

# Participant Manual

# Advanced Roadside Impaired Driving Enforcement (A.R.I.D.E.)

Revised: 10/2015



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2015 Curriculum

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ARIDE Course Critique

## Acknowledgements

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# Participant Manual

## Advanced Roadside Impaired Driving Enforcement (A.R.I.D.E.)

Session 1 - Introduction and Overview "Drugs and Highway Safety"

55 Minutes

### Session 1

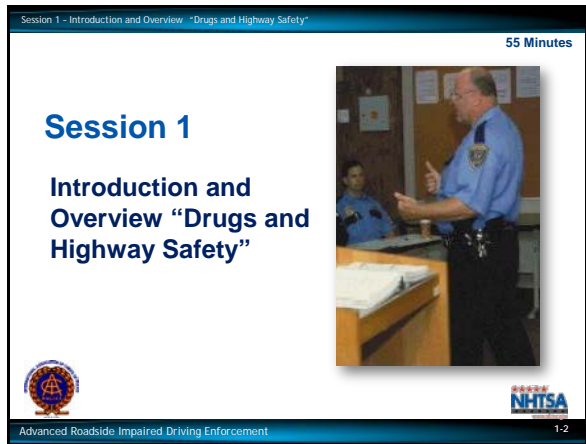
Introduction and  
Overview "Drugs and  
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*Introductions - Representatives of host agencies and other dignitaries*

Revised:  
10/2015

Session 1 – Introduction and Overview “Drugs and Highway Safety”

## Housekeeping

- Paperwork
- Mandatory attendance
- Breaks
- Facility
- Interruptions
  - All electronic devices off







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Session 1 – Introduction and Overview “Drugs and Highway Safety”

## Participant Introductions

- Name
- Agency affiliation
- Experience


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*Paperwork*

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*Attendance*

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*Breaks*

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*Facility*

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*Interruptions*

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*ARIDE Pre-Course Exam*

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Session 1 - Introduction and Overview "Drugs and Highway Safety"

## Learning Objectives

- Explain course goals and objectives
- Define the term "drug"
- Highlight U.S. drug problem issues
- Describe impaired driving programs
- Underscore connection to DECP
- Emphasize roles of the DRE

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Upon completion of this session, the participant will be able to:

- Explain the goals and objectives of this course.
- Identify the elements of the drug problem.
- Define and describe impaired driving enforcement programs.
- Understand the roles and responsibilities of the Drug Recognition Expert (DRE) and how this course supports the Drug Evaluation and Classification Program (DECP).
- Define the term drug in the context of traffic safety and impaired driving enforcement as referenced in the DECP.



**Content Segments ..... Learning Activities**

- A. Describe the course goal to the class .....Instructor-Led Presentation
- B. What is a drug? .....Instructor-Led Presentation
- C. Statistics and research .....Instructor-Led Presentation
- U.S. and other countries
  - General alcohol and drug use
  - Prevalence of impaired driving
- D. Impaired driving enforcement programs .....Instructor-Led Presentation
- E. Roles and responsibilities of the DRE .....Instructor-Led Presentation

Session 1 - Introduction and Overview "Drugs and Highway Safety"

## Important Note

- This course is not intended to be a substitute for the Drug Evaluation and Classification Program
- This course will NOT qualify or certify the participant as a DRE



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Many law enforcement officers are trained in Standardized Field Sobriety Testing (SFST) and use the skills gained in the course as part of their overall enforcement of (**Driving while Impaired DWI Laws**)

**This course is not developed to act as a substitute for the DEC program and will not qualify or certify an individual as a DRE.**

This course is intended to bridge the gap between the SFST and DRE course and to provide a level of awareness to the participants, both law enforcement and other criminal justice professionals, in the area of drug impairment in the context of traffic safety.

Session 1 - Introduction and Overview "Drugs and Highway Safety"

## Background: High Visibility Enforcement Efforts

- Left prosecutors behind in technology advances and training
- Overloaded criminal court system
- Delivered poorly developed cases for prosecution
- Drove criminal justice professionals to understand impaired driving detection process



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NHTSA has promoted high visibility enforcement efforts among law enforcement agencies. As a result of this effort, several things happened:

1. Prosecutors were left behind in technology advances and training
2. The criminal court system was overloaded
3. Delivered poorly developed cases for prosecution

Criminal justice professionals such as:

1. Prosecutors
2. Toxicologists
3. Probation and Parole Officers

Must also understand the DWI detection process in order to support enforcement efforts, which will increase the probability of successful prosecution and adjudication.



This course will train law enforcement officers to observe, identify, and articulate the signs of impairment related to drugs, alcohol or a combination of both in order to reduce the number of impaired driving incidents, serious injury, and fatal crashes.

1. Understand the signs of impairment related to drugs, alcohol, or a combination of both
2. Enable them to effectively work with law enforcement in order to reduce the number of impaired driving incidents, serious injury, and fatal crashes

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# Overall Course Objectives

- Properly administer and articulate the SFSTs
- Describe the relationship of drugs to impaired driving incidents
- Observe, identify and articulate the observable signs of drug impairment





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# Overall Course Objectives

- Identify, document and describe indicators observed and information obtained related to impairment which leads to the arrest/release decision
- Articulate through testimony impairment related to alcohol, drugs, or a combination of both based on a complete investigation



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In order to meet these goals, this course will train participants to:

- Demonstrate, articulate, and properly administer the SFSTs proficiently
- Define and describe the relationship of drugs to impaired driving incidents
- Observe, identify, and articulate the observable signs of drug impairment with the established seven drug categories associated with the DEC Program
- Identify, document and describe indicators observed and information obtained related to impairment which leads to the arrest/release decision
- Articulate, through testimony, impairment related to alcohol, drugs, or a combination of both based on a complete investigation



This course is divided into sessions, which are designed to provide the participant with an overview of drug impaired driving.

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Session 1 - Introduction and Overview "Drugs and Highway Safety"

## Course Sessions

- Introduction and overview of drugs and highway safety
- SFST update and proficiency exam
- Drugs in the human body
- Observations of eyes and other sobriety tests
- Drug categories and combinations
- Legal issues in impaired driver



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1. Introduction and Overview of Drugs and Highway Safety
2. SFST Update and Review
3. SFST Proficiency Exam
4. Drugs in the Human Body
5. Observation of the Eyes and Other Sobriety Tests for Impairment
6. Seven Drug Categories
7. Effects of Drug Combinations
8. Pre and Post Arrest Procedures or a State-specific Legal Update

The course is designed to serve as a bridge between SFST and DRE.



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Often times officers come in contact with the drug impaired driver. There are many things that could be happening.

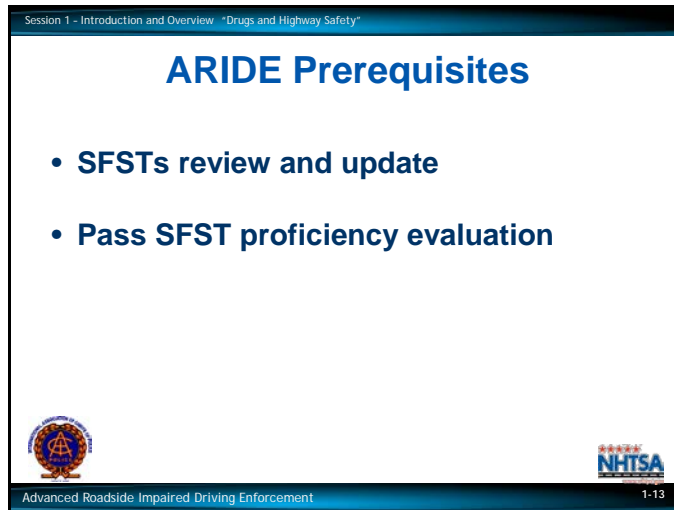
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The officer:

- Is unfamiliar with the indicators of drug impairment, therefore does nothing with the subject
  - Recognizes there is something wrong with the driver, but does not know how to address the issue
  - Allows subject to continue on their way
  - Drives the subject home or allows the subject to ride home with another individual
  - Is not familiar with the resources available to them
  - Officer recognizes indicators of impairment and arrests driver for DWI
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In order for the participant to utilize the information presented in this course, the following is required:



1. The participant will receive a short review and update for the SFSTs as part of Session 2 of this course.
2. After completing that session, the participant will be required to pass a SFST proficiency evaluation.
3. Failure to successfully complete the SFST proficiency will result in dismissal from the course.

Session 1 - Introduction and Overview "Drugs and Highway Safety"

## What is a "Drug"?

**Working Definition of "Drug":**

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



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### B. What is a Drug?

#### *A Simple, Enforcement-Oriented Definition of Drugs*

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

Working definition derived from the 1985 California Vehicle Code.

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This definition includes some substances that physicians don't usually think of as drugs.

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Within this simple, 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.

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Session 1 - Introduction and Overview "Drugs and Highway Safety"

## 2014 National Survey Drug Use and Health (NSDUH)

- Slightly more than half of Americans consider themselves drinkers
- 6.3% describe themselves as heavy drinkers
- 27.0 million people used illicit drugs in the past month



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### C. Statistics and Research

#### *Alcohol and Drug Use*

Social drinking is considered acceptable in many societies.

It is important to understand the use of alcohol in the context of society, since it is related to the enforcement and adjudication of DWI offenses.

The 2014 National Survey on Drug Use and Health (NSDUH) Survey reports that:

- Slightly more than half of Americans consider themselves drinkers. *Source: National Survey on Drug Use and Health (NSDUH, September 2015)*
- Approximately 16.5 million people describe themselves as heavy drinkers
- 27.0 million people or 9.4% of the population used illicit drugs in the past month (NSDUH, September 2015)

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- Although these statistics are significant, it is reasonable to assume that the problem is even larger when you consider legal or prescription drugs used in a manner other than for what they have been prescribed or produced.

When we look at drug use specifically, it is helpful to see the trends based on specific types of drugs.

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- In 2013, an estimated 22.2 million Americans aged 12 or older were current (past month) illicit drug users.
- Marijuana was used by approximately 80 percent of all current illicit drug users.

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Session 1 – Introduction and Overview “Drugs and Highway Safety”

## Types of Drugs Commonly Used

• Cocaine	1.5 M
• Hallucinogens	1.2 M
• Psychotherapeutics	6.8 M
• Pain Relievers	4.3 M
• Tranquilizers	1.9 M
• Stimulants	1.6 M
• Sedatives	0.3 M

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Session 1 – Introduction and Overview “Drugs and Highway Safety”

## Driving Under the Influence

- Males are twice as likely as females to drive under the influence of alcohol
- 10.9% of people reported that they had driven at least once in the last year under the influence of alcohol
- Approximately 9 million people reported that they drove under the influence of illicit drugs during the last year




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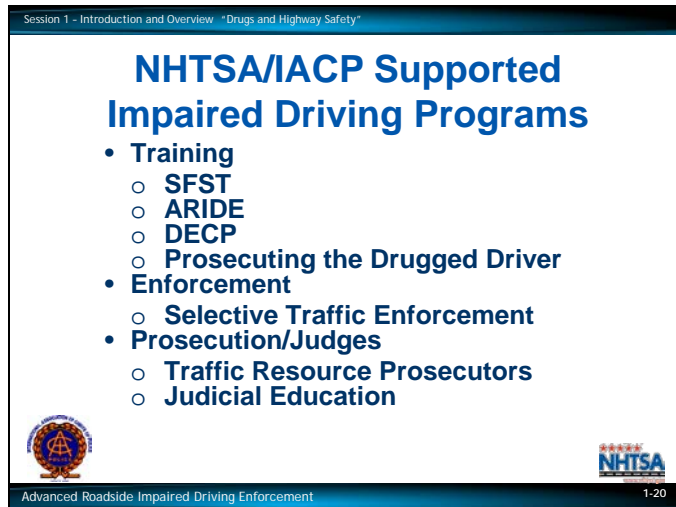
### Type.....# of Users

Cocaine.....	1.5 Million
Hallucinogens.....	1.2 Million
Psychotherapeutics.....	6.8 Million
Pain Relievers.....	4.3 Million
Tranquilizers.....	1.9 Million
Stimulants .....	1.6 Million
Sedatives .....	0.3 Million

Understand the magnitude of the problem of subjects driving while impaired by drugs and alcohol.

The surveys tell us:

1. Males are twice as likely as females to drive under the influence of alcohol.
2. Overall, 10.9% of Americans reported that they had driven at least once in the last year under the influence of alcohol.
3. Approximately 9 million people reported that they drove under the influence of illicit drugs during the last year.



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#### **D. Impaired Driving Enforcement Programs**

NHTSA/IACP supports:

- Training
  - Enforcement
  - Prosecution
  - Adjudication
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One of the most critical support activities NHTSA provides is TRAINING.

Some examples of law enforcement and justice professional training that NHTSA provides and supports are:

- SFST
  - Advanced Roadside Impaired Driving Enforcement
  - DECP
  - Prosecuting the Drugged Driver
  - Lethal Weapon
  - Protecting Lives, Saving Futures
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The DWI Detection and Standardized Field Sobriety Testing (SFST) practitioner course is:

- The cornerstone for impaired driving training and enforcement
- The foundation for this course, as well as the Drug Evaluation and Classification Program (DECP)
- An integral part of all alcohol and drug impaired driving enforcement initiatives

### **DWI Detection and Standardized Field Sobriety Testing**

The SFST battery is a set of tests that include the following:

- Horizontal Gaze Nystagmus
- Walk and Turn
- One Leg Stand

These tests are designed to be administered and evaluated in a standardized manner to obtain validated indicators of impairment based on NHTSA supported research.

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Session 1 - Introduction and Overview "Drugs and Highway Safety"

Foundations of ARIDE

- **DWI Detection Process**
  - **Phase One: Vehicle in Motion**
  - **Phase Two: Personal Contact**
  - **Phase Three: Pre-arrest Screening**
- **SFST Test Battery**
  - **Horizontal Gaze Nystagmus**
  - **Walk and Turn**
  - **One Leg Stand**



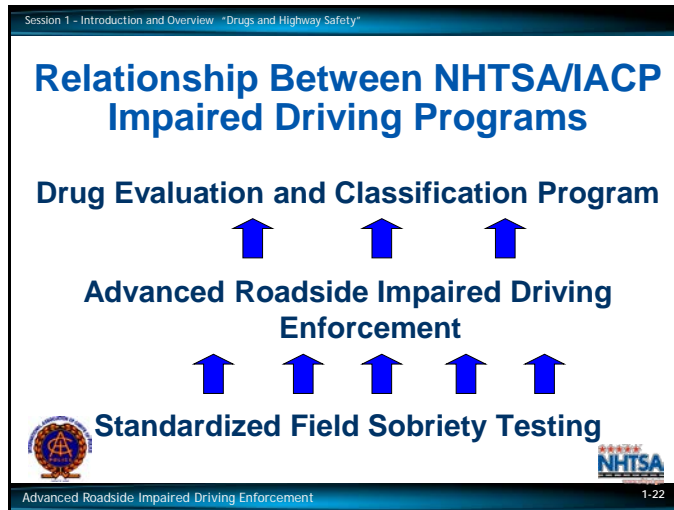
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The SFSTs are part of the overall DWI detection process which includes three phases:

- Vehicle in motion
- Personal contact
- Pre-arrest screening

The SFST test battery serves as the foundation for impaired driving enforcement. It is critical that these tests be performed and interpreted properly.





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### *Drug Evaluation and Classification Program*

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The ultimate goal of the DEC Program is:

- To help prevent crashes and avoid deaths and injuries by improving enforcement of drug impaired driving violations.

The DRE officer is trained to:

- Conduct a detailed evaluation, consisting of twelve steps (12), and obtain other evidence that can be articulated as an opinion.

A participant who successfully completes all phases of the DEC Program is known as a Drug Recognition Expert or Drug Recognition Evaluator (DRE).

They can reach reasonably accurate conclusions concerning the category or categories of drug(s), or medical conditions causing the impairment observed in the subject.

Based on these informed conclusions, the DRE officer can request the collection and analysis of an appropriate biological sample (blood, urine, or saliva) to obtain corroborative, scientific evidence of the subject's drug use.

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Session 1 – Introduction and Overview “Drugs and Highway Safety”

## Difference Between DECP and ARIDE

**DREs are required to:**

- **Complete 72 Hrs of classroom training**
- **Complete field certifications**
- **Pass comprehensive final knowledge examination**



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Session 1 – Introduction and Overview “Drugs and Highway Safety”

## Difference Between DECP and ARIDE

**DREs are required to:**

- **Maintain certification through continuing education**

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### *Roles and Responsibilities of a Drug Recognition Expert*

To obtain a DRE certification the law enforcement officer must:

1. Complete 72 hours of classroom training
2. Complete field certifications
3. Pass comprehensive final knowledge examination

In order to retain their certification, the DRE must:

1. Participate in continuing education courses
2. Complete a recertification training course every two years
3. Maintain a log of all evaluations completed in training and as part of any enforcement activities
4. Meet other administrative requirements as established in the International Association of Chiefs of Police (IACP) International Standards governing the DEC program.

The State DEC Program state coordinators may place other standards on each DRE that is specific to that state.

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Session 1 - Introduction and Overview "Drugs and Highway Safety"

## Bridging the Gap

- **ARIDE training will allow the participant to build on SFST skills and knowledge**
- **ARIDE will provide the participant with information which will assist them to identify the drug impaired driver**
- **ARIDE is designed to support the DEC Program**



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### *The ARIDE Course*

The ARIDE program will allow the participant to build on the knowledge gained through their training and experience related to the SFSTs.

- Many law enforcement officers have encountered subjects who appear to be impaired by a substance other than alcohol, or seem to be displaying signs and symptoms which are inconsistent with their BAC test results.
- This course will provide additional information which can assist the officer in effective observation and interview techniques related to driving while impaired by alcohol, drugs, or a combination of both, and make an informed decision to arrest or not arrest a subject for impaired driving.

This course will deliver knowledge and information that will help them better assess impaired drivers at roadside.

- This training and subsequent field experience will demonstrate the value of having a DRE on staff in an agency and may serve as motivation for the individual officers to attend a DRE course in the future.
- A subsequent result of this course will facilitate better utilization of DREs in the field.

The desired outcome of the training is:

- The participant will better understand the role of the DRE and will be able to use their expertise more effectively.

For those communities with no DREs or limited access to their services, this course will help officers make informed decisions related to testing, documentation, and reporting drug-impaired driving cases.

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## QUESTIONS?



## Advanced Roadside Impaired Driving Enforcement

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## **ADVANCED ROADSIDE IMPAIRED DRIVING ENFORCEMENT (ARIDE)**

### **GLOSSARY OF TERMS**

#### **ADDICTION**

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

#### **ADDITIVE EFFECT**

One mechanism of polydrug interaction. For a particular indicator of impairment, two drugs produce an additive effect if they both affect the indicator in the same way. For example, cocaine elevates pulse rate and PCP also elevates pulse rate. The combination of cocaine and PCP produces an additive effect on pulse rate.

#### **ANALGESIC**

A drug that relieves or allays pain.

#### **ANALOG (of a drug)**

An analog of a drug is 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**

One mechanism of polydrug interaction. For a particular indicator of impairment, two drugs produce an antagonistic effect if they affect the indicator in opposite ways. For example, heroin constricts pupils while cocaine dilates pupils. The combination of heroin and cocaine produces an antagonistic effect on pupil size. Depending on how much of each drug was taken, and on when they were taken, the suspect's pupils could be constricted, or dilated, or within the DRE Average range of pupil size.

#### **ARTERY**

The strong, elastic blood vessels that carry blood away 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.

#### **BAC**

(Blood Alcohol Concentration) - The percentage of alcohol in a person's blood.

**BrAC**

(Breath Alcohol Concentration) - The percentage of alcohol in a person's blood as measured by a breath testing device.

**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.

**BRUXISM**

Grinding the teeth. This behavior is often seen in person who are under the influence of cocaine or other CNS Stimulants.

**CANNABIS**

This is the drug category that includes marijuana. Marijuana comes from 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).

**CNS (Central Nervous System)**

A system within the body consisting of the brain, the brain stem, and the spinal cord.

**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.

**CONJUNCTIVA**

The clear membrane of the sclera (white portion of the eye) and lines the inside of the eyelids and is made of lymphoid tissue. Conjunctivae refers to both eyes. (Conjunctiva is singular.)

**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".

**CYCLIC BEHAVIOR**

A manifestation of impairment due to certain drugs, in which the suspect 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.

**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.

**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."

**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.

**HASHISH**

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

**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.

**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**

The dynamic balance, or steady state, involving levels of salts, water, sugars, and other materials in the body's fluids.

**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).

**HYPERGLYCEMIA**

Excess sugar in the blood.

**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".

**INHALANTS**

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

**INSUFFLATION**

See "snorting".

**INTEGUMENTARY SYSTEM**

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

**LACK OF CONVERGENCE**

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.

## **METABOLISM**

The sum of all chemical processes that take place in the body as they relate to the movements of nutrients in the blood after digestion, resulting in growth, energy, release of wastes, and other body functions. The process by which the body, using oxygen, enzymes and other internal chemicals, breaks down ingested substances such as food and drugs so they may be consumed and eliminated. Metabolism takes place in two phases. The first step is the constructive phase (anabolism) where smaller molecules are converted to larger molecules. The second steps is the destructive phase (catabolism) where large molecules are broken down into smaller molecules.

## **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 be body's muscles, tissues, and organs. Motor nerves are also known as efferent nerves.

## **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, and oxycodone), and the synthetic narcotics (such as fentanyl and methadone).

## **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.

## **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**

One mechanism of polydrug interaction. For a particular indicator of impairment, two drugs produce a null effect if neither of them affects that indicator. For example, PCP does not affect pupil size, and alcohol does not affect pupil size. The combination of PCP and alcohol produces a null effect on pupil size.

## **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**

One mechanism of polydrug interaction. For a particular indicator of impairment, two drugs produce an overlapping effect if one of them affects the indicator but the other doesn't. For example, cocaine dilates pupils while alcohol doesn't affect pupil size. The combination of cocaine and alcohol produces an overlapping effect on pupil size: the combination will cause the pupils to dilate.

## **PARANOIA**

Mental disorder characterized 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 ingest a drug. Hypodermic needles, small pipes, bent spoons, etc., are examples of drug paraphernalia. The singular form of the word is "paraphernalium". For example, one hypodermic needle would be called a "drug paraphernalium".

**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.

**PHYSIOLOGY**

The branch of biology dealing 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.

**POLYDRUG USE**

Ingesting drugs from two or more drug 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.

**PTOSIS**

Droopy eyelids.

**PULSE**

The expansion and contraction of the walls of an artery, generated by the pumping action of blood.

**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 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).

**SINSEMILLA**

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

**SFST**

Standardized Field Sobriety Testing. There are three SFSTs, namely Horizontal Gaze Nystagmus (HGN), Walk and Turn, and One Leg Stand. Based on a series of controlled laboratory studies, scientifically validated clues of impairment have been identified for each of these three tests. They are the only Standardized Field Sobriety Tests for which validated clues have been identified.

**SNORTING**

One method of ingesting 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.

**SYNESTHESIA**

A sensory perception disorder, in which an input via one sense is perceived by the brain as an input via another sense. 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.

**THC (Tetrahydrocannabinol)**

The principal psychoactive ingredient in drugs belonging to the cannabis category.

**TOLERANCE**

An adjustment of the drug user's body and brain to the repeated presence of the 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.

**VERTICAL GAZE NYSTAGMUS**

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.

**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.

# Participant Manual

## Advanced Roadside Impaired Driving Enforcement (A.R.I.D.E.)

Session 2 - Standardized Field Sobriety Testing Review

1 Hour, 30 Minutes

### Session 2

#### Standardized Field Sobriety Testing Review



Advanced Roadside Impaired Driving Enforcement



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Session 2 - Standardized Field Sobriety Testing Review

## Learning Objectives

- Understand the results of selected SFST validation studies.
- Define and describe the Standardized Field Sobriety Tests (SFSTs).
- Define nystagmus and distinguish between the different types.
- Describe and properly administer the three SFSTs.
- Recognize, document and articulate the indicators and clues of the three SFSTs.
- Identify the limitations of the three SFSTs

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Upon successfully completing this session, the participant will be able to:

- Understand the results of selected SFST validation studies.
- Define and describe the Standardized Field Sobriety Tests (SFSTs).
- Define nystagmus and distinguish between the different types.
- Describe and properly administer the three SFSTs.
- Recognize, document and articulate the indicators and clues of the three SFSTs.
- Identify the limitations of the three SFSTs

**Content Segments ..... Learning Activities**

A. SFST Validation Studies .....	Instructor-Led Presentation
B. Overview of Selected Types of Nystagmus.....	Instructor-Led Presentation
Standardized Field Sobriety Tests	
C. Horizontal Gaze Nystagmus .....	Instructor-Led Presentation and Demonstration
D. Practice HGN .....	Participant Practice Session
E. Walk and Turn .....	Instructor-Led Presentation and Demonstration
F. Practice Walk and Turn .....	participant Practice Session
G. One Leg Stand .....	Instructor-Led Presentation and Demonstration
H. Practice One Leg Stand .....	Participant Practice Session



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### **A. Overview of the SFST Validation Studies**

For many years law enforcement officers have utilized field sobriety tests to determine a subject's impairment due to alcohol.

The performance of the subject on those field sobriety tests was used by the officer to develop probable cause for arrest and as evidence in court.

**This may not seem important, but officers are seeing this in court as a defense strategy.**

A wide variety of field sobriety tests were being used by officers throughout the country. There was a need to develop a battery of standardized, validated tests. NHTSA sponsored several research projects conducted through a contract with the Southern California Research Institute (SCRI). SCRI published the following three reports:

- California 1977 (Lab)
- California 1981 (Lab and Field)
- Maryland, District of Columbia, North Carolina, Virginia 1983 (Field)

Primary distinction (Validated at 0.10 BAC)



The recommended battery included the following SFSTs:

- Horizontal Gaze Nystagmus (HGN)
  - Walk and Turn (WAT)
  - One Leg Stand (OLS)
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Session 2 - Standardized Field Sobriety Testing Review

## Original SCRI SFST Reliability

- HGN 77%
- WAT 68%
- OLS 65%






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Session 2 - Standardized Field Sobriety Testing Review

## Field Validation Studies

- Colorado (1995)
- Florida (1997)
- San Diego (1998)

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Southern California Research Institute (SCRI) SCRI analyzed the laboratory test data and determined that:

- HGN, alone, was 77% accurate
  - WAT, alone, was 68% accurate
  - OLS, alone, was 65% accurate
- 

Additional research studies conducted to validate the 3-test battery at 0.08 BAC.

Three SFST field validation studies were:

- Colorado (1995)
- Florida (1997)
- San Diego (1998)

**Keep in mind that when these studies were conducted not all states had 0.08 BAC as their Per Se limit.**

The Colorado SFST validation study was the first full field study that utilized law enforcement personnel experienced in the administration of SFSTs.

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Session 2 - Standardized Field Sobriety Testing Review

### Difference in Results

- Conducted in the field with officers experienced in DWI detection and SFST
- Colorado - 86%
- Florida – 95% at 0.08% BAC
- San Diego – 91% at 0.08% BAC
  - HGN “Most Reliable” field sobriety test



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Session 2 - Standardized Field Sobriety Testing Review

### Correct Arrest Decision

Made when an officer, after completing the third phase of the detection process:

- Decides to arrest an individual and that individual tested above the illegal per se limit
- Decides to release an individual who is below the illegal per se limit

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The results of this study indicated that correct arrests decisions were made:

- 86% of the time based on the 3-test battery (HGN, WAT, OLS)
- The Florida SFST Field Validation study was undertaken in order to answer the question of whether SFSTs are valid and reliable indicators of the presence of alcohol when used under present day traffic and law enforcement conditions.
- Correct decisions to arrest were made 95% of the time based on the 3-test battery (HGN, WAT, OLS).

The San Diego SFST validation field study was undertaken because of the nationwide trend towards lowering the BAC limits to 0.08.

The research was done to investigate how well the SFSTs discriminate at BACs below 0.10. Based on the revised arrest and release criteria the officers in the study made correct decisions 91% of the time based on the 3-test battery (HGN, WAT, OLS) at the 0.08 BAC level and above.

In order to understand the results of the research studies discussed in this course, it is important to define what is meant by a correct arrest decision.

A correct arrest decision is made when an officer, after completing the third phase of the detection process:

- Decides to arrest a subject and that subject tested above the illegal per se limit.
- Decides to release a subject who is below the illegal per se limit.

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### Correct Decision

	Arrested Subject	Did Not Arrest Subject
Above Illegal Per Se Limit	<b>I</b> Officer decided to arrest the subject <u>and</u> their BAC was <u>above</u> the illegal per se limit	<b>II</b> Officer decided <u>not</u> to arrest the subject and their BAC was <u>above</u> the illegal per se limit
Below Illegal Per Se Limit	<b>III</b> Officer decided to arrest the subject <u>but</u> their BAC was <u>below</u> the illegal per se limit	<b>IV</b> Officer decided <u>not</u> to arrest the subject and their BAC was <u>below</u> the illegal per se limit

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### Reasons for Incorrect Decisions

- **Arrested and under specified BAC**
  - Exhibited indicators for impairment
  - May have not been selected in the field
- **Not arrested, but over specified BAC**
  - Subjects had higher alcohol tolerance
  - Did not exhibit indicators consistent with specified BAC

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- There are four quadrants, each representing a different decision.
- The quadrants (I and IV) represent a correct arrest decision.
- The remaining subjects, incorrect arrest decisions, fall into two other categories.

The first group was not arrested, but tested above the illegal per se limit, (quadrant II).

The reason for no arrest decision:

- (Approximately 33%) of these subjects were considered alcohol-tolerant and performed well on the SFSTs even though their BACs were above the illegal per se limit.

The members of second group were arrested, but their BAC was below the illegal per se limit. Many states stipulate in their statute that a driver is considered DWI if they are:

- Above the illegal per se limit.
- Lacking the normal use of their mental or physical faculties.

Even though the arrest in quadrant III may be legally justifiable according to an individual state's statute, these decisions are recorded as errors in the research based on the procedures outlined in the study.

It is important for the officer who is trained in SFST to prepare themselves to understand and explain these statistics in layman terms in order to effectively articulate them to a jury in a courtroom. Remember, if you do not know the answer to a defense question you can say, "I DON'T KNOW." Do not testify to something you are not sure of.

## Validation Study Exercise



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Horizontal Gaze Nystagmus is defined as the involuntary jerky of the eyes, as the eyes gaze to the side.

- Horizontal gaze nystagmus (HGN)
- Vertical gaze nystagmus (VGN)


Alcohol and certain other drugs have been shown, through research, to cause horizontal and vertical gaze nystagmus, which is visible without the aid of specialized instrumentation.

[illegible]

Session 2 - Standardized Field Sobriety Testing Review

## Categories of Nystagmus

- Vestibular
- Neural
  - Gazed evoked neural nystagmus
- Pathological Disorders and Diseases



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### B. Overview of Selected Types of Nystagmus

Vestibular Nystagmus. Caused by movement or action to the vestibular system that can occur when a subject is spun around and the fluid in the inner ear is disturbed or there is a change in the fluid (temperature, foreign substance, etc.).

Neural Nystagmus. Caused by some disturbance to the neural system.

This type of nystagmus occurs when the eye focuses on an object as they gaze towards the side.

Alcohol and/or specific types of drugs can cause these three types of nystagmus to be visible to the officer during the proper administration of the HGN and VGN tests.

Pathological Nystagmus. Caused by the presence of specific pathological disorder, which include brain tumors, other brain damage, or some diseases of the inner ear.

**In this course we will only be concerned with gazed evoked neural nystagmus.**

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Session 2 - Standardized Field Sobriety Testing Review

## Gaze Nystagmus

- **Resting Nystagmus**
  - Occurs as the eyes gaze straight ahead
- **Horizontal Gaze Nystagmus (HGN)**
  - Occurs as the eyes move to the side
  - Useful in determining alcohol influence as well as some drug categories
- **Vertical Gaze Nystagmus (VGN)**
  - Occurs as the eyes move upward (vertical plane) to an elevated position as far as they can go
  - Associated with a high doses of alcohol and some drug categories for that individual
  - Drug categories which cause VGN also cause HGN



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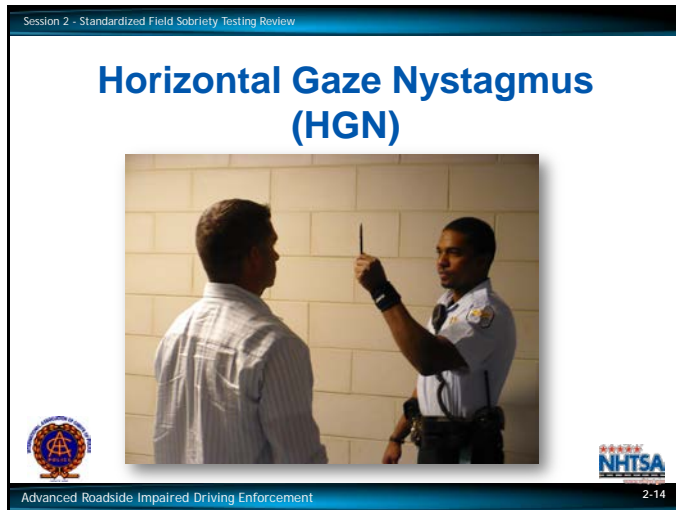
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### *Gaze Nystagmus*

Resting Nystagmus is defined as the involuntary jerking of the eyes as they gaze straight ahead. This condition is not frequently observed. Its presence may indicate Dissociative Anesthetic usage, high levels of an impairing substance for that subject or certain medical problem. If detected, take precautions. As always, exercise sound officer safety techniques and consider calling for medical aid.

During this course we will focus on two types of nystagmus:

- Horizontal gaze nystagmus (HGN)
    - Occurs as the eyes move to the side
    - Useful in determining alcohol influence as well as some drug categories
  - Vertical gaze nystagmus (VGN)
    - Occurs as the eyes move upward (vertical plane) to an elevated position as far as they can go
    - Associated with a high doses of alcohol and some drug categories for that individual
    - Drug categories which cause VGN also cause HGN
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### **C. Horizontal Gaze Nystagmus**

Horizontal Gaze Nystagmus is defined as the involuntary jerking of the eyes as they gaze toward the side. (As defined in the current SFST curriculum.)

Although this type of nystagmus is useful in determining alcohol influence, its presence may also indicate use of Dissociative Anesthetics, Inhalants, and other CNS Depressants (DID drugs).

HGN becomes observable:

- When a subject is impaired by alcohol
- As the subject's BAC increases the jerking will appear sooner
- When a subject is impaired by DID drugs


In administering the HGN test the subject must focus on a stimulus. This stimulus can be the tip of a pen or similar object that contrasts with the background and is easily seen by the subject being tested.

**Remember to always follow your local policy or recommendations when selecting a stimulus.**

Session 2 - Standardized Field Sobriety Testing Review

## Administrative Procedures

- Eyeglasses/Contacts
  - ✓ Have the subject remove glasses.
  - ✓ It is recommended to note if contacts are worn, especially colored contacts
- Verbal Instructions
  - ✓ Stand with feet together
  - ✓ Hands to the sides
  - ✓ Keep head still
  - ✓ Follow with eyes only



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## Administrative Procedures

Beginning with subject's left eye check:

- Equal tracking, equal pupil size, resting nystagmus
- Lack of smooth pursuit
- Distinct and Sustained nystagmus at maximum deviation.
- Onset of nystagmus prior to 45 degrees.

Total the clues



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**Initiating the HGN Test.** Begin the test by positioning the subject in a manner that is deemed safe by the officer and safe for the subject being tested. The subject should be turned away from emergency lights. Take care as to not interfere with subject's ability to fixate on stimulus.

Ask the subject to:

- Remove glasses. (Take a note if subject wears contacts, especially colored contacts because some colored contacts may affect the ability to compare and estimate pupil size.)
- Place feet together, hands at the side
- Keep head still
- Look at the stimulus
- Follow movement of the stimulus with eyes only
- Keep looking at the stimulus until told the test is over

It is suggested to give the subject the following verbal instructions:

"I am going to check your eyes."

"Keep your head still and follow the stimulus with your eyes only."

"Keep your eyes on the stimulus until I tell you to stop."

Position the stimulus approximately 12 to 15 inches in front of the subject's nose and slightly above eye level to commence the test.

- Check both eyes for equal pupil size and resting nystagmus. Both pupils should be of equal size and there should not be any noticeable nystagmus.
- Take notice if the pupils are noticeably unequal in size or there is noticeable nystagmus at rest. This could be indicative of a medical condition or a head injury.

Check both eyes for equal tracking by making a horizontal pass across both eyes.

- The speed of the stimulus should be approximately the same speed as checking for lack of smooth pursuit.
- Both eyes should track the stimulus together.
- If the eyes fail to track together, this could be the indication of a possible medical disorder, injury or blindness. If the eyes track together, continue with the test and document the results.
- Officers are reminded to ask questions about the subject's eye and general health conditions prior to administering the HGN test. If a subject responds or volunteers information that he or she is blind in one eye or has an artificial eye, the officer should make note of that and may proceed with the HGN test. If there are any abnormal findings on the pre-test checks, the officer may choose not to continue with the testing. If HGN testing is continued, officers are reminded that this does not follow the standardized protocol and should acknowledge such in any report.
- If HGN testing is conducted on a person with a blind eye, typical inconsistent findings could be related to the blind eye not being able to see or track the stimulus, or when the normal eye can no longer see the stimulus, e.g., when checking distinct and sustained nystagmus at maximum deviation on the blind eye side.

Source: "Eye Tests on a Suspect with a Blind Eye" Karl Citek, OD, PhD, FAAO, Pacific University College of Optometry, Sept. 2014.

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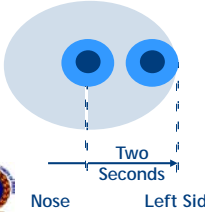
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Session 2 - Standardized Field Sobriety Testing Review

## Three Clues of Horizontal Gaze Nystagmus

### 1. Lack of Smooth Pursuit



- Move the stimulus to the person's left
- It should take approximately 2 seconds to bring it to the side
- Check the other eye at the same speed
- Repeat


Nose Left Side

NHTSA

Advanced Roadside Impaired Driving Enforcement 2-17

Session 2 - Standardized Field Sobriety Testing Review

## Clue Number 1



Video - Lack of Smooth Pursuit

NHTSA

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### *Lack of Smooth Pursuit (LOSP)*

- LOSP occurs when the eyes jerk or bounce as they follow a smoothly moving stimulus.
- Check the subject's left eye first.
- Move the stimulus smoothly, at a speed that requires approximately two seconds to bring the subject's eye as far to the side as it can go.
- Carefully watch the subject's left eye and determine if it is able to pursue smoothly.
- Move the stimulus all the way to the left, back across the subject's face and check the right eye at the same speed.
- Movement of the stimulus should take approximately two seconds to move from the center of the subject's face to the shoulder on the left side.
- Approximately two seconds to get back to the center.
- Approximately two seconds to move from the center of the subject's face to the shoulder on the right side.
- Then approximately two seconds to return to the center of the subject's face to end the first pass.
- Repeat the procedure until each eye has been checked twice.

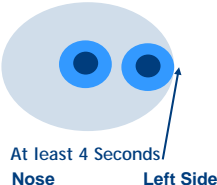
The stimulus should be moved in a smooth, continuous manner to best observe the eyes in motion.

The two-second timing is provided based on how the eye should follow the stimulus if the subject is not impaired by alcohol and/or other drugs.

Session 2 - Standardized Field Sobriety Testing Review

## Three Clues of Horizontal Gaze Nystagmus

### 2. Distinct and Sustained Nystagmus at Maximum Deviation




- Move the stimulus to the person's left
- Hold the stimulus at the corner of the eye (no white showing) for at least 4 seconds
- Check the other eye and hold for same length
- Repeat

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Session 2 - Standardized Field Sobriety Testing Review

## Clue Number 2



Video - Distinct and Sustained Nystagmus at Maximum Deviation

Advanced Roadside Impaired Driving Enforcement 2-20

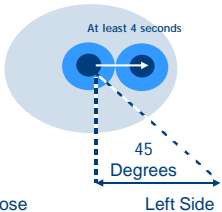
### *Distinct and Sustained Nystagmus at Maximum Deviation*

- At extreme lateral gaze, also known as the endpoint or maximum deviation, the nystagmus should be distinct and sustained when the stimulus is held for a minimum of 4 seconds.
- Start again with the subject's left eye.
- Move the stimulus to the subject's left side until there is no more white of the eye visible.
- The eye should not be able to move any further on the horizontal plane.
- Hold the left eye in that position for a minimum of four (4) seconds. Four seconds will not cause fatigue nystagmus. This type of nystagmus may begin if a subject's eye is held at maximum deviation for more than 30 seconds.
- Observe the eye for distinct and sustained nystagmus while being held in this position.
- Move the stimulus all the way to the left, back across the subject's face and check the right eye.
- Repeat the procedure until each eye has been checked twice.

Session 2 - Standardized Field Sobriety Testing Review

## Three Clues of Horizontal Gaze Nystagmus

### 3. Onset of Nystagmus Prior to 45 Degrees




- Slowly (at least 4 seconds) move the stimulus to the person's left
- If nystagmus is observed, hold the stimulus to verify
- Check the other eye and hold for same length
- Repeat

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## Clue Number 3




Video - Onset of Nystagmus Prior to 45 Degrees

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### *Onset of Nystagmus Prior to 45 degrees*

- Start again with the subject's left eye
- Move the stimulus at a speed that would take approximately four seconds to reach the 45 degree angle.
- Watch the eye carefully for any sign of jerking.
- If jerking is observed, hold the stimulus at that position and verify the nystagmus is distinct and sustained (i.e. continuous).
- Move the stimulus all the way to the left, back across the subject's face and check the right eye.
- Repeat the procedure until each eye has been checked twice.

## HGN Onset of Nystagmus Prior to 45 Degrees



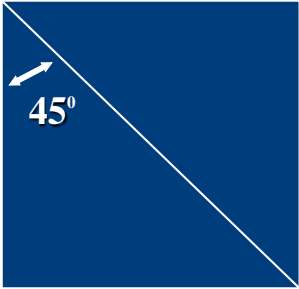
A man in an orange polo shirt is shown from the chest up, facing the camera. He is holding up two fingers with his left hand. White lines are drawn on his face, forming a triangle with vertices at his eyes and nose, to illustrate the 45-degree angle of gaze. A small white label with the text "Lt. Reiners" is visible on his chest. The background is a plain, light-colored wall.





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## 45 Degree Template



**45°**



Advanced Roadside Impaired Driving Enforcement

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*Onset of nystagmus Prior to 45 degrees*



### 45 Degree Template



Session 2 - Standardized Field Sobriety Testing Review

## Three Clues of Horizontal Gaze Nystagmus:

- Lack of smooth pursuit
- Distinct and Sustained nystagmus at maximum deviation
- Onset of nystagmus prior to 45 degrees






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Session 2 - Standardized Field Sobriety Testing Review

## Horizontal Gaze Nystagmus Indications

- Six maximum clues
- Maximum three clues per eye
- 88% accurate detecting subjects  $\geq 0.08$  BAC

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### *Three Clues of Horizontal Gaze Nystagmus*




- Lack of smooth pursuit
- Distinct and sustained nystagmus at maximum deviation
- Onset of nystagmus prior to 45 degrees

HGN Test Criterion: 4 or more clues indicates BAC at or above 0.08 – 88% reliable (1998 San Diego study sponsored by NHTSA).

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## Vertical Nystagmus


- Move the stimulus vertically
- Raise the stimulus until the individual's eyes are elevated as far as possible and hold for a minimum of four seconds
- Repeat



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## Vertical Nystagmus



Video – Vertical Nystagmus

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### *Vertical Nystagmus*




- Start with the stimulus approximately 12-15 inches in front of the subject's nose.
- Instruct the subject to hold the head still, and follow the object with the eyes only.
- Raise the object until the subject's eyes are elevated as far as possible.
- Hold for a minimum of 4 seconds.
- Watch closely for evidence of the eyes jerking upward.

Session 2 - Standardized Field Sobriety Testing Review

## HGN Test Interpretation

Three clues in each eye:

- 1) Lack of Smooth Pursuit
- 2) Distinct and Sustained Nystagmus at Maximum Deviation
- 3) Onset of Nystagmus Prior to 45 Degrees



Advanced Roadside Impaired Driving Enforcement 2-29

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### **D. Practice HGN**

#### *Test Interpretation*

There are three clues in each eye. Six total clues.

- 1) Lack of Smooth Pursuit
  - Present
  - Not present
  - If present, it accounts for 2 clues, one in each eye
- 2) Distinct and sustained nystagmus at maximum deviation
  - Present
  - Not present
  - If present, it accounts for 2 clues, one in each eye

- 3) Onset of nystagmus prior to 45 degrees

The more impaired a person becomes the sooner the onset of nystagmus is observed.


**Remember it is important to hold the eye in this position once the jerking is observed.**

This jerking must be distinct and sustained.

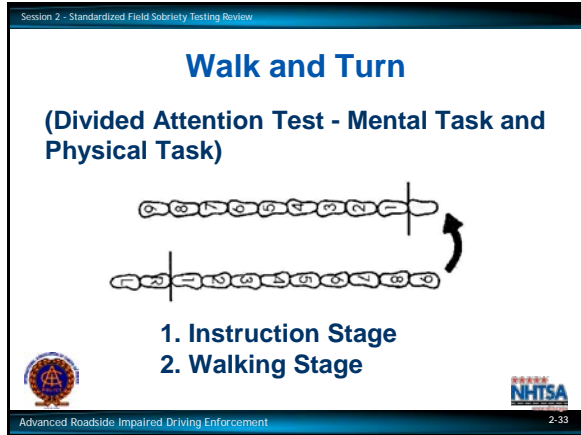
- Present
  - Not present
  - If present, it accounts for 2 clues, one in each eye
- 
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-

# The HGN Test Demonstrated



Advanced Roadside Impaired Driving Enforcement 2-31



## **E. Walk and Turn Test**

The Walk and Turn (WAT) test is divided into two stages:

1. Instruction Stage
2. Walking Stage

### *Instruction Stage*

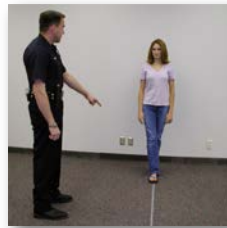
- Stand heel-to-toe with arms at their sides.
- Divided attention, listening to and remembering instructions.

### *Walking Stage*

- Balancing, walking heel-to-toe, and turning.
- Small muscle control, counting out loud, and short-term memory, recalling the number of steps required, turning as instructed, and counting correctly.

- Keep subject to your left when starting demonstrations
- Be aware of surroundings
- Officer should not turn his/her back to the subject for safety reasons.

## Walk and Turn Test



Advanced Roadside Impaired Driving Enforcement

2-35

Walk and Turn is the second divided attention test administered during the drug influence evaluation.

The test is administered the same way that we have used it for Standardized Field Sobriety Testing purposes.

- Monitor the practice and offer coaching and constructive criticism, as appropriate.
- Review of Walk and Turn administrative procedures.

The test has two stages: the instructions stage and the walking stage.

- During the instructions stage the subject must stand heel-to-toe, with the right foot ahead of the left foot with the heel of the right foot against the toe of the left foot, and keeping the arms at the sides.
- Demonstrate the stance that the subject must maintain during the instructions stage. If the subject fails to maintain the starting position during your instructions, discontinue the instructions and direct the subject back to the starting position before continuing.
- The subject is told to not start walking until told to do so.
- The subject must be told to take nine heel-to-toe steps on the line, to turn around keeping the front or lead foot on the line and to turn by taking a series of small steps with the other foot, and to return nine heel-to-toe steps down the line.

Session 2 - Standardized Field Sobriety Testing Review

## Walk and Turn Test Diagram

**Walk and Turn Test**

Describe Turn

Cannot keep balance		
Starts too soon		
	1st Nine	2nd Nine
Stops Walking		
Misses Heel-Toe		
Steps Off Line		
Raises Arms		
Actual Steps Taken		
Cannot Do Test (explain)		

Advanced Roadside Impaired Driving Enforcement
2-36



- The subject must be told to keep their arms at the sides at all times.
- The subject must be told to watch his or her feet while walking.
- The subject must be told to count the steps out loud.
- The subject must be told not to stop walking until the test is completed.
- The subject should be asked if he/she understands the instructions.
- Once the subject acknowledges his/her understanding of the instructions, instruct the subject to begin the test.
- If the subject stops or fails to count out loud or watch his/her feet, remind him/her to perform these tasks. This interruption will not affect the validity of the test and is essential for evaluating divided attention.



Session 2 - Standardized Field Sobriety Testing Review

### Walk and Turn Test Clues

1. Can't balance while listening to instructions
2. Starts too soon
3. Stops while walking
4. Doesn't touch heel to toe



Advanced Roadside Impaired Driving Enforcement2-37

- Look for the following clues each time the Walk and Turn test is administered.
1. Cannot keep balance while listening to the instructions.
    - a. Record this clue if the subject does not maintain the heel-to-toe position throughout the instructions.
    - b. Do not record this clue if the suspect sways or uses the arms to balance but maintains the heel-to-toe position.
  2. Starts too soon
    - a. Since you specifically instructed the suspect not to start walking "until I tell you to begin," record this clue if the subject starts walking before told to do so.
  3. Stops while walking.
    - a. The subject stops while walking. Do not record this clue if the subject is merely walking slowly.
  4. Does not touch heel-to-toe. The subject leaves a space of more than one-half inch between the heel and toe on any step.

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- If a subject is unable to complete the test he/she will be held accountable for only the clues that were demonstrated.**

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Session 2 - Standardized Field Sobriety Testing Review

## Documenting the Walk and Turn Test

**Walk And Turn Test**

Describe Turn

Cannot keep balance \_\_\_\_\_  
Starts too soon \_\_\_\_\_

	1st Nine	2nd Nine
Stops Walking	✓	
Misses Heel-Toe	✓	
Steps Off Line		
Raises Arms	✓	
Actual Steps Taken	8	

Cannot Do Test (explain)

Advanced Roadside Impaired Driving Enforcement 2-39

The section on the Walk and Turn test appears at the top of the guide's back side.

First two clues are checked only during the instructions stage.

In the boxes provided check (✓) the number of times the clue appears during the instructions stage.

Example: If subject loses balance twice during the instructions stage, Place two (✓) check marks in the box.

Example: If the subject does not start too soon, write "NA" in that box or leave the box blank.

Record the next four clues separately for each nine steps.

If subject stops walking, record it by drawing a vertical line from the toe at the step at which the stop occurred. Do this for each of the nine steps.

How many times during first nine steps?

How many times during second nine steps?

If subject fails to touch heel-to-toe, record how many times this happens.

If subject steps off the line while walking, record it by drawing a line from the appropriate footprint at the angle in the direction in which the foot stepped. Do this for each nine steps.

If subject uses arms to balance, give some indication of how often or how long this happened.

Example: subject raised arms from sides three times

Place three (✓) check marks in the box.

Record the actual number of steps taken by subject, in each direction.

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For the next clue, "Improper Turn," record a description of the turn.

- Example: turned incorrectly (spun or pivot)
- Example: stumbled, to left
- Example: wrong direction
- Example: no small steps
- If the turn is correct, note: N/A or leave the box blank

If the subject is unable to safely complete the test, you may stop the test early. Document the reasons the test was stopped.

At end of the test, examine each factor and determine the total number of clues observed.

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In the section labeled "other", record any facts, circumstances, conditions or observations that may be relevant to this test.

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Session 2 - Standardized Field Sobriety Testing Review

## Considerations for the Walk and Turn Test

- Straight line
- Dry, hard, level, non-slippery surface
- Room for nine heel-to-toe steps



Advanced Roadside Impaired Driving Enforcement2-40

*Considerations*

Walk and Turn test requires a real or imaginary straight line, and should be conducted on a reasonably dry, hard, level, non-slippery surface. There should be sufficient room for the subject to complete nine heel-to-toe steps.

However, recent field validation studies have indicated that varying environmental conditions have not affected a subject’s ability to perform this test.

The original SCRI studies suggested that subjects over 65 years of age or people with back, leg or inner ear problems had difficulty performing this test. Less than 1.5% of the test subjects in the original studies were over 65 years of age. Also, the SCRI studies suggest that subjects wearing heels more than 2 inches high should be given the opportunity to remove their shoes. Officers should consider all factors when conducting SFSTs.

**\*\*PRACTICAL EXERCISE\*\***

**F. Practice Walk and Turn**

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Session 2 - Standardized Field Sobriety Testing Review

## Walk and Turn Test Criterion




2 or more clues indicates BAC  
at or above 0.08 (79% accurate)

Advanced Roadside Impaired Driving Enforcement 2-41

Session 2 - Standardized Field Sobriety Testing Review

## The Walk and Turn Demonstrated



Advanced Roadside Impaired Driving Enforcement 2-42

Based on recent research, if the subject exhibits two or more clues on this test or fails to complete it, classify the subject's BAC as at or above 0.08. Using this criterion, you will be able to accurately classify 79% of your subjects.

Session 2 - Standardized Field Sobriety Testing Review

## One Leg Stand

1. Instruction Stage
2. Balance and Counting Stage



Advanced Roadside Impaired Driving Enforcement 2-43

### **G. One Leg Stand**

The One Leg Stand (OLS) test is divided into two stages:

1. Instructional stage
2. Balancing and counting

*Instructional Stage:*

1. Balancing and Counting
2. Listening to instructions

*The Balancing and Counting Stage:*

1. Balancing
2. Short-term memory

Session 2 - Standardized Field Sobriety Testing Review

## Administrative Procedures

**Instruction Stage:**

- Stand straight, feet together
- Keep arms at sides
- Maintain position until told otherwise
- DO YOU UNDERSTAND?



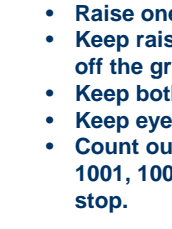
Advanced Roadside Impaired Driving Enforcement 2-44

Session 2 - Standardized Field Sobriety Testing Review

## Administrative Procedures

**Balance and Counting Stage:**

- Raise one leg, either leg
- Keep raised foot approximately six inches off the ground, parallel to the ground
- Keep both legs straight
- Keep eyes on raised foot
- Count out loud in the following manner: 1001, 1002, 1003, and so on, until told to stop.



Advanced Roadside Impaired Driving Enforcement 2-45

### *Administrative Procedures*

1. Initial positioning and verbal instructions
2. "Stand with your feet together and your arms down at your sides."
3. "Remain in this position and do not begin until I tell you to do so."
4. "Do you understand the instructions so far?"

**Make sure subject verbally acknowledges understanding.**

### *Instructions for the Balancing and Counting Stage*

- The test has two stages, the instructions stage and the balance and counting stage.
- During the instructions stage, the subject must stand with the feet together, arms at the side, facing the examiner.
- Demonstrate the stance that the "subject" is required to maintain.
- The subject must be told to raise either leg with raised foot approximately 6 inches off the ground, and parallel to the ground.
- The examiner must demonstrate the one leg stance.
- The subject must be told to keep both legs straight and that they must look at the raised foot during the test.
- The subject must be told to count out loud in the following manner: "one thousand one, one thousand two, one thousand three" and so on until told to stop.
- After giving the instructions, the examiner should ask the "subject" if they understand.
- Note: Officer should always time the 30 seconds. Test should be discontinued after 30 seconds.
- Observe the subject from a safe distance.





Session 2 - Standardized Field Sobriety Testing Review

## One Leg Stand Test Clues

1. Sways while balancing
2. Uses arms to balance
3. Hopping
4. Puts foot down

**Note:** If suspect can't do the test, record clues that were observed, and note why test was not completed.





Advanced Roadside Impaired Driving Enforcement 2-46

Session 2 - Standardized Field Sobriety Testing Review

## One Leg Stand Test Documentation and Considerations

- Note clues with slash on assessment form
- Consider subjects may have injuries
- Give subject the opportunity to remove shoes with heels over two inches



Advanced Roadside Impaired Driving Enforcement 2-47

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### Test Clues

Look for the following clues each time the One Leg Stand test is administered:

1. Sways while balancing. This refers to side to side or back and forth motion while in the one leg stand position.
2. Uses arms to balance. Subject moves arm 6 or more inches from side of the body in order to keep balance.
3. Hopping. Subject is able to keep one foot off the ground, but resorts to hopping in order to maintain balance.
4. Puts foot down. The subject is not able to maintain the one leg stand position. Putting the foot down one or more times during the 30 second count.

### Documentation

Each clue is noted by placing a check mark in the appropriate box on the DUI form.

For example, if the subject used their arms twice and swayed three times, they would be considered to have demonstrated "two" clues. It is a good practice to use a DWI form that documents the test results.

### Considerations

The original SCRI studies suggested that subjects over 65 years of age; people with back, leg or inner ear problems; or people who are overweight by 50 or more pounds may have difficulty performing this test. Less than 1.5% of the test subjects in the original studies were over 65 years of age. There was no data containing the weight of the test subjects included in the final report. Also, the SCRI studies suggest that subjects wearing heels more than 2 inches high should be given the opportunity to remove their shoes.

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Session 2 - Standardized Field Sobriety Testing Review

## One Leg Stand Test Criterion




2 or more clues indicates BAC  
at or above 0.08 (83% accurate)

Advanced Roadside Impaired Driving Enforcement 2-48

Session 2 - Standardized Field Sobriety Testing Review

## The One Leg Stand Demonstrated

Advanced Roadside Impaired Driving Enforcement 2-49

### *One Leg Stand Test Criterion*

Based on recent research, if a subject shows two or more clues or fails to complete the One Leg Stand, there is a good chance the BAC is at or above 0.08. Using that criterion, you will accurately classify 83% of the people you test as to whether their BAC's are at or above 0.08.

### **\*\*PRACTICAL EXERCISES\*\***

#### **H. Practice One Leg Stand**



2-5

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# SFST Practical Exercise Scoring Sheet

SUBJECTS NAME: \_\_\_\_\_ OFFICER NAME: \_\_\_\_\_

Blindness: None <input type="checkbox"/> Right Eye <input type="checkbox"/> Left Eye <input type="checkbox"/>	Tracking: <input type="checkbox"/> Unequal <input type="checkbox"/> Equal		Eyes: <input type="checkbox"/> Normal <input type="checkbox"/> Bloodshot <input type="checkbox"/> Watery	
Able to Follow Stimulus: <input type="checkbox"/> Yes <input type="checkbox"/> No	Eyelids: <input type="checkbox"/> Normal <input type="checkbox"/> Droopy			
<b>Lack of Smooth Pursuit</b>	LEFT EYE	RIGHT EYE	Vertical Nystagmus: <input type="checkbox"/> YES <input type="checkbox"/> NO	<b>HGN CLUES OBSERVED</b>
Distinct and Sustained Nystagmus at Maximum Deviation			Corrective Lenses: <input type="checkbox"/> None <input type="checkbox"/> Glasses <b>Contacts:</b> <input type="checkbox"/> Hard <input type="checkbox"/> Soft	
Onset of Nystagmus prior to 45 degrees			Pupil Size: <input type="checkbox"/> Equal <input type="checkbox"/> Unequal	

<b>WALK AND TURN</b>		Can Not Keep Balance: _____		
		Starts Too Soon: _____		
Improper Turn: (Describe)	Can Not Do Test: (Explain)	Stops Walking		<b>WAK AND TURN CLUES OBSERVED</b>
		Misses Heel-Toe		
		Steps Off Line		
		Raises Arms		
		Actual Steps		

### ONE LEG STAND



L      R

- |                          |                          |                       |
|--------------------------|--------------------------|-----------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Sways while balancing |
| <input type="checkbox"/> | <input type="checkbox"/> | Uses arms to balance  |
| <input type="checkbox"/> | <input type="checkbox"/> | Hopping               |
| <input type="checkbox"/> | <input type="checkbox"/> | Puts foot down        |

### ARREST DECISION

#### DECISION TO ARREST

☐ YES

☐ NO

#### BAC:

☐ ABOVE 0.08

☐ BELOW 0.08

### ONE LEG STAND CLUES OBSERVED

# Participant Manual

## Advanced Roadside Impaired Driving Enforcement (A.R.I.D.E.)

Session 3 - Standardized Field Sobriety Testing Proficiency Examination

2 Hours

### Session 3

**Standardized  
Field Sobriety Testing  
Proficiency Examination**



Advanced Roadside Impaired Driving Enforcement



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Session 3 - Standardized Field Sobriety Testing Proficiency Examination

## Learning Objectives

**Demonstrate knowledge and proficiency in administering the Standardized Field Sobriety Test battery**



Advanced Roadside Impaired Driving Enforcement 3-2

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Upon successful completion of this session the participant will be better able to:

- Demonstrate knowledge and proficiency in administering the SFST battery.

Session 3 - Standardized Field Sobriety Testing Proficiency Examination

## SFST Proficiency

- **Two chances to successfully complete the proficiency examination**
- **Failure of the proficiency on the second attempt requires dismissal from the ARIDE training**



Advanced Roadside Impaired Driving Enforcement 3-3

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### *Explanation for Proficiency*

SFST is the foundation of every impaired driving training program that has been developed, researched, and supported for over two decades.

This makes it very important to be proficient in administering these tests.

NHTSA, IACP, and the courts have recognized the importance of proficiency as it relates to the detection, arrest, and prosecution of impaired drivers.

By recognizing this, NHTSA and the IACP committed to bridging the information gaps between the governing bodies and the agencies applying these techniques in the field.

There are several factors that can affect a law enforcement officer's SFST proficiency.

They include the following:

- Adult learning limitations
  - Officer assignment
  - Time to practice proficiency
  - Opportunity to use in the field
  - Limitations of instructors
  - Gaps in communication
  - Program administration
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Session 3 - Standardized Field Sobriety Testing Proficiency Examination

## SFST Proficiency

**Remember!!!!**

- Only two opportunities to do the SFST battery correctly
- SFST's must be performed as described in the SFST training – no exceptions



Advanced Roadside Impaired Driving Enforcement 3-4

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### *SFST Proficiency Examination*

- The participant will be given only two opportunities to do the SFST battery.
  - If the participant fails their first attempt, they will be given the opportunity to practice on their own or with another participant within a reasonable amount of time not to exceed the end of the first day.
  - The instructor will not assist or coach the participant in any manner during the proficiency examination.
  - The instructor will correct the participant after the completion of all three tests, but will not correct the participant during the tests.
  - The SFST's must be performed as described in the NHTSA/IACP SFST training – no exceptions.
  - A **"check"** will be placed in the space provided for each step completed according to the SFST manual.
  - An **"X"** will be placed in the space if the participant does not perform the step according to the SFST manual.
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If the participant is having trouble passing the proficiency examination the participant shall be responsible for seeking out instructors to assist them.

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3-

## QUESTIONS?

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**PARTICIPANT PROFICIENCY EXAMINATION  
STANDARDIZED FIELD SOBRIETY TEST BATTERY**

Name \_\_\_\_\_ Date \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Agency \_\_\_\_\_

**I. HORIZONTAL GAZE NYSTAGMUS**

1. \_\_\_\_ Have subject remove glasses if worn.
2. \_\_\_\_ Stimulus held in proper position (approximately 12"-15" from nose, just slightly above eye level).
3. \_\_\_\_ Check for equal pupil size and resting nystagmus.
4. \_\_\_\_ Check for equal tracking.
5. \_\_\_\_ Smooth movement from center of nose to maximum deviation in approximately 2 seconds and then back across subject's face to maximum deviation in right eye, then back to center. Check left eye, then right eye. (Repeat)
6. \_\_\_\_ Eye held at maximum deviation for a minimum of 4 seconds (no white showing). Check left eye, then right eye. (Repeat)
7. \_\_\_\_ Eye moved slowly (approximately 4 seconds) from center to 45 angle. Check left eye, then right eye. (Repeat)
8. \_\_\_\_ Check for Vertical Gaze Nystagmus. (Repeat)

**II. WALK AND TURN**

1. \_\_\_\_ Instructions given from a safe position.
2. \_\_\_\_ Tells subject to place feet on a line in heel-to-toe manner (left foot behind right foot) with arms at sides and gives demonstration.
3. \_\_\_\_ Tells subject not to begin test until instructed to do so and asks if subject understands.
4. \_\_\_\_ Tells subject to take nine heel-to-toe steps on the line and demonstrates.
5. \_\_\_\_ Explains and demonstrates turning procedure.
6. \_\_\_\_ Tells subject to return on the line taking nine heel-to-toe steps.
7. \_\_\_\_ Tells subject to count steps out loud.
8. \_\_\_\_ Tells subject to look at feet while walking.
9. \_\_\_\_ Tells subject not to raise arms from sides.
10. \_\_\_\_ Tells subject not to stop once they begin.
11. \_\_\_\_ Asks subject if all instructions are understood.

### III. ONE LEG STAND

1. \_\_\_\_ Instructions given from a safe position.
2. \_\_\_\_ Tells subject to stand straight, place feet together, and hold arms at sides.
3. \_\_\_\_ Tells subject not to begin test until instructed to do so and asked if subject understands.
4. \_\_\_\_ Tells subject to raise one leg, either leg, approximately 6" from the ground, keeping raised foot parallel to the ground, and gives demonstration.
5. \_\_\_\_ Tells subject to keep both legs straight and to look at elevated foot.
6. \_\_\_\_ Tells subject to count out loud in the following manner: one thousand one, one thousand two, one thousand three, and so on until told to stop, and gives demonstration.
7. \_\_\_\_ Checks actual time subject holds leg up. (Time for 30 seconds.)

Instructor: \_\_\_\_\_

Note: In order to pass the proficiency examination, the student must explain and proficiently complete each of the steps listed.

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# Participant Manual

## Advanced Roadside Impaired Driving Enforcement (A.R.I.D.E.)

Session 4 - Drugs in the Human Body

55 Minutes

### Session 4

### Drugs in the Human Body





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Session 4 – Drugs in the Human Body

## Learning Objectives

- Describe the basic purpose and functions of selected major systems in the human body.
- Identify methods of ingestion and general effects of drugs
- Identify medical conditions, which may mimic alcohol and/or drug impairment
- Identify the seven drug categories

Advanced Roadside Impaired Driving Enforcement

4-2

Upon successfully completing this session, the participant will be able to:

- Describe, in general terms, the basic purpose and functions of selected major systems in the human body as they relate to observable signs.
- Identify methods of ingestion and general effects of drugs.
- Identify medical conditions which may mimic alcohol and drug impairment.
- Identify the seven drug categories as referenced in the DECP and the basis for dividing drugs into these specific groups.

### Content Segments ..... Learning Activities

- Drugs in the Human Body
- Overview of selected major systems of the human body: .....Instructor-Led Presentation
  - Basic purpose and function,
  - Muscular, Urinary, Respiratory, Digestive, Nervous, Circulatory Systems
- Homeostasis
- Identify methods of ingestion and general effects of drugs .....Instructor-Led Presentation
- Medical conditions which may mimic alcohol.....Instructor-Led Presentation and drug impairment .....
- Seven drug categories and the basis for .....Instructor-Led Presentation dividing drugs into these specific groups
- Blank Drug Indicator Matrix.....Instructor-Led Presentation

## This Session Will...

- **Provide a general overview related to how drugs affect the body in basic terms**
- **Highlight those systems involved with distribution, absorption, metabolism, and elimination of alcohol and/or other drugs in the body**



- General overview related to how drugs affect the body in basic terms.
- Highlight those systems involved with distribution, absorption, metabolism, and elimination of alcohol and/or other drugs in the body.



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Session 4 – Drugs in the Human Body

## Pharmacokinetics

*How a chemical substance is transported through the body in terms of absorption, distribution, metabolism, and elimination.*

- A number of different body systems can have impact on, or be affected by, the introduction of drugs



Advanced Roadside Impaired Driving Enforcement 4-5

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### Pharmacokinetics

Pharmacokinetics accounts for how a chemical substance is transported through the body in terms of absorption, distribution, metabolism, and elimination.



As stated in the objectives, this session will also:

- Explain the different types of drug ingestion.
- Describe medical conditions, which may mimic the signs and symptoms of alcohol and/or drug use.
- Identify the seven drug categories used by the DEC Program.
- Introduction of a drug indicator matrix.

Session 4 – Drugs in the Human Body

## What is a Drug?

A drug is any substance that, when taken into the human body, can impair the ability of the person to operate a vehicle safely.



Advanced Roadside Impaired Driving Enforcement 4-6

Session 4 – Drugs in the Human Body

## Psychoactive Drugs

A chemical that alters brain/body function resulting in temporary changes in:

- Perception
- Mood
- Consciousness
- Behavior

Advanced Roadside Impaired Driving Enforcement 4-7

As we progress through this course, it is important to understand how drugs are defined.

The following provides operational definitions for drug and psychoactive drug, which describe the majority of the drugs we will discuss as part of this course.

### *Drug*

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

**This definition of a drug is the same definition used in the DEC Program.**

### *Psychoactive Drugs*

A psychoactive drug or substance: Is a chemical that alters brain/body function, resulting in temporary changes in perception, mood, consciousness, or behavior.

Such drugs are often used for:

- Recreational purposes
- Spiritual purposes
- Medical purposes, especially for treating neurological problems
- Psychological illnesses and deficiencies



- Ingestion
- Onset
- Duration of effects
- Elimination

The systems we previously discussed provide the most predominant observable signs and symptoms related to influence of alcohol and/or other drugs on the human body.



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Session 4 – Drugs in the Human Body

## Muscular System

- Heart
- Smooth Muscles
  - ✓ “involuntary”
- Striated Muscles
  - ✓ “voluntary”





Advanced Roadside Impaired Driving Enforcement 4-11

Session 4 – Drugs in the Human Body

## Urinary System

- Two Kidneys
- Bladder
- Urethra



Advanced Roadside Impaired Driving Enforcement 4-12

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### Muscular System

The body has three types of muscles:

1. Heart
2. Smooth muscles (which control involuntary movements)
3. Striated muscles (which control voluntary movements).

The brain controls the operation of all these muscles through the nervous system.

The impact of drugs and alcohol on the muscular system can often be observed during the Walk and Turn and One Leg Stand test, as well as during general observations.

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### Urinary System

The urinary system is responsible for the elimination of waste from the body.

It consists of:

- Two kidneys connected by long tubes (urethras) to the bladder, which stores urine.
- A third tube, the urethra, carries the urine from the bladder out of the body.
- Kidneys - filters waste products out of the system as blood passes through them.

Since drugs are removed from the blood in the kidneys and passed out of the body in the urine, the urinary system plays an important role in producing evidence of drug use.

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Session 4 – Drugs in the Human Body

## Respiratory System

- Diaphragm
- Lungs





Advanced Roadside Impaired Driving Enforcement 4-13

Session 4 – Drugs in the Human Body

## Digestive System

- Stomach
- Pyloric Valve
- Intestines (Large and Small)
- Liver / Pancreas



Advanced Roadside Impaired Driving Enforcement 4-14

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### Respiratory System

The primary organs of the respiratory system are:

- Diaphragm
- Lungs

The diaphragm is a muscular sheet that separates the thoracic (upper) cavity from the abdominal (lower) cavity, and draws fresh air into the lungs and forces used air out.

The transfer of oxygen from the air to the blood, and carbon dioxide from the blood to the atmosphere, occurs in the lungs.

Oxygen must be supplied to all the body cells, and carbon dioxide must be removed from them in order for life to exist.

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### Digestive System

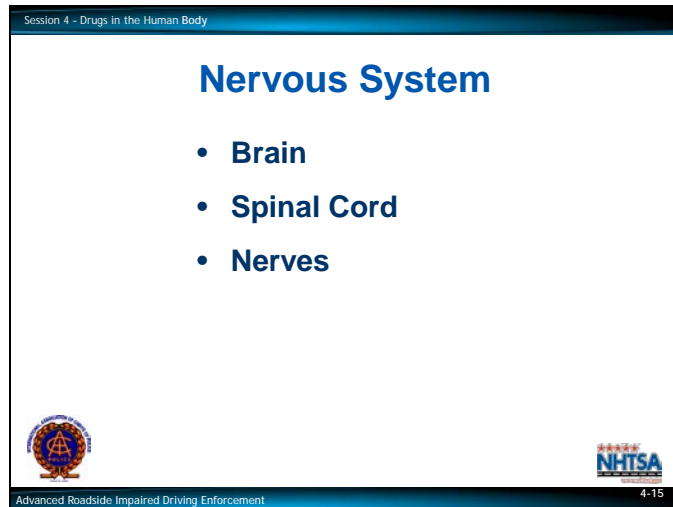
- Stomach
- Pyloric Valve
- Intestines (Large and Small)
- Liver / Pancreas

This system breaks down food and/or chemicals, metabolizes and eliminates waste products.

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## **Nervous System**

The nervous system serves as the control center for the human body.

It consists of:

- Brain
- Spinal cord
- Nerves

Each of these components is made up of nerve cells (neurons) and supporting tissues.

The nervous system keeps the body apprised of changes in the environment by enabling

- Sight
- Hearing
- Smell
- Taste
- Touch

Through sensations of temperature, pressure, pleasure and pain. The nervous system also enables reasoning, memory and emotions.

The central nervous system sends impulses that cause muscles to contract and glands to secrete, and it works with all body systems to integrate all physiological processes so that 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 Central Nervous System (CNS) is one of the body's major control systems and the brain is the center of that system.

Session 4 – Drugs in the Human Body

Brain

- Made up of nerve cells - Neurons
- Neurotransmitters send messages to receptors
- Drugs have influence on how neurons function



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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 make up 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.

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Session 4 – Drugs in the Human Body

## Limbic System of the Brain

- Our feelings
- Emotions
- Motivations
- Supports memory and learning



Advanced Roadside Impaired Driving Enforcement 4-17

All drugs of abuse, such as nicotine, cocaine, and marijuana, impact the limbic system of the brain.

The limbic system generates:

- Our feelings
- Emotions
- Motivations
- Supports memory and learning

It responds to pleasurable experiences by releasing the neurotransmitter dopamine.

The effect which a subject experiences when dopamine is ‘dumped’ in the CNS, creates a euphoric sensation which makes some drugs of abuse so appealing to the user.

The actions associated with the communication between neurons affects the other systems of the human body.

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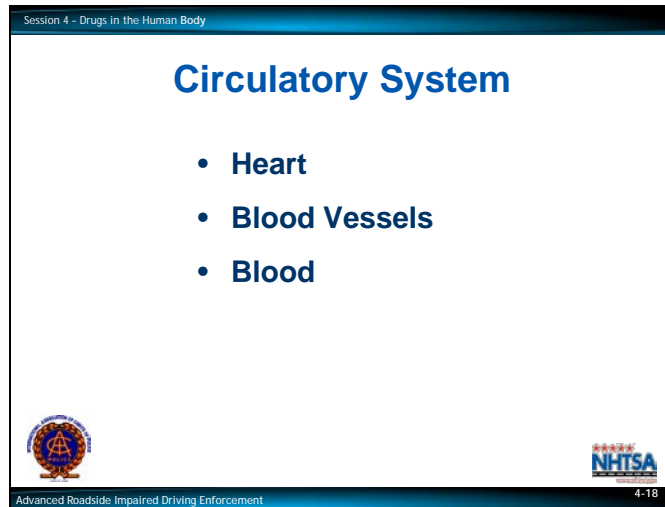
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## **Circulatory System**

The circulatory system consists of:

- Heart
- Blood vessels
- Blood

The heart pumps blood throughout the body transporting:

- Food
- Water
- Hormones
- Antibodies
- Oxygen
- Carbon dioxide
- Other substances to and from the body cells as required

Body temperature regulation is a partial responsibility of the circulatory system, since warm blood is constantly moved throughout the body.

The circulatory system plays a key role in transporting drugs to the brain, where most of the drugs' effects are exerted.

The circulatory system also transports the drugs to the liver and other organs, where the drugs are metabolized.

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Under normal circumstances, systems seek a balance in which internal change continuously compensates for external change in a feedback control process to keep conditions relatively level.

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Session 4 – Drugs in the Human Body

## Examples of Homeostasis

- Temperature Regulation
- Maintaining supplies of bodily fluids
- Bringing in Oxygen and eliminating Carbon Dioxide
- Eliminating waste
- Integrating the functions of the various body systems



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An example of Homeostasis is temperature regulation.

Every organ system plays some role in the maintenance of homeostasis.



- The circulatory system keeps the body sufficiently supplied with fluids.
- The respiratory system constantly brings in oxygen and eliminates carbon dioxide.
- The digestive and urinary systems take in food and water and eliminates waste.
- The nervous system integrates the functioning of the other body systems; and so on.



Session 4 – Drugs in the Human Body

## The Resulting Interactions of Drugs and Alcohol

- Speeds Things Up
- Slows Things Down
- Or some combination



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Session 4 – Drugs in the Human Body

## Drug Effects

The intensity and level of impairment of effects vary depending on:

- Drug and dosage amounts
- Age
- Weight
- Tolerance level
- Other variables may dictate the length of actual impairment

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When drugs interact in the body they tend to:

- Speed things up
- Slow things down
- Or some combination

### *Drug Effects*

The intensity and level of impairment of effects vary depending on:

- Drug and dosage amounts
- Age
- Weight
- Tolerance level
- Other variables may dictate the length of actual impairment



We will use the term ingestion to describe any manner by which a drug or alcohol enters the human body whether it be orally or otherwise administered.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Session 4 – Drugs in the Human Body

## Methods of Ingestion

- Oral – Through the mouth
- Injection – Intravenously





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Session 4 – Drugs in the Human Body

## Methods of Ingestion

- Insufflation - Snorted



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### *Oral*

Oral ingestion is administered through the mouth.

### *Injection*

- Is a common method of administering drugs, such as heroin (narcotic analgesic).
- Is also used to introduce stimulants, hallucinogens, dissociative anesthetics, and other narcotic analgesics into the body.
- CNS depressants can also be injected but this is not common due to the size of the needle required to deliver the substance.

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

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### *Insufflation*

The act of introducing a substance by inhaling through the nose for the purpose of intranasal absorption through the mucous membrane.

For a substance to be effective when insufflated it must be in a water soluble powder so it can be readily absorbed through the mucous membranes.

This method is commonly referred to as “snorting”.

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Session 4 – Drugs in the Human Body

## Drug Categories Introduced Through Insufflation

- **CNS Stimulants**
- **Hallucinogens**
- **Dissociative Anesthetics**
- **Narcotic Analgesics**



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Drug categories which are commonly introduced into the body through insufflation are:

- Stimulants
- Hallucinogens
- Dissociative Anesthetics
- Narcotic Analgesics

Session 4 – Drugs in the Human Body

## Methods of Ingestion

- **Inhalation – Huffing, sniffing, smoking**
- **Transdermal – Absorbed through the skin**



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### *Inhalation*

The act of introducing a substance directly into the respiratory system through the nose and mouth for the purpose of absorbing the substance through the alveoli in the lungs.

This is a very rapid method of absorption and is often referred to as huffing, sniffing, or smoking.

Drug categories which are commonly introduced into the body through inhalation are:

- Cannabis – Smoking
  - Narcotic Analgesics – Smoking
  - Dissociative Anesthetics – Smoking
  - Hallucinogens – Smoking
  - Stimulants – Smoking
  - Inhalants - Inhaling
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Some selected Hallucinogens, Dissociative Anesthetics, and Narcotic Analgesics can be administered transdermally. Cannabis can also be transmitted into the body transdermally.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Session 4 – Drugs in the Human Body

## Medical Conditions Which May Mimic Drug Impairment

- Head Trauma
- Stroke
- Diabetes
- Conjunctivitis
- Shock
- Multiple Sclerosis
- Other Conditions



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### **E. Medical Conditions Which May Mimic Drug Impairment**

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
  - Conjunctivitis
  - Shock
  - Multiple Sclerosis
  - Other Conditions
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Session 4 – Drugs in the Human Body

## Head Trauma

- Disorientation
- Confusion
- Lack of coordination
- Slowed responses
- Speech impairment
- Pupils may be noticeably different sizes, or one eyelid may droop
- Eyes may not track together





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Session 4 – Drugs in the Human Body

## Stroke

- Markedly unequal pupil sizes
- Paralysis or weakness on one side of the body
- Slurred speech, facial droop
- Confused, frightened



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### *Head Trauma*

A severe blow or bump to the head may injure the brain and create:

- Disorientation
- Confusion
- Lack of coordination
- Slowed responses
- Speech impairment

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.

### *Stroke*

A stroke will usually produce many of the same effects and indicators associated with head trauma.

Stroke victims often will have:

Pupils that are 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.



Session 4 – Drugs in the Human Body

## Diabetes

- Confused or non-responsive
- Sweat profusely
- Cold, clammy skin
- Rapid, weak pulse
- May require immediate medical attention






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Session 4 – Drugs in the Human Body

## 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. This condition is commonly referred to as “pink eye”, a condition that could be mistaken for the bloodshot eyes produced by alcohol or cannabis.

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### *Diabetes*

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 condition is referred to as insulin shock.

A diabetic in insulin shock may:

- Appear very confused
- Be non-responsive
- Sweat profusely
- Exhibit a rapid, weak pulse rate
- Require immediate medical attention

### *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. This condition is commonly referred to as “pink eye”, a condition that could be mistaken for the bloodshot eyes produced by alcohol or cannabis.

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## Session 4 - Drugs in the Human Body

## Shock

- Occurs when the body is not getting enough blood flow
- Requires immediate medical attention
  - ✓ Dazed
  - ✓ Uncoordinated
  - ✓ Non-responsive



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## Session 4 - Drugs in the Human Body

## Multiple Sclerosis

- May lack coordination
- Exhibit gait ataxia
- Tremors
- Slurred or garbled speech
- May appear alert and responsive to questions



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## Shock

Shock is a life-threatening condition that occurs when the body is not getting enough blood flow.

This can damage multiple organs and lead to death.

Shock requires IMMEDIATE medical treatment and can get worse very rapidly.

Subjects in shock often will appear dazed, uncoordinated, and non-responsive.

## Multiple Sclerosis



Victims of Multiple Sclerosis (MS) and other degenerative muscular disorders may lack coordination or exhibit gait ataxia, 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.

Session 4 – Drugs in the Human Body

## Other Medical Conditions

- Carbon Monoxide Poisoning
- Seizures
- Endocrine disorders
- Neurological disorders
- Psychiatric disorders
- Infections



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### *Other Medical Conditions*



Some other medical conditions that may cause signs and symptoms similar to drug impairment include:

- Carbon monoxide poisoning
- Seizures
- Endocrine disorders
- Neurological conditions
- Psychiatric conditions
- Infections

Session 4 – Drugs in the Human Body

## Behavioral Conditions

- Exercise
- Excitement
- Fear
- Anxiety
- Depression



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### *Behavioral Conditions*



There are some behavioral conditions that may affect vital signs:

- Exercise
- Excitement
- Fear
- Anxiety
- Depression

Session 4 - Drugs in the Human Body

## Seven Drug Categories - Introduction

1. Central Nervous System Depressants
2. Central Nervous System Stimulants
3. Hallucinogens





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Session 4 - Drugs in the Human Body

## Seven Drug Categories - Introduction

4. Dissociative Anesthetics
5. Narcotic Analgesics
6. Inhalants
7. Cannabis



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### **F. Introduction to the Seven Drug Categories**

As a review, the definition of a drug, adopted by the DEC Program and for this course is:

Based on this definition of “drug”, the DEC Program divided drugs into seven categories. These drug categories are based on the observable signs and symptoms they produce. The following is a brief description of each category:

1. Central Nervous System Depressants. Includes a large number of different drugs. The most commonly abused drug in this category is alcohol. CNS depressants slow down the operation of the brain and other parts of the central nervous system.
  2. Central Nervous System Stimulants. Influence the human body by speeding up, or over stimulating the brain. Cocaine is an example of a CNS stimulant.
  3. Hallucinogens. Includes some natural substances as well as some synthetic chemicals. All hallucinogens impair the subject’s ability to perceive reality. LSD is an example of a hallucinogen.
  4. Dissociative Anesthetics. Consists of the drug Dextromethorphan (DXM), PCP and its various analogs. DA’s are powerful drugs that act like a depressant in some ways, but also causes the body to respond similar to a stimulant as well as a hallucinogen.
  5. Narcotic Analgesics. Relieves pain, produces addiction, and withdrawal symptoms. Heroin is an example of a narcotic analgesic.
  6. Inhalants. Breathable chemicals, which are contained in familiar household items that can be easily purchased. Gold spray paint is an example of an inhalant.
  7. Cannabis. The most widely used and abused illegal drug and is most commonly referred to as marijuana. Includes many other forms of THC.
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## QUESTIONS?



## ARIDE Drug Category Matrix

Rev 10/2015

[illegible]

\*Soma, Quaaludes and certain anti-depressants may dilate

\*\*Normal but may be dilated

\*\*\*Dilated but may be normal

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# Participant Manual

## Advanced Roadside Impaired Driving Enforcement (A.R.I.D.E.)

Session 5 - Observation of the Eyes and Additional Tests for Drug Impairment

90 Minutes

### Session 5

### Observation of the Eyes and Additional Tests for Drug Impairment



Advanced Roadside Impaired Driving Enforcement

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## Learning Objectives

- **State the purposes of various eye examinations used in the ARIDE Curriculum, which includes Vertical Gaze Nystagmus (VGN), and Lack of Convergence (LOC)**
- **Discuss Vertical Gaze Nystagmus**
- **Discuss Lack of Convergence**



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Upon successfully completing this session, the participant will be able to:

- State the purposes of various eye examinations used in the ARIDE Curriculum, which includes Vertical Gaze Nystagmus (VGN), and Lack of Convergence (LOC)
- Discuss Vertical Gaze Nystagmus: How to administer properly and describe what the results indicate.
- Discuss Lack of Convergence: How to administer properly and describe what the results indicate.

Session 5 - Observation of the Eyes and Additional Tests for Drug Impairment

## Learning Objectives

- Describe the difference in pupil size
- Discuss Modified Romberg Balance test: How to administer properly and describe what the results indicate
- Explain the relationship between eye examinations and the seven drug categories

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- Describe the difference in pupil size.
- Discuss Modified Romberg Balance test: How to administer properly and describe what the results indicate.
- Explain the relationship between eye examinations and the seven drug categories.

### CONTENT SEGMENTS..... LEARNING ACTIVITIES

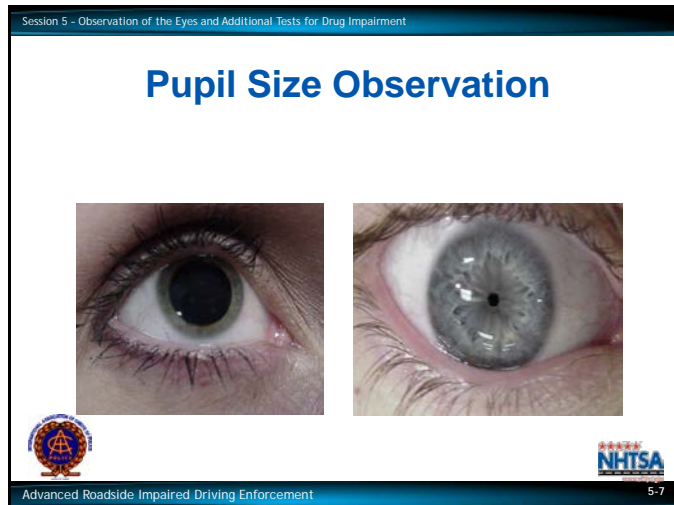
- A. Discuss Vertical Gaze Nystagmus
- How to administer properly .....Instructor-Led Presentation
  - Describe what the results indicate
  - Practice VGN .....Participant Practice Session
- B. Describe the difference in pupil size.....Instructor-Led Presentation
- C. Discuss Lack of Convergence
- How to administer properly.....Instructor-Led Presentation
  - Describe what the results indicate
  - Practice LOC .....Participant Practice Session
- D. Modified Romberg Balance test
- How to administer properly .....Instructor-Led Presentation
  - Describe what the results indicate
  - Practice Modified Romberg Balance test .....Participant Practice Session
- E. Relationship between eye examinations .....Instructor-Led Presentation and the seven categories
- F. Frame the discussion for the seven drug categories
- G. Blank Drug Indicator Matrix

Involuntary jerking of the eyes (up and down) which occurs at the eyes are held at maximum deviation

The jerking should be distinct and sustained.

Typically VGN will not be present without first observing HGN.

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### **B. Describe the Difference in Pupil Size**

#### *Pupil Size Observations*




- The pupil is basically a circular hole in the middle of the iris, which regulates the amount of light that passes through into the retina.
  - The pupils of the eyes continually adjust in size to accommodate different lighting conditions and refocus according to focal length.
  - When placed in a darkened environment, the pupils will normally expand in size, or dilate, to allow the eyes to capture as much light as possible.
  - When the lighting conditions are very bright, the pupils will normally shrink or constrict, to limit the amount of light that passes through and to keep the eyes from being over stimulated.
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- Example: If a stop is made during the day, you should expect to see the pupils somewhat smaller, because of the bright lighting conditions.

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## Constricted Pupils

**When pupils are smaller than expected for the given lighting conditions, resulting in a noticeably smaller opening in the center of the eye**





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## Lack of Convergence

(LOC) is the inability of the person's eyes to converge or cross as the person attempts to focus on a stimulus as it is pushed towards the bridge of the nose.




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Session 5 - Observation of the Eyes and Additional Tests for Drug Impairment

## LOC Testing Procedure

- **Begin by moving the stimulus in a circle in front of the subject's face**
- **Observe the eyes to verify that the subject is tracking the stimulus**
- **Slowly move the stimulus in toward the bridge of the nose**



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NHTSA

5-13

### *Administration of LOC*

#### Instructional Stage

- Advise the subject that he or she will have to keep their head steady and try to cross the eyes in order to keep their eyes focused on the stimulus as it moves in toward the nose.
- Advise the subject that you will not actually touch the subject's nose.
- Keep the object 12-15 inches away from the subject's nose and start to move the stimulus slowly in a circle.
- Verify the subject is tracking the stimulus.
- Stop moving in a circular manner with the stimulus above eye level.
- Move the stimulus to within approximately two inches from the bridge of the subject's nose and hold for approximately one second.
- Carefully observe the subject's eyes to determine whether both eyes converge on the stimulus.
- It is recommended to repeat the check for LOC at least two times.

- Lack of convergence is present if the subject's eyes do not come together and cross as they track and stay aligned on the stimulus





- The subject's eyes should come together and cross (converge) as they track and remain aligned with the stimulus.
- If the eyes are able to cross (converge), i.e., if they both come together when the stimulus is stopped approximately 2" from the bridge of the subject's nose, lack of convergence is "not present."

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Session 5 - Observation of the Eyes and Additional Tests for Drug Impairment

## Drug Categories That Usually Induce LOC

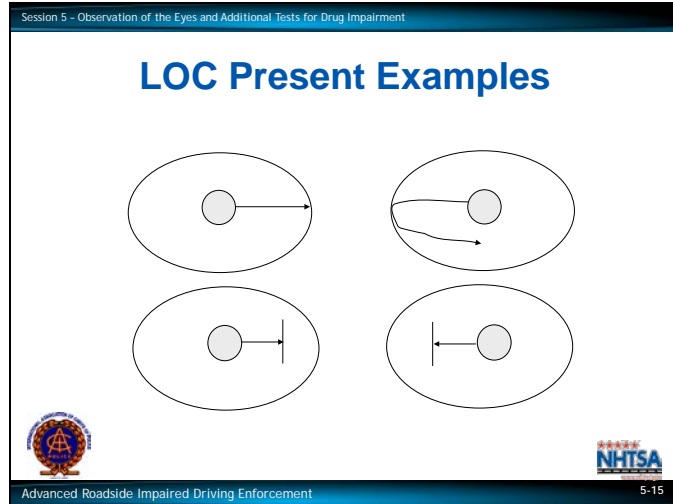
- **CNS Depressants**
- **Inhalants**
- **Dissociative Anesthetics**
- **Cannabis**



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The following drug categories usually will induce Lack of Convergence:

- CNS Depressants
- Inhalants
- Dissociative Anesthetics
- Cannabis



### *Left Eye Unable to Converge Example*

- Both eyes began to converge, however the left eye bounced down and back out

### *Both Eyes Unable to Converge Example*

- Both eyes began to converge, however they both stopped before the convergence was completed.

There are no validated clues associated with the LOC test, the officer should note all observations associated with this test.

- The officer should note whether or not convergence is present and document their observations as to the movement of the eyes during this test.

## Modified Romberg Balance Test

- Checks a subject's time estimation, balance and presence of tremors (eye and body)
- Ensure the test is conducted on a level surface





### **D. Modified Romberg Balance Test**

The Modified Romberg Balance test is adapted and modified from its original use as a neurological assessment tool. It can be administered to check a subject's time estimation, balance, and presence of tremors (eyelid and body).

Since part of the Modified Romberg Balance test checks for balance, care should be taken to ensure the test is conducted on a level surface and in an environment, which is appropriate for this type of test when conducted at roadside.

## Stages of Modified Romberg Balance Test

- Instruction stage
- Balancing stage



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- Estimation the passage of 30 seconds
- Observation of tremors
  - Eyelid and/or body or muscle
- Observation of sway
  - Front-to-back
  - Side-to-side
  - Circular/rotational



- Instruction stage
- Balancing stage

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Session 5 – Observation of the Eyes and Additional Tests for Drug Impairment

### Instruction Stage

1. Instruct the subject to stand straight with feet together and arms down at their sides
2. Tell the subject to remain in that position until you have finished giving the instructions
3. Emphasize that he or she must not start the test until you say, "Begin"
4. Ask the subject if he or she understands the instructions so far






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Session 5 – Observation of the Eyes and Additional Tests for Drug Impairment

### Instruction Stage

5. Tell the subject, "When I tell you, tilt your head back slightly and close your eyes"
6. Estimate the passage of 30 seconds
7. Tell the subject, "When you think 30 seconds has gone by, bring your head forward, open your eyes, and say "Stop"
8. Ask the subject if he/she understands

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## Administrative Procedures

### Instruction Stage

1. Instruct the subject to stand straight with their feet together and their arms down at their sides.
2. Tell the subject to remain in that position until you have finished giving the instructions.
3. Emphasize that they must not start the test until you say, "begin".
4. Ask the subject if they understand the instructions so far.

**Make sure to obtain a verbal response from the subject.**

5. Tell the subject, "When I tell you, tilt your head back slightly and close your eyes."

**Demonstrate this without closing your eyes.**

6. Emphasize that they will estimate the passage of 30 seconds.
7. Tell the subject, "When you think 30 seconds has gone by, bring your head forward, open your eyes, and say 'Stop'."
8. Ask the subject if they understand the instructions.

**Make sure to obtain a verbal response from the subject.**

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Session 5 - Observation of the Eyes and Additional Tests for Drug Impairment

### Balancing Stage

1. Instruct the subject to tilt his or her head back and close their eyes
2. Use a timing device, and pick a convenient time to start the test
3. Tell the subject to begin
4. Keep track of time while the subject performs the test
5. Check subject for presence of tremors (eyelid and/or body) and sway






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Session 5 - Observation of the Eyes and Additional Tests for Drug Impairment

### Balancing Stage

6. When the subject opens their eyes ask, "How much time was that?"
7. Record how much time actually elapsed from the start of the test until the subject opened their eyes or was told to stop.

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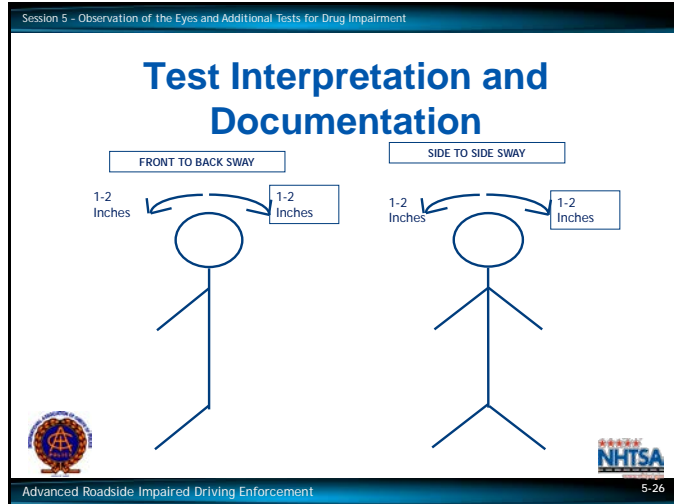
### *Balancing Stage*

1. Instruct the subject to tilt his or her head back and close their eyes.
2. Use a timing device, and pick a convenient time to start the test.
3. Tell the subject to begin.
4. Keep track of the time while the subject performs the test.
5. Check subject for presence of tremors (eyelid and/or body) and sway.
6. When the subject opens his/her eyes ask, "How much time was that?"

### **Make sure to document their "exact" verbal response.**

7. Record how much time actually elapsed from the start of the test until the subject opened their eyes or was told to stop.
  - The officer must record how much time actually elapsed from the start of the test until the subject opened their eyes.
  - If the subject continues to keep their eyes closed for 90 seconds, the officer should stop the test and record the fact that it was terminated at 90 seconds.

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### *Recording Results of the Modified Romberg Balance Test*

The major items that need to be recorded for the Modified Romberg Balance test are:

- The amount that the subject sways.
- The actual amount of time that the subject keeps their eyes closed.
- To record swaying, the officer must estimate how many inches the subject sways, either front-to-back or left-to-right, or both.
- In some cases, the subject may exhibit a circular or rotational sway. An estimate on the amount of sway should be documented if observed.

Example: If the subject sways approximately two inches toward the left and approximately two inches toward the right, the officer should write the number "2" on each side of the "stick figure" that shows left-to-right movement. To record the subject's time estimate, simply write the number of seconds that the subject kept his or her eyes closed.

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Session 5 – Observation of the Eyes and Additional Tests for Drug Impairment

### Relationships to the Categories

	CNS Dep.	CNS Stim.	Hall.	Dissoc. Anest.	Narc. Analg.	Inhalant	Cannabis
HGN	Present	None	None	Present	None	Present	None
VGN	Present (1)*	None	None	Present	None	Present (1)*	None
LOC	Present	None	None	Present	None	Present	Present
Pupil Size	Normal (2)*	Dilated	Dilated	Normal	Constricted	Normal (3)*	Dilated (4)*

1. \*High dose for that individual
2. \*Pupil size may be dilated for Soma, Quaaludes, and some anti-depressants
3. \*Normal (average ranges) but may be dilated
4. \*Dilated, but may be normal (average ranges)



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## E. Relationship Between the Eye Observations and the Drug Categories

### Eye Observations

- Eye observations can provide valuable information, which can help determine impairment.
- Additionally, as discussed in Session 2, HGN is a critical part of assessing subjects suspected of being impaired by alcohol.
- HGN also plays a significant part in the evaluation of subjects who might be impaired by drugs alone or in combination with alcohol.

In addition to HGN, VGN, and LOC, pupil size can also provide information, which contributes to the overall process in determining whether or not a subject is impaired by alcohol and/or drugs.

A chart is provided to assist in recognizing signs of alcohol, drug, or a combination of both alcohol and drug impairment relative to eye observations.

This chart or any of the other information presented in this course relative to a specific drug category is not meant to encourage the officer to connect their observations to a specific drug category.

## Caution

- Although effects displayed in the table are what you will usually find when observing a subject impaired by various types of drugs, you may not always find them
- Not everyone is affected the same way by drugs



The law enforcement officer who successfully completes this course shall use only their roadside observations to make a decision as to whether the subject is impaired or not impaired according to their specific state's statutes and support an arrest or no arrest decision.

*Important Note: (Caution)*

*Although effects displayed in the table are what you will **usually** find when observing a subject impaired by various types of drugs, you **may not always** find them.*

*Not everyone is affected the same way by drugs. You need to remember this when describing drug effects. It is best "never to say never" and "always avoid saying always."*

**The officer who completes this course is NOT certified as a DRE and does not have the training required to support the selection of a specific drug category, which may be the source of the subject's impairment.**

# QUESTIONS?



# Participant Manual

## Advanced Roadside Impaired Driving Enforcement (A.R.I.D.E.)

Session 6 - Seven Drug Categories

3 Hours 30 Minutes

### Session 6

### Seven Drug Categories



Advanced Roadside Impaired Driving Enforcement



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Session 6 – Seven Drug Categories

## Learning Objectives

- Identify common drug names and terms associated with the seven drug categories
- Identify the common methods of ingestion for each category
- Describe the indicators of impairment associated with each category






Advanced Roadside Impaired Driving Enforcement 6-2

Session 6 – Seven Drug Categories

## Learning Objectives

- Describe conditions which may mimic the signs and symptoms associated with each drug category
- List the indicators which may emerge during the three phases of the DWI detection process which may indicate the subject is under the influence of a drug(s)

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Upon successfully completing this session, the participant will be able to:

- Identify common drug names and terms associated with the seven drug categories.
- Identify the common methods of ingestion for each category.
- Describe the indicators of impairment associated with each category.
- Describe conditions which may mimic the signs and symptoms associated with each drug category.
- List the indicators which may emerge during the three phases of the DWI detection process (vehicle in motion, personal contact and pre-arrest screening) which may indicate the subject is under the influence of a drug(s).

Content Segments.....Learning Activities

A. Overview of the Drug Categories .....Instructor-Led Presentation

B. For each Drug Category, identification of: .....Instructor-Led Presentation



- Drugs
- Indicators
- Eye indicators
- Other conditions which mimic indicators
- Expected results from the detection process

C. Officer Safety .....Instructor-Led Presentation

Session 6 – Seven Drug Categories

## Seven Categories of Drugs

- CNS Depressants
- CNS Stimulants
- Hallucinogens
- Dissociative Anesthetics
- Narcotic Analgesics
- Inhalants
- Cannabis



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### **A. Overview of the Drug Categories**

Historically, alcohol has been the most used and abused psychoactive Depressant.

The majority of the general public is familiar with the effects of alcohol either through personal experience and/or observing others impaired by alcohol.

This familiarity with the indicators of impairment associated with alcohol makes the Depressant category relatively straightforward.

*Seven Categories of Drugs:*

- CNS Depressants
  - CNS Stimulants
  - Hallucinogens
  - Dissociative Anesthetics
  - Narcotic Analgesics
  - Inhalants
  - Cannabis
- 
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The CNS Depressant category includes the single most commonly abused and most familiar drug in America – alcohol.

[illegible]

# Identification of a CNS Depressant

Depressants slow down the activity of an individual's brain and central nervous system





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# Identification of a CNS Depressant

CNS Depressants initially affect:

- Speech
- Coordination
- Mobility



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At doses greater than therapeutic levels, impairment of the body's autonomic nervous system is affected.

The Depressant category initially affects a person's functions:

- Speech
- Coordination
- Mobility

At doses greater than therapeutic levels (amounts typically prescribed by a physician), of the body's autonomic nervous system is affected and may cause impairment.



[illegible]

Session 6 – Seven Drug Categories

## Doses Greater Than Therapeutic Levels

**CNS Depressants may cause impairment to the body's autonomic nervous system.**

- Heartbeat
- Blood Pressure
- Breathing



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At doses greater than therapeutic levels, impairment of the body's autonomic nervous system is affected.

The systems affected are:

- Heartbeat
- Body temperature
- Breathing

In addition to alcohol, the Depressant category also includes:

- Anti-anxiety drugs
- Anti-psychotics
- Anti-Depressants
- Barbiturates
- Non-barbiturate
- Combinations

Subjects impaired by Depressants may look very much like subjects impaired by alcohol, but without the odor of alcohol on their breath.

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Session 6 – Seven Drug Categories

## Commonly Abused CNS Depressants

- Valium
- Prozac
- Xanax
- Soma
- Alcohol



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NHTSA

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Session 6 – Seven Drug Categories

## Illicit CNS Depressants

- Rohypnol (Flunitrazepam)
- Gamma Hydroxy Butyrate (GHB)



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NHTSA

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Some familiar and often abused Depressants include:

- Valium
- Prozac
- Xanax
- Soma
- Alcohol

These are examples of just a few anti-anxiety tranquilizers, anti-depressants, and anti-psychotics legally prescribed for a variety of disorders.

There are also several illicit CNS Depressants that have gained national attention in the past several years.

- Rohypnol (Roofies)(Flunitrazepam)
- Gamma Hydroxy Butyrate (GHB)

These drugs have been implicated in an alarming number of sexual assaults and overdose deaths.

Rohypnol is most commonly found in pill form (1 or 2 mg).

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Session 6 – Seven Drug Categories

## Methods and Signs of Ingestion

- Oral
- Insufflation
- Injection



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### *Methods and Signs of Ingestion*

Generally, CNS Depressants will be found in pill or liquid form.

The most common method for using Depressants is to take them orally.

Pills may be crushed and insufflated (snorted).

Some CNS Depressants, on very rare occasions, may be injected.

When CNS Depressants (other than alcohol) are taken orally, signs of ingestion may be difficult to detect.

- There are occasions when a subject may chew the tablets to create a quicker onset of effect. When this happens traces of the tablet may be lodged in the teeth.
- Injection sites are easily identifiable by swelling of the area and ulcerations of the skin.
- The injection sites differ from those of other injectable drugs because liquid Depressants are generally thicker and take a larger gauge needle to inject the drug.

## Effects of CNS Depressants

**A person under the influence of a CNS Depressant will look like a drunk, talk like a drunk, walk like a drunk, but they may not smell like a drunk**



### *Effects of CNS Depressants*

A person impaired by a CNS Depressant will look like a drunk, talk like a drunk, walk like a drunk, but they may not smell like a drunk.

Therapeutic doses (amounts typically prescribed by a physician) may not exhibit observable effects if they are ingested as prescribed.

Combinations of Depressants can be risky; they are commonly combined with alcohol.



This increases the effects of the Depressant and could magnify the effects and observable signs and symptoms.



Session 6 – Seven Drug Categories

### General Indicators

- Wide variety of emotional behavior
- Reduced ability to divide attention
- Disoriented
- Sluggish
- Thick, slurred speech
- Drunk-like behavior
- Droopy eyes
- Fumbling






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Session 6 – Seven Drug Categories

### General Indicators

- Relaxed inhibitions
- Slowed reflexes
- Uncoordinated
- Drowsiness
- Unsteady/Staggering walk

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Indicators include:

- A wide variety of emotional effects:
  - Euphoria
  - Depression
  - Laughing or crying for no apparent reason
- Reduced ability to divide attention
- Disoriented
- Sluggish
- Thick, slurred speech
- Drunk-like behavior
- Droopy eyes
- Relaxed inhibitions
- Uncoordinated
- Drowsiness
- Unsteady/Staggering walk

CNS Depressants typically slow the Central Nervous System and may slow a subject's time estimation.

Eye Indicators	
HGN	Present
VGN	May be Present (high dose)
LOC	Present
Pupil Size	Normal

Onset and Duration of Effects		
Type	Onset	Duration
Ultra Short	Seconds	Few Minutes
Short	10 to 15 min.	5 hours
Intermediate	30 minutes	6 to 8 hours
Long Acting	One hour	8 to 14 hours

### Eye Indicators

- HGN – Present
- VGN – May be Present – especially at high dose levels for that individual
- LOC – Present
- Pupil Size – Normal

### Onset and Duration of Effects

There are four different classes of Depressants which are classified based on how quickly they take effect and how long their effects last. They are:

Type..... Action

Ultra Short..... Very fast acting, very brief effects

Short..... Fairly fast acting, effects last several hours

Intermediate ..... Relatively slow acting but prolonged effects

Long..... Delayed but long-lasting effects

## Duration of Effects

Type	Duration
Barbiturate	1 to 16 hours
Tranquilizers	4 – 8 hours
GHB	3 – 5 hours
Rohypnol	Peak 1-2 hours Duration 8-12 hours



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- Drug and dosage amounts
- Age
- Weight
- Tolerance level
- Other variables may dictate the length of actual impairment

Type.....	Duration
Barbiturate .....	1-16 hours
Tranquilizers.....	4-8 hours
GHB .....	3-5 hours
Rohypnol .....	1-2 hours, Duration 8-12 hours

Session 6 – Seven Drug Categories

## Overdose Signs and Symptoms

- Shallow breathing
- Cold/clammy skin
- Rapid / weak pulse
- Dilated pupils






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Session 6 – Seven Drug Categories

## Medical Conditions That May Mimic Drug Impairment

- Extreme fatigue
- Very recent head injuries
- Diabetic reactions
- Hypotension (low blood pressure)
- Inner ear disorders
- Severe depression

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### *Overdose Signs and Symptoms*

- Shallow breathing
- Clammy skin
- Rapid/weak pulse
- Dilated pupils

### *Medical Conditions That May Mimic Drug Impairment*

- Extreme fatigue
- Very recent head injuries
- Diabetic reactions
- Hypotension (low blood pressure)
- Inner ear disorders
- Severe depression

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CNS Stimulants are drugs that speed up the operation of the central nervous system.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Session 6 – Seven Drug Categories

## Central Nervous System Stimulants

- Relieve fatigue
- Aid in weight reduction
- Reduce the need for sleep
- Increase energy and confidence levels




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Session 6 – Seven Drug Categories

## Widely Abused CNS Stimulants

- Cocaine
- Amphetamines
- Methamphetamines



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### CNS Stimulants:

- Relieve fatigue
- Aid in weight reduction
- Reduce the need for sleep
- Increase energy and confidence levels

In general, stimulants bring about both a psychological and physical stimulation.

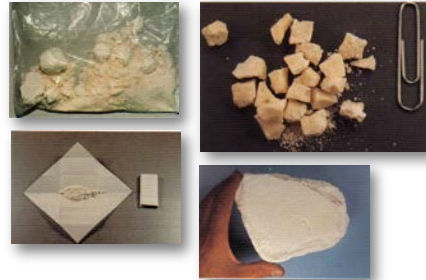
CNS Stimulants are commonly known as “*uppers*” and their effects are similar to the body’s fight or flight responses.

As Stimulants “wear off”, the individual can exhibit signs and symptoms similar to those associated with Depressants since some of the body’s systems may experience a “crash.”

The most widely abused CNS Stimulants are:

- Cocaine
  - Amphetamines
  - Methamphetamines
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## Cocaine

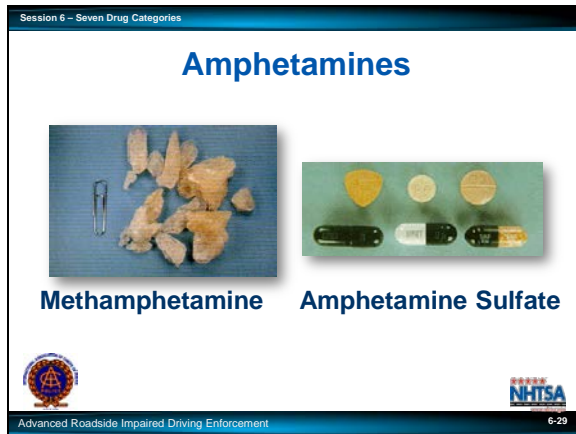
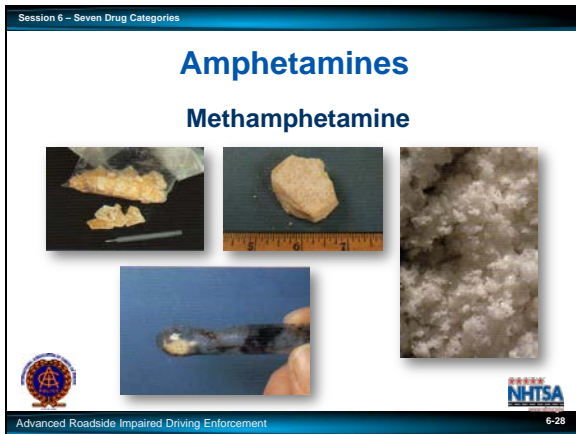


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- Baking soda,
- Cocaine
- Water
- Then heating

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.





Amphetamines are usually found in pill form and are legally manufactured for medical use.




Methamphetamine is an illicit drug and usually has the consistency of brown sugar, can be a variety of different colors, and is primarily produced illegally.

Ephedrine and pseudoephedrine are also classified as CNS Stimulants

Session 6 – Seven Drug Categories

## Legal CNS Stimulants

- Diet Max
- Diet Now
- Diet Pep
- Mahuang
- Anti-insomnia aids (Mini-tabs, 357 Magnum, Ephedrine)







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## Prescribed CNS Stimulants

- Ritalin
- Adderall
- Dexedrine

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Ephedrine is often advertised as diet supplements

- Diet Max
- Diet Now
- Diet Pep
- Mahuang
- Anti-insomnia aids (Mini-tabs, 357 Magnum, Ephedrine)
- “Natural versions of illegal drugs” (Herbal Ecstasy and Herbal Bliss). Pseudoephedrine can be found in a variety of over-the-counter antihistamines, decongestants and cold products, thus making it more accessible
  - Both are usually found in pill form and can be used in the production of methamphetamine.
  - When taken in excess, they have the ability to impair.

Ritalin, Adderall, and Dexedrine are also classified as CNS Stimulants.


These medications allow an individual with attention deficit disorder (ADD) and attention deficit hyperactivity disorder (ADHD) to focus their attention.

These medications have recently become commonly abused by students and professionals who want to obtain a temporary increase in their ability to focus and process information.

Session 6 – Seven Drug Categories

## Methods and Signs of Ingestion

- Insufflated
- Injected
- Smoked
- Oral



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NHTSA

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## Ingesting Stimulants

- Methamphetamine
- Other Amphetamines
- Orally (tablets, capsules, etc.)



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NHTSA

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### *Methods and Signs of Ingestion*

There are many types of Stimulants and their form will dictate the method of ingestion.

- Powder cocaine is typically insufflated, but can be injected or smoked.
- To be injected it must be converted to a liquid form. Users will heat the powder in distilled water. The chemicals will combine to form the injectable liquid.
- Crack cocaine is smoked. Crack Cocaine burns very hot, there may be signs of ingestion in the mouth.
- Methamphetamines can be insufflated, smoked, injected, or taken orally.
- Ephedrine, Pseudoephedrine, Ritalin, Adderall, and Dexedrine are primarily taken orally. Ritalin can also be crushed and insufflation by some abusers.

When a CNS Stimulant is taken orally, signs of ingestion may be very limited.

When they are inhaled (as a powder) the septum may be perforated.

When they are inhaled (as a powder) the nasal tissue may be irritated or inflamed.

When they are smoked, the intense heat of the smoke may cause, burn marks on the fingers (where the pipe was held), and burn marks on the lips (where the pipe touched the mouth).

Injection marks may be observed as a fresh puncture mark with blood oozing, bruising of the vein (caused by damage to the vein itself), or older marks, which may have dried blood covering the mark.

The main effect of most CNS Stimulants is Euphoria – an extremely pleasurable sensation, while the drug is psychoactive. However, the user may find an opposite effect as the drug wears off.



While the drug is psychoactive, the user may seem like their system is sped up or in fast forward, (But!), as the drug leaves the system (crashing), this person may appear as though they are under the influence of a CNS Depressant or Narcotic Analgesic.

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Session 6 – Seven Drug Categories

## General Indicators of Impairment

- Restlessness
- Body tremors
- Excited
- Euphoria
- Talkative
- Exaggerated reflexes
- Anxiety
- Grinding teeth (bruxism)






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Session 6 – Seven Drug Categories

## General Indicators of Impairment

- Redness to nasal area
- Runny nose
- Increased alertness
- Dry mouth
- Irritability
- Eyelid and leg tremors
- Insomnia
- Rigid muscle tone

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### *General Indicators*



- Restlessness
- Body tremors
- Excited
- Euphoria
- Talkative
- Exaggerated reflexes
- Anxiety
- Grinding teeth (bruxism)
- Redness to nasal area
- Runny nose
- Increased alertness
- Dry mouth
- Irritability
- Eyelid and leg tremors
- Insomnia
- Rigid muscle tone

Because CNS Stimulants speed up the CNS, the user may exhibit a fast time estimation.

Session 6 – Seven Drug Categories

### Eye Indicators

- HGN – Not Present
- VGN – Not Present
- LOC – Not Present
- Pupil Size – Dilated






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Session 6 – Seven Drug Categories

### Duration of Effects

- Cocaine 5 – 10 minutes (smoked)  
5 – 15 (injected)  
30 – 90 (snorted)
- Amphetamines 4 – 8 Hours
- Methamphetamines 12 hours
- Ritalin Varies
- Adderall Varies
- Dexedrine Varies

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#### *Eye Indicators / Matrix*

- HGN – Not Present
- VGN – Not Present
- LOC – Not Present
- Pupil Size – Dilated



#### *Duration of Effects*

Cocaine..... 5-10 minutes (smoked)  
..... 5-15 (injected)  
..... 30-90 (snorted)  
Amphetamines..... 4-8 Hours  
Methamphetamines ..... 12 hours  
Ritalin, Adderall, Dexedrine ..... Varies

Session 6 – Seven Drug Categories

## Overdose Signs and Symptoms

- Increase in heart rate and blood pressure
- Convulsions
- Increased body temperature
- Hallucinations





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Session 6 – Seven Drug Categories

## Medical Conditions That May Mimic CNS Stimulants

- Hyperactivity
- Nervousness
- Stress
- Fear
- Hypertension (high blood pressure)



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### *Overdose Signs and Symptoms*

Overdose signs and symptoms of a CNS Stimulant may include, but are not limited to:

- Agitation
- Increased body temperature
- Hallucinations

### *Conditions that may mimic CNS Stimulant impairment*

There are several conditions that may mimic impairment by a CNS Stimulant.

These may be, but are not limited to:

- Hyperactivity
  - Nervousness
  - Stress
  - Fear
  - Hypertension (high blood pressure)
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## Drug Matrix

	CNS Dep.	CNS Stim.	Hall.	D.A.	NA.A	Inhalant	Cannabis
HGN	Present	None					
VGN	Present	None					
LOC	Present	None					
Pupil Size	Normal *	Dilated					



*\*Soma, Quaaludes, and possibly some Anti-Depressants usually dilate pupils*





## Seven Drug Categories

### Hallucinogens



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Hallucinogens

# Hallucinogens

Hallucinogens affect a person's:

- Perception
- Sensation
- Thinking
- Self-awareness
- Emotional state



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# Hallucinogens

- This category causes hallucinations
- Hallucinations are sensory experiences of something that does not exist outside the mind



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Hallucinogens are drugs that affect a person's:

- Perception
- Sensation
- Thinking
- Self-awareness
- Emotional state

The word “Hallucinogen” means something that causes hallucinations.



A hallucination is a sensory experience of something that does not exist outside the mind.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Session 6 – Seven Drug Categories

## Hallucinogens

- An example of a hallucination would be seeing sounds and hearing colors
- This is called Synesthesia: or the transposition of senses



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Session 6 – Seven Drug Categories

## Identification of Hallucinogens

Some Hallucinogens occur naturally:

- Peyote is a species of cactus containing *mescaline*
- There are numerous mushrooms (psilocybin) capable of inducing hallucinations
- Jimson weed and morning glory seeds
- Toad (*Bufo Alvarius*) releases a hallucinogenic secretion when threatened

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The category is classified in this manner because one of the significant effects of these drugs is hallucinations.

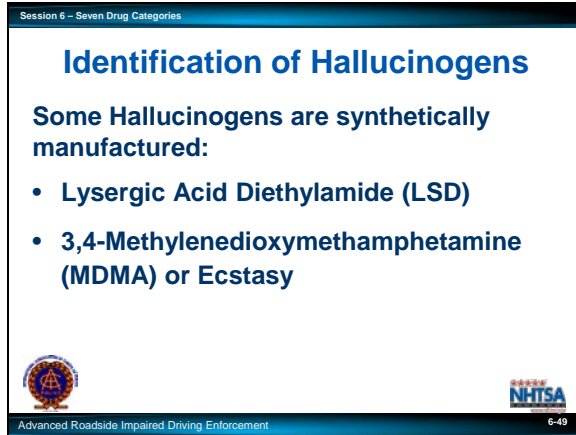
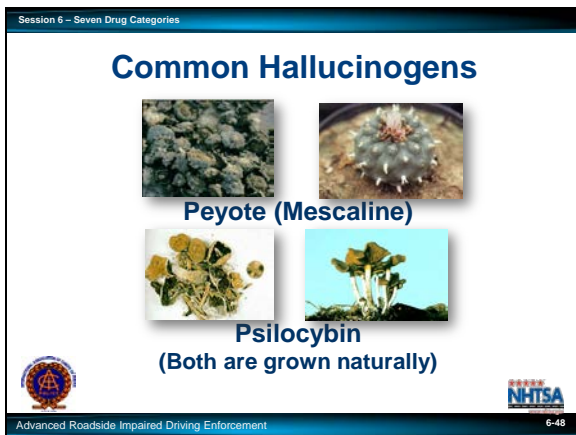
An example would be seeing something that does not exist or hearing a color.

This is called Synesthesia – or a transposition of senses.

### *Identification of Hallucinogens*

Some hallucinogenic drugs occur naturally.

- Peyote - is a species of cactus containing mescaline.
- There are numerous mushrooms (psilocybin) capable of inducing hallucinations.
- Jimson Weed and Morning Glory seeds can also be abused, often with tragic consequences.
- There is also a toad (*Bufo Alvarius*), which releases a hallucinogenic secretion when threatened. ***This secretion is a defense mechanism for the toad.***



### *Common Hallucinogens*

- Peyote (Mescaline)
- Psilocybin

### **Both are grown naturally**

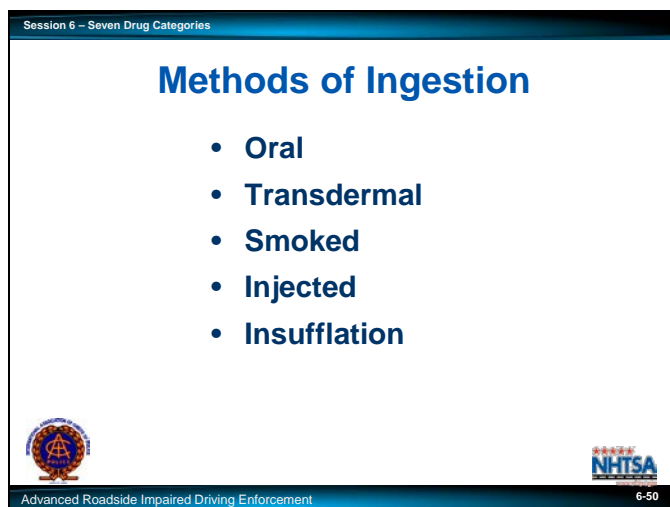
Hallucinogenic drugs are also synthetically manufactured.

Examples include:

- Lysergic Acid Diethylamide (LSD) liquid can be placed on blotter paper and sold as tabs, or it can be absorbed by sugar cubes or other pills.
- 3,4-Methylenedioxymethamphetamine (MDMA) or Ecstasy is an example of a synthetically produced Hallucinogen.
  - MDMA can be found as a pill or as a powder

A pill press can be used to compress the powder into a pill, which may contain a variety of different shapes or figures.

The use and abuse of Ecstasy has received wide spread attention because of its popularity in the “rave scene” and overdose deaths.



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Many Hallucinogens are taken orally.

LSD is absorbed directly either by placing it on the:

- Tongue
- Skin
- When a substance is absorbed through the skin it is called transdermal absorption.

**Extreme care should be taken when handling suspected LSD blotter paper. LSD can be absorbed through the skin causing unintentional intoxication.**

**Gloves should be worn!**

Substances that are dried and then eaten or brewed as a tea.

- Peyote
- Psilocybin Mushrooms
- Jimson Weed
- Morning Glory seeds

Ecstasy is usually taken orally.

Additionally, users can consume Hallucinogens by:



- Smoking
- Injecting
- Insufflation

Since most Hallucinogens are taken orally, detecting any signs of ingestion may be difficult.

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## Effects of Hallucinogens

- The drug generally intensifies the mood of the user at the time of ingestion.
- If the user is depressed – you could observe a deeper depression
- If the user is feeling pleasant – you could see a heightened pleasure





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## Effects of Hallucinogens

- Hallucinogens can uncover emotional flaws in the user
- Therefore, the user may expect a pleasurable “trip,” but end up instead with a bad “trip”



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## Effects of Hallucinogens

The user can feel a wide variety of effects when using Hallucinogens.

The effects depend on the personality and expectations of the individual as well as the surroundings in which the drug is taken.

The drug generally intensifies the mood of the user at the time of ingestion.

If the user is depressed:

- You could observe a deeper depression

If the user is feeling pleasant

- You could see a heightened pleasure.

Hallucinogens can uncover emotional flaws in the user.



Therefore, the user may expect a pleasurable “trip,” but end up instead with a bad “trip.”

[illegible]

Session 6 – Seven Drug Categories

### General Indicators

- Hallucinations
- Paranoia
- Nausea
- Perspiring
- Dazed appearance
- Flashbacks
- Body tremors
- Uncoordinated
- Poor perception of time and distance





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Session 6 – Seven Drug Categories

### General Indicators

- Disoriented
- Memory loss
- Synesthesia (transposition of the senses)
- Difficulty in speech



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### *General Indicators*

Some of the physical, mental, and medical behaviors associated with Hallucinogens are:

- Hallucinations
- Paranoia
- Nausea
- Perspiring
- Dazed appearance
- Flashbacks
- Body tremors
- Uncoordinated
- Poor perception of time and distance

**Flashbacks are not believed to be caused by a residual quantity of drug in the user's body, but rather are vivid recollections of a previous hallucinogenic experience.**



This can be similar to flashbacks associated with traumatic events.

- Disoriented
- Memory Loss
- Synesthesia (transposition of the senses)
- Difficulty in speech

Hallucinogens cause the user to have a poor perception of time and can result in difficulty estimating time.

## Duration of Effects

- **LSD** 10 to 12 hours  
Peaks between 4-6 hours
- **Ecstasy** 1 to 3 hours
- **Psilocybin** 2 to 3 hours
- **Peyote** up to 12 hours  
Peaks between 3-4 hours



Advanced Roadside Impaired Driving Enforcement



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Session 6 – Seven Drug Categories

## Overdose Signs and Symptoms

The primary overdose symptom for the Hallucinogen category is a long and intense “bad trip”





Advanced Roadside Impaired Driving Enforcement 6-57

Session 6 – Seven Drug Categories

## Medical Conditions That Mimic Hallucinogen Impairment

- High fever
- Mental illnesses



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The primary overdose symptom for the Hallucinogen category is a long and intense “bad trip.”

There are two conditions that may mimic impairment by a Hallucinogen. These may be, but are not limited to:

- High fever
- Mental illnesses

## Drug Matrix

	CNS Dep.	CNS Stim.	Hall.	Dissoc Anest.	Narc. Analg	Inhalant	Cannabis
HGN	Present	None	None				
VGN	Present	None	None				
LOC	Present	None	None				
Pupil Size	Normal *	Dilated	Dilated				



*\* Soma, Quaaludes and some Anti-Depressants  
usually Dilate Pupils*



## Seven Drug Categories

### Dissociative Anesthetics



### Dissociative Anesthetics

Dissociative Anesthetics include drugs that inhibit pain by cutting off or disassociating the brain's perception of pain.

Session 6 – Seven Drug Categories

## Dissociative Anesthetics

- PCP- Phencyclidine
- Analogs
- Ketamine
- Dextromethorphan





Advanced Roadside Impaired Driving Enforcement 6-61

Session 6 – Seven Drug Categories

## Identification of Dissociative Anesthetics

- PCP was originally manufactured as an intravenous anesthetic - trade name *Sernyl*
- Ketamine (*Ketalar*) is an analog of PCP and is still used in pediatric and animal surgery
- DXM is found in over-the-counter anti-tussive medicines like *Robitussin, Coricidin Cough and Cold and Dimetapp*

Advanced Roadside Impaired Driving Enforcement 6-62

Phencyclidine, along with its analogs, forms a distinct category all by themselves.

The chemical name for PCP is Phenyl Cyclohexyl Piperidine.

An analog of a drug is one with a similar chemical composition.

Analogues have slightly different chemical structures but produce the same effects.

Dissociative Anesthetics symptoms may be confused with individuals under the influence of Hallucinogens, Stimulants, and Depressants.

If a thorough assessment is not performed, the examiner may jump to an incorrect conclusion.

### *Identification of Dissociative Anesthetics*

PCP was originally manufactured as an intravenous anesthetic. It was marketed under the trade name of Sernyl.



Although the drug proved to be a very effective anesthetic, it was discontinued for human use in 1967 because of very undesirable side effects.

Ketamine (Ketalar) is an analog of Dissociative Anesthetics and is still used in pediatric and animal surgery.

Session 6 – Seven Drug Categories

## Methods and Signs of Ingestion

- Oral
- Insufflation
- Transdermal
- Eye Drops
- Smoked
- Injection





Advanced Roadside Impaired Driving Enforcement 6-63

Session 6 – Seven Drug Categories

## Effects of Dissociative Anesthetic

- Cut off or distort the brain's perception of the rest of the body's senses (Dissociate)
- Increase the user's pain threshold (Anesthetic)



Advanced Roadside Impaired Driving Enforcement 6-64

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### *Methods and Signs of Ingestion*

Dissociative Anesthetics ingestion:

- Oral
- Insufflation
- Transdermal
- Eye Drops
- Smoked
- Injection

Most common form of ingestion is smoking in cigars, cigarettes, and marijuana

**Officer safety is important. Numerous incidents have been documented where officers have been exposed to the side effects of the drug.**

### Effects of Dissociative Anesthetic

The predominant effect of Dissociative Anesthetics is the ability to cut off the brain's perception of the rest of the body's senses.

This sense is so strong that many users feel their head is actually separated from their body.

Another, more dangerous, effect of PCP is the user's increased pain threshold.

The user is impervious to the same pain sensations that would typically render an impaired person incapacitated.

One should be extremely cautious when dealing with an individual impaired by PCP.

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Session 6 – Seven Drug Categories

### General Indicators

- Perspiring
- Blank stare
- Cyclic behavior
- Chemical odor
- Incomplete verbal responses
- Warm to the touch
- Slurred and repetitive speech
- Hallucinations





Advanced Roadside Impaired Driving Enforcement 6-05

Session 6 – Seven Drug Categories

### General Indicators

- Confused
- Possibly violent
- Difficulty with speech
- Disoriented
- Early angle of nystagmus
- Non-communicative
- Sensory distortions



Advanced Roadside Impaired Driving Enforcement 6-06

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#### *General Indicators*

- Perspiring (PCP)
- Blank stare
- Cyclic behavior (PCP)
- Chemical odor (PCP)
- Incomplete verbal responses
- Warm to the touch (PCP)
- Slurred and repetitive speech
- Hallucinations
- Confused
- Possibly violent
- Difficulty with speech
- Disoriented
- Early angle of nystagmus
- Non-communicative
- Sensory distortions

Subjects impaired by Dissociative Anesthetics typically have difficulty estimating time.

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Session 6 – Seven Drug Categories

### Eye Indicators

- HGN Present
- VGN Present
- LOC Present
- Pupil Size Normal






Advanced Roadside Impaired Driving Enforcement 6-67

Session 6 – Seven Drug Categories

### Duration of Effects

- PCP 4 to 6 hours
- Ketamine 30-45 minutes (injected)  
45-60 minutes (snorted)  
1-2 hours (orally)
- DXM 3-6 hours

Advanced Roadside Impaired Driving Enforcement 6-68

#### *Eye Indicators*

HGN ..... Present

VGN ..... Present

LOC ..... Present

Pupil Size ..... Normal

#### *Duration of Effects*

PCP ..... 4-6 hours

Ketamine ..... 30-45 minutes (injected)

..... 45-60 minutes (Insufflation)

..... 1-2 hours (orally)

DXM..... 3-6 hours

The duration of general effects may vary according to dose and whether the drug is injected, snorted, smoked or taken orally.

There is often a prolonged recovery period following the dissipation of the general effects.

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## Overdose Signs and Symptom

- Deep coma lasting up to 12 hours
- Seizures and convulsions
- Respiratory depression
- Magnification of pre-existing cardiac conditions
- Possible psychosis



One of the primary overdose symptoms for the Dissociative Anesthetic drug category is a long and intense “trip.”



## Drug Matrix

	CNS Dep.	CNS Stim.	Hall.	Dissoc. Anest.	Narc. Analg.	Inhalant	Cannabis
HGN	Present	None	None	Present			
VGN	Present	None	None	Present			
LOC	Present	None	None	Present			
Pupil Size	Normal *	Dilated	Dilated	Normal			



*\* Soma, Quaaludes, and possibly some  
Anti-Depressants usually dilate pupils*



## Seven Drug Categories

### Narcotic Analgesics





### Narcotic Analgesics

## Narcotic Analgesics

**Narcotic Analgesics:**

- Relieve pain
- Induce euphoria, alter moods, and produce sedation
- Known for physically addicting properties and severe withdrawal symptoms





Advanced Roadside Impaired Driving Enforcement

6-73

## Identification of Narcotic Analgesics

- The most familiar Narcotic Analgesic is heroin
- Heroin is normally found in powder form
- Heroin's color ranges from white to dark brown(tar colored)



Advanced Roadside Impaired Driving Enforcement

6-74

## Narcotic Analgesics

Drugs in the Narcotic Analgesics category relieve pain.

They induce euphoria, alter moods, and produce sedation.

Narcotic Analgesics are also included in the opiate family and are legal prescription medications as well as illegal drugs.

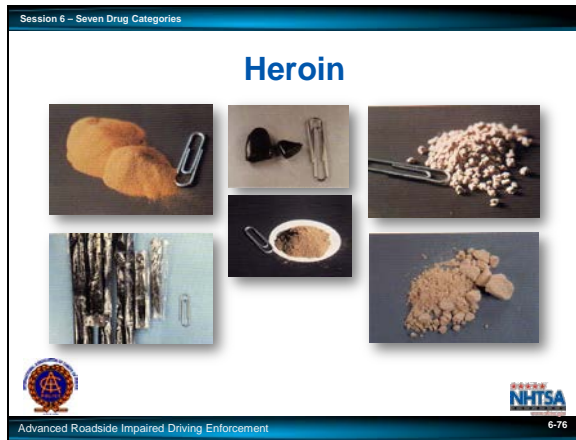
This category is known for its physically addicting properties and severe withdrawal symptoms

### Identification of Narcotic Analgesics

The most familiar Narcotic Analgesic is heroin.

Depending on the purity, heroin may be a white powder to a dark brown powder/tar color.

This image shows a full page of white paper with horizontal grey ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for handwriting practice or general writing. There are no margins, text, or other markings on the page.



## Heroin

Heroin is the most commonly abused illicit Narcotic Analgesic.

Derived from Morphine in 1874.

Heroin was first thought to be a non-addictive substitute for Morphine.

It was approved for general use by the American Medical Association in 1906.

By the 1920's it was evident that heroin was much more addictive than Morphine.

Importation and manufacture of heroin have been illegal in this country since 1925.



Heroin is a Schedule I drug, which means it has no legitimate medical uses in the United States.

Session 6 – Seven Drug Categories

## Identification of Narcotic Analgesics

Other Narcotic Analgesics include:

- Hydrocodone
- Vicodin
- Lortab
- Tylenol 3 (with codeine)
- Buprenorphine
- Morphine
- Oxycontin

Advanced Roadside Impaired Driving Enforcement 6-77

Session 6 – Seven Drug Categories

## Methods, Signs, and Symptoms

Methods of ingestion vary, depending on the drug used

- Orally in pill form
- Inhaled as a powder
- Injected as a liquid







Advanced Roadside Impaired Driving Enforcement 6-78

Other Narcotic Analgesics include:

- Hydrocodone
- Vicodin
- Lortab
- Tylenol 3 (with codeine)
- Buprenorphine
- Morphine
- Oxycontin

Typically, these are prescription drugs and found in pill form. The shape, size, or scoring can depend on the manufacturer or milligram amount. In most cases, Narcotic Analgesics are obtained in local pharmacies and sold locally. These drugs are inexpensive and frequently prescribed, but nevertheless remain a controlled substance.

### *Methods of Ingestion*

Methods of ingestion vary, depending on the drug used. They may be taken:

- Orally in pill form
- Injected as a liquid
- Smoked
- Insufflation
- Suppositories
- Transdermal

Most of the prescribed pain relievers are found in the pill form, which will be taken orally. If taken orally, signs of ingestion may be limited.

Heroin that is more pure may be inhaled, while heroin that is less pure is typically injected.

## Effects of Narcotic Analgesics

- Usually very addictive
- Addicts who stop using may suffer physical withdrawal symptoms
- Users may develop a tolerance to the drug (Each time the drug is taken, a larger dose is required to achieve the same feeling)





### *Effects of Narcotic Analgesics*

- Narcotic Analgesics are usually very addictive.
- This means the person must receive a dose of the drug at regular intervals or physical withdrawal may result.
- Narcotic Analgesics also enable the person to develop a tolerance to the drug.
- Each time the drug is taken, a larger dose is required to achieve the same feeling.

Session 6 – Seven Drug Categories

## General Indicators

- Droopy eyelids
- “On the nod”
- Drowsiness
- Depressed reflexes
- Dry mouth
- Slow, low, raspy speech






Advanced Roadside Impaired Driving Enforcement 6-79

Session 6 – Seven Drug Categories

## General Indicators

- Euphoria
- Puncture marks
- Itching
- Nausea
- Slowed breathing

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### *General Indicators*

- Droopy eyelids
- “On the nod” (Semiconscious type state of deep relaxation)
- Drowsiness
- Depressed reflexes
- Dry mouth
- Slow, low, raspy speech
- Euphoria
- Puncture marks
- Itching (Face, arms or body)
- Nausea
- Slowed breathing

Session 6 – Seven Drug Categories

### Eye Indicators

- HGN Not Present
- VGN Not Present
- LOC Not Present
- Pupil Size Constricted






Advanced Roadside Impaired Driving Enforcement 6-82

Session 6 – Seven Drug Categories

### Duration of Effects

- Heroin 4-6 hours
- Hydrocodone 6-8 hours
- Dilaudid 5 hours
- Vicodin 4-6 hours
- Methadone 12-18 hours

Advanced Roadside Impaired Driving Enforcement 6-83

### *Eye Indicators*

HGN ..... Not Present

VGN ..... Not Present

LOC ..... Not Present

Pupil Size ..... Constricted

### *Duration of Effects*

The duration of Narcotic Analgesics can vary from one type to another.

Dosage amounts, age, weight, tolerance, and other variables may dictate the length of actual impairment.

Heroin..... 4-6 hours

Hydrocodone..... 6-8 hours

Dilaudid ..... 5 hours

Vicodin ..... 4-6 hours

Methadone ..... 12-18 hours

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Session 6 – Seven Drug Categories

### Overdose Signs

- Slow and shallow breathing
- Clammy skin
- Coma
- Convulsions





Advanced Roadside Impaired Driving Enforcement 6-84

Session 6 – Seven Drug Categories

### Conditions That May Mimic Narcotic Analgesic Drug Impairment

- Fatigue
- Very recent head injuries
- Diabetic reactions
- Hypotension (low blood pressure)
- Severe depression



Advanced Roadside Impaired Driving Enforcement 6-85

Overdose signs and symptoms of a Narcotic Analgesic may include, but are not limited to:

- Slow and shallow breathing
- Clammy skin
- Coma
- Convulsions

There are several conditions that may mimic impairment by a Narcotic Analgesic. These may be, but are not limited to:

- Fatigue
- Very recent head injuries
- Diabetic reactions
- Hypotension (low blood pressure)
- Severe depression

## Drug Matrix

	CNS Dep.	CNS Stim.	Hall.	Dissoc. Anest.	Narc. Analg.	Inhalant	Cannabis
HGN	Present	None	None	Present	None		
VGN	Present	None	None	Present	None		
LOC	Present	None	None	Present	None		
Pupil Size	Normal *	Dilated	Dilated	Normal	Constricted		



*\* Soma, Quaaludes, and possibly some Anti-Depressants usually dilate pupils*



Inhalants are breathable chemicals that produce mind altering results.

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## Identification of Inhalants

- Volatile solvents
- Aerosols
- Anesthetic gases





6-8

- Volatile solvents
- Aerosols
- Anesthetic gases

Session 6 – Seven Drug Categories

## Volatile Solvents

- Gasoline
- Paint thinners
- Fingernail polish remover
- Cleaning fluid
- Liquid Correction Fluid
- Paint
- Various glues



Advanced Roadside Impaired Driving Enforcement6-89

Volatile solvents include a large number of readily available substances, none of which are intended by their manufactures to be used as drugs.

Some of these include:

- Gasoline
- Paint thinners
- Fingernail polish remover (contains Acetone)
- Dry cleaning fluid
- Liquid Correction Fluid
- Paint (particularly oil or solvent based)
- Various glues (model airplane glue)

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- Ether
- Amyl nitrite
- Butyl nitrite
- Isobutyl nitrite
- Nitrous oxide
  - (Whipped cream gas)

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## Methods and Signs of Ingestion

- Persons abusing Inhalants will frequently have the abused substance on their:**

- 

- Can be sprayed into an empty soda can and inhaled through the opening in the top
- Sprayed into a balloon and inhaled
- Soaked in a cloth (scrunchies/socks) and placed on the nose/mouth and inhaled

- Hands
- Face
- Mouth



## Effects of Inhalants

- The effects of Inhalants will vary widely depending on the substance inhaled
- Typically the Inhalant abuser will generally appear to be intoxicated on alcohol



### *Effects of Inhalants*

The effects of Inhalants will vary widely depending on the substance inhaled.



Typically the Inhalant abuser will generally appear to be intoxicated on alcohol.

Inhalant abusers can be detected and distinguished from other drug abusers because they will usually carry a chemical odor of the inhaled substance about their breath and person.

Session 6 – Seven Drug Categories

### General Indicators

- Confusion
- Flushed face
- Intense headaches
- Bloodshot, watery eyes
- Lack of muscle control
- Odor of inhaled substance






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Session 6 – Seven Drug Categories

### General Indicators

- Non-communicative
- Disoriented
- Slow, thick speech
- Possible nausea
- Residue of substance around mouth and nose

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#### *General Indicators*

- Confusion
- Flushed face
- Intense headaches
- Bloodshot, watery eyes
- Lack of muscle control
- Odor of inhaled substance
- Non-communicative
- Disoriented
- Slow, thick slurred speech
- Possible nausea
- Residue of substance around mouth and nose

Because inhalants typically cause the user to be confused and disoriented, a subject impaired by an inhalant will have difficulty estimating time.

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## Conditions That May Mimic Drug Impairment

**There are two conditions that may mimic Inhalant impairment:**

- Severe head injuries
- Inner ear disorders / Equilibrium



- Severe head injuries
- Inner ear disorders / Equilibrium

[illegible]

## Drug Matrix

	CNS Dep.	CNS Stim.	Hall.	Dissoc. Anest.	Narc. Analg.	Inhalant	Cannabis
HGN	Present	None	None	Present	None	Present	
VGN	Present	None	None	Present	None	Present	
LOC	Present	None	None	Present	None	Present	
Pupil Size	Normal *	Dilated	Dilated	Normal	Constricted	Normal **	



*\* Soma, Quaaludes, and possibly some Anti-Depressants usually dilate pupils*

*\*\* Normal (average ranges) but may be dilated*





Cannabis

Session 6 – Seven Drug Categories

## Cannabis

- Category derived primarily from various species of plants
- This category has the most widely abused illicit drugs
- Delta-9 Tetrahydrocannabinol (THC) is the primary psychoactive ingredient in Cannabis

Advanced Roadside Impaired Driving Enforcement 6-106



Session 6 – Seven Drug Categories

## Forms of Cannabis

The Cannabis category includes:

- Marijuana
- Hashish
- Hash oil
- Synthetic drugs, such as Dronabinol and Marinol

Other forms of Cannabis

Advanced Roadside Impaired Driving Enforcement 6-105

Cannabis is a category of drugs derived primarily from various species of plants, such as Cannabis Sativa and Cannabis Indica.

The drugs in this category are the most widely abused illicit drugs.

They can be extremely impairing even though they are often believed to be fairly benign.

The primary psychoactive ingredient in Cannabis is:

- Delta-9 Tetrahydrocannabinol (THC)

THC is found primarily in the leaves and flower of the marijuana plant.

Different varieties of Cannabis contain various concentrations of THC.

Marijuana is usually found as green leaves.

The Cannabis category includes:

- Marijuana
- Hashish
- Hash oil
- Synthetic drugs, such as Dronabinol and Marinol
- Other forms of Cannabis

[illegible]



## THC Concentrations

- THC concentrations decades ago, peaked at relatively low levels (3-6 %).
- Current levels are being reported at more than 30%





Session 6 – Seven Drug Categories

## Synthetic Cannabinoid Products

Synthetic cannabinoid products typically include:

- Olive colored herbs
- Combination of herbs
- Plant materials






Advanced Roadside Impaired Driving Enforcement 6-111

Session 6 – Seven Drug Categories

## Synthetic Cannabinoid Products Effects

- Panic attacks
- Agitation
- Tachycardia (range of 110 to 150 BPM)
- Elevated blood pressure
- Anxiety
- Pallor
- Numbness and tingling

Advanced Roadside Impaired Driving Enforcement 6-112

### *Synthetic Cannabinoid Products*

Synthetic cannabinoid products typically include olive colored herbs, combination of herbs, or plant materials enhanced with a delta-9-tetrahydrocannabinol (THC) synthetic analog. When smoked, synthetic cannabinoid products can produce stimulant and/or hallucinogenic effects.

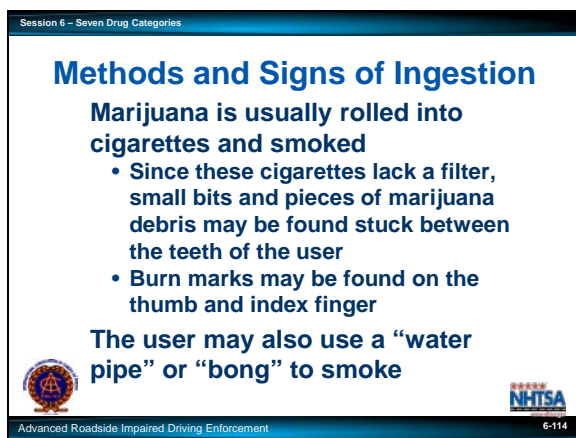
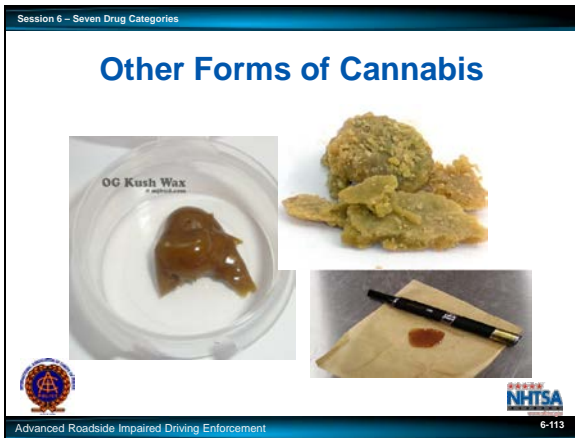
### *Synthetic Cannabinoid Products Effects*

They have many adverse effects that include:

- Panic attacks
- Agitation
- Tachycardia (range of 110 to 150 BPM)
- Elevated blood pressure
- Anxiety
- Pallor
- Numbness and tingling

User report effects lasting between 30 minutes and 2 hours.

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.



Sources indicate that “waxy marijuana or wax marijuana is the purest form of cannabis. It contains anywhere from 82-99% THC making it several times more potent than a marijuana bud on a cannabis plant which usually contains 5-28% THC. One hit of wax is supposedly equal to 1-2 full cannabis joints and is reported as being more clear and longer lasting than average marijuana. Wax marijuana is also a medical marijuana product. Typical wax marijuana is golden in color and crumbly; though texture may vary based on type.”

#### *Methods and Signs of Ingestions*

Marijuana is usually rolled into cigarettes and smoked.

Since these cigarettes lack a filter, small bits and pieces of marijuana debris may be found stuck between the teeth of the user.

Burn marks may be found on the thumb and index finger.

The user may also use a “water pipe” or “bong” to smoke marijuana.

- By passing the marijuana smoke through the water, the smoke is not only more pure, but also cooler.

- Pay attention
- May have a very brief attention span.

The consequences of this in the classroom may be obvious, but the consequences when driving can be fatal.



[illegible]

Session 6 – Seven Drug Categories

## Effects of Marijuana on Driving

**Even small amounts of marijuana can double chances of motor vehicle crash**

- ✓ Larger doses can triple
- ✓ Risk for automobile crash almost 2.7 times higher among Marijuana users
- ✓ The effects of Marijuana vary between the individual effects of alcohol



Advanced Roadside Impaired Driving Enforcement 6-105



- According to a study by the British Medical Journal (2005) 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 times higher among marijuana users than non-users. The more marijuana smoked in terms of frequency and potency, the greater likelihood of a crash.
- In a study published by the National Institute of Health Public Access (2009) showed that the effects of marijuana vary more between the individual than the effects of alcohol.

The study also revealed that laboratory tests and driving studies show, "Cannabis may acutely impair several driving-related skills in a dose-related fashion but the effects between individuals varies more than they do with alcohol because of tolerance, the difference in smoking techniques and different absorption of THC."

Session 6 – Seven Drug Categories

### General Indicators

- Euphoria
- Bloodshot eyes
- Odor of marijuana
- Marijuana debris in the mouth
- Body tremors
- Increased appetite






Advanced Roadside Impaired Driving Enforcement 6-115

Session 6 – Seven Drug Categories

### General Indicators

- Relaxed inhibitions
- Disoriented
- Possible paranoia
- Altered time and distance perception
- Eyelid tremors
- Sedation

Advanced Roadside Impaired Driving Enforcement 6-116

#### *General Indicators*

- Euphoria
- Bloodshot eyes
- Odor of marijuana
- Marijuana debris in the mouth
- Body tremors
- Increased appetite
- Relaxed inhibitions
- Disoriented
- Possible paranoia
- Altered time and distance perception
- Eyelid tremors
- Sedation

Cannabis affects the user's ability to estimate time and distance.

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Session 6 – Seven Drug Categories

## Eye Indicators

- HGN            Not Present
- VGN            Not Present
- LOC            Present
- Pupil Size   Dilated (May be normal)

Advanced Roadside Impaired Driving Enforcement      6-118

Session 6 – Seven Drug Categories



## Onset and Duration of Marijuana's Effects

**Within minutes** - User begins to feel and exhibit effects

**10-30 minutes** - Peak effects are reached

**2-3 hours** - User continues to feel and exhibit effects

**3-5 hours** - User feels “normal”

Advanced Roadside Impaired Driving Enforcement      6-119

### *Eye Indicators*

HGN ..... Not Present

VGN ..... Not Present

LOC ..... Present

Pupil Size ..... Dilated (Possibly normal)

### *Duration of Effects*

- Effects from smoking Cannabis are felt within minutes and reach their peak in 10-30 minutes. Typical marijuana smokers experience a high that lasts approximately 2 hours. Most behavioral and physiological effects return to baseline within 3-5 hours after drug use, although some residual effects in specific behaviors can last up to 24 hours.
- A 1985 Stanford University study showed that pilots had difficulty in holding patterns and in lining up with runways for up to 24 hours after using Marijuana.

Depending on the amount smoked and on the concentration of THC in the Marijuana, the person will continue to feel and exhibit the effects for 2–3 hours.

- 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 3–5 hours after smoking Marijuana.



- The user may be impaired long after the euphoric feelings have ceased.

Session 6 – Seven Drug Categories

## Duration of Effects

### Dronabinol/Marinol

- Onset 30-60 minutes
- Peak 2-4 hours
- Appetite Stimulant Up to 24 hours



Advanced Roadside Impaired Driving Enforcement 6-120

Session 6 – Seven Drug Categories

## Duration of Effects

### Other Forms of Cannabis

- Onset Immediate
- Peak Varies\*
- Duration Varies\*


Advanced Roadside Impaired Driving Enforcement 6-121

Session 6 – Seven Drug Categories

## Overdose Signs and Symptoms

Overdose signs and symptoms may include, but are not limited to:

- Paranoia
- Fatigue

Advanced Roadside Impaired Driving Enforcement 6-122

Dronabinol has an onset of 30 minutes to 1 hour with peak effects occurring between 2 and 4 hours.

It can stimulate appetite for up to 24 hours

**\* (Depends on substance consumed)**

Overdose signs and symptoms of Cannabis may include, but are not limited to:

- Paranoia
- Fatigue

Generally speaking, Cannabis impairment will not be confused with any other medical condition as noted in the other drug categories.

However, a person diagnosed with an attention deficit disorder may mimic a Cannabis user's inability or unwillingness to pay attention.



## Drug Matrix

	CNS Dep.	CNS Stim.	Hall.	Dissoc. Anest.	Narc. Analg.	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 ***



*\*Soma, Quaaludes, and possibly some Anti-Depressants usually dilate pupils*

*\*\*Normal (average range) but may be dilated*

*\*\*\*Dilated, may be normal (average range)*





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### **C. Officer Safety**

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 and drug impairment. It is important for officers 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.

The IACP has a resource entitled, "Improving Officer Response to Persons with Mental Illness and Other Disabilities" that can be accessed at <http://www.theiacp.org>. Other recommended We sites and links for further information that may be beneficial for DREs and other police officers include [www.samhsa.gov](http://www.samhsa.gov), [www.nami.org](http://www.nami.org), [www.citinterational.org](http://www.citinterational.org), [www.mentalhealthfirstaid.org/cs](http://www.mentalhealthfirstaid.org/cs), [www.ncmhr.org](http://www.ncmhr.org), or [www.nasmhpd.org/index.aspx](http://www.nasmhpd.org/index.aspx)

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# QUESTIONS?



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# Participant Manual

## Advanced Roadside Impaired Driving Enforcement (A.R.I.D.E.)

Session 7 - Drug Combinations

30 Minutes

### Session 7

#### The Effects of Drug Combinations



Advanced Roadside Impaired Driving Enforcement



7-1

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Session 7 – Drug Combinations

## Learning Objectives

- Describe the prevalence of drug and alcohol use (individually and in combination) as well as poly drug use
- Define poly drug use
- Articulate possible effects of poly drug use related to the general indicators of alcohol and drugs

Advanced Roadside Impaired Driving Enforcement


7-2

Upon successful completion of this Session the participant will be able to:

- Describe the prevalence of drug and alcohol use (individually and in combination) as well as poly drug use.
- Define poly drug use.
- Articulate possible effects of poly drug use related to the general indicators of alcohol and drugs.

Content Segments.....Learning Activities

- A. Prevalence of drug and alcohol use.....Instructor-Led Presentation
- B. Define poly drug use
- C. Potential effects of poly drug
- D. Types of drug combinations.....Instructor-Led Presentation
- E. Combinations including alcohol

<p>Session 7 – Drug Combinations</p> <h3>Prevalence of Drug and Alcohol Use</h3> <ul style="list-style-type: none"> <li>In 2013 approximately 6.8 million people aged 12 years or older used psychotherapeutic drugs non-medically in the past year (NSDUH, 2013)</li> </ul>  <p>Advanced Roadside Impaired Driving Enforcement 7-3</p>	<p>Session 7 – Drug Combinations</p> <h3>Prevalence of Drug and Alcohol Use</h3> <ul style="list-style-type: none"> <li>Alcohol is the most popular "mixer" with other drugs</li> <li>Cannabis is another popular "mixer", and frequently shows up in combination with Cocaine, PCP, and various other drugs</li> <li>The "speedball", a combination of Cocaine and Heroin, remains popular</li> </ul>  <p>Advanced Roadside Impaired Driving Enforcement 7-4</p>
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## A. Prevalence of Drug and Alcohol Use

- In 2013, approximately 6.8 million people aged 12 years or older used psychotherapeutic drugs non-medically in the past year.

*Source: National Survey on Drug Use and Health (NSDUH, 2013).*

- The exact number of prescription drug users in the U.S. is unknown. However, it is estimated that 52 million people have used prescription drugs non-medically in their lifetime.

*Source: NIDA, 2013*

- Among those aged 50 to 59, the rate of past month illicit drug use continues to increase and is at approximately 3 million (2012). This trend may partially reflect the aging into this age group of the "Baby Boomer" generation, whose lifetime rate of illicit drug use is higher than those of older cohorts.
- In 2013, 9.9 million persons aged 12 or older reported driving under the influence of illicit drugs during the past year. This corresponds to 3.9 percent of the population aged 12 or older. Source: NSDUH, 2013
- Research has shown that Alcohol is the most popular "mixer" with other drugs.
- Cannabis is another popular "mixer", and frequently shows up in combination with Cocaine, Dissociative Anesthetics, and various other drugs.
- The "speedball", a combination of Cocaine and Heroin, remains popular

Law enforcement officers should not be surprised to encounter virtually any possible combination of drugs.

Law enforcement officers may find more poly-drug users than single drug users.

This means that if the law enforcement officer is to do a good job at interpreting the results of observations, they must understand the basic mechanisms of drug interaction.

This session will help the participant understand the effects of poly-drug use.



**Poly Drug Use:** When a person ingests drugs from two or more different drug categories.

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Four types of combined effects can, and generally will occur when two or more drug categories are used together:



- Null Effect
- Overlapping Effect
- Additive Effect
- Antagonistic Effect

Session 7 – Drug Combinations

## Null Effect

If neither drug affects some particular indicator of impairment, their combination also will not affect that behavior

Nothing + Nothing = Nothing



Advanced Roadside Impaired Driving Enforcement 7-7

### D. Types of Drug Combinations

#### *Null Effect*

The simplest way to explain the null effect is using the phrase: “zero plus zero equals zero”

When a subject consumes one drug which does not cause HGN and they also ingest another drug which does not cause HGN, then the officer should not expect to see HGN.

Another example of the null effect is the pupil size of a suspect who was under the influence of Dissociative Anesthetic and a CNS Depressant.

Dissociative Anesthetics do not affect pupil size and neither do CNS Depressants. The combination of these drugs should not affect the size of the pupils.

If neither drug affects some particular indicator of impairment, then their combination also will not affect that indicator.

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Session 7 – Drug Combinations

### Overlapping Effect

If one drug affects some particular indicator of impairment and another does not, their combination also will affect that behavior.

Action

+

Nothing

=

Action

Advanced Roadside Impaired Driving Enforcement 7-8

Session 7 – Drug Combinations

### Overlapping Effect Examples

**Narcotic Analgesics typically cause:**

- HGN - Not present
- VGN – Not present
- LOC – Not present
- Pupil Size – Constricted

**CNS Depressants typically cause:**

- HGN - Present
- VGN – Possibly Present
- LOC – Present
- Pupil Size – Normal

Advanced Roadside Impaired Driving Enforcement 7-9

### *Overlapping Effect*

The overlapping effect comes into play when one drug does affect an indicator of impairment and the other drug has no effect on that indicator.

Examples:

Narcotic Analgesics typically cause:

- HGN - Not present
- VGN – Not present
- LOC – Not present
- Pupil Size – Constricted

CNS Depressants typically cause:

- HGN - Present
- VGN – Possibly Present

**VGN is present in high doses.**

- LOC – Present
- Pupil Size – Normal

- HGN - Present
- VGN – Possibly Present
- LOC – Present
- Pupil Size – Constricted

Action plus nothing equals action.

This image shows a single sheet of white paper with horizontal grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Session 7 - Drug Combinations

### Additive Effect

If both drugs affect some particular indicator of impairment, their combination also will affect that behavior.

Action

+

Action

=

Greater Action

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Session 7 - Drug Combinations

### Likely Effects of Combination Depressant and Inhalant

- Both cause HGN and VGN
- Expect to see more clues or more pronounced HGN and/or VGN than seen with an individual under the influence of either a depressant or an inhalant alone

Action

+

Action

=

Greater Action

Advanced Roadside Impaired Driving Enforcement 7-12

### Additive Effect

The additive effect occurs when two drug categories affect the same indicator in the same way. In other words, the effects 'add together' or reinforce each other to produce a greater effect than one of the drugs could produce individually.

If an officer observes general indicators related to a depressant and an inhalant:

- Both cause HGN and VGN.
- We might expect to see more clues or more pronounced HGN and/or VGN than we might see with an individual under the influence of either a depressant or an inhalant alone.

The simplest way to explain the additive effect is to say "action plus action equals greater action".

One thing we can't say for certain is how much the two drugs will reinforce each other.

Sometimes the reinforced effect is as simple as "one plus one equals two", while other drug combinations may produce a combined effect, which is greater than the individual combinations of the two drugs

"one plus one equals five"

For the purpose of this course, we use the term additive effect to cover all situations where two drugs impact an indicator in the same way.

Session 7 – Drug Combinations

### Additive Effect Examples

Alcohol typically causes:

- HGN – Present
- VGN – Possibly present
- Pupil Size – Normal
- LOC – Present

CNS Depressants typically cause:

- HGN – Present
- VGN – Possibly present
- Pupil Size – Normal
- LOC – Present

Session 7 – Drug Combinations

### Additive Effects Cause Exaggerated Indicators


Action


+

Action

=


Greater Action






Advanced Roadside Impaired Driving Enforcement

7-13





Advanced Roadside Impaired Driving Enforcement

7-14

Alcohol typically causes:

- HGN – Present
- VGN – Possibly present
- Pupil Size – Normal
- LOC – Present

CNS Depressants typically cause:

- HGN – Present
- VGN – Possibly present
- Pupil Size – Normal
- LOC – Present

The additive effects may cause the indicators to be exaggerated.

Action + Action = Greater Action

**Pupils may be dilated. What you see with HGN usually will not be consistent with the BAC.**

**VGN usually will not be present unless it's a high dose for that individual. The combination may allow the VGN to be observed at a low BAC.**



Session 7 – Drug Combinations

## Antagonistic Effect

When two drugs affect some indicator in exactly the opposite way, their combined effect will be unpredictable

Action + Opposite Action = Unpredictable

Effects will be dependent on which drug is more dominant in the system at any given time



Advanced Roadside Impaired Driving Enforcement 7-15

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### *Antagonistic Effect*

An antagonistic effect occurs when two drug categories affect an indicator in exactly the opposite ways.

For example:

- Stimulant use results in dilated pupils while narcotic analgesics cause the pupils to be constricted.
- An officer may observe normal, constricted, or dilated pupils due to the antagonistic effect.

When we deal with an antagonistic effect, we cannot always predict the outcome effect.

The effects that you will see will be dependent on which drug is more dominant in the system at any given time.

Example:

- If the stimulant is the psychoactive drug in the system, the pupils may be dilated.
- If the narcotic analgesic is more psychoactive drug, the pupils may be constricted.
- If the drugs are acting on the system in an equal manner you may see normal pupils.

”Action plus opposite action will be unpredictable”

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The actual effects can depend on a number of factors including, but not limited to:

- Dose levels
- Time of ingestion
- A subject's metabolism

In order to illustrate the possible effects of drug combinations, the following examples will show a cumulative drug symptomatology matrix for two different drug combinations.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.



## Combination Cannabis and Stimulant

Impairment Indicator	Effect Due to Cannabis	Effect Due to Stimulant	Type of Combined Effect	What we will see
HGN	None	None	Null	None
VGN	None	None	Null	None
LOC	Present	None	Overlapping	Present
Pupil size	Dilated or Normal	Dilated	Overlapping	Dilated



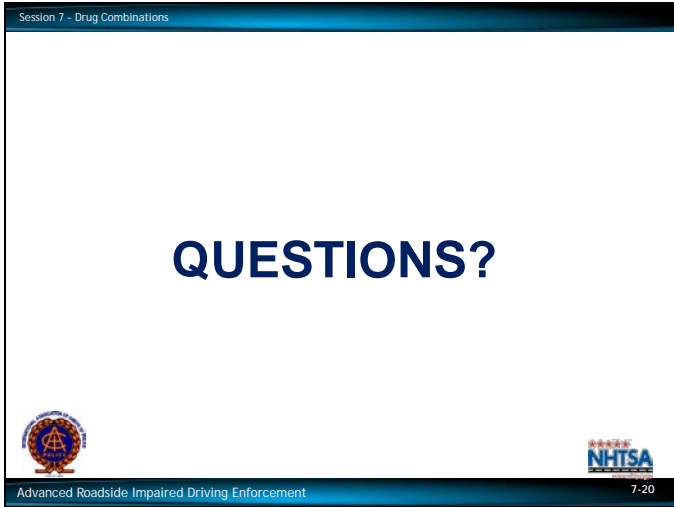
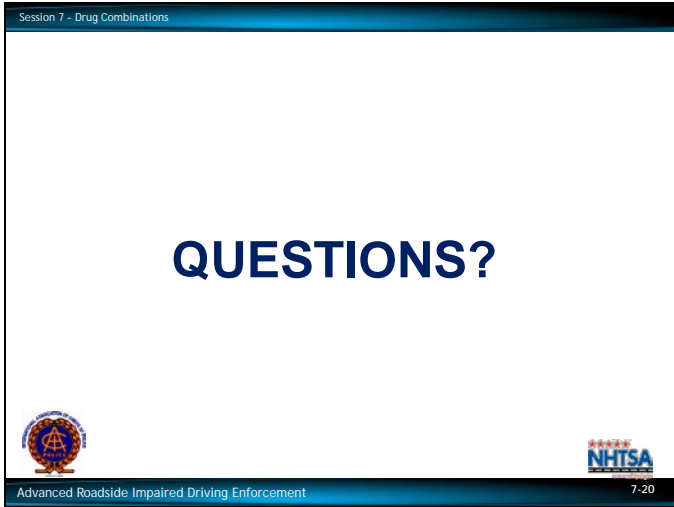
Session 7 - Drug Combinations

# QUESTIONS?





Advanced Roadside Impaired Driving Enforcement

7-20



Session 7 - Drug Combinations

# QUESTIONS?





Advanced Roadside Impaired Driving Enforcement

7-20

Session 7 - Drug Combinations

# QUESTIONS?



Advanced Roadside Impaired Driving Enforcement

7-20

This image shows a full page of white paper with horizontal grey ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for handwriting practice or general writing. There are no margins, text, or other markings on the page.

**ARIDE Drug Category Matrix**

Rev 10/2015

	DEPRESSANTS	STIMULANTS	HALLUCINOGENS	DISSOCIATIVE ANESTHETICS	NARCOTIC ANALGESICS	INHALANTS	CANNABIS
<b>HGN</b>	Present	None	None	Present	None	Present	None
<b>VGN</b>	Present (High Dose)	None	None	Present	None	Present (High Dose)	None
<b>LOC</b>	Present	None	None	Present	None	Present	Present
<b>PUPIL SIZE</b>	Normal *	Dilated	Dilated	Normal	Constricted	Normal **	Dilated ***
<b>TIME ESTIMATION</b>	Slow	Fast	Fast/Slow	Varied	Slow	Fast/Slow	Slow
<b>GENERAL INDICATORS</b>	Reduced ability to divide attention	Restlessness	Hallucinations	Perspiring	Droopy eyelids	Confusion	Reddening of Conjunctivae
	Disoriented	Body tremors	Paranoia	Blank stare	"On the Nod"	Flushed face	Odor of marijuana
	Sluggish	Excited	Nausea	Cyclic behavior	Drowsiness	Intense headaches	Marijuana debris in the mouth
	Thick, slurred speech	Euphoria	Perspiring	Chemical odor	Depressed reflexes	Bloodshot/Watery eyes	Body tremors
	Drunk-like behavior	Talkative	Dazed appearance	Incomplete verbal responses	Dry mouth	Lack of Muscle Control	Increased appetite
	Droopy eyelids	Exaggerated reflexes	Flashbacks	Warm to the touch	Low, raspy, slow speech	Odor of inhaled substance	Relaxed inhibitions
	Fumbling	Anxiety	Muscle tremors	Slurred and repetitive speech	Euphoria	Non-communicative	Disoriented
	Relaxed inhibitions	Grinding teeth	Uncoordinated	Hallucinations	Puncture marks	Disoriented	Possible paranoia
	Slowed reflexes	Redness to nasal area	Altered time/distance perception	Confusion	Itching	Slurred speech	Altered time/distance perception
	Uncoordinated	Runny nose	Disoriented	Possibly violent	Nausea	Possible nausea	Eyelid tremors
	Drowsiness	Increased alertness	Memory loss	Difficulty with speech	Slowed breathing	Residue of substance around mouth/nose	
	Unsteady, staggering walk	Dry mouth	Synesthesia	Disoriented			
		Irritability	Difficulty with speech	Early angle of nystagmus			
		Eyelid and leg tremors		Non-communicative			
		Insomnia		Sensory distortions			
				Loss of memory			

\*Soma, Quaaludes and certain anti-depressants may dilate

\*\*Normal but may be dilated

\*\*\*Dilated but may be normal

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# Participant Manual



## Advanced Roadside Impaired Driving Enforcement (A.R.I.D.E.)

Session 8 - Pre and Post Arrest Procedures

2 Hours

### Session 8

#### Pre and Post Arrest Procedures







Advanced Roadside Impaired Driving Enforcement

8-1

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Session 8 – Pre and Post Arrest Procedures	Session 8 – Pre and Post Arrest Procedures
<p style="text-align: center;"><b>Learning Objectives</b></p> <ul style="list-style-type: none"> <li>• Describe the Three Phases of the DWI Detection Process</li> <li>• Describe effective roadside interview techniques</li> <li>• List elements of <i>Driving While Under the Influence of Drugs (DUID)</i></li> <li>• Identify indicators of impairment during three phases of detection process</li> </ul>   <p>Advanced Roadside Impaired Driving Enforcement 8-2</p>	<p style="text-align: center;"><b>Learning Objectives</b></p> <ul style="list-style-type: none"> <li>• Accurately document, in sequence, observed impairment in each of the three phases of the detection process</li> <li>• Identify additional resources to support prosecution</li> <li>• Articulate relevant evidence as it relates to case preparation and prosecution</li> </ul>   <p>Advanced Roadside Impaired Driving Enforcement 8-3</p>

Upon completion of this session participants will be able to:



- Describe the three phases of the detection process: Vehicle in Motion, Personal Contact and Pre-Arrest Screening
- Describe effective roadside interview techniques
- List the elements of the offense of DUID
- Identify the indicators of impairment observed during the three phases of the detection process
- Accurately document, in the proper event sequence order, observed impairment in each of the three phases of the detection process
- Identify additional resources to support prosecution
- Articulate relevant evidence as it relates to case preparation and prosecution

<u>Content Segments</u> .....	<u>Learning Activities</u>
A. What is DWI Detection?.....	Instructor-Led Presentation
B. Three phases of the detection process.....	Instructor-Led Presentation
C. Effective roadside interview techniques .....	Instructor-Led Presentation .....and Student Practice Session
D. Identifying and documenting observed.....	Instructor-Led Presentation indicators of impairment .....and Student Practice Session
E. Case studies and scenarios .....	Student Practical Exercise
F. Case preparation and prosecution .....	Instructor-Led Presentation .....and Student Practice Session

Session 8 - Pre and Post Arrest Procedures

## What do you need?

- Active Observation
- Effective Documentation
- Articulation
- Courtroom Testimony



Advanced Roadside Impaired Driving Enforcement8-4

Although this course is designed to make the participant aware of impairment of drugs, alcohol or a combination of drugs and alcohol, the mission is also to reinforce skills which were taught in previous courses dealing with:

- Active Observation
- Effective Documentation
- Articulation
- Courtroom Testimony

To effectively gather and present the collective evidence as part of a DWI arrest and prosecution, the law enforcement officer, prosecutor and other supporting professionals must consider information in terms of the totality of the evidence.

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“The entire process of identifying and gathering evidence to determine whether or not a subject should be arrested for a .”

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

We will look at the collection and articulation of evidence in terms of the three phases of DWI detection.

- Vehicle in Motion
- Personal Contact
- Pre-Arrest Screening

Session 8 – Pre and Post Arrest Procedures



## The Detection Process

**When does it begin?**

- What draws your attention to a vehicle?

**When does it end?**



- What do you base the arrest decision on?



Advanced Roadside Impaired Driving Enforcement
8-7

Session 8 – Pre and Post Arrest Procedures

## 3 Possible Decisions

- Yes – Do it Now**
- Wait – Look for Additional Evidence**
- No – Don't do it**



Advanced Roadside Impaired Driving Enforcement
8-8

The detection process:

- Yes - Do it now
- Wait - Look for additional evidence
- No - Don't do it

When does it begin?

- When the law enforcement officer's attention is first drawn to a vehicle.

The detection process ends when the officer decides that there is or is not sufficient probable cause to arrest the suspect for DWI.

The officer's attention may be drawn to a particular vehicle or individual for a variety of reasons.

The precipitating event may be a loud noise; an equipment or moving violation; behavior that is unusual, but not necessarily illegal; or almost anything else.

Initial detection may or may not carry with it a suspicion that the driver is impaired.

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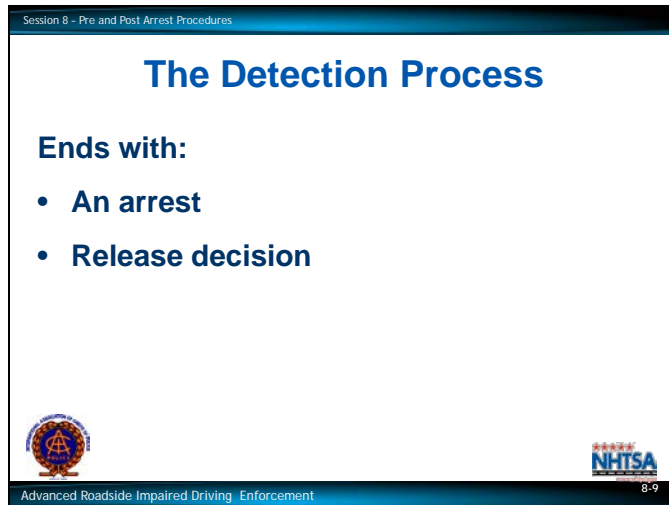
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The detection process ends with:

- An Arrest
- Release Decision

That decision, should ideally, be based on:

- The totality of the evidence collected throughout each of the three phases.

However, situations and circumstances may vary in a manner that could preclude the completion of all three phases.

*Examples of these circumstances would be:*

- Police pursuits
- Motorist assists
- Vehicle crashes
- Traffic direction
- Sobriety Checkpoints

Law enforcement officers should not leap to the arrest/no arrest decision, but rather proceed carefully through each of the three phases when possible.

This process helps to identify all the available evidence needed to make an arrest decision.

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In Phase One, you usually observe the driver operating the vehicle.

Session 8  
Page 7 of 34

In Phase Two, after you have stopped the vehicle, there usually is an opportunity to observe and speak with the driver face-to-face.

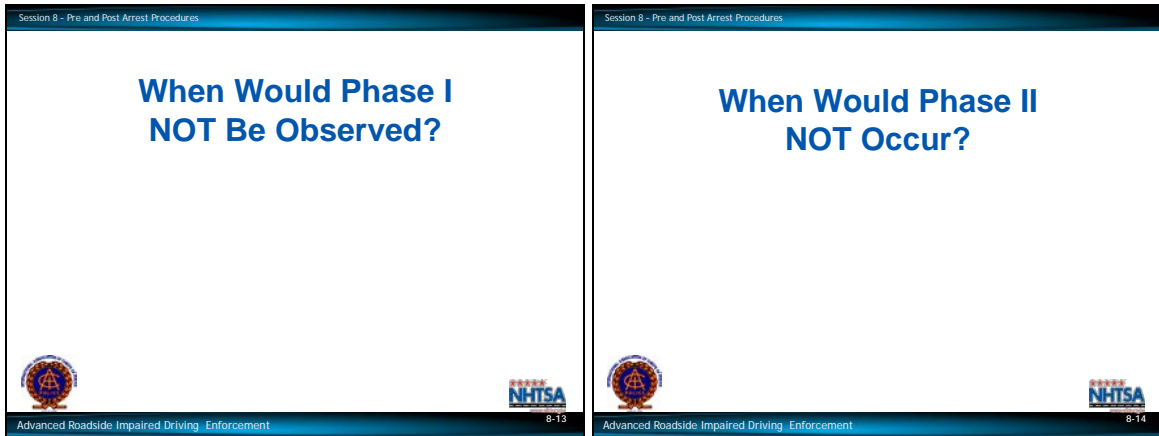
This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.



In Phase Three, you usually have an opportunity to administer the Standardized Field Sobriety Tests (SFSTs) to the driver to evaluate whether there is any degree of impairment.

You may, depending upon your agency policies and state laws, administer a preliminary breath test in addition to SFSTs to verify that alcohol is or is not the cause or a contributing factor of the impairment.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.



The DWI detection process does not always include all three phases. Sometimes DWI detection occurs when Phase One is absent, such as, cases in which you have no opportunity to observe the vehicle in motion.

Examples include:

- Crashes
- Sobriety checkpoint
- Motorist assistance

Sometimes there are situations when Phase Two does not occur.

Examples include:

- Crashes where a driver is transported to a hospital and significant time passes before contact is made by the investigating officer.

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Session 8 – Pre and Post Arrest Procedures

## Each Detection Phase





- Two major tasks
- Each task has one major decision
- Each decision has any one of three outcomes:
  - ✓ Yes - Do it Now
  - ✓ Wait - Look for Additional Evidence
  - ✓ No - Don't Do It



Advanced Roadside Impaired Driving Enforcement8-15

Each detection phase usually involves two major tasks and one major decision. Each of the major decisions can have any one of three different outcomes:

- Yes – Do it Now
- Wait – Look for Additional Evidence
- No – Don't Do It

<p>Session 8 - Pre and Post Arrest Procedures</p> <h3>Phase I - Task One</h3> <ul style="list-style-type: none"> <li>• Observe the vehicle in motion</li> <li>• Decision point: <i>Is there reasonable suspicion to stop the vehicle?</i></li> </ul>   <p>Advanced Roadside Impaired Driving Enforcement 8-16</p>	<p>Session 8 - Pre and Post Arrest Procedures</p> <h3>Phase I - Task Two</h3> <ul style="list-style-type: none"> <li>• Continue to observe the vehicle and the stopping sequence</li> <li>• Decision point: <i>Is there reasonable suspicion to stop the vehicle?</i></li> </ul>   <p>Advanced Roadside Impaired Driving Enforcement 8-17</p>
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#### Phase One:

- Task 1 Observe the vehicle in operation.





Decision Point: *Is there reasonable suspicion to stop the vehicle?*

#### Phase One:

- Task 2 Continue to observe the vehicle and the stopping sequence.

Decision point: *Is there reasonable suspicion to stop the vehicle?*



Session 8 – Pre and Post Arrest Procedures	Session 8 – Pre and Post Arrest Procedures
<h3>Phase III – Task One</h3> <ul style="list-style-type: none"> <li>• Administer psychophysical tests</li> <li>• Decision point: <i>Is there sufficient probable cause to arrest the driver for DWI?</i></li> </ul>   <p>Advanced Roadside Impaired Driving Enforcement 8-20</p>	<h3>Phase III – Task Two</h3> <ul style="list-style-type: none"> <li>• Arrange for or administer a preliminary breath test               <ul style="list-style-type: none"> <li>✓ What do you observe?                   <ul style="list-style-type: none"> <li>– SFST                       <ul style="list-style-type: none"> <li>– HGN, VGN, WAT, OLS</li> </ul> </li> <li>– Other Tests/Observations                       <ul style="list-style-type: none"> <li>– Modified Romberg Balance, LOC, Pupil size</li> </ul> </li> </ul> </li> </ul> </li> <li>• Decision point: <i>Is there sufficient probable cause to arrest the driver for DWI?</i></li> </ul>   <p>Advanced Roadside Impaired Driving Enforcement 8-21</p>

### Phase Three:

Task 1: Administer psychophysical tests.

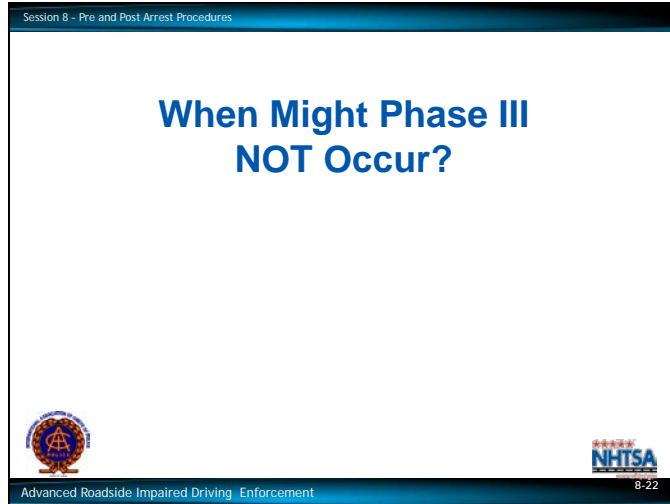
- Decision Point: Is there sufficient probable cause to arrest the driver for DWI?

### Phase Three:

Task 2: Arrange for or administer a preliminary breath test.

What do you observe?

- SFST
  - HGN, VGN, WAT, OLS
- Other Tests/Observations
  - Modified Romberg Balance, LOC, Pupil size
- Decision point: Is there sufficient probable cause to arrest the driver for DWI?
- What do you do?



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Sometimes there are situations when Phase Three does not occur.

- There are cases in which you would not or could not administer SFSTs to the driver.

**This decision is made by the officer.**

Examples include:



- Driver is impaired to the point they are unable to safely complete the tests
- Injured to the extent they are unable to complete the tests
- Refuses to submit to tests
- Circumstances or other conditions that do not allow for the safe administration of SFSTs





## What You Do

- **Physical positioning, demeanor - avoid an over bearing posture or stance**
- **Goal: encourage cooperation**
- **Facilitate open dialog**
- **Develop a good rapport with the subject**





Advanced Roadside Impaired Driving Enforcement

8-25

## What You See, Smell, Hear

- Bloodshot eyes, clothing, paraphernalia,
- Alcoholic beverage, chemical odors, marijuana
- Slurred speech, unusual and/or inappropriate statements, drug lingo



Advanced Roadside Impaired Driving Enforcement 8-26

*What you do:* Physical positioning, demeanor

Physical Positioning example: Keeping officer safety in mind, avoid an over bearing posture or stance.

Demeanor example: maintain professionalism, facilitate open dialog.

**Ask questions that will place them at ease. Allow them to talk about themselves. Develop a good rapport with the subject.**

*What you see* : Bloodshot eyes, clothing, paraphernalia, etc...

*What you smell:* Alcoholic beverage, chemical odors, marijuana, etc...

*What you hear* : Slurred speech, unusual and/or inappropriate statements, drug lingo, etc...



[illegible]

Session 8 – Pre and Post Arrest Procedures

## Identifying and Documenting

### Case Prep Begins with 1<sup>st</sup> Observation:

- **Document in order of the 3 Phases**
  - ✓ Absent extraordinary conditions **NO** shortcuts
  - ✓ Follow up on all indicators of impairment
- **Document environmental and other conditions**

Advanced Roadside Impaired Driving Enforcement

8-27

### **D. Identifying and Documenting Observed Indicators of Impairment**

During the detection process, many different situations arise which can affect the identification and documentation of your observations.

It is the law enforcement officer's responsibility to conduct a thorough and complete investigation.

Since case preparation begins with the observation of the vehicle, absent extraordinary conditions, short cuts in the three phases of detection process should not occur.





Officers should follow up on all observations that indicate impairment to determine whether impairment is present and if that impairment is due to alcohol, drugs, or a combination of both.

During phase two of the detection process, a driver may offer a reason for their behavior or physical appearance.

***Ask for examples from personal experiences.***

Example:

- The reason they were weaving was because they were adjusting the radio.
- The reason their eyes are glassy is because they worked a double shift.

<p>Session 8 - Pre and Post Arrest Procedures</p> <h2 style="text-align: center;">Explain your findings...</h2> <p><b>Based on your training and experience:</b></p> <ol style="list-style-type: none"> <li>1. Is impairment present?</li> <li>2. What is causing your observations?</li> <li>3. Is more information needed to decide?</li> </ol> <div style="display: flex; justify-content: space-between; align-items: center;">   </div> <p style="font-size: small;">Advanced Roadside Impaired Driving Enforcement 8-28</p>	<p>Session 8 - Pre and Post Arrest Procedures</p> <h2 style="text-align: center;">Remember</h2> <p style="text-align: center;"><b>If you didn't write it down . . . It didn't happen</b></p> <div style="display: flex; justify-content: space-between; align-items: center;">   </div> <p style="font-size: small;">Advanced Roadside Impaired Driving Enforcement 8-29</p>
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At this point you should draw on your training and experience to determine:

- If impairment is present?
- What is causing the signs that you have observed?
- Is more information needed to make a determination?

**\*\* Remember \*\***

- If you don't record the evidence, it didn't happen.

This determination, similar to the decision to arrest, is rarely based on one observation or factor. Rather these decisions are usually based on the totality of the circumstances.

The signs, symptoms and general indicators discussed during this course are meant to assist law enforcement officers in recognizing impairment based on alcohol, drugs or a combination of both.

***Again, remind the participants they are not DRE certified and do not have the knowledge or training to categorize impairment with a specific drug category.***

Additionally, it is intended to assist criminal justice professionals with understanding impairment based on alcohol, drugs or a combination of both.

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Session 8 – Pre and Post Arrest Procedures

## If you didn't write it down . . . It didn't happen

- Use the drug matrix as a field reference
- Organize observations during traffic stop
- Articulate the circumstances and environment in which the stop was conducted
- Descriptive information will *paint a picture* for the prosecutor and the court



Advanced Roadside Impaired Driving Enforcement 8-30

The information presented as part of this course is not intended nor meant to equip the officer with the knowledge or ability to categorize the impairment observed with a specific drug category.

In an effort to help the Participant learn what types of observations may be important as part of the detection process, we have included a matrix which lists many common indicators of impairment.

It is suggested that officers use this matrix or another documentation tool as a field reference.

The matrix will help the officer to organize their observations during the traffic stop.

In addition to documenting the indicators, the officer should take care to articulate the circumstances and environment in which the stop was conducted.

This descriptive information will *paint a picture* for the prosecutor and the court, thereby presenting the evidence in an effective fashion.

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Practical Exercise: During this exercise, apply the information learned during this course in order to effectively document observations offered in the written scenarios and case studies.

- Describe the process of assessing the impaired driver in the context of the traffic safety related scenario/case study
- Evaluate scenario/case study information: How to analyze information/observations and describe what the results indicate
- Demonstrate the ability to articulate observations related to the general indicators of impairment and the basis for that interpretation.

[illegible]

Therefore, regardless of what the statute requires, it is important that law enforcement officers understand both the elements of the state statutes, and what evidence the prosecution needs to prove each element.



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Session 8 – Pre and Post Arrest Procedures

## During the Detection Process

- Keep in mind your State legal requirements
- Organize and document observations in terms of the three detection phases
- A successful prosecution for impaired driving begins with building a DWI Prosecution Team

✓ The most important part of this process is to remember that it does not matter who leads the effort







Advanced Roadside Impaired Driving Enforcement 8-33

During the detection process, it is critical that officers keep in mind the legal requirements of their state. It is equally important that the officer organize and document their observations in terms of the three detection phases.

By doing this, you will assist the prosecutor in case preparation and presentation in court.

A successful prosecution for impaired driving begins with building a DWI Prosecution Team.

The most important part of this process is to remember that it does not matter who leads the effort.

Session 8 – Pre and Post Arrest Procedures	Session 8 – Pre and Post Arrest Procedures
<p style="text-align: center;"><b>Prosecution Team</b></p> <ul style="list-style-type: none"> <li>• <b>More comprehensive case preparation</b></li> <li>• <b>More effective prosecution</b></li> <li>• <b>Foundation for a strong DWI Prosecution Team is the relationship between the law enforcement officer(s) involved with the arrest and the prosecuting attorney(s) associated with the case</b></li> </ul>   <p>Advanced Roadside Impaired Driving Enforcement 8-34</p>	<p style="text-align: center;"><b>Prosecution Team</b></p> <ul style="list-style-type: none"> <li>• <b>Toxicologists</b></li> <li>• <b>Breath testing professionals</b></li> <li>• <b>DREs and other expert witnesses</b></li> <li>• <b>Provide specific details that help build the case and support the law enforcement officer's testimony</b></li> </ul>   <p>Advanced Roadside Impaired Driving Enforcement 8-35</p>

The most significant benefit of the team is more comprehensive case preparation and a more effective prosecution.

- What does that mean – DWI Prosecution Team?
- Who is on that team?
- Why isn't the officer's word and observations enough?
- Doesn't this mean more work?
- How does this help me do my job?

The foundation for a strong DWI Prosecution team is the relationship between the law enforcement officer(s) involved with the arrest and the prosecuting attorney(s) associated with the case.

Effective communication and a clear understanding of each group's objectives and expectations is essential to the success of the DWI prosecution team.

Additionally, toxicologists, breath testing professionals, DREs and other expert witnesses provide specific details that help build the case as well as support the law enforcement officer's testimony during the trial.

We often forget about the other potential members of the team who are not directly part of the case preparation.

This section will use the word process to describe the sequence of activities and actions which take place during a DWI traffic stop, arrest, and prosecution.

This word is not used by accident. It is important for the Participants in this course to begin to view DWI enforcement and prosecution as a process which can be continually improved and refined.







Throughout this course, we have discussed information in terms of the three phases of DWI detection process.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

- All Observations
- All Evidence
- Potential Witness List
- Chemical Test Results
- Photos, Diagrams, Scene Sketch
- Other?

Remember: Comprehensive Case Prep Yields Effective Courtroom Presentation

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Session 8 – Pre and Post Arrest Procedures	Session 8 – Pre and Post Arrest Procedures
<p style="text-align: center;"><b>Potential Witnesses</b></p> <p><b>Phase I: Vehicle in Motion</b></p> <p><b>Phase II: Personal Contact</b></p> <p><b>Phase III: Pre-Arrest Screening</b></p> <p><b>Post-Arrest Screening</b></p> <div style="display: flex; justify-content: space-between; align-items: center;">   </div> <p style="font-size: small;">Advanced Roadside Impaired Driving Enforcement 8-38</p>	<p style="text-align: center;"><b>Phase I: Who Can Help?</b></p> <ul style="list-style-type: none"> <li>• Law enforcement officer who observed the driving and/or made the traffic stop</li> <li>• Other law enforcement officers who may have made observations or were called in to assist</li> <li>• Lay witnesses, including other people in the vehicle or other motorists</li> </ul> <div style="display: flex; justify-content: space-between; align-items: center;">   </div> <p style="font-size: small;">Advanced Roadside Impaired Driving Enforcement 8-39</p>

## Phase I: Vehicle in Motion

(Observation of the suspect's driving)

Preparation for trial begins with the first observation of the vehicle in motion, which is usually the first point of attack.

In some cases, the reasonable suspicion for the traffic stop may not be associated with driving behavior consistent with the impairment, for example an equipment violation.

Therefore, all observations during the vehicle in motion phase should be noted in order to illustrate the environment to the court later.

Potential team members involved at this point may include:

- Law enforcement officer who observed the driving and/or made the traffic stop
- Other law enforcement officers who may have made observations or were called in to assist
- Lay witnesses, including other people in the vehicle or other motorists.

Law enforcement officers should note every observation made regarding driving. This includes observations before and after you activate you emergency equipment.

If there is a crash involved, the officer probably will not actually observe driving. Therefore, witnesses to the crash should be noted to prove state specific statutory requirements.

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Session 8 – Pre and Post Arrest Procedures

## Phase II: Document Observations

- **Note every observation made regarding personal contact**
- **Include your observations before and after the subject exits the vehicle**
- **Documenting and articulating these observations can reinforce the reasonable suspicion for the stop**



Advanced Roadside Impaired Driving Enforcement 8-40

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### Phase II: Personal Contact

(Observations of the suspect after the stop)

Preparation for trial continues with the traffic stop. Observations made before and after the suspect exits the vehicle should be documented.

Example:

- Odor of alcohol
- Slurred speech
- Red glassy eyes
- Inappropriate responses
- Using the vehicle for support during exit and/or while walking
- Accurate documentation is essential due to the length of time cases are adjudicated.
- Potential team members involved at this point may include:
  - Law enforcement officer(s) who observed the subjects following the traffic stop.
  - Other law enforcement officers who may have made observations or were called in to assist
- Lay witnesses, including other people in the vehicle or other motorist.

Law enforcement officers should note every observation made regarding personal contact. This includes your observations before and after the subject exits the vehicle.



Documenting and articulating these observations can reinforce the reasonable suspicion for the stop.

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Session 8 – Pre and Post Arrest Procedures

## Phase III: Thoroughly Document

- HGN, WAT, OLS and other sobriety tests, including the associated clues
- Potential team members:
  - Law enforcement officer(s)
  - Lay witnesses



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### Phase III: Pre-Arrest Screening

(Observations of the suspect while performing all sobriety tests)

Preparation for trial continues with the officer conducting pre-arrest screening.

Observations made during HGN, WAT, OLS and other sobriety tests, including the associated clues, must be thoroughly documented.

Example: During the Walk and Turn Test, the suspect may not count their steps out loud while walking. This is considered an observation. The suspect may start walking before being instructed to do so. This is considered a clue.

Potential team members involved at this point may include:

- Law enforcement officer(s) who conducts the field sobriety tests
- Other law enforcement officers who may have made observations or were called in to assist
- Lay witnesses including other people in the vehicle or at the scene

Law enforcement officers should note every observation made regarding pre-arrest screening.

This includes observations before, during and after the field sobriety tests. Recording and articulating these observations can reinforce the reasonable suspicion for the arrest.

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During post arrest screening the team will potentially include:

- Breath testing operators/technical supervisors.
- Drug Recognition Experts (DREs)
- Medical personnel
- Jail personnel

DRE's should be utilized whenever available. The officer should document what DRE was contacted, when they were contacted, and when they arrived for the evaluation.

If a DRE is not available at the time of arrest, they may still be useful at trial to bridge the gap between the observations made by the arresting officer and any biological test results.

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Session 8 - Pre and Post Arrest Procedures

## Pre-Trial Preparation

### Who Can Help?

- Local Prosecutor
- Toxicologist
- DRE/DRE State Coordinator
- TSRP
- IACP DEC Program Coordinator
- NHTSA/NAPC Prosecutor Fellow
- NTLC




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8-43

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### *Pre-Trial Preparation*

For this reason, it remains essential to document, in detail, all observations including those made after arrest.

As preparation for trial begins the team may include:

- Local prosecutor
- Toxicologist or representative from the appropriate state or contract lab
- DRE Officer / DRE State Coordinator
- Traffic Safety Resource Prosecutor (TSRP) (If available)
- IACP DEC Program Coordinator
- National Highway Traffic Safety Administration (NHTSA)/National Association of Prosecutor Coordinators (NAPC) Prosecutor Fellow
- National Traffic Law Center







**There is  
NO Substitute  
For Preparation**



## QUESTIONS?

This image shows a full page of white paper with horizontal grey ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for handwriting practice or general writing. There are no margins, text, or other markings on the page.

## ARIDE FINAL EVALUATION SCENARIOS

### Scenario #1

Ambience: night, dark and clear, 60 degrees

You respond to a crash scene where you contact a subject who tells you that he fell asleep while driving. Your investigation shows that the driver was not injured but was speeding and failed to negotiate a curve. When you ask the subject his name he tells you but then he continues telling you that his name is wrong on his enrollment papers at the local gym because he is adopted. He continues by telling you that he has never met his birth parents but was going to use their name for a while but has since changed his mind so the name on his driver's license is correct but the address isn't. He further advises that he is in the process of moving because he doesn't like the neighbors and that they are always watching him. He tells you that he doesn't know where he will move to, but probably in with his parents.

You notice that the subject seems to be fidgeting, restless and can't stand still. His speech is clear, but quick and off topic. His pupils look big. You ask the subject to do SFST's and he agrees. There were no clues detected for HGN or VGN and Lack of Convergence was not present. When completing the WAT test, his movements were stiff and his steps are very quick and punctuated by slamming the heel of the front foot into the toe of the back foot. Two clues were observed; starts too soon and an improper turn. On the OLS test, he counted to 1042 in 30 seconds, displayed leg and body tremors, and put his foot down twice while attempting to balance. The subject had difficulty performing the Modified Romberg Balance Test. He estimated 30 seconds in 22 seconds, and swayed quickly side to side.

The subject denies any drug use at first but later tells you he did take something for his sore throat the day before. You notice again that he can't stand still and ask why. He tells you that he is afraid of the police because he watches Cops on TV and that Hill Street Blues used to be his favorite show. He further advises that he watches Leave It To Beaver reruns now because that's a better show but he can't watch it now because he is moving and had his cable turned off. He also tells you he is moving because his neighbors watch him all the time and one of them may have been following him when he wrecked.

Arrest for DUI-Drugs                      Yes / No

Request the assistance of a DRE after arrest      Yes / No

Impairment is consistent with what drug category(s) \_\_\_\_\_

## Scenario #2

Ambience: night, dark with street lights, 60 degrees with light rain

You stop a young lady for failing to obey a traffic control device at 0115 hours. When you contact her you see that her pupils look big. She responds to your questions, but slowly. You determine that she lives in the area, and you ask her if she knows that she failed to stop at the red light. She tells you no, she didn't see it, and looks at you with a glare. She is wearing shorts and a tank top and you notice that she has goose bumps on her arms. As you talk to her, she asks you repeatedly to turn off your patrol vehicle overhead lights. Every time she hears radio traffic from your portable radio, she looks at you glaringly and complains about your flashing lights. She then tells you that she can't stay in the car and she gets out.

You ask her why she can't stay in the car and she tells you it's because there are things crawling around in the car. You observe nothing in the car. You ask her to do SFST's and she agrees. No HGN, VGN or a Lack of Convergence is observed. You do observe three clues on the WAT test; starts too soon, incorrect number of steps and uses arms for balance. On the OLS test, she tells you that there are things crawling around on the ground and doesn't want to do the test. The subject did complete the Modified Romberg Balance test, but swayed badly side to side and front to back. She estimated 30 seconds in 15 seconds.

She continues to complain about the lights from your patrol vehicle, which are not on, and continues to describe things crawling around in her car. She advises that she is not under a care of a doctor and not taking any medication. However, she does admit being at a concert earlier in the evening and may have taken something a friend gave her to help her enjoy the music better.

Arrest for DUI-Drugs                      Yes / No

Request the assistance of a DRE after arrest      Yes / No

Impairment is consistent with what drug category(s) \_\_\_\_\_

### Scenario #3

Ambience: afternoon light; 75 degrees and overcast

You observe a vehicle speeding and while you are behind it, you notice that it is traveling straight, but on the center divider line. You contact the driver and find him wearing a light jacket over a sweat shirt even though it is a warm afternoon. During the contact the subject answers your questions, but appears to be acting very tired. When you inquire about his demeanor, the subject advises that he works nights and didn't get much sleep the day before. He denies taking any medication or drugs.

As you talk with the subject you notice that he has small smears of blood on his hands and small blood stains on his pants. You ask about them and he tells you that he scratched the top off a scab and it bled. You also notice that his voice is soft, low and raspy. You note that the subject is continuously licking his lips and has a dry mouth.

You notice that the subject's pupils are very small. You ask him to do SFSTs and he agrees, but wants to know why. You tell him that you want to make sure he is okay to drive since he is claiming to be tired. Upon completion of the SFST's you have observed no clues of HGN and the subject did not have a Lack of Convergence. You did observe two clues on the WAT; stops while walking and incorrect number of steps. The subject's movements are very slow and deliberate. Two clues were observed during the OLS test; uses arms to balance and puts foot down. You also note that he counted to 21 at the end of 30 seconds. On the Modified Romberg Balance test, the subject was swaying front to back, and estimated the passage of 30 seconds in 42 seconds.

Arrest for DUI-Drugs                      Yes / No

Request the assistance of a DRE after arrest      Yes / No

Impairment is consistent with what drug category(s) \_\_\_\_\_

## Scenario #4

Ambience: afternoon light, 80 degrees, bright and sunny

You observe a van with a defective brake light and a roll of carpet in the back sticking out that is not properly secured. While you are behind the vehicle you notice some lane weaving and you initiate a traffic stop. After activating your emergency lights you notice that the driver is slow to pull over.

You contact the driver of the vehicle and confirm that he is a carpet installer and has just completed one job and is on his way to the next. He is wearing jeans and a work shirt with carpet adhesive spots on it. You can smell a chemical odor coming from the van as you stand at the window. When you ask him about the smell he tells you it is the adhesive. You ask the driver why it took him so long to stop. He tells you he didn't see you, and that he doesn't normally drive this van, and that the mirrors aren't adjusted properly.

When you ask the subject for his license, registration and proof of insurance he gives you his license, but forgets the other documents. You remind him and he starts to look again, but forgets what he is doing when you ask him where he is going. He pauses and then gives you the full address. You notice that his speech is slurred and hard to understand at times.

You ask the driver to do SFST's and he agrees. After he gets out of the vehicle you see that he has a significant amount of adhesive on his clothes and hands. You ask him about it and he says he spilled the can at this last job. He tells you that he used an industrial cleaner to clean it up and the cleaner gave him a headache.

During the SFST's, you observed six clues of HGN. You observed eight clues for the WAT, and four clues for the OLS. Several times he nearly fell and used the side of his van to steady himself during the OLS test. On the Modified Romberg Balance test the subject swayed side to side and front to back by approximately 2 inches. He also estimated 30 seconds in 38 seconds. You also noted that the subject had a Lack of Convergence.

Arrest for DUI-Drugs                      Yes / No

Request the assistance of a DRE after arrest      Yes / No

Impairment is consistent with what drug category(s) \_\_\_\_\_

## Scenario #5

Ambience: early morning, daylight; 45 degrees with a light mist, almost fog

You are dispatched to a one vehicle crash where the driver ran off the roadway and into a ditch on a relatively straight, heavily traveled, but well maintained road. As you arrive you are advised that the driver of the vehicle is in the middle of the road trying to hit cars with a board and appears very agitated.

When you arrive you find the alleged female driver standing in the middle of the road wearing only a t-shirt and underpants. She appears agitated and is sweating profusely. She is bleeding slightly from the forehead, but other than that, appears to be uninjured.

You make contact with her and she does not respond to your verbal commands and pays very little attention to you. You see that the palms of both her hands are bloody from the board she is carrying, but she doesn't seem to notice the bleeding. You finally get her attention and ask her name, what she is doing, and what happened. She stares at you, but does not respond to your questions. You tell her to put the board down and she continues to stare at you. You ask her where her clothes are and she tells you that she is hot and didn't need them.

After taking the board away from her, she tells you her name and eventually tells you that she is mad at the cars because no one will stop to help her. After you determine that she is the driver of the vehicle, you ask her to do SFSTs. However, she just looks at you and makes no response. You finally get her to do the HGN test and you observe all six clues plus VGN. You also observe Lack of Convergence. She agrees to do the WAT test where you observed all eight clues. You notice that her movements are very slow and rigid-like. You observe three clues on the OLS test, and again her movements are slow and rigid-like. On the Modified Romberg Balance test the subject did not close her eyes and was very stiff and rigid. She estimated 30 seconds in 48 seconds. Her responses to your questions were delayed, and she had to concentrate very hard to complete them.

EMS advises you that they are going to transport the subject to the hospital. She becomes obviously annoyed, starts yelling, and is visibly upset as she is taken towards the ambulance.

Arrest for DUI-Drugs                      Yes / No

Request the assistance of a DRE after arrest      Yes / No

Impairment is consistent with what drug category(s) \_\_\_\_\_

## Scenario #6

Ambience: late evening, dark; 40 degrees and raining

You stop a vehicle for failing to maintain a single lane of travel. You contact the driver and find that there are several people in the car, and the driver is talking on a cell phone. You have to instruct her to end her call when you make your contact with her. You ask the driver for her license and registration and she provides them, but she asks you twice what you have asked for. You can see her pupils are large and her eyes appear to be red and bloodshot. She doesn't seem to be overly concerned about being stopped, and does not give you her full attention. She is easily distracted by her passengers who are laughing, making various comments, and asking you irrelevant questions.

You ask the subject to exit the vehicle and ask her additional questions. She responds appropriately, but laughs several times, and several looks back at the car between each question. At one point she turns away from you and waves to the passengers in the vehicle and makes faces at them.

She denies any alcohol or drug use. You ask her to perform SFSTs and she agrees and tells you that she hasn't been drinking. During the SFSTs you observe no clues of HGN or VGN. However, you do observe a Lack of Convergence. You also notice that her pupils still appear to be large and bloodshot. During the WAT test the subject displays four clues; uses arms for balance, misses heel to toe, stops while walking, and she made an improper turn. Several times she stopped and asked questions about the test and asked what she was supposed to do. During the OLS test, she swayed while she balanced and you observed that her pant legs and her shirt were trembling indicating body tremors. During the tests she laughed out loud numerous times. After completing them, she asked if her passengers could do the same tests. On the Modified Romberg Balance test she had a side to side and front to back sway of about 3 inches. She estimated the passage of 30 seconds in 38 seconds and had noticeable eyelid tremors. During the tests you observed a marijuana-like odor coming from her clothing.

Arrest for DUI-Drugs                      Yes / No

Request the assistance of a DRE after arrest      Yes / No

Impairment is consistent with what drug category(s) \_\_\_\_\_



## Scenario #7

Ambience: morning light; 65 degrees and overcast

You are working speed enforcement in a school zone when you stop a vehicle for traveling 50 mph in a 25 mph zone. You contact the driver and she tells you that she is taking her children to school and is running late. You notice that her speech is slurred, and her pupils appear to be very small. She has a great deal of difficulty finding her license. As she goes through her purse you see a plastic container with several pills in it. You ask her if she is taking any medication and she tells you that they are vitamins, and some pills that her doctor gave her for pain.

You ask her more questions about the pills. She tells you that she lifted a box, and hurt her back a few days ago. When questioned further, she states that she took a pill for pain last night before going to bed so she could sleep, and took another one that morning. She tells you that she is just following the advice of her doctor.

You notice that her actions are slow and deliberate and that her speech is thick and slurred at times. You ask her to perform SFSTs and she agrees. Upon completion of the HGN test, you observed six clues of nystagmus. You also noticed that her pupils appeared very small and also observed a Lack of Convergence. During the WAT test you observed four clues, and then she terminated the test telling you it was hurting her back. After making a brief attempt to perform the OLS test, she immediately dropped her foot and refused to continue the test claiming it bothered her back. She was able to do the Modified Romberg Balance test. As she performed the test she swayed noticeably side to side, and she estimated the passage of 30 seconds in 44 seconds.

You asked if she was using any other medications. She advised that she occasionally takes a pill to help her sleep, and may have taken one the night before.

Arrest for DUI-Drugs                      Yes / No

Request the assistance of a DRE after arrest      Yes / No

Impairment is consistent with what drug category(s) \_\_\_\_\_

## Scenario #8

Ambience: night, dark; 75 degrees

You observe a vehicle fail to maintain a single lane of travel, make an improper lane change, and fail to yield to oncoming traffic when crossing through an intersection. You also observe that the vehicle's speed is inconsistent, and the vehicle is speeding up and slowing down for no apparent reason. After activating your emergency lights to stop the vehicle, the driver is slow to respond. The driver finally activates his turn signal when pulling to the shoulder of the roadway. When doing so, you notice that the vehicle's windshield wipers come on, and its headlights change from low beam to high beam.

You contact the driver and see that his eyes are bloodshot and watery, and his speech is slurred. He has difficulty finding his license and you finally have to point it out to him. When he hands his license to you he tells you that he is looking for a bathroom and somewhere to eat, and tells you that he is hungry.

He tells you he is from out of town and just left a friend's house, and is "a little lost." He then starts laughing. He forgets to provide you with the vehicle registration and when reminded, he gives you an envelope containing the warranty for his car tires. After several attempts, he produces the requested document. You note a local address on both documents.

You ask him to perform SFSTs and he agrees, but he accuses you of harassing him because he is from out of town. You notice that he has difficulty getting out of the car. During the HGN test, you observe a lack of smooth pursuit in both eyes and distinct and sustained nystagmus at maximum deviation. No other HGN clues or VGN are observed. You also observe a Lack of Convergence and that his pupils appear to be large in size. You observe three clues during the WAT test; cannot keep balance, does not touch heel to toe, and an improper turn. You also notice that the subject has difficulty following your instructions. During the OLS test, the subject sways badly, puts his foot down several times, and you stop the test because he is in danger of falling. During the Modified Romberg Balance test the subject swayed noticeably from side to side, had eyelid tremors, and estimated the passage of 30 seconds in 36 seconds. You administer a preliminary breath test and the reading is 0.06.

Arrest for DUI-Drugs                      Yes / No

Request the assistance of a DRE after arrest      Yes / No

Impairment is consistent with what drug category(s) \_\_\_\_\_

## ARIDE COURSE CRITIQUE

Course Location:	
Criminal Justice Area:	Local Police <input type="checkbox"/> State Police <input type="checkbox"/> Prosecutor <input type="checkbox"/> Other <input type="checkbox"/>
Name (Optional):	

In order to assess the effectiveness of the ARIDE course, it is important to obtain input from participants, like yourself, as to the course's content, its relevance to practice, and the instructors' effectiveness in delivering the course. Your help is needed so we can provide the best possible training. Please take a few minutes to answer the survey.

1. I was prepared for the SFST proficiency requirements associated with this course.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

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2. The specific information provided in the seven drug categories (signs and symptoms) was sufficient to effectively understand how different drugs may affect individuals especially while driving.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

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3. Based on the classroom content, I feel confident to conduct an effective roadside assessment of a suspected impaired driver.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If not, why?

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Comments:

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4. Based on the classroom content, I feel confident that I can identify general indicators associated with a suspected impaired driver.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If not, why?

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5. Overall, the ARIDE course provided me with information which is immediately applicable to my job.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If not, why?

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6. Upon completing the course, I can effectively communicate (in writing and in a courtroom setting) my observations associated with a driver who I suspect is impaired by alcohol, drugs or a combination of both.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

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7. If one section of the ARIDE curriculum could be removed/abbreviated, it should be:

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8. If one section of the ARIDE curriculum could be expanded/emphasized, it should be:

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9. What information could be added to the ARIDE course to make it more applicable to your job?

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10. In regards to the course objectives, the length of the course (2-day or 16 hrs) was appropriate:

Strongly Agree

☐

Agree

☐

Neutral

☐

Disagree

☐

Strongly  
Disagree

☐

Based on the information presented in this course, I am confident that I can perform each of the following as part of a roadside assessment of a driver suspected of being impaired by alcohol, drugs or a combination of both: **LAW ENFORCEMENT OFFICERS ONLY**

ARIDE Assessment	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Observe the vehicle in motion and document any appropriate indicators					
Interview the suspect and document any appropriate indicators					
Perform, interpret and document the <b>HGN Test</b>					
Perform, interpret and document the <b>VGN Test</b>					
Perform, interpret and document the <b>Lack of Convergence Test</b>					
Perform, interpret and document the <b>WAT Test</b>					
Perform, interpret and document the <b>OLS Test</b>					
Perform, interpret and document the <b>Modified Romberg Balance Test</b>					
Assess pupil size and understand the limitations of doing so at roadside					
Identify and document the general indicators of impairment caused by alcohol, drugs or a combination of both					
Use the General Indicator Matrix (HGN, VGN, LOC, pupil size, general indicators, duration of effects, methods of administration and overdose signs)					
Request appropriate toxicology (sample acquisition and submission)					
Effective use of a Drug Recognition Expert					
Articulate your observations and test interpretations in a courtroom setting					
Communicate with the prosecutor					

**Additional Comments:**

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Based on the information presented in this course, I am confident that I can perform each of the following as part of an case related to a driver suspected of being impaired by alcohol, drugs or a combination of both: **PROSECUTORS ONLY**

ARIDE	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Understand procedures and documentation of appropriate indicators associated with <b>observing the vehicle in motion phase of the detection process</b>					
Understand procedures and documentation of appropriate indicators associated with the <b>personal contact phase of the detection process</b>					
Understand administrative, test and interpretation procedures as well as the documentation associated with the following:					
HGN Test					
VGN Test					
Lack of Convergence Test					
WAT Test					
OLS Test					
Modified Romberg Balance Test					
Understand assessment of pupil size at roadside and associated limitations					
Identify and document general indicators of impairment caused by alcohol, drugs or a combination of both					

Use of the General Indicator Matrix (HGN, VGN, LOC, pupil size, general indicators, duration of effects, methods of administration and overdose signs)					
Utilizing appropriate toxicology results (sample acquisition and submission)					
Effectively use officer interpretations and observations for case preparation and courtroom testimony					
Communicating with the law enforcement officer					
Effective use of a Drug Recognition Expert					
Communicating with toxicologist					

**Additional Comments:**

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## INSTRUCTORS

Please rank the following instructors on a scale of 1 to 5 (1 = Poor and 5 = Excellent) or N/A if it does not apply to the instructor (1 = Poor and 5 = Excellent):

Instructor Name	Facilitated an atmosphere conducive to learning	Familiarity with the subject(s) presented	Presented information in a manner which met the needs of all participants	Coaching ability in classroom and practical exercises	Ability to answer questions	Tactfulness in correcting mistakes in practical exercises	Overall rating of the instructor

Please use the below space if you have any additional comments.

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