   Finger to Nose: During this test, Roach's arm movements towards his nose were slow and deliberate. He did not touch the tip of his nose with the tip of his index finger as instructed on attempts 1, 2, 4 and 5. On his 1st attempt he touched the left side of his nose. On his 2nd attempt he touched the right side of his nose. On his 3rd attempt he touched the tip of his nose as instructed. On his #4 attempt he touched the bridge of his nose. On his #5 attempt he touched below his nose. On his 6th attempt he touched the tip of his nose as instructed. Eyelid tremors were present throughout the test. He also had to be reminded three times to remove his finger from his nose and replace his arm back at his side. Several times he began laughing out loud as he attempted the test.

8. **Clinical Indicators of Impairment:**

   Eye Signs: The eye examinations were conducted in the staff restroom which provided adequate darkness to conduct the examinations. No clues of HGN were observed. VGN was also not observed. Roach's pupils were dilated in all three lighting conditions, estimated at 6.0 mm in both eyes in Room Light and 9.0 mm in both eyes in Near Total Darkness. Rebound dilation was present with his pupils ranging from 5.0 mm to 7.0

mm in both eyes in Direct Light. All three estimations were above the DRE average ranges for each of the lighting conditions. A Lack of Convergence was also present in both eyes with his eyes moving inward and then moving back out and downward. The test was conducted twice, and the results were the same each time. His eyes were bloodshot and watery, and his eyelids were droopy.

Vital Signs: Roach's pulse rates were checked three times during the evaluation and were 98, 96 and 98 beats per minute. All three results were above the DRE average range for pulse rate. His blood pressure was measured at 162/98, also above the DRE average range for blood pressure. His body temperature was measured at 98.2 degrees using an oral thermometer, which was within the DRE average range. Roach was asked about his elevated pulse rates and blood pressure and he indicated he was not aware of why they would be elevated and said he did not have a history of high blood pressure.

9. **Signs of Ingestion:** Roach's nasal area was clear. However, he did have a greenish coating on the back of his tongue, which can be an indicator of recent marijuana inhalation. When asked about the green coating, he had no explanation and shrugged his shoulders. No indicators of injection sites were located on his arms and hands.

10. **Suspect's Statements:** Roach admitted smoking a "bowl" of marijuana with friends at Shasta Lake and then finishing a "part of a joint" while driving to Sacramento. He told me that since California legalized recreational marijuana, he uses it more than he used to, smoking 4 or 5 times a week. When asked if the marijuana he had smoked prior to being stopped had affected him, he stated, "Maybe just a little. It was some good shit." He told me that he enjoys smoking marijuana because it relaxes him, and he prefers Indica strains. He also stated that when he smokes marijuana, he usually drives slower and considers himself a safer driver. When questioned about him driving over the speed limit prior to being stopped, he indicated that he probably wasn't paying attention to his speed and was thinking about the good time he had with his friends at Shasta Lake earlier in the day. Several times during our conversation Roach reminded me that marijuana was legal in California and that driving drunk is more dangerous than driving after smoking pot. Throughout my interview with Roach, he demonstrated a slow thought process and numerous times seemed to be confused with my questions.

11. **DRE's Opinion:** It is my opinion as a certified Drug Recognition Expert that Roach was under the influence of Cannabis and was unable to operate a vehicle safely.

12. **Toxicological Sample:** A blood sample was collected from Roach by Officer Stayer prior to my evaluation. Officer Stayer, who is a certified DRE is trained that THC levels in the blood can quickly dissipate after smoking marijuana ends. Therefore, he requested and obtained a search warrant for a blood sample from Roach after placing him under arrest. After obtaining the blood sample, it was submitted as evidence and will be forwarded to the Crime Laboratory for analysis.

13. **Miscellaneous:** Roach was also cited by Officer Stayer for DWS and Exceeding the Speed Limit. In addition, upon securing Roach's vehicle a metal pipe that contained what appeared to be marijuana residue was located in the vehicle. Refer to Officer Stayer's arrest report for additional details.

CC: Sacramento County D.A.'s Office
Officer Stayer, CHP

27 DRE

PRACTICE: TEST ADMINISTRATION

LEARNING OBJECTIVES

- Administer selected portions of the examinations that constitute the drug influence evaluation
- Describe the evaluation procedures
- Document the results of the examinations

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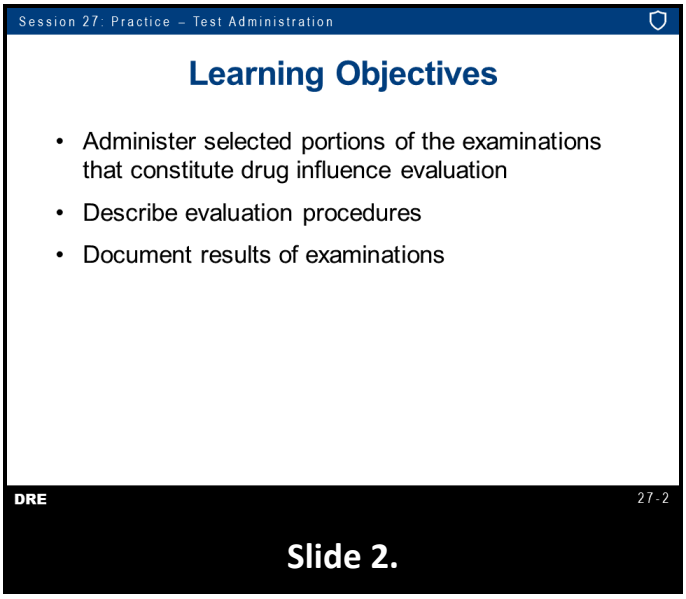
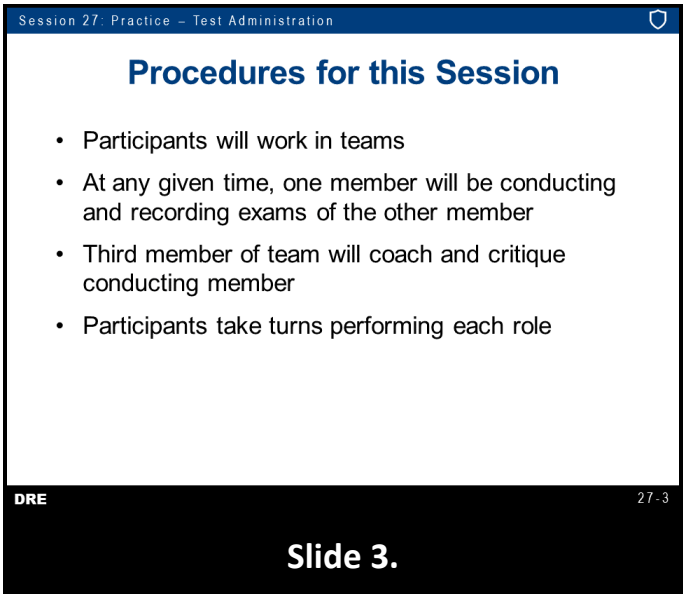


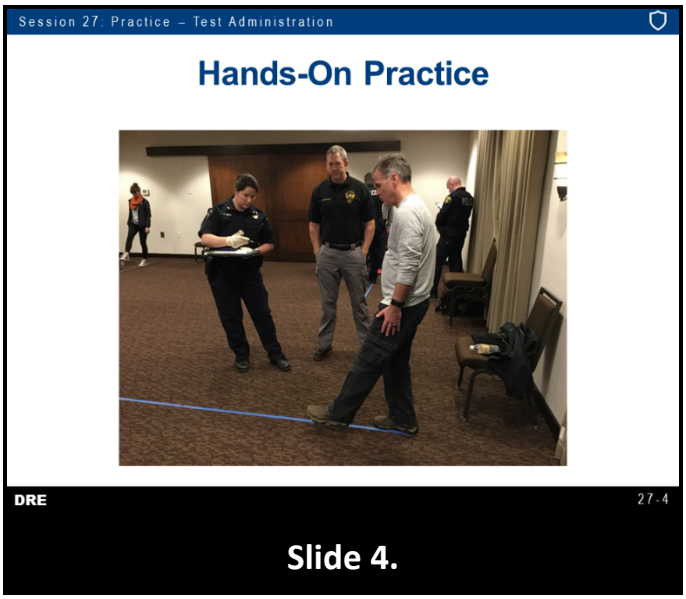
A. Procedures for this Session



Participants will work in two or three member teams.

At any given time, one member of the team will be engaged in conducting and recording examinations of another member. The third member of the team will help coach and critique the participant who is conducting the examinations. Participants will take turns serving as test administrator, test subject, and coach.

B. Hands-On Practice



Slide 4.

Drug Influence Evaluation: For this practice session, each participant will conduct a complete drug influence evaluation.

Begin with the Preliminary Examination.

Ask all of the prescribed questions.

Conduct the initial check of the eyes.

Check the pulse for the first time.

Conduct the test of Horizontal Gaze Nystagmus (HGN), Vertical Gaze Nystagmus (VGN), and Lack of Convergence (LOC).

Administer the four divided attention psychophysical tests: Modified Romberg Balance (MRB) test; Walk and Turn (WAT) test; One Leg Stand (OLS) test; Finger to Nose (FTN) test.

Check the vital signs: Blood pressure; Temperature; Check the pulse for the second time.

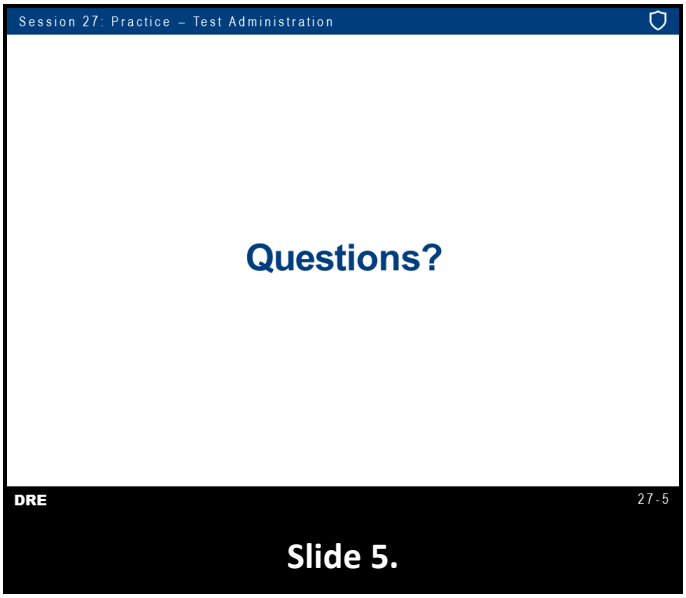
Dark Room Examinations: Conduct the dark room examinations.

Check for muscle tone.

Examine the participant's (subject's) neck, arms, and ankles for signs of injection.

Check the pulse for the third time.

C. Session Wrap-Up



Slide 5.

DRUG INFLUENCE EVALUATION

Evaluator	DRE #	Rolling Log #	Evaluator's Agency	Case #

Recorder/Witness	Crash: ☐ None ☐ Fatal ☐ Injury ☐ Property	Arresting Officer's Agency

Arrestee's Name (Last, First, Middle)	Date of Birth	Sex	Race	Arresting Officer (Name, ID#)

Date Examined / Time /Location / /	Breath Test: Test Refused ☐ Results: Instrument #:	Chemical Test: Urine ☐ Blood ☐ Oral Fluid ☐ Test or tests refused ☐

Miranda Warning Given Given by:	☐ Yes ☐ No	What have you eaten today? When?	What have you been drinking? How much?	Time of last drink?

Time now/ Actual /	When did you last sleep? How long?	Are you sick or injured? ☐ Yes ☐ No	Are you diabetic or epileptic? ☐ Yes ☐ No

Do you take insulin? ☐ Yes ☐ No	Do you have any physical defects? ☐ Yes ☐ No	Are you under the care of a doctor or dentist? ☐ Yes ☐ No

Are you taking any medication or drugs? ☐ Yes ☐ No	Attitude:	Coordination:

Speech:	Breath odor:	Face:

Corrective Lenses: ☐ None ☐ Glasses ☐ Contacts, if so ☐ Hard ☐ Soft	Eyes: ☐ Normal ☐ Bloodshot ☐ Watery	Blindness: ☐ None ☐ Left ☐ Right	Tracking: ☐ Equal ☐ Unequal

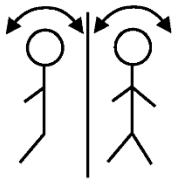
Pupil Size: ☐ Equal ☐ Unequal (explain)	Resting Nystagmus ☐ Yes ☐ No	Vertical Nystagmus ☐ Yes ☐ No	Able to follow stimulus ☐ Yes ☐ No	Eyelids ☐ Normal ☐ Droopy

Pulse and Time	HGN	Left Eye	Right Eye	Convergence
1. ____ / ____	Lack of Smooth Pursuit			
2. ____ / ____	Maximum Deviation			
3. /	Angle of Onset			Right eye Left eye

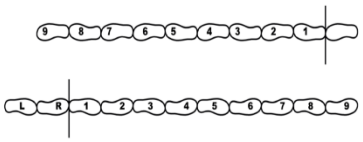
/30 **One Leg Stand** /30

L	R	
		Sways while balancing
		Uses arm(s) to balance
		Hopping
		Puts foot down

Modified Romberg Balance
Approx. Approx.



Walk and Turn Test

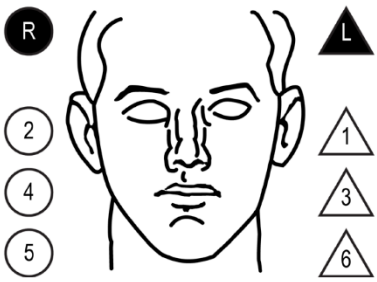


Cannot keep balance _____
Starts too soon _____

	1st Nine	2nd Nine
Stops walking		
Misses heel-toe		
Steps off line		
Uses arm(s)		
Actual steps taken		

Time Estimation _____estimated as 30 seconds	Describe turn	Cannot do test (explain)	Type of footwear:

Finger to Nose
(Draw lines to spots touched)



PUPIL SIZE	Room light (2.5 – 5.0)	Darkness (5.0 – 8.5)	Direct (2.0 – 4.5)
Left Eye			
Right Eye			

Nasal area:

Oral cavity:

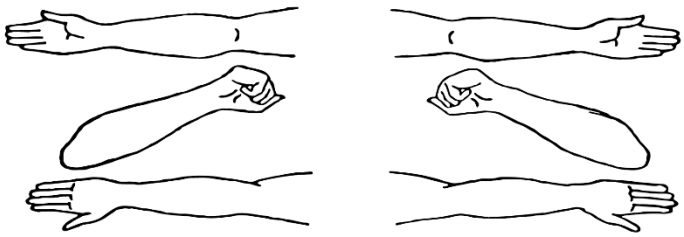
Rebound Dilation: ☐ Yes ☐ No

Reaction to Light:

Blood Pressure /	Temperature °F

Muscle Tone: ☐ Normal ☐ Flaccid ☐ Rigid
Comments:

RIGHT ARM **LEFT ARM**



What drugs or medications have you been using?	How much?	Time of use?	Where were the drugs used? (Location)

Date / Time of arrest: /	Time DRE was notified:	Evaluation start time:	Evaluation completion time:	☐ Subject refused entire evaluation ☐ Subject stopped participating during evaluation

Officer's Signature:	Reviewed/approved by / date:	DRE #

Opinion of Evaluator:
☐ Not Impaired ☐ Alcohol ☐ CNS Stimulant ☐ Dissociative Anesthetic ☐ Inhalant
☐ Medical ☐ CNS Depressant ☐ Hallucinogen ☐ Narcotic Analgesic ☐ Cannabis

28 DRE

CASE PREPARATION AND TESTIMONY

LEARNING OBJECTIVES

- Conduct a thorough pre-trial review of all evidence and prepare for testimony
- Provide clear, accurate, and descriptive direct testimony concerning drug influence evaluations
- Respond effectively and appropriately to cross examine in DRE cases

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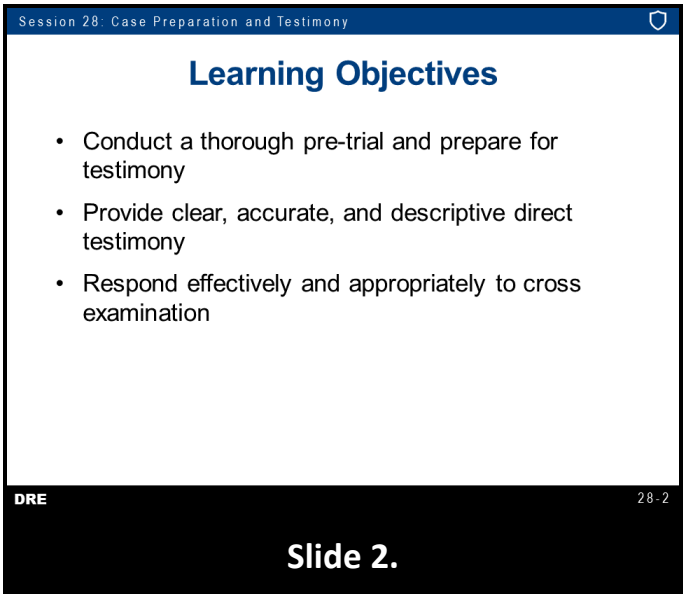


Slide 2.

A. Guidelines for Case Preparation

Slide 3.

Content Preparation to present your case in court begins during your initial investigation. The quality of your investigation and documentation will ultimately determine your ability to accurately present information during trial.

When you receive the trial notice, you should schedule a pre-trial conference with the prosecutor. In the pre-trial conference, you will: review all records and reports associated with the case; review all evidence and your conclusion; review notes with arresting officer; review any weak areas; clarify or resolve any discrepancies; review questions the prosecutors will be asking; review typical tactics the prosecutors expect the defense to use; and, review your Curriculum Vitae (CV) and credentials.

If a pre-trial conference is not possible, identify the main points of the case and discuss them with the prosecutor during the few minutes before the trial. It is very important to meet with prosecutors that have never been exposed to the Drug Evaluation and Classification (DEC) Program before trial to explain it cannot be treated like a typical DUI trial. You must explain there are different protocols for DUI vs. DRE cases.

Excellent resources for prosecutors can be obtained through the National Traffic Law Center (NTLC). Another excellent resource is your state's Traffic Safety Resource Prosecutor (TSRP).

B. Guidelines for Direct Testimony

Slide 4.

Although knowledge only greater than what the public has is required to qualify as an "expert." Your testimony will carry much more weight if you have good credentials.

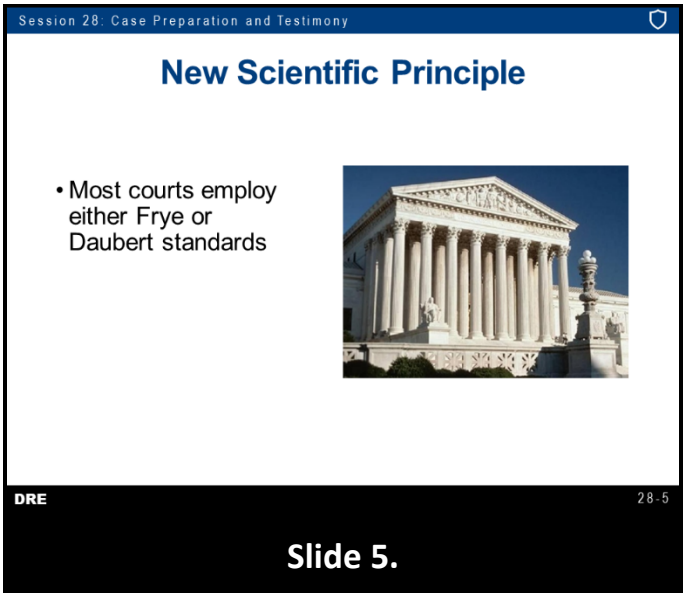
An expert witness' qualification is achieved through Voir Dire Examination. In a law or court context, this is used to question a witness to assess his or her qualifications to be considered an expert in some matter pending before the court.

When testifying, relate training and experience to the drug category being tried (e.g., CNS Depressant, Cannabis, etc.).

Being qualified as an expert in the past does not automatically qualify you as an expert in a particular court case. Highlight the fact you were selected to attend specialized DRE training, not just assigned randomly.

If possible, do not allow the defense to stipulate you are an expert. Document and record all evaluations conducted. Establish ratio of evaluations that resulted in a finding the subject was not under the influence. Highlight the number of times you have seen a person under the influence of the drug(s) in question and have observed the symptomatology, etc.

Ability to answer specific questions with confidence, skill, and exactness will bolster a professional image in the eyes of the judge and/or jury. To prepare for possible DRE-related testimony, a DRE should be prepared to answer the following: What is a DRE? What is involved in the DEC training program? How do DREs properly identify the drug category or categories? How do DREs explain their opinion? What are the components of a drug influence evaluation?



Slide 5.

The scientific principles may be unfamiliar to the jury or judge. Your task is to establish your hard work through training will be acceptable in the court.

Most courts employ either the Frye or the Daubert standards for determining the admissibility of scientific evidence.

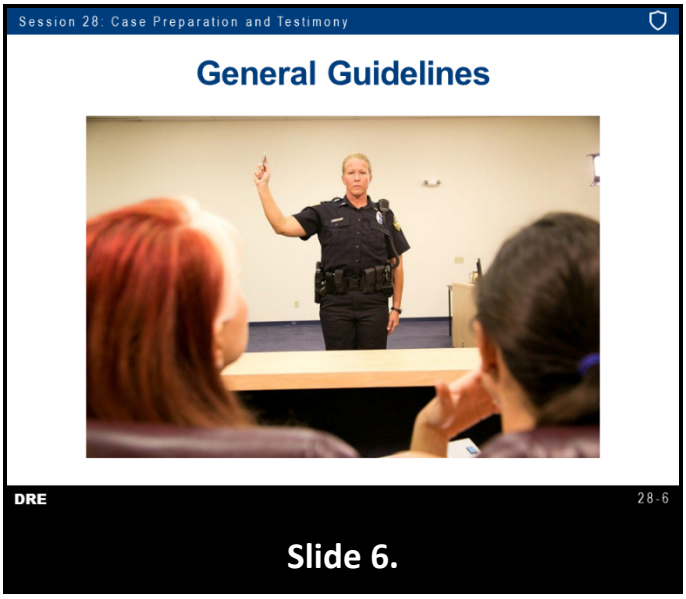
The landmark case "Frye vs. U.S." 293F 1013 (D.C. Cir. 1923). Frye requires the scientific principle or theory used to support "evidence" be in conformity with a generally accepted explanatory theory, if the "evidence" is to be admissible.

In Daubert, courts serve as a gatekeeper for all scientific evidence.

Courts assess evidence by considering four factors: Opinions are testable; Methods/principles have been subject to peer review; Known error rate can be identified; Opinions rest on methodology generally accepted within the relevant scientific/technical community.

Source:

Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993).



Slide 6.

The basic job is to present the findings of your investigation the suspect was under the influence of a drug or some combination of drugs. Keep this in mind at all times. Don't be afraid to say "I don't know".

Testify to only what you know. Remember, an expert witness can rely on hearsay to develop his or her expertise. Avoid contact with the defense attorney if possible. Don't be upset if prosecutor and defense attorney appear friendly to each other.

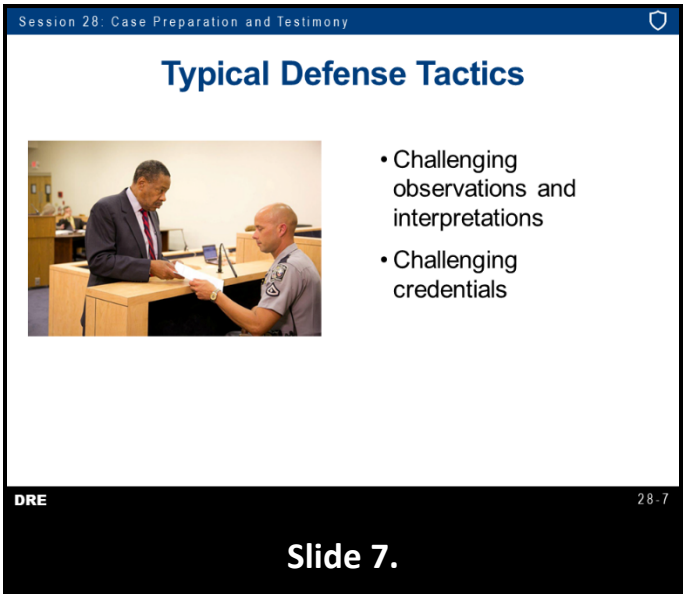
Remember, some jurors focus on an officer's demeanor more than content of testimony.

Do not bring manuals or articles into court for reference. Review materials before court to become familiar with contents. Explain technical terms in layman's language. For example, Horizontal Gaze Nystagmus (HGN) means an involuntary jerking of the eyes occurring as the eyes gaze to the side. Pay attention to what evidence or testimony can be and is excluded.

When describing subject's performance on Standardized Field Sobriety Tests (SFSTs), explicitly describe exactly what the subject did or neglected to do. Avoid using the terms "pass" or "fail". Describe the subject's actual performance. The defense may try to challenge you on this point.

Results of subject's performance are describable evidence. Be sure to emphasize all evidence is taken into account before forming an opinion. If defense attorney asks a "why" question, take the opportunity to explain in great detail if appropriate.

C. Typical Defense Tactics



Slide 7.

The defense relies on several factors to "impeach" or discredit your testimony. The defense will challenge your observations and interpretations. They will attempt to show the signs, symptoms, and behaviors observed have other explanations. Defense will challenge your credentials. A bona fide expert has both formal training resulting in a high degree of knowledge and experience in applying knowledge, resulting in a skill.

By demonstrating the officer lacks depth of knowledge in the drug field by contrasting his or her knowledge with the defense expert's knowledge. The trial tactic is to show the officer does not have the expertise to accurately determine the cause of intoxication/impairment because of inadequate formal training which lessens the value of his/her field experience and increases likelihood he/she is mistaken in his/her conclusion. Get your facts straight and stick to them.

Some examples of challenging your credibility are listed below.

Inconsistencies: Arresting officer's and examining officer's testimony must be complimentary. Any differences must be explained.

Comparison with past testimony: Try to get copies of transcripts of previous trials to review your strong/weak points. If possible, review your testimony with the prosecutor.

Testimony at odds with other established experts: Do your homework…review the literature. Explain any differences, if possible.

Lack of recall: Try to be prepared, but don't be afraid to say "I don't know". Be honest.

By demonstrating the officer incorrectly performed part of the evaluation, resulting in an erroneous conclusion.

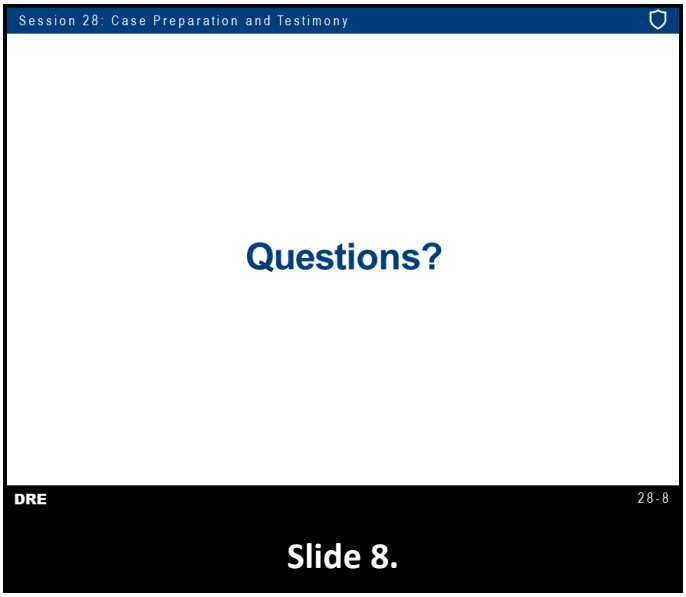
The role of the hired defense witness is to propose alternative theories regarding the evidence of the case. Their qualifications or expertise may vary greatly. The prosecutor's role is to address alternative theories and may elicit testimony from the DRE for this purpose.

Typical Defense Questions: The defense may challenge certain aspects of the drug influence evaluation. For example, a defense attorney may cross examine you regarding pupil examinations:

- Where the examination took place
- How dark was the examining room
- The size or power of the penlight
- Where the defendant was placed in relationship to the examiner
- Where the penlight was directed during the examination
- Where the defendant was looking during the examination
- How many times each pupil was checked
- Are there any physical illnesses or conditions that manifest the same signs as the drug(s) in question

DREs should be prepared to answer the following:

- What is a DRE?
- What is involved in the DEC training program?
- How do DREs properly identify the drug category or categories?
- How do DREs explain their opinion?
- What are the components of a drug influence evaluation?



Slide 8.

DRE DEFENSE CROSS EXAMINATION QUESTIONS

The following are representative of questions the defense may use to challenge the DRE's in court. (The defendant is identified as Miss Alicia Ann Ace.)

Missing Symptoms/Normals

This line of questions attempts to elicit the fact that the defendant did not have all of the expected signs or symptoms of the drug (s) in question.

Officer, you were taught that bruxism or grinding of the teeth is a sign of CNS Stimulant influence, isn't it? Miss Ace didn't have that sign, did she?

The defense may also focus on those signs or symptoms that were normal, and were therefore, not consistent with the drug in question.

Officer, you learned the normal range of temperature in DRE training, didn't you? And that range is 98.6 plus or minus one degree, isn't it? What was Miss Ace's temperature? (98) 98 is within normal ranges, isn't it? Miss Ace's temperature was normal, wasn't it? CNS Stimulants cause elevated temperature, don't they? Miss Ace's was not elevated, was it?

Alternative Explanations

The defense elicits alternative explanations for the signs and symptoms of the drug (s) in question. These alternative explanations usually deal with medical conditions, stress, a traffic crash, etc.

Officer, an elevated pulse rate can be caused by things other than drugs, can't it? Excitement may cause it? Stress may cause it? Being involved in a traffic crash is stressful, isn't it? And being involved in a traffic crash may cause elevated pulse, right? Being interviewed in the early morning by three police officers is stressful? And that may also cause the pulse to be elevated, can't it?

Defendant's Normals

The defense attempts to emphasize the fact that not everyone is so-called normal, that normal is subjective.

Officer, you were taught the normal range for pulse in DRE training, weren't you? And you agree that not all people fall in that normal range, don't you? That there are people with pulse rates above normal that aren't on drugs, right? A person's pulse changes over time, doesn't it? You don't know what Miss Ace's normal pulse is, do you? It could be in the normal range, right? But it could be above or below the normal range – normally for her, isn't that so?

Doctor Cop

The line of questioning challenges the credibility of the officer's teachers – that they are police officers, rather than medical professionals.

Officer, the teachers in this DRE school weren't doctors, were they? They weren't nurses either? Toxicologists? Pharmacologists? Paramedics? They were police officer, right?

Just a Cop

This line of questioning challenges the DRE's credentials – that they are "just a cop." This infers that the DRE evaluation is actually a medical evaluation that should be undertaken only by a medical professional.

Officer, you're not a doctor, are you? A toxicologist? A pharmacologist? A nurse? A physiologist? You don't have a degree in chemistry, do you? You're a police officer, right?

The Unknown

By causing the officer to state that they don't know how a sign or symptom is caused, the defense attacks the officer's credibility. This line of questioning challenges the officer's expertise, by implying that a real expert would know these things.

Officer, you don't know how CNS Stimulants dilate the pupil, do you? You don't know how alcohol supposedly causes nystagmus, do you? You don't know how CNS Stimulants supposedly elevate the heart rate, do you?

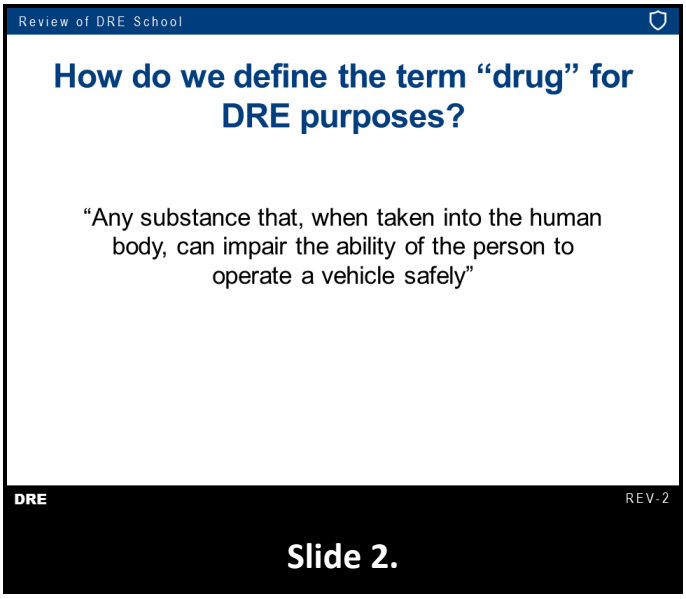
Guessing Game

This tactic attacks the DRE's opinion as a subjective guess, a belief, rather than objective. Guesses can be wrong.

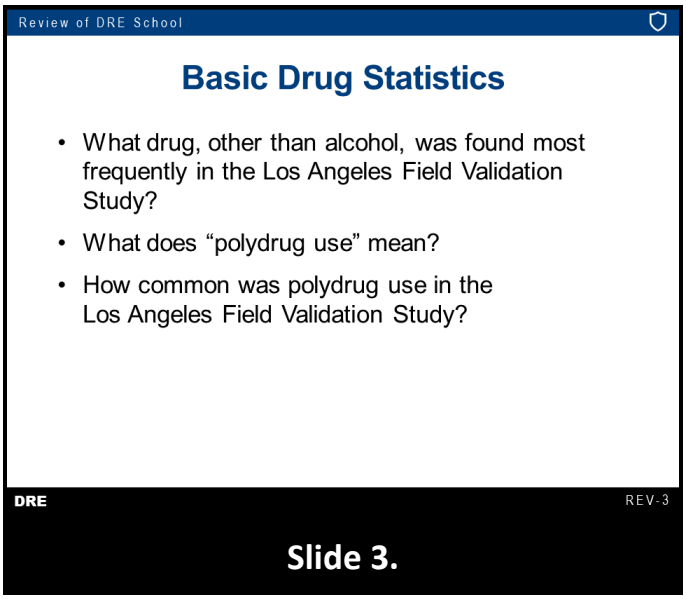
Officer, your opinion in a DRE case is subjective, isn't it? It's a belief on your part? You've made these beliefs in DRE cases in the past, haven't you? A sometimes toxicology didn't find the drug you predicted, isn't that so? And, in fact, sometimes, toxicology didn't find any drug, isn't that so? And so, sometimes your opinion is not correct, right? Sometimes, you guess wrong?

DRE

REVIEW OF DRE SCHOOL



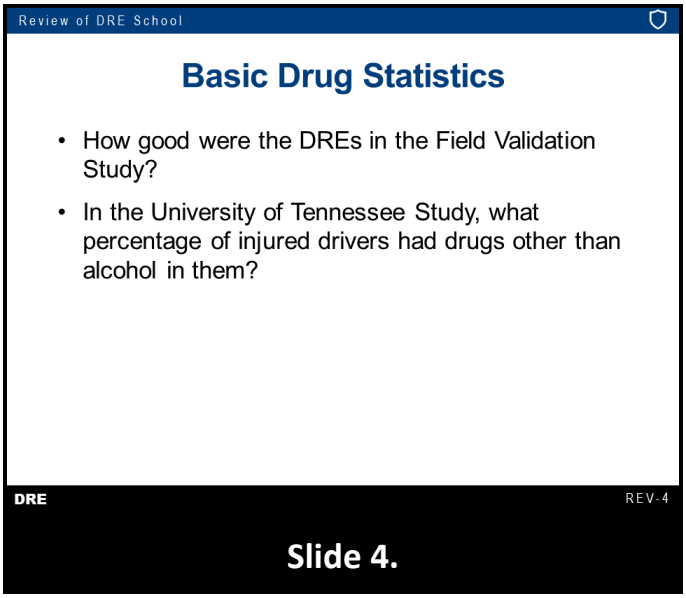
How do we define the term "drug" for Drug Recognition Expert (DRE) purposes?



What drug, other than alcohol, was found most frequently in the Los Angeles Field Validation Study?

What does "polydrug use" mean?

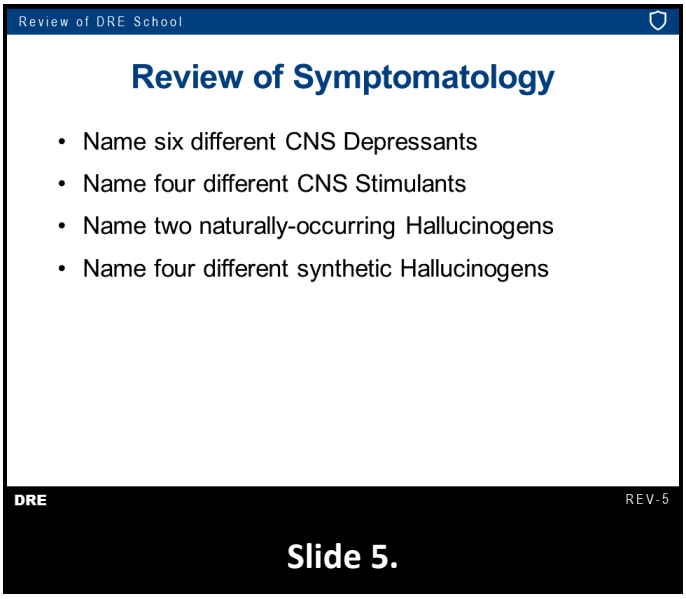
How common was polydrug use in the Los Angeles Field Validation Study?



Slide 4.

How good were the DREs in the Field Validation Study?

In the University of Tennessee Study, what percentage of injured drivers had drugs other than alcohol in them?



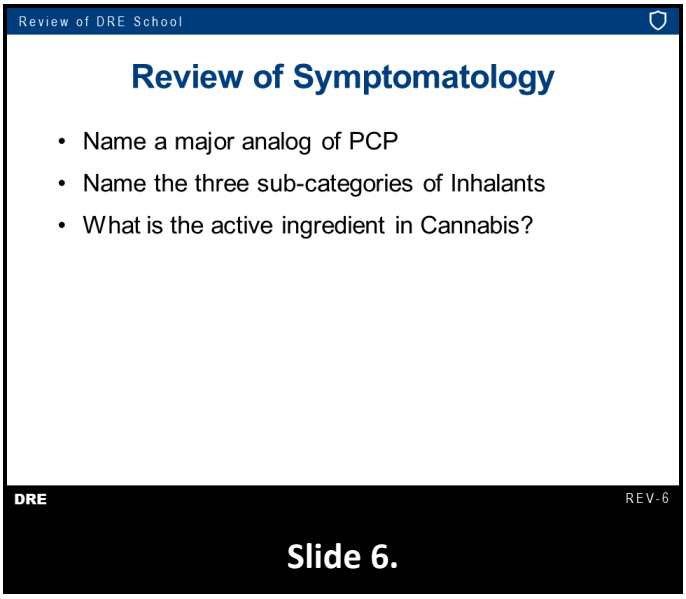
Slide 5.

Name six different Central Nervous System (CNS) Depressants.

Name four different CNS Stimulants.

Name two naturally-occurring Hallucinogens.

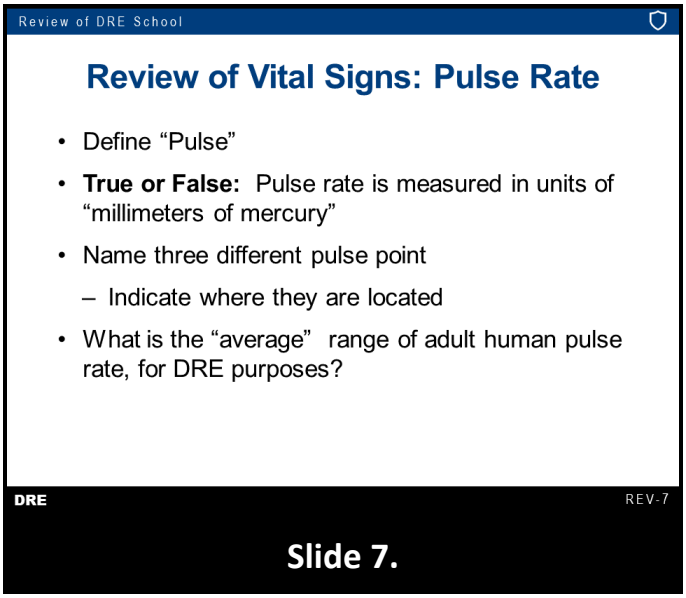
Name four different synthetic Hallucinogens.



Name a major analog of PCP.

Name the three sub-categories of Inhalants.

What is the active ingredient in Cannabis?

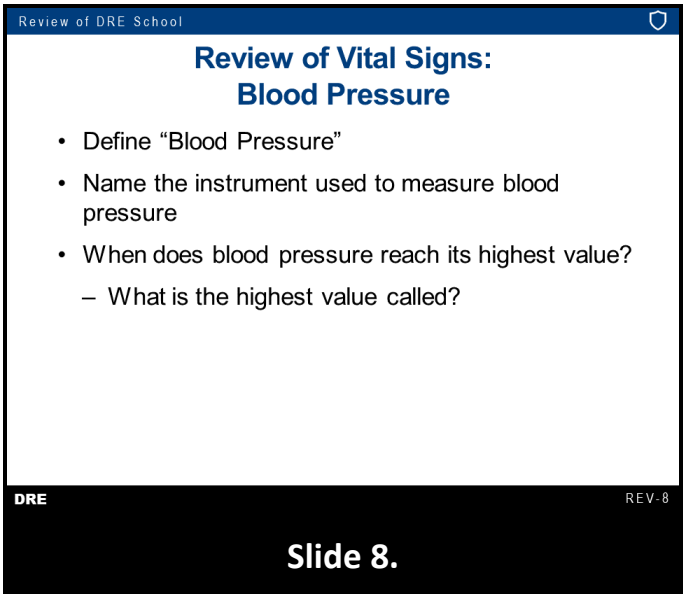


Define "Pulse".

True or False: Pulse rate is measured in units of "millimeters of mercury".

Name three different pulse points and indicate where they are located.

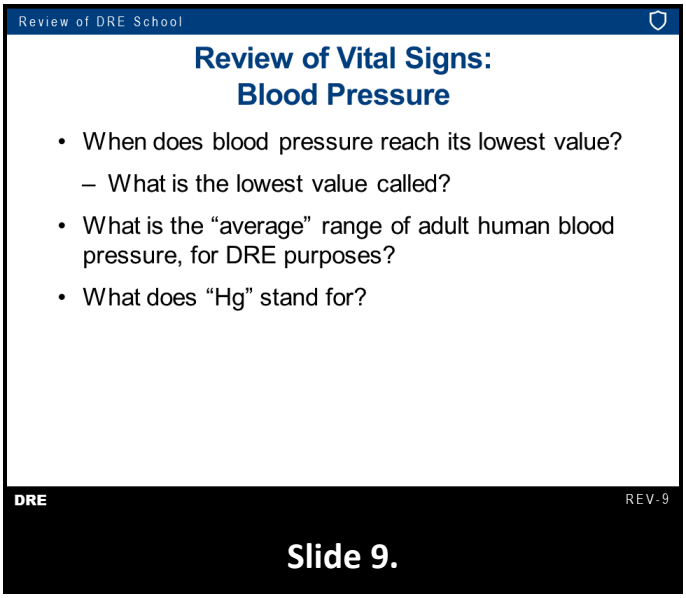
What is the "average" range of adult human pulse rate, for DRE purposes?



Define “Blood Pressure”.

Name the instrument used to measure blood pressure.

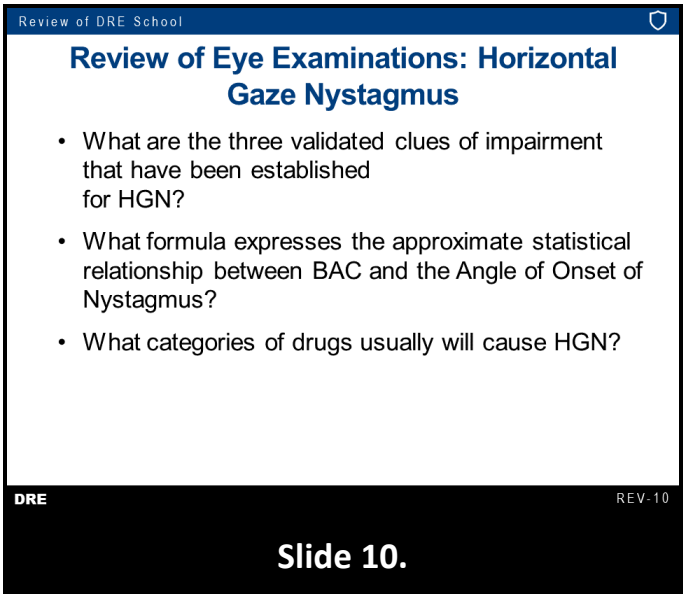
When does blood pressure reach its highest value? What is the highest value called?



When does blood pressure reach its lowest value? What is the lowest value called?

What is the “average” range of adult human blood pressure, for DRE purposes?

What does “Hg” stand for?

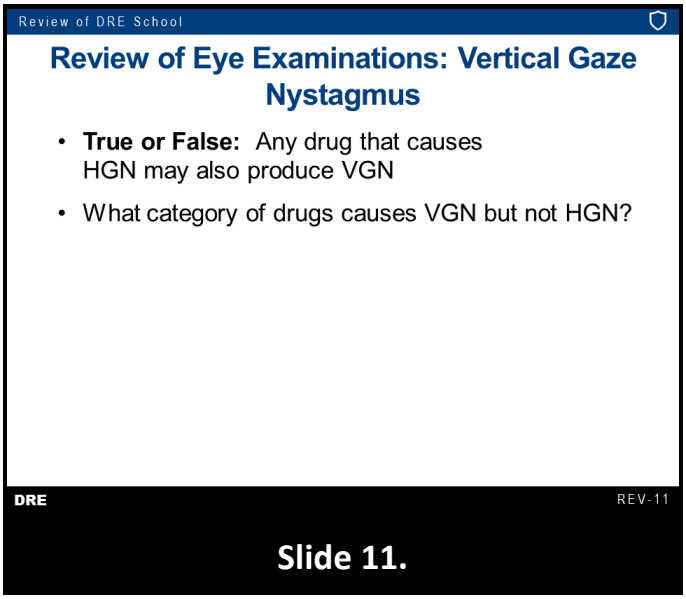


Slide 10.

What are the three validated clues of impairment that have been established for HGN?

What formula expresses the approximate statistical relationship between BAC and the Angle of Onset of Nystagmus?

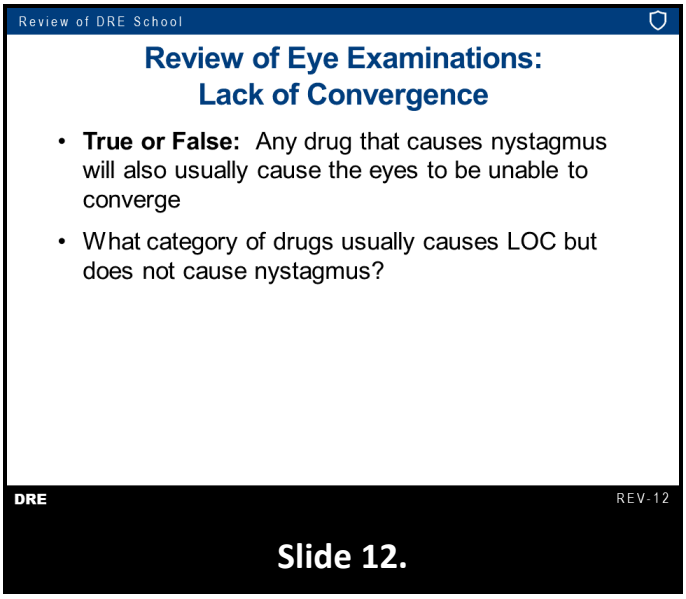
What categories of drugs usually will cause HGN?



Slide 11.

True or False: Any drug that causes HGN may also produce VGN.

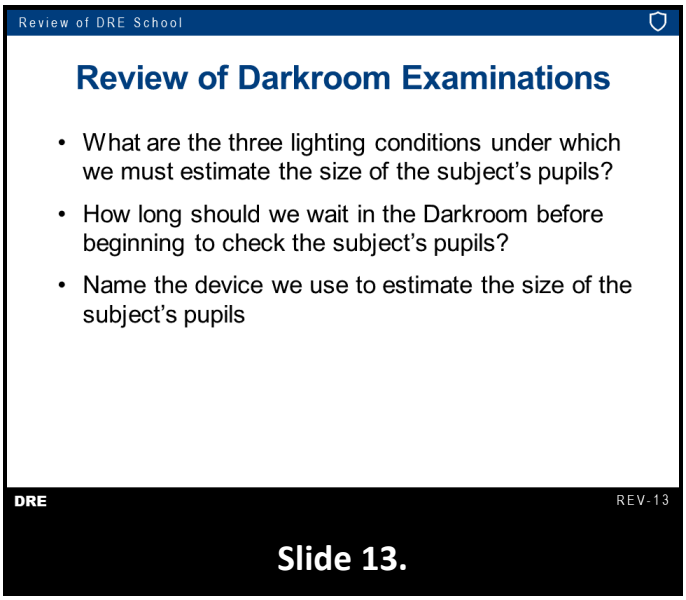
What category of drugs causes VGN but not HGN?



Slide 12.

True or False: Any drug that causes nystagmus will also usually cause the eyes to be unable to converge.

What category of drugs usually causes LOC but does not cause nystagmus?

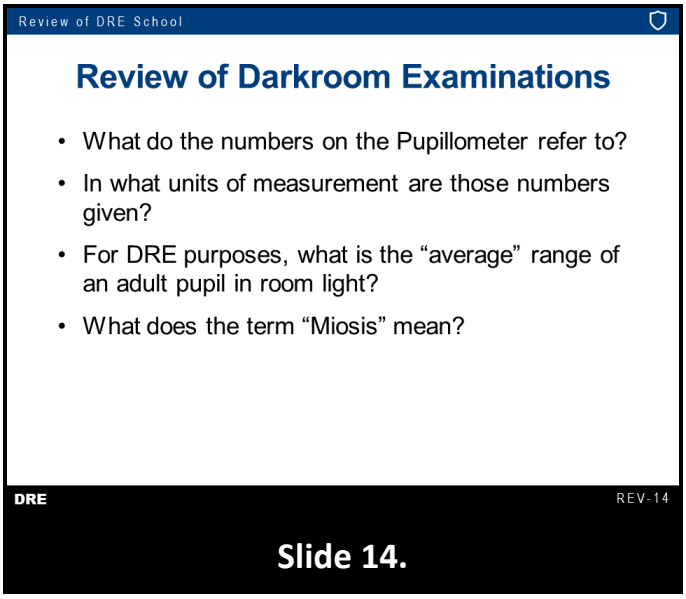


Slide 13.

What are the three lighting conditions under which we must estimate the size of the subject's pupils?

How long should we wait in the Darkroom before beginning to check the subject's pupils?

Name the device we use to estimate the size of the subject's pupils.



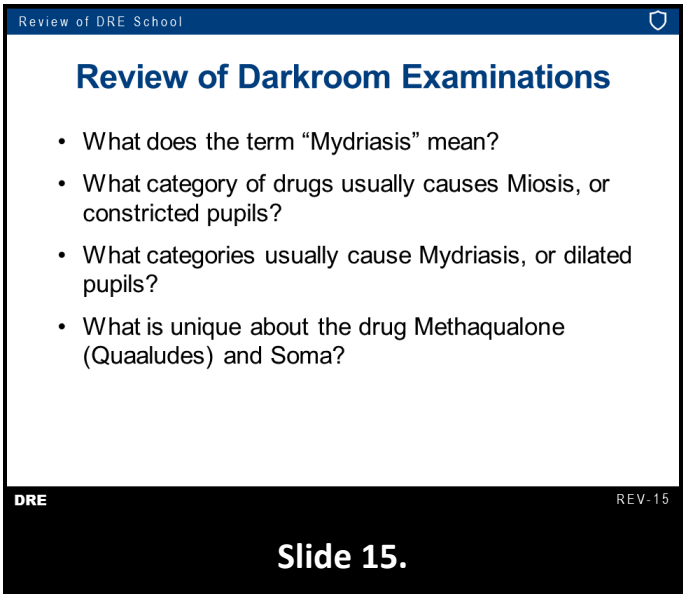
Slide 14.

What do the numbers on the Pupillometer refer to?

In what units of measurement are those numbers given?

For DRE purposes, what is the "average" range of an adult pupil in room light?

What does the term "Miosis" mean?



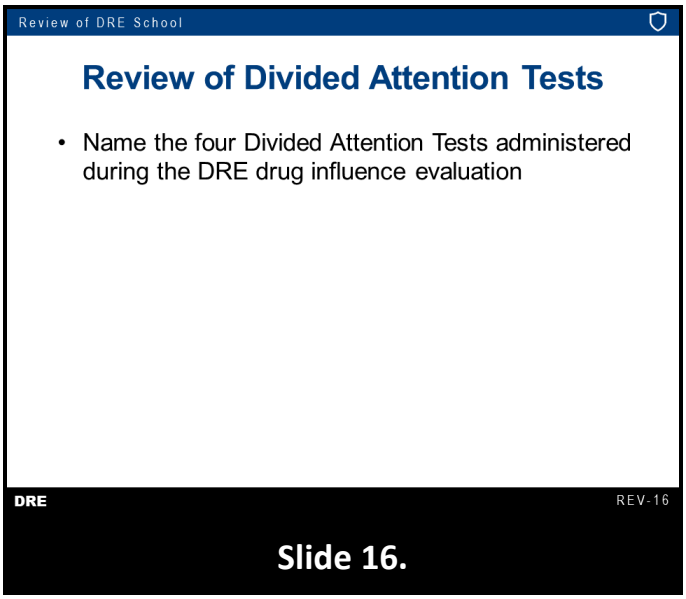
Slide 15.

What does the term "Mydriasis" mean?

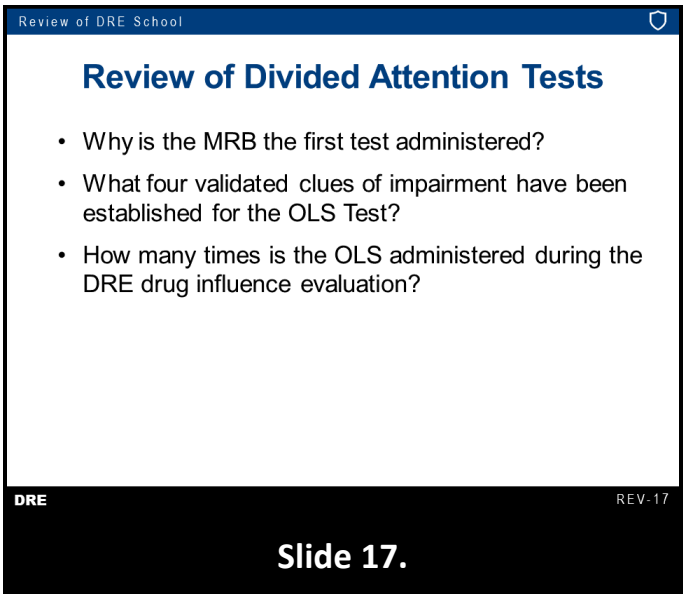
What category of drugs usually causes Miosis, or constricted pupils?

What categories usually cause Mydriasis, or dilated pupils?

What is unique about the drug Methaqualone (Quaaludes) and Soma?



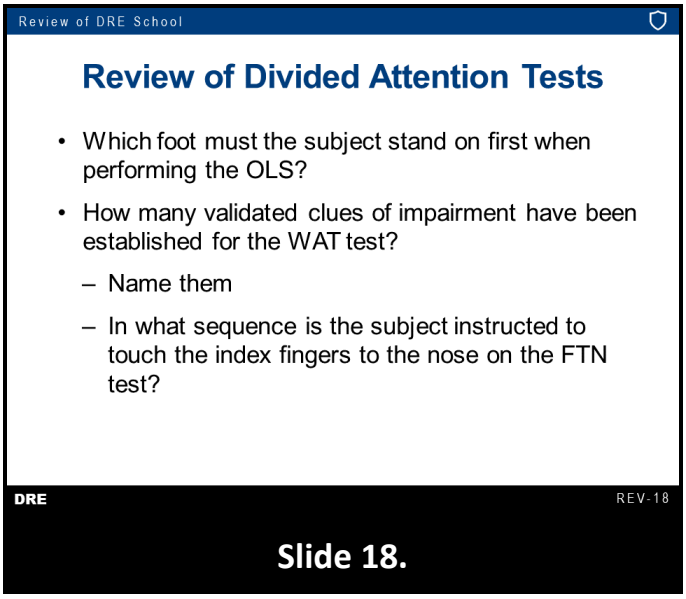
Name the four Divided Attention Tests administered during the DRE drug influence evaluation.



Why is the Modified Romberg Balance (MRB) the first test administered?

What four validated clues of impairment have been established for the One Leg Stand (OLS) Test?

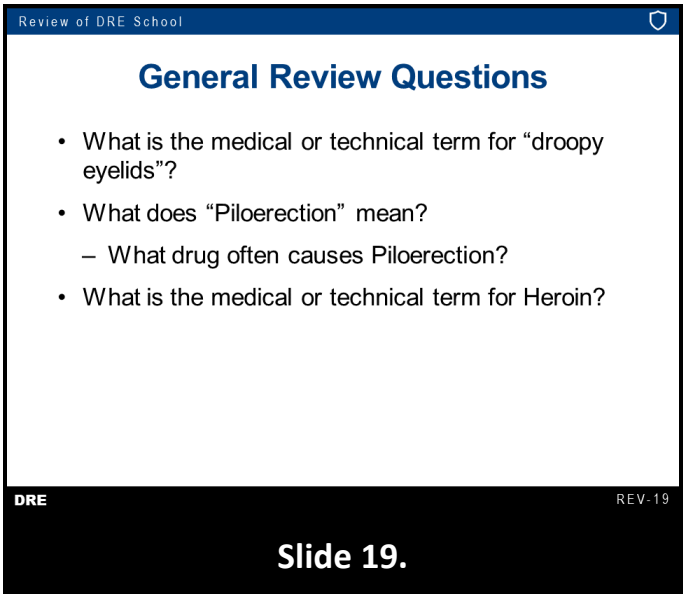
How many times is the OLS administered during the DRE drug influence evaluation?



Which foot must the subject stand on first when performing the OLS?

How many validated clues of impairment have been established for the Walk and Turn (WAT) test? Name them.

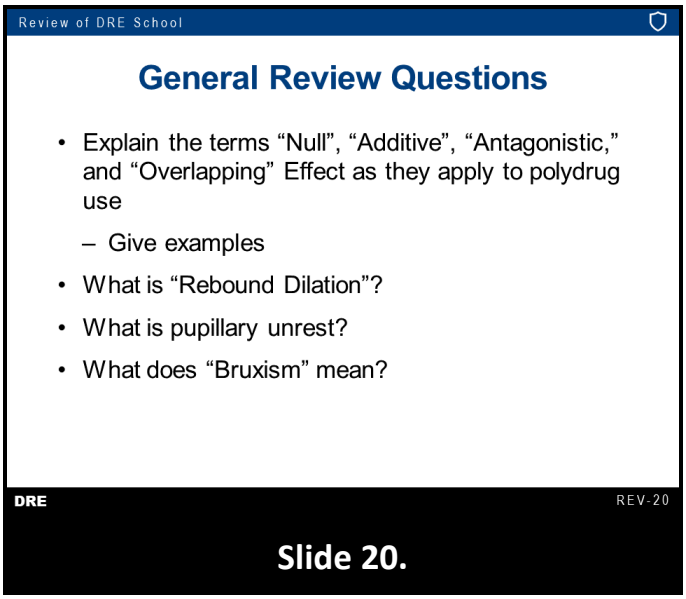
In what sequence is the subject instructed to touch the index fingers to the nose on the Finger to Nose (FTN) test?



What is the medical or technical term for “droopy eyelids”?

What does “Piloerection” mean? What drug often causes Piloerection?

What is the medical or technical term for Heroin?

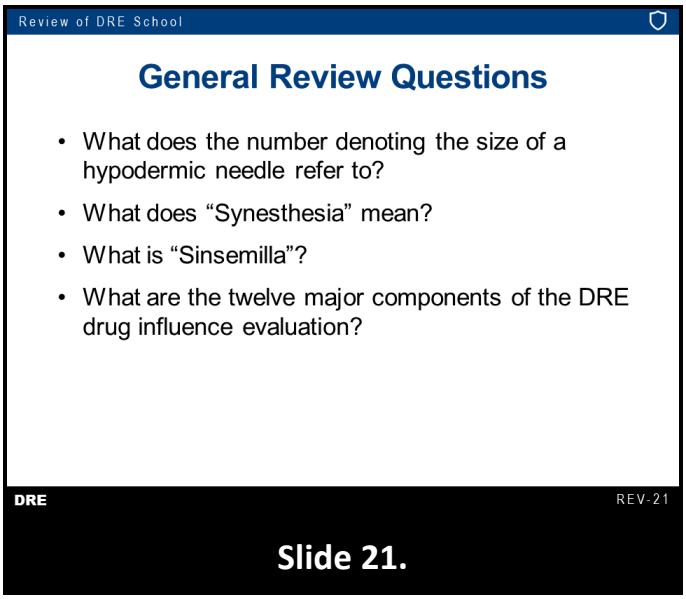


Explain the terms “Null”, “Additive”, “Antagonistic,” and “Overlapping” Effect as they apply to polydrug use. Give examples.

What is “Rebound Dilation”?

What is pupillary unrest?

What does “Bruxism” mean?

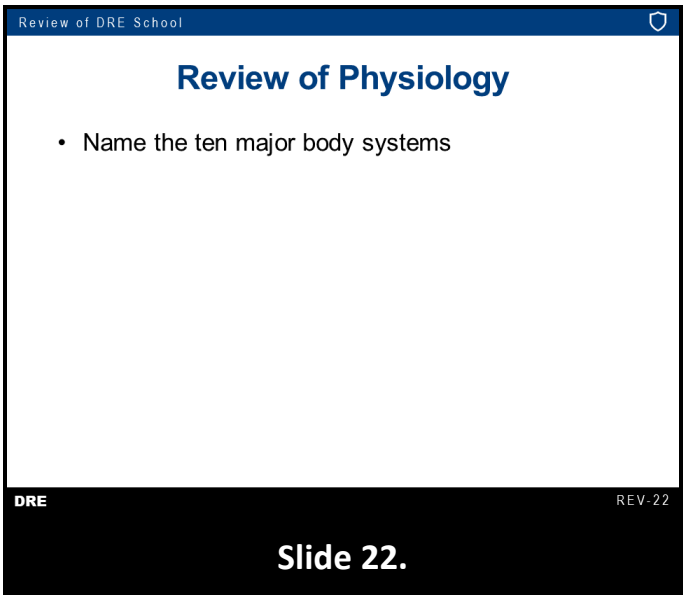


What does the number denoting the size of a hypodermic needle refer to?

What does “Synesthesia” mean?

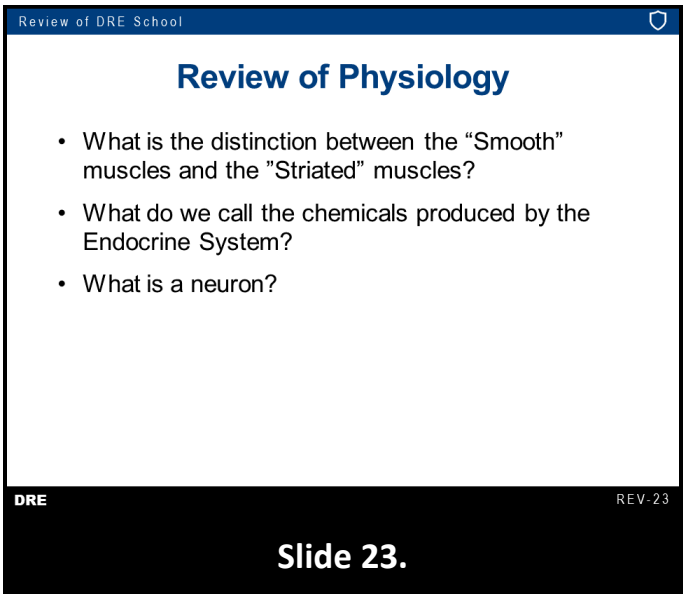
What is “Sinsemilla”?

What are the twelve major components of the DRE drug influence evaluation?



Slide 22.

Name the ten major body systems.

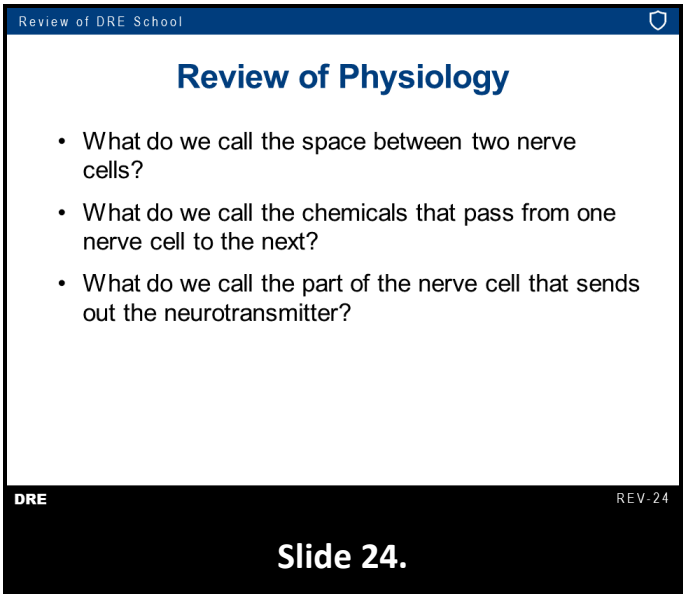


Slide 23.

What is the distinction between the “Smooth” muscles and the ”Striated” muscles?

What do we call the chemicals produced by the Endocrine System?

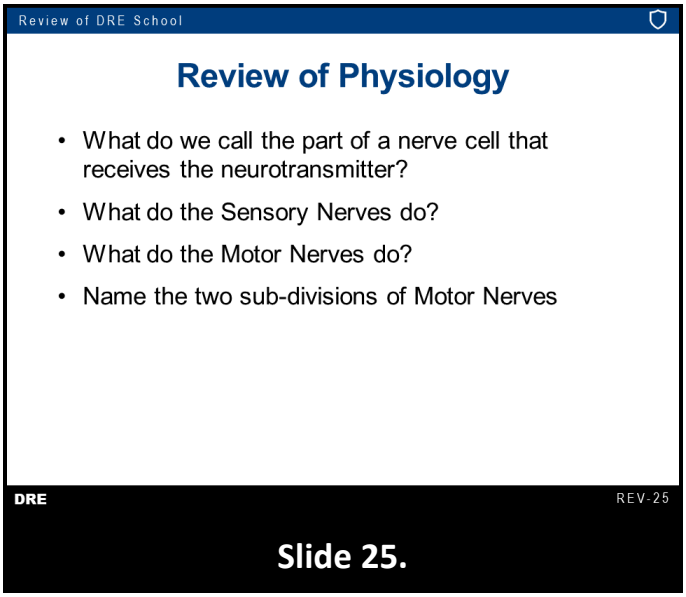
What is a neuron?



What do we call the space between two nerve cells?

What do we call the chemicals that pass from one nerve cell to the next?

What do we call the part of the nerve cell that sends out the neurotransmitter?

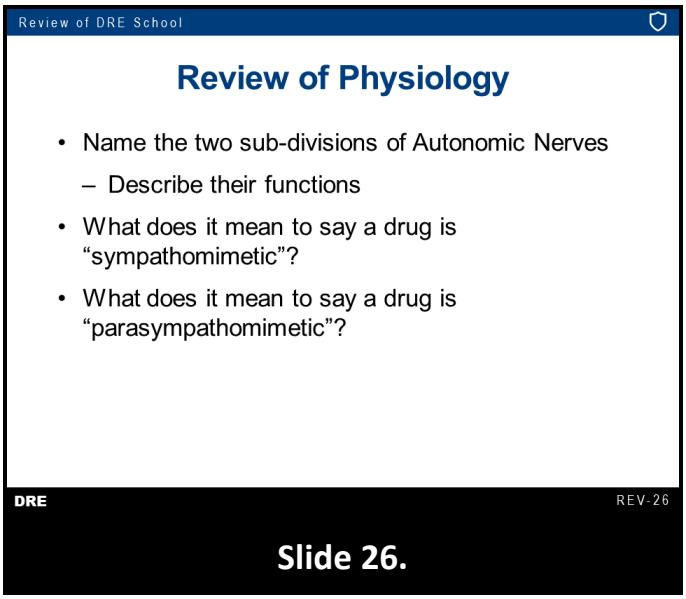


What do we call the part of a nerve cell that receives the neurotransmitter?

What do the Sensory Nerves do?

What do the Motor Nerves do?

Name the two sub-divisions of Motor Nerves.

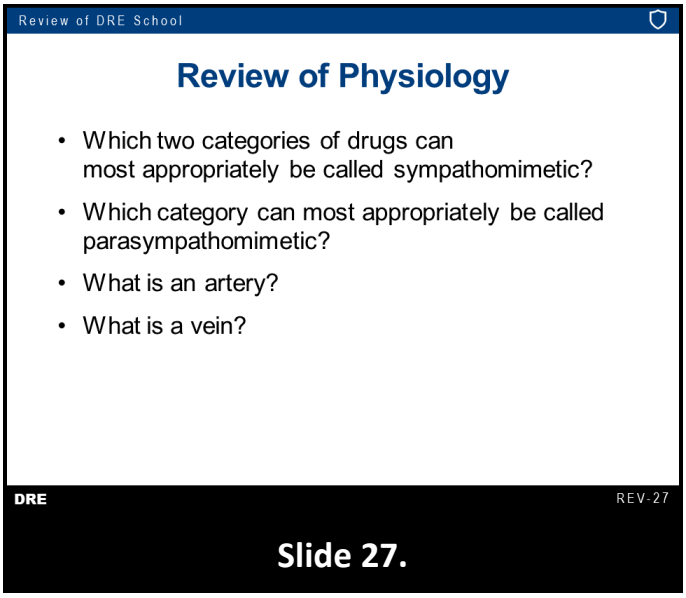


Slide 26.

Name the two sub-divisions of Autonomic Nerves and describe their functions.

What does it mean to say a drug is "sympathomimetic"?

What does it mean to say a drug is "parasympathomimetic"?



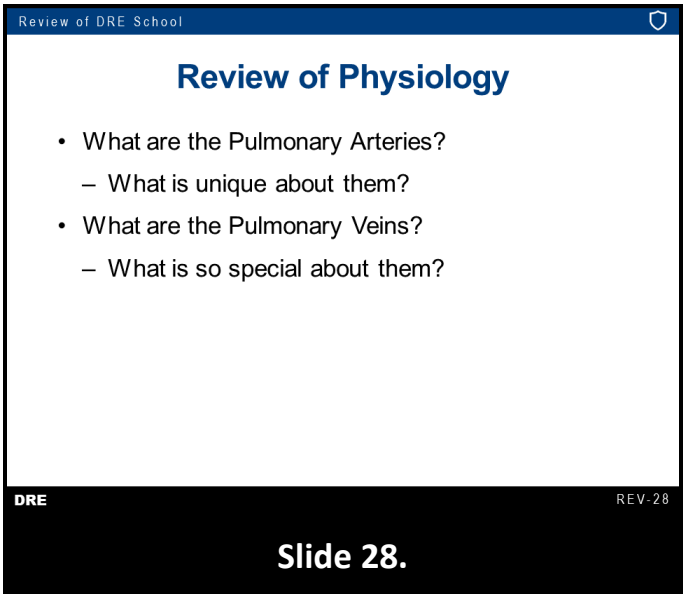
Slide 27.

Which two categories of drugs can most appropriately be called sympathomimetic?

Which category can most appropriately be called parasympathomimetic?

What is an artery?

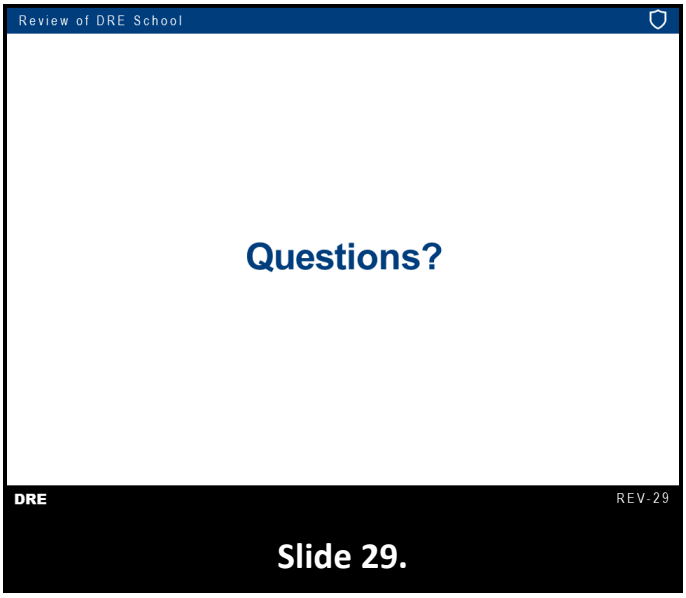
What is a vein?



Slide 28.

What are the Pulmonary Arteries, and what are unique about them?

What are the Pulmonary Veins and what is so special about them?



Slide 29.

A SELF-TEST FOR REVIEW AND STUDY

Circle the letters corresponding to the correct answers. Note that some questions have **more than one** correct answer.

1. Suppose you examine a suspect that you know is under the combined influence of Demerol and Thorazine. Which of the following would you **not** expect to find in that suspect? (Circle all that you wouldn't expect to see.)

    A. Tachycardia is present
    B. Horizontal Gaze Nystagmus is present
    C. Hypotension is present
    D. Mydriasis is present
    E. Lack of Convergence is present

2. The Autonomic Nervous System has **sympathetic** nerves and _____ nerves.

    A. parasympathetic
    B. metasympathetic
    C. postsympathetic
    D. mesosympathetic
    E. pilosympathetic

3. Suppose you examine a suspect that you know is under the combined influence of Ketamine and Methamphetamine, and you observe that he or she exhibits Horizontal Gaze Nystagmus. This is an example of ....

    A. a Synergistic Effect
    B. an Antagonistic Effect
    C. the Null Effect
    D. an Overlapping Effect
    E. an Additive Effect

4. The technical term meaning "constricted pupils" is ....

    A. Mydriasis
    B. Occulosis
    C. Miosis
    D. Bruxism
    E. Ptosis

5. **Xanax** is an example of ....

    A. a natural hallucinogen
    B. an Antipsychotic
    C. a Sedative-hypnotic
    D. a synthetic hallucinogen
    E. an Antidepressant

6. **Fentanyl** is an example of ....

    A. an Opioid
    B. an Analog of Phencyclidine
    C. a Natural Alkaloid of Opium
    D. an Opium Derivative
    E. a non-Amphetamine-based Stimulant

7. Which of the following ordinarily will cause Horizontal Gaze Nystagmus? (Circle all that usually cause nystagmus.)

    A. Methamphetamine
    B. Valium
    C. The combination of Cocaine and Xanax
    D. The combination of Cannabis and LSD
    E. The combination of Heroin and Dilaudid

8. **Ritalin** is an example of ....

    A. a CNS Stimulant
    B. a Narcotic Analgesic
    C. a Hallucinogen
    D. a CNS Depressant
    E. an Analog of Phencyclidine

9. Suppose you examine a suspect that you know is under the combined influence of Heroin and PCP and you observe that he or she exhibits **miosis**. This is most likely due to ....

    A. the “Downside” of Heroin
    B. an Overlapping Effect between the two drugs
    C. an Antagonistic Effect between the two drugs
    D. an Additive Effect between the two drugs
    E. the “Downside” of PCP

10. Which of the following usually will be true in a subject who is under the influence of a Hallucinogen? (Circle all that usually will be true.)

    A. Pupils will be constricted
    B. Body temperature will be elevated
    C. Eyes will be unable to converge
    D. Blood pressure will be elevated
    E. Horizontal Gaze Nystagmus will be present

11. Which of the following is not classified as a Hallucinogen? (Circle all that **are not** Hallucinogens.)

    A. ETOH
    B. DOM
    C. MDMA
    D. 2CB
    E. THC

12. Which of the following ordinarily will leave body temperature within the DRE average range? (Circle all that usually don't affect body temperature.)

    A. CNS Stimulants
    B. Dissociative Anesthetics
    C. Cannabis
    D. CNS Depressants
    E. All of the above **usually do** affect body temperature

13. Suppose you examine a suspect that you know is under the combined influence of Percodan and Cannabis, and you find that the suspect's pulse rate is 74 bpm. This is most likely due to ....

    A. an Additive Effect between the two drugs
    B. the "Downside" of Cannabis
    C. an Overlapping Effect between the two drugs
    D. an Antagonistic Effect between the two drugs
    E. the "Downside" of Percodan

14. How many distinct, validated clues have been established for the Modified Romberg Balance test?

    A. Eight
    B. Six
    C. Four
    D. Three
    E. There are **no validated** clues for that test

15. A person under the combined influence of Ritalin and LSD usually will have above normal blood pressure. This is an example of ....

    A. an Overlapping Effect
    B. a Synergistic Effect
    C. the Null Effect
    D. an Additive Effect
    E. an Antagonistic Effect

16. The gap between two nerve cells is called the ....

    A. Vesicle
    B. Neuron
    C. Synapse
    D. Dendrite
    E. Axon

17. **"Ptosis"** most nearly means ....

    A. Dilated pupils
    B. Grinding the teeth
    C. Constricted pupils
    D. Droopy eyelids
    E. Goose bumps

18. How many distinct, validated clues have been established for the Walk and Turn test?

    A. Eight
    B. Six
    C. Four
    D. Three
    E. There are **no validated** clues for that test.

19. Which of the following are not subcategories of Inhalants? (Circle all that are not proper names for Inhalant Subcategories.)

    A. Fluorocarbons
    B. Anesthetic Gases
    C. Aerosols
    D. Volatile Solvents
    E. Propellants

20. **Phencyclidine** is best described as ....

    A. parasympathomimetic
    B. an antidepressant
    C. a cellular stimulant
    D. psychotophobic
    E. a dissociative anesthetic

21. Which of the following usually **will not cause** the pupils to dilate? (Circle all that usually do not cause dilation.)

    A. MDMA
    B. Methaqualone
    C. Desoxyn
    D. Peyote
    E. Ketamine

22. Which subcategory or subcategories of Inhalants usually cause blood pressure to **be depressed**? (Circle all that usually cause a depressed pressure.)

    A. Anesthetic Gases
    B. Propellants
    C. Volatile Solvents
    D. Aerosols
    E. Fluorocarbons

23. Which of the following are **Natural Alkaloids** of opium? (Circle all that are Natural Alkaloids.)

    A. Lortab
    B. Dilaudid
    C. Codeine
    D. Thebaine
    E. Hycodan

24. **"Crank"** is a street name for ....

    A. Heroin
    B. Cocaine
    C. PCP
    D. Methamphetamine
    E. LSD

25. Which of the following are **not validated clues** for the One Leg Stand test? (Circle all that aren't validated clues.)

    A. Hopping
    B. Uses arm(s) to balance
    C. Putting the foot down
    D. Failing to count out loud
    E. Sways while balancing

26. Which of the following would be considered **sympathomimetic** drugs? (Circle all that are sympathomimetic.)

    A. MDMA
    B. Dexedrine
    C. Xanax
    D. Oxycontin
    E. Desoxyn

27. Suppose you examine a suspect, and you observe **all** of the following: Horizontal Gaze Nystagmus is present, with an onset of approximately 30 degrees; BAC is 0.00; eyes are unable to converge; pupil size is 5.5 mm in near-total darkness and 3.5 mm in direct light; pupil reaction to light is within normal; pulse rate is 100 bpm; blood pressure is 148/96; body temperature is 99.8 degrees. In your opinion, this suspect is under the influence of ....

    A. a combination of a CNS Depressant and a CNS Stimulant
    B. a CNS Depressant alone
    C. a Dissociative Anesthetic alone
    D. a combination of a Dissociative Anesthetic and a CNS Stimulant
    E. a combination of a CNS Depressant and Cannabis

28. The only artery that carries **de-oxygenated** blood is the _____ artery.

    A. Carotid
    B. Brachial
    C. Pulmonary
    D. Radial
    E. Coronal

29. Suppose a subject is under the influence of **Oxycodone** and nothing else. Indicate whether each of the following will be true or false:

    A. T F Horizontal Gaze Nystagmus will not be present
    B. T F Pupils will be constricted
    C. T F Bradycardia will be present
    D. T F Eyes will be able to converge
    E. T F Hypotension will be present

30. **"Bruxism"** most nearly means ....

    A. Dilated pupils
    B. Grinding the teeth
    C. Constricted pupils
    D. Droopy eyelids
    E. Goose bumps

31. Suppose a suspect is under the influence of a combination of Marijuana and Cocaine, but nothing else. Indicate whether each of the following will be true or false:

    A. T F Pulse rate will be elevated
    B. T F Pupils will be dilated
    C. T F Horizontal Gaze Nystagmus will be present
    D. T F Eyes will be able to converge
    E. T F Blood pressure will be elevated

32. How many distinct, validated clues have been established for the Finger to Nose test?

    A. Eight
    B. Six
    C. Four
    D. Three
    E. There are **no validated** clues for this test.

33. The drug _____ is an example of a Sedative-hypnotic depressant. (Circle all that are Sedative-hypnotics.)

    A. Prozac
    B. Valium
    C. Haldol
    D. Ambien
    E. Xanax

ANSWER KEY FOR THE SELF-TEST

1. Correct answers are A and D.
   Demerol (Meperidine) is a Narcotic Analgesic, Thorazine is a CNS Depressant. The combination should **not produce** elevated heart rate (Tachycardia) nor dilated pupils (Mydriasis). But HGN and LOC should be present, due to the Depressant, Thorazine. And, lowered blood pressure (Hypotension) should be present as an Additive Effect of both drugs.

2. Correct answer is A, **parasympathetic**.

3. Correct answer is D, **Overlapping**.
   Ketamine is an analog of PCP, a drug that usually does cause HGN. Methamphetamine is a CNS Stimulant, a type of drug that doesn't affect nystagmus (Dissociative Anesthetic). This is a case of **action plus no action equals action**, i.e., an Overlapping Effect.

4. Correct answer is C, **Miosis**.

5. Correct answer is C, **Sedative-hypnotic**.

6. Correct answer is A, **Opioid**.

7. Correct answers are B and C.
   Valium is a CNS Depressant, which of course causes nystagmus. The combination of Cocaine and Xanax gives us a Stimulant and a Depressant (Xanax), which causes nystagmus via an Overlapping Effect. None of the other drugs mentioned cause nystagmus: Methamphetamine is a Stimulant; LSD is a Hallucinogen; Heroin and Dilaudid are Narcotics; Cannabis, of course, is its own category.

8. Correct answer is A, **CNS Stimulant**.

9. Correct answer is B, **Overlapping**.
   Heroin, a Narcotic, causes constriction of the pupils (Miosis); PCP does not affect pupil size. This is another case of **action plus no action equals action**.

10. Correct answers are B and D.
    Hallucinogens are **sympathomimetic** drugs, and therefore usually elevate the vital signs. But they have no effect on either nystagmus or LOC. And, instead of constricting the pupils, Hallucinogens usually cause pupils to dilate.

11. Correct answers are A and E.
    ETOH is the chemical name for Ethyl Alcohol, the common beverage form of alcohol that remains the most commonly-abused drug. **THC** is the primary active ingredient in Cannabis. But "MDMA" (also known as "Ecstasy") and "DOM" (also known as "STP") and 2CB **are** Hallucinogens.

12. Correct answers are C and D, **Cannabis and Depressants**.

13. Correct answer is D, **Antagonistic**.
    A pulse rate of 74 bpm is within the DRE average range. Percodan, a Narcotic Analgesic, usually lowers the pulse, while Cannabis usually elevates the pulse. The Antagonistic Effect of the two drugs has put this subject's pulse into a precarious, and probably temporary, state of balance.

14. Correct answer is E, **no validated clues**.
    It is important to understand that, when we say there are no validated clues for MRB Test, that does **not mean** that the test is invalid. It simply means that we do not have the research data to attest that specific clues on that test are statistically reliable indicators of impairment. Those kinds of research data, at the present time, are available only for HGN, WAT, and OLS.

15. Correct answer is D, **Additive**.
    Ritalin (a Stimulant) and LSD (a Hallucinogen) both usually elevate blood pressure.

16. Correct answer is C, **Synapse**.

17. Correct answer is D, **Droopy Eyelids**.

18. Correct answer is A, **Eight**.
    Of the eight **validated** clues for WAT, two may be observed during the Instruction Stage of the test. They are <u>can't keep balance</u> (which means the suspect breaks away from the heel-to-toe stance) and <u>starts too soon</u>. The other six clues pertain to the Walking Stage of the test. They include:

    <u>misses heel-to-toe</u>
    <u>uses arm(s) to balance</u>
    <u>steps off line</u>
    <u>stops walking</u>
    <u>turns improperly</u>
    <u>takes the wrong number of steps</u>

    Although these eight are the only <u>validated</u> clues for WAT, they aren't the only things that might be observed that could serve as evidence of impairment. All of your observations of the suspect are important.

19. Correct answers are A and E, **Fluorocarbons and Propellants**.
    The only proper names for subcategories of Inhalants are Volatile Solvents, Aerosols and Anesthetic Gases.

20. Correct answer is E, **Dissociative Anesthetic**.

21. Correct answer is E, **Ketamine**.
    Ketamine is an analog of PCP, a drug that doesn't affect pupil size. MDMA and Peyote are Hallucinogens, and Desoxyn is a CNS Stimulant; all of those dilate pupils. Methaqualone is a very special CNS Depressant; unlike almost all other Depressants, Methaqualone does affect pupil size (by dilating the pupils).

22. Correct answer is A, **Anesthetic Gases**.
    Volatile Solvents and Aerosols usually produce an elevated blood pressure. "Fluorocarbons" and "Propellants" are, of course, not proper names for subcategories of Inhalants.

23. Correct answers are C and D, **Codeine and Thebaine**.
    Lortab, Dilaudid and Hycodan are all **opium derivatives**. Dilaudid derives from Morphine, and Hycodan and Lortab from Codeine.

24. Correct answer is D, **Methamphetamine**.

25. Correct answer is D, **Failing to Count Out Loud**.
    Hopping, Uses Arm(s) to Balance, Putting the Foot Down and Sways While Balancing are the four (and only four) **validated** clues of impairment for OLS.

26. Correct answers are A, B and E: **MDMA, Dexedrine and Desoxyn**.
    Dexedrine and Desoxyn are members of the Amphetamine family of CNS Stimulants. MDMA is a "Psychedelic Amphetamine" belonging to the Hallucinogens. CNS Stimulants and Hallucinogens are the two categories that make up the **sympathomimetic** drugs. That means they simulate the responses that the body makes to messages conveyed along the **sympathetic** nerves, i.e., elevated vital signs, dilated pupils, etc. Three other categories, namely the Inhalants, Phencyclidine and Cannabis have **some** sympathomimetic characteristics, but they are not considered to be fully sympathomimetic, and not to the degree of the CNS Stimulants and Hallucinogens. Xanax and Oxycontin aren't even close to being sympathomimetic. Xanax (a Depressant) and Oxycontin (a Narcotic) are better described as wholly or partially **parasympathomimetic**.

27. Correct answer is C, **a Dissociative Anesthetic**.
    Dissociative Anesthetics, by themselves, can account for all of the observations listed. Dissociative Anesthetics cause nystagmus and LOC; they do not affect pupil size, so the pupils remain within the normal range; they do not affect the reaction of the pupils to light; they usually elevate all three vital signs.

    A Depressant, by itself, could not account for the elevated vitals, and usually would slow the pupils' reaction to light.

    If we had a combination of a Depressant and a Stimulant, we'd expect to see the pupils dilated beyond the normal range (due to an Overlapping Effect), and we'd expect to see the reaction of the pupils slowed (due to an Additive Effect). Also, although it is possible that the vital signs could all be elevated with a combination of Depressant and Stimulant, we'd probably expect to see some "moderation" of the vitals due to an Antagonistic Effect.

    If we had a combination of a Dissociative Anesthetic and a Stimulant, we could expect to see pupil dilation and some slowing of the reaction to light, due to Overlapping Effects.

    If we had a combination of a Dissociative Anesthetic and a Stimulant, we could expect to see an elevated body temperature, since both of those drugs elevate temperature.

28. Correct answer is C, **Pulmonary**.

29. Correct answers are:
    (A) True: **no nystagmus** will be present
    (B) True: we will see miosis, or **constricted pupils**
    (C) True: we will find a slow pulse, or **Bradycardia**
    (D) True: we won't see a Lack of Convergence, so the eyes **will be able to converge**
    (E) True: we will find a lowered blood pressure, or **Hypotension**
    Oxycodone is a Narcotic Analgesic, and these observations will be consistent with impairment by Narcotics.

30. Correct answer is B, **Grinding the Teeth**

31. Correct answers are:
    (A) True: An Additive Effect will **elevate the pulse** for this combo
    (B) True: **pupils will dilate** due to an Overlapping or Additive Effect
    (C) False: neither drug causes nystagmus, so the Null Effect will also **cause no nystagmus**
    (D) False: Marijuana causes LOC, so the Overlapping Effect means the **eyes won't converge**
    (E) True: An Additive Effect will **elevate the blood pressure**

32. Correct answer is E, **no validated clues**

33. Correct answers are B, D, and E: **Valium, Ambien,** and **Xanax**

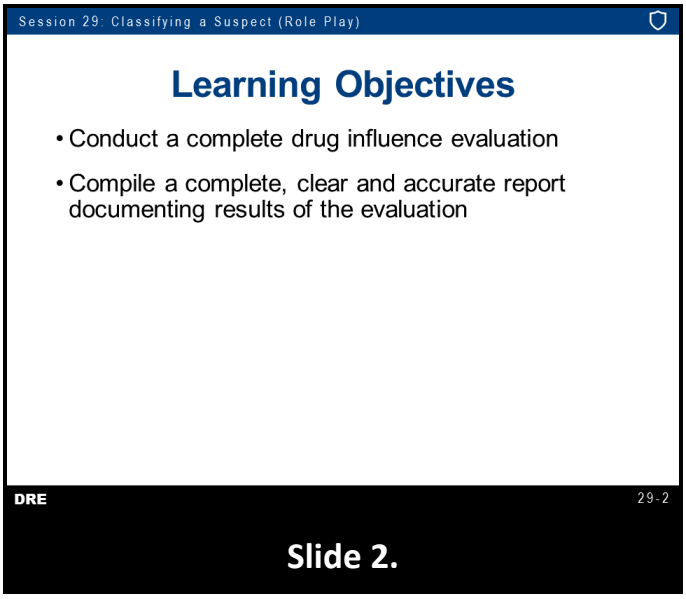
29 DRE

CLASSIFYING A SUSPECT (ROLE PLAY)

LEARNING OBJECTIVES

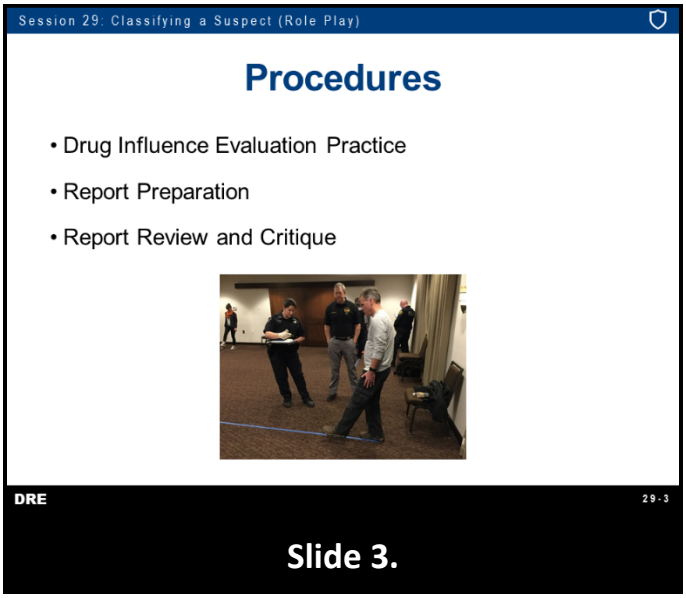
- Conduct a complete drug influence evaluation using the systematic and standardized 12-step process
- Compile a complete, clear, and accurate report documenting the results of the drug influence evaluation

CONTENTS



Slide 2.

A. Scenarios: Simulated Examinations



Slide 3.

Each team will examine as many as possible of the role players until the time scheduled for this segment elapses.

Each examination will be carried out fully; nothing will be omitted except for the Breath Alcohol Test, the interview of the Arresting Officer and the Toxicological Examination.

At certain points in the evaluation, the role player will inform the team what to record. For example: the role players will instruct the teams concerning the evidence to be recorded from the HGN test.

All data will be recorded on the standard Drug Influence Evaluation Form.

Some role players will be simulating the signs and symptoms of exactly one category of drugs. Clarification: Role player Alpha might be simulating a person who is under the influence of a CNS Stimulant only. Role player Delta might be simulating a person under the influence of an Inhalant only.

Some role players may be simulating the signs and symptoms of two or more categories in combination. Role player Bravo might be simulating someone who is under the influence of both Dissociative Anesthetic and Cannabis. It is possible one or more role players may be simulating persons who are not under the influence of any drugs.

At the completion of each evaluation, the team will discuss the evidence obtained and reach a consensus concerning the category or categories of drugs present.

During the assigned time in this session, each participant will prepare and present a complete narrative report on one role player. The narrative will be presented to a DRE instructor for critique.

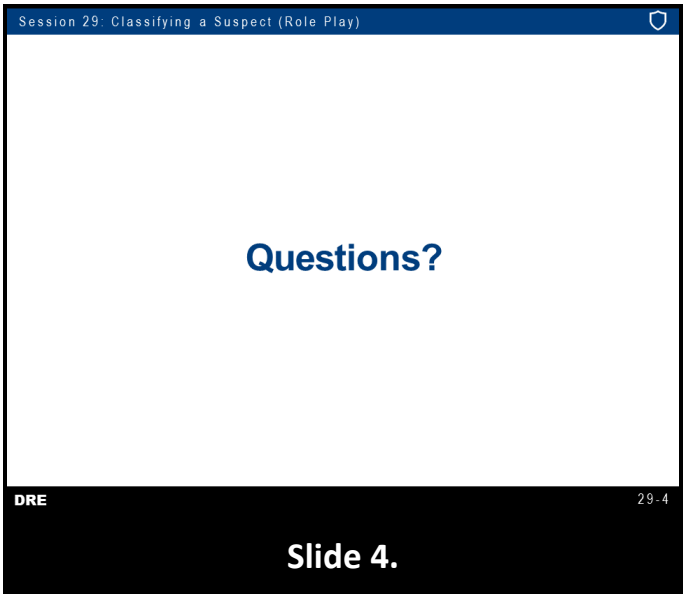
The instructor role player will review those reports pertaining to his/her role player.

B. Report Preparation Practice

Assignments: Each participant is to prepare a narrative report for one role player evaluated by the team.

C. Report Review and Critique

Report Presentation: Each participant should submit their report to the respective role player on whom the evaluation was conducted for review and feedback.



Slide 4.

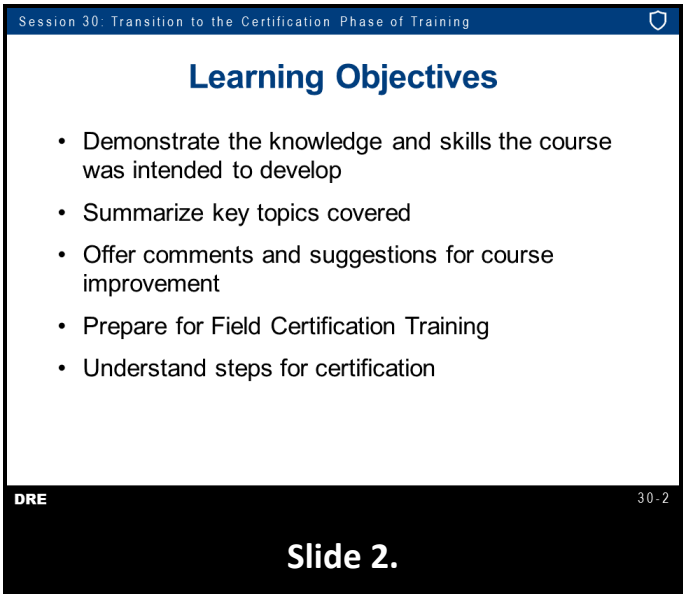
30 DRE

TRANSITION TO THE CERTIFICATION PHASE OF TRAINING

LEARNING OBJECTIVES

- Demonstrate the knowledge and skills the course was intended to help develop
- Summarize the key topics covered
- Offer comments and suggestions for course improvement
- Prepare for Field Certification Training
- Understand the steps involved in the Drug Recognition Expert (DRE) certification process

CONTENTS



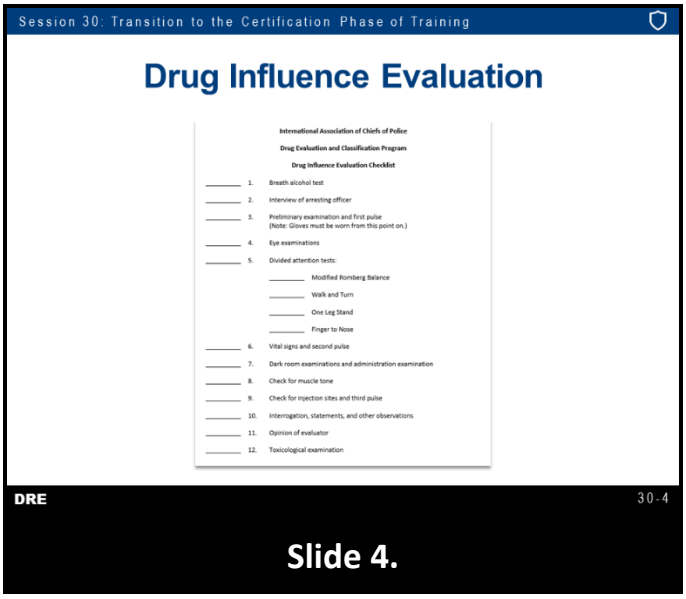
Slide 2.

A. Summary

Slide 3.

The Seven Categories of Drugs are:

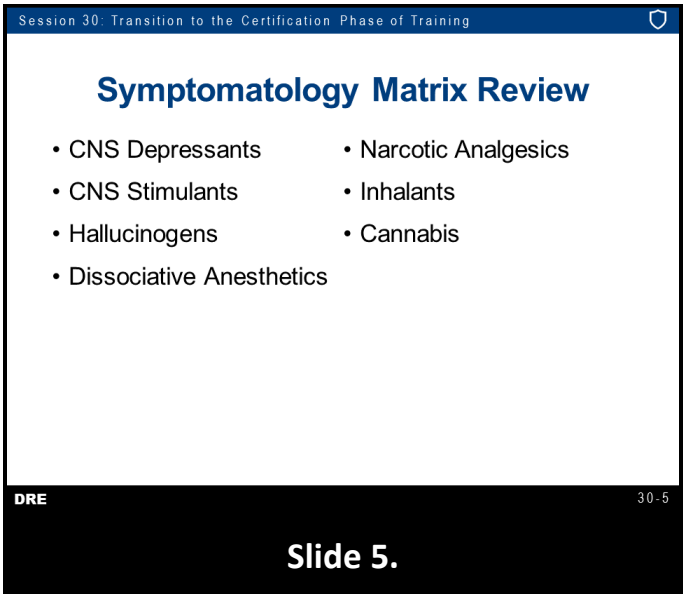
- Central Nervous System (CNS) Depressants
- CNS Stimulants
- Hallucinogens
- Dissociative Anesthetics
- Narcotic Analgesics
- Inhalants
- Cannabis



Slide 4.

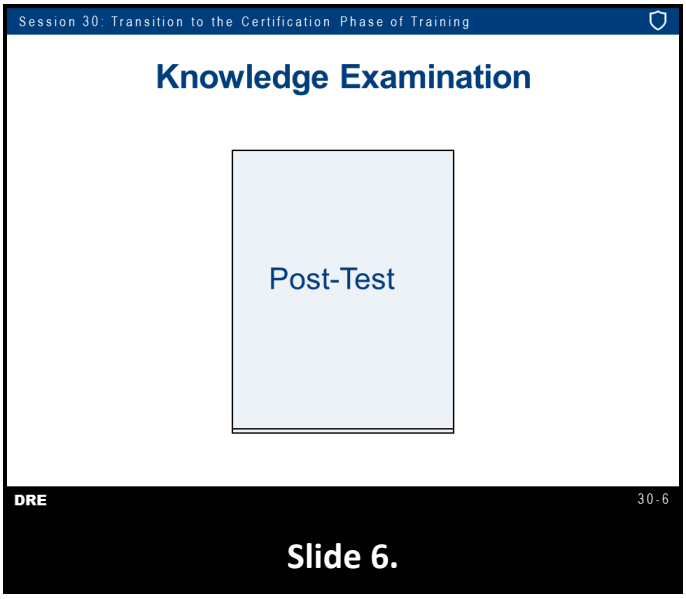
The components of the Drug Influence Evaluation Procedure are:

- Breath Alcohol Test
- Interview of Arresting Officer
- Preliminary Examination
- Examinations of Eyes
- Divided Attention Tests
- Vital Signs Examinations
- Dark Room Examinations
- Check for Muscle Tone
- Inspection for Injection Sites
- Statements and Observations
- Opinion of the Evaluator
- Toxicological Examination



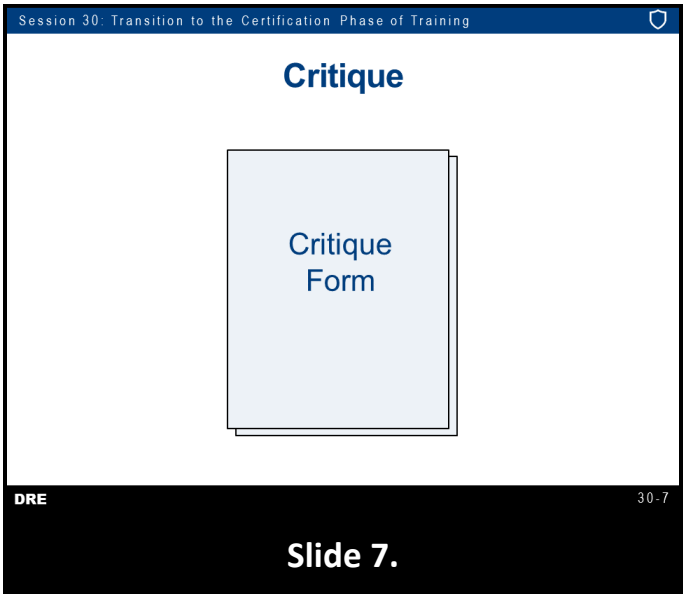
Slide 5.

B. Post-Test



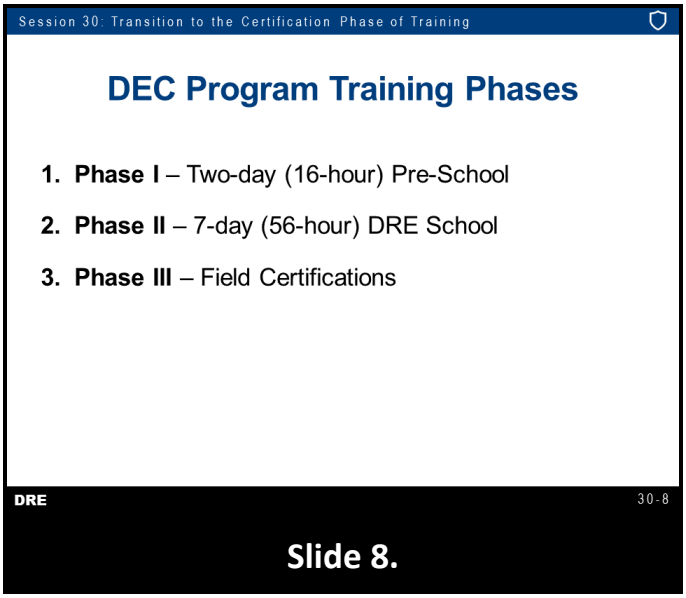
Slide 6.

C. Session Wrap-Up



Slide 7.

D. Certification Training Assignments and Schedule



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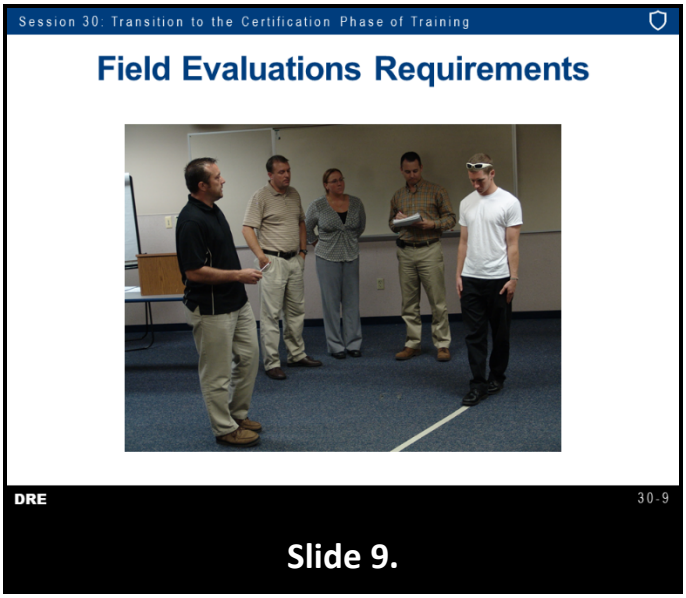


Slide 9.

IACP Standard 1.10 requires the candidate DRE satisfactorily complete a minimum of twelve (12) evaluations, identifying subjects under the influence of at least three of the drug categories. All three must be supported by toxicology.

The candidate DRE must also act as the evaluator for at least six evaluations. All evaluations, either administered or observed, must be documented on the candidate's Rolling Log.

Candidate DREs need to have toxicology samples from at least nine (9) subjects evaluated during the certification process.

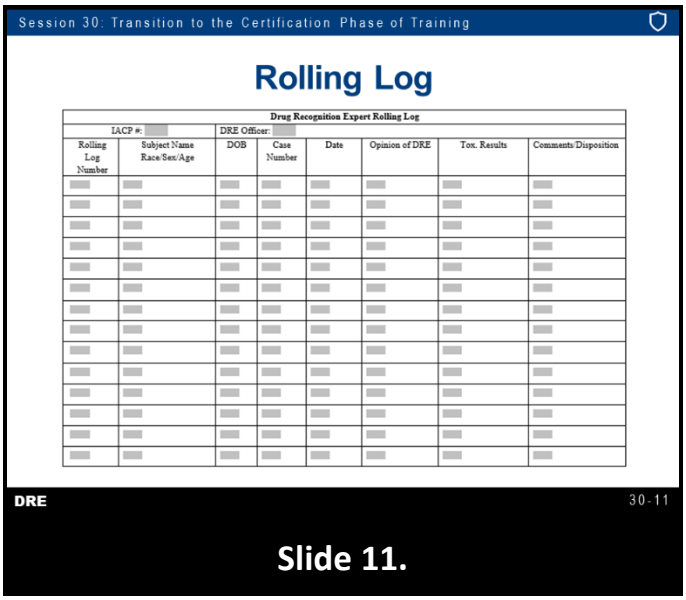
The candidate DRE cannot be certified unless the opinion concerning the drug category(s) is supported by toxicology 75 percent of the time or in at least seven (7) of the nine samples submitted for certification.

Field certification evaluations must be observed and supervised by a DRE instructor to count towards minimum certification requirements. The evaluation must be observed in its entirety and the instructor who observed the entire evaluation must review the Facesheet and narrative report. Once this report is approved, only this instructor should sign-off on the observed evaluation.

Slide 10.

DRE Kits

- Certification Progress Log
- DRE Participant Guide
- Rolling Log
- A "prepared mind"



Slide 11.

Every DRE should maintain a list of all evaluations conducted during their career. These should include, at a minimum, training evaluations, enforcement evaluations, and any evaluation in which they participate. This Log illustrates the DRE's experience relative to drug impairment recognition. The Rolling Log number is a format consisting of three sets of numbers separated by a hyphen. The first two digits are the two-digit year when the evaluation was conducted (i.e., 17-, or 18-, etc.).

The second set of digits is a three-digit number for the total number of drug influence evaluations conducted within the current year. For example, the first evaluation conducted in the year will "001," followed by "002," etc. This number will reset at the beginning of the next calendar year.

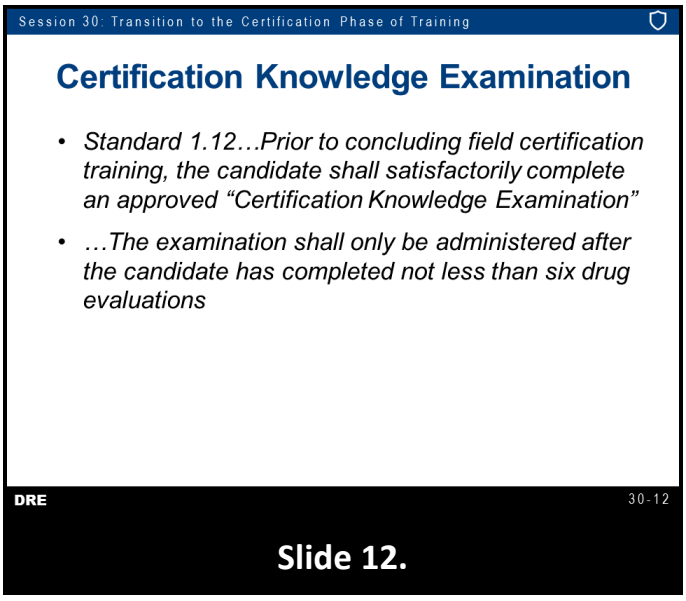
The final set of numbers is a four-digit number that represents the total number of evaluations conducted in the DRE's career. This number continues to accrue and does NOT reset each year.

An example of a Rolling Log number would be:

- 17-001-0001 (the first evaluation ever conducted by a DRE, which occurred in calendar year 2017)
- 18-001-0049 (the first drug influence evaluation this DRE conducted in 2018, but it is the 49th evaluation of his/her career).

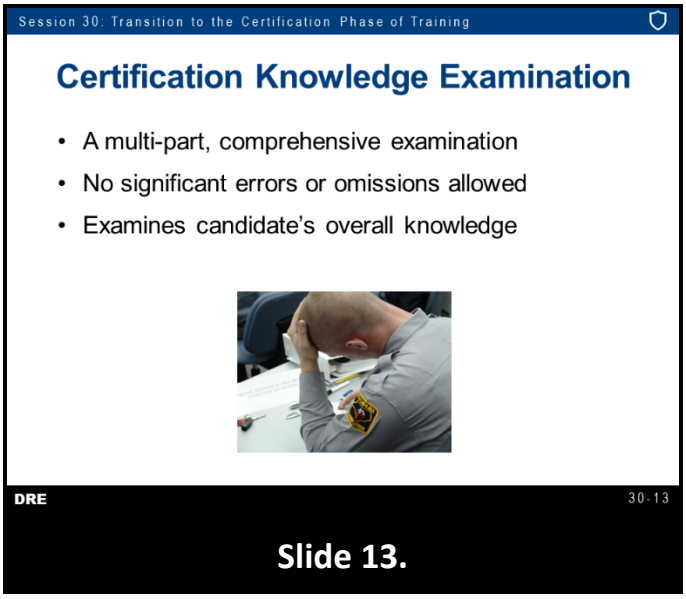
Each drug influence evaluation will receive a DRE Rolling log number that is specifically generated based upon the number of evaluations conducted by that DRE.

DREs should record the basic information about each evaluation in their Rolling Log, including the opinion as to which drug category or categories were involved. When the toxicology results are received, the DRE should enter all of the specific drugs in the appropriate column, including drugs that were not in the original opinion.



Slide 12.

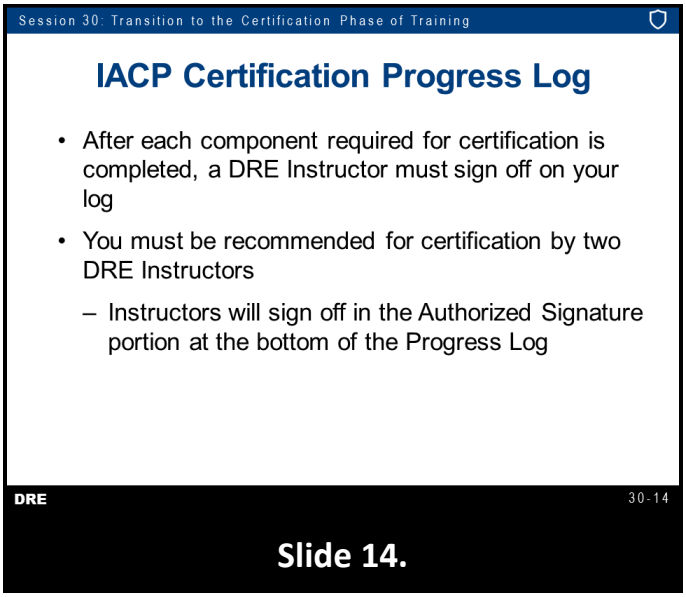
- Standard 1.12…Prior to concluding field certification training, the candidate shall satisfactorily complete the IACP approved "Certification Knowledge Examination"
- …The examination shall only be administered after the candidate has completed not less than six drug evaluations



Slide 13.

Prior to concluding the certification process, the candidate DRE must satisfactorily complete the IACP-approved Certification Knowledge Examination. The Certification Knowledge Examination is a multi-part comprehensive examination where the participant cannot make significant errors or omissions.

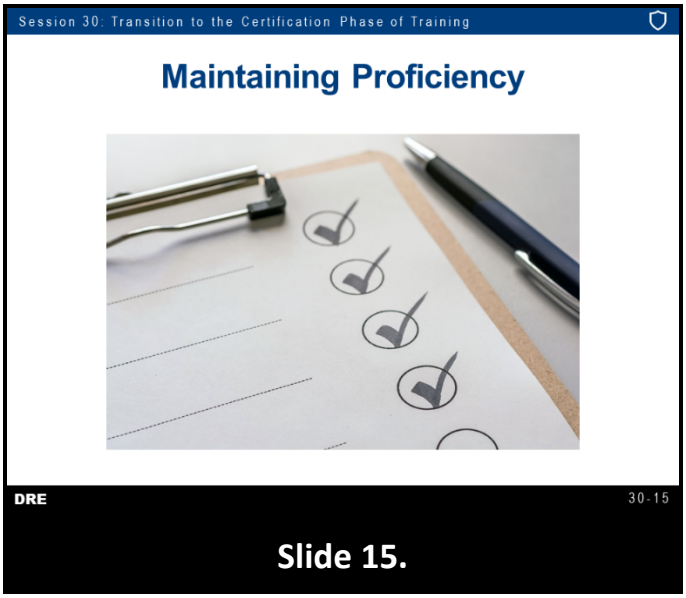
Examination consists of five parts which tests the candidate DRE's knowledge of the drug symptomatology matrix, drug effects, drug combinations, and report writing skills.



Slide 14.

After each component required for certification is completed, a DRE Instructor must sign off on the DRE candidate's log.

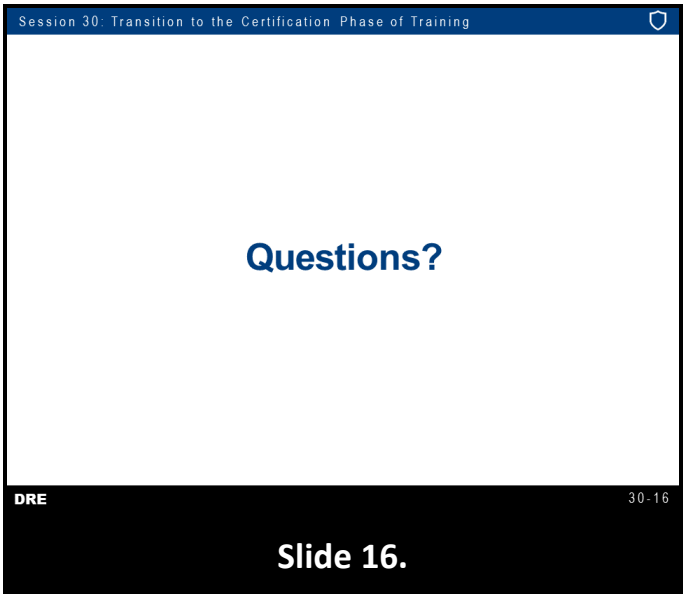
The candidate DRE must be recommended for certification by two DRE instructors.



Slide 15.

DRE certification is for a period of two years. IACP International Standard 3.4 …A DRE shall demonstrate continuing proficiency by:

- Performing a minimum of four (4) acceptable drug evaluations since the last date of certification, one of which must be observed by a DRE instructor
- Completing a minimum of eight (8) hours of approved re-certification training
- Presenting an updated Curriculum Vitae (CV) and Rolling Log to the appropriate coordinator for review



Slide 16.

E. Closing Remarks

Slide 17.

Drug Recognition Expert Rolling Log							
IACP #:		DRE Officer:					
Rolling Log Number	Subject Name Race/Sex/Age	DOB	Case Number	Date	Opinion of DRE	Tox. Results	Comments/Disposition

DRUG EVALUATION AND CLASSIFICATION PROGRAM
FIELD CERTIFICATION INSTRUCTOR OBSERVATION

Date: _____ Time: _____ DRE Student: _____

Evaluation #: _____ Test Subject: _____

Scribe: _____ Observer: _____

	Errors of Omission	Errors of Commission
Preliminary Examination:	[ ] None Observed	[ ] None Observed
Comments/Observations:		
Eye Examination:	[ ] None Observed	[ ] None Observed
Comments/Observations:		
Psychophysical Tests:	[ ] None Observed	[ ] None Observed
Comments/Observations:		
Vital Signs:	[ ] None Observed	[ ] None Observed
Comments/Observations:		
Dark Room Examination:	[ ] None Observed	[ ] None Observed
Comments/Observations:		

Opinion of Student: _____ Agree [ ] Disagree [ ]

Toxicology Sample: [ ] Urine [ ] Blood [ ] Other Result: _____

Comments: _____

DRE Instructor: _____ DRE#: _____
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Resources

(1988, March 7). *Washington Post*.

(1988, March 7). *Washington Post*.

(2012). *Society of Forensic Toxicologists Newsletter, 36*(4).

Adler, E. V., & Burns, M. (1994). *Drug Recognition Expert (DRE) Validation Study.* AZ: Arizona Governor's Office of Highway Safety.

Advokat, C. D., Comaty, J. E., & Julien, R. M. (2019). *Julien's Primer of Drug Action* (14th ed.). Macmillan Learning.

Berning, A., Compton, R., & Wochinger, K. (2015). *Results of the 2013–2014 National Roadside Survey of Alcohol and Drug Use by Drivers.* (Traffic Safety Facts Research Note. Report No. DOT HS 812 118). Washington, DC: National Highway Traffic Safety Administration.

Bigelow, G. E., Bickel, W. E., Roache, J. D., Liebson, I. A., & Nowowieski, P. (1985). *Identifying Types of Drug Intoxication: Laboratory Evaluation of a Subject-Examination Procedure.* Washington DC: National Highway Traffic Safety Administration. doi:DOT HS 806753

BMJ-British Medical Journal. (2012, February 10). Cannabis use doubles chances of vehicle crash, review finds. *ScienceDaily*. Retrieved May 14, 2022, from www.sciencedaily.com/releases/2012/02/120210111254.htm

Britannica, T. Editors of Encyclopaedia. (2020, May 27). *homeostasis*. Retrieved from Encyclopedia Britannica: https://www.britannica.com/science/homeostasis

Burns, M., & Anderson, E. W. (1995). *A Colorado Validation Study of the Standardized Field Sobriety Test (SFST) Battery .* Colorado Department of Transportation .

Centers for Disease Control and Prevention. (2015). *Alcohol-Impaired Driving Among Adults — United States, 2012.* Morbidity and Mortality Weekly Report. August 7, 2015 / 64(30);814-817. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a2.htm

Citek, K. (2014). *Eye Tests on Suspect with a "Blind" Eye.* Pacific University College of Optometry.

Compton, R., & Anderson, T. (1985). *The Incidence of Driving Under the Influence of Drugs.* National Highway Traffic Safety Administration, Staff Technical Report: DOT HS 806 900.

Couper, F., Huestis, M., Fulford, J., Perkinson, N., Miller, S., Katz, A., Symoun, J., Raymond, P., & Smither, D.D. (2023). *Drugs and Human Performance Fact Sheets* [Unpublished manuscript]. National Highway Traffic Safety Administration.

Crean, R. D., Crane, N. A., & Mason, B. J. (2011, March). An Evidence Based Review of Acute and Long-Term Effects of Cannabis Use on Executive Cognitive Functions. *Journal of Addiction Medicine, 5*(1), 1-8. doi:10.1097/ADM.0b013e31820c23fa

Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993).

DEA Intelligence Report. (2018). *Slang Terms and Code Words: A Reference for Law Enforcement Personnel.* doi:DEA-HOU-DIR-022-18

Declues, K., Perez, S., & Figueroa, A. (2018). A Two-Year Study of Δ 9 Tetrahydrocannabinol Concentrations in Drivers; Part 2: Physiological Signs on Drug Recognition Expert (DRE) and non-DRE Examinations. *Journal of forensic sciences, 63*(2), 583-587. Retrieved from https://doi.org/10.1111/1556-4029.13550

Drug Alert: Marijuana Edibles. (n.d.). Retrieved May 16, 2022, from Just Think Twice: https://www.justthinktwice.gov/article/drug-alert-marijuana-edibles

Fatality Analysis Reporting System (FARS). (n.d.). Retrieved May 17, 2022, from NHTSA: https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars

Hampton Police Division Crime and Intelligence Analysis Unit. (2013). Subject: Waxy Marijuana. *Intelligence Bulletin, Bulletin: #2013-10*.

Hartman, R. L., Richman, J. E., Hayes, C. E., & Huestis, M. A. (2016). Drug Recognition Expert (DRE) examination characteristics of cannabis impairment. *Accident Analysis and Prevention, 92*, 219-229. Retrieved from https://doi.org/10.1016/j.aap.2016.04.012

Kosnoski, E. M., Yolton, R. L., Citek, K., Hayes, C. E., & Evans, R. B. (1998). The Drug Evaluation Classification Program: using ocular and other signs to detect drug intoxication. *Journal of American Optometric Association, 69*(4), 211-227.

Leigh, R. J., & Zee, D. S. (2015). A Survey of Eye Movements: Characteristics and Teleology. In R. J. Leigh, & D. S. Zee, *The Neurology of Eye Movements* (5th ed., p. 12ff). Online: Oxford University Press. doi:10.1093/med/9780199969289.001.0001

Marnell, T. (2022). *Drug Identification Bible* (2022/2023 ed.).

Mu-Chen, L., Brady, J. E., DiMaggio, C. J., Lusardi, A. R., Tzong, K. Y., & Guohua, L. (2012, January). Marijuana Use and Motor Vehicle Crashes. *Epidemiologic Reviews, 34*(1), 65-72. Retrieved May 16, 2022, from https://doi.org/10.1093/epirev/mxr017

National Center for Statistics and Analysis. (1994). *Alcohol.* (Traffic Safety Facts. Report No. 94F1): National Highway Traffic Safety Administration.

National Center for Statistics and Analysis. (2021). *Alcohol-impaired driving: 2019 data.* (Traffic Safety Facts. Report No. DOT HS 813 120). National Highway Traffic Safety Administration.

National Center for Statistics and Analysis. (2021). *Speeding: 2019 data.* (Traffic Safety Facts. Report No. DOT HS 813 194). National Highway Traffic Safety Administration.

National Institute of Mental Health. (2018, July). *Anxiety Disorders*. Retrieved March 30, 2022, from National Institute of Mental Health: https://www.nimh.nih.gov/health/topics/anxiety-disorders

National Institute of Mental Health. (2018, February). *Depression*. Retrieved March 30, 2022, from National Institute of Mental Health: https://www.nimh.nih.gov/health/topics/depression

National Institute of Mental Health. (2020, January). *Bipolar Disorder*. Retrieved March 30, 2022, from National Institute of Mental Health: https://www.nimh.nih.gov/health/topics/bipolar-disorder

National Institute of Mental Health. (2020, May). *Schizophrenia*. Retrieved March 30, 2022, from National Institute of Mental Health: https://www.nimh.nih.gov/health/topics/schizophrenia

People v. McLean, 16 Cal.Rptr. 347,56 Cal.2d 660,365 P.2d 403 (1961).

People v. Perry, 7 Cal.3d 756, 789-790, 103 Cal.Rptr. 161, 499 P.2d 129 (1972).

People v. Willis, 70 Cal.App. 465, 233 P. 812 (Cal. Ct. App 1924).

Price, S. L., Fisher, C., Kumar, R., & Hilgerson, A. (2011, March). Cannabinoid Hyperemesis Syndrome as the Underlying Cause of Interactable Nausea and Vomiting. *Journal of Osteopathic Medicine, 111*(3), 166-169. Retrieved May 16, 2022, from https://doi.org/10.7556/jaoa.2011.111.3.166

Research Shows That Any Dose of Alcohol Combined With Cannabis Significantly Increases Levels of THC in the Blood. (2015, May 27). Retrieved May 16, 2022, from AACC: https://www.aacc.org/media/press-release-archive/2015/alcohol-combined-with-cannabis-significantly-increases-levels-of-thc-in-the-blood

Salvia Divinorum. (2020, April). Retrieved May 16, 2022, from United States Drug Enforcement Administration: https://www.dea.gov/factsheets/salvia-divinorum

Stuster, J., & Burns, M. (1998). *Validation of the Standardized Field Sobriety Test Battery at BACs Below 0.10 Percent.* Santa Barbara, CA: Anacapa Sciences, Inc.

Substance Abuse and Mental Health Services Administration. (2017). *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health.* (HHS Publication No. SMA 18-5068, NSDUH Series H-53). Rockville, MD:: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from Retrieved from https://www.samhsa.gov/data/

Substance Abuse and Mental Health Services Administration. (2021). *Key Substance Use and Mental Health Indicators in the United States: Results from the 2020 National Survey on Drug Use and Health.* (HHS Publication No. PEP21-07-01-003, NSDUH Series H-56). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/

Tennant, F. S. (n.d.). Identifying the Cocaine User. *3rd*. 1985: Veract.

Toennes, S. W., Ramaekers, J. G., Theunissen, E. L., Moeller, M. R., & Kauert, G. F. (2008, September). Comparison of Cannabinoid Pharmacokinetic Properties in Occasional and Heavy Uses Smoking a Marijuana or Placebo Joint. *Journal of Analytical Toxicology, 32*(7), 470-477. doi:10.1093/jat/32.7.470

U.S. Department of Justice—Federal Bureau of Investigation. (2020). *Crime in the United States, 2019*. Retrieved April 5, 2022, from FBI: UCR: https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/topic-pages/persons-arrested#:~:text=The%20highest%20number%20of%20arrests,3%2C011.0%20arrests%20per%20100%2C000%20inhabitants.

World Health Organization. (2009). Clinical Guidelines for Withdrawl Management and Treatment of Drug Dependence in Closed Settings. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK310658/