DWI Detection and Standardized Field Sobriety Testing

March 2013 Edition

Participant Guide

DWI Detection and Standardized Field Sobriety Testing (SFST)
Participant Guide –
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May 2013 Curriculum

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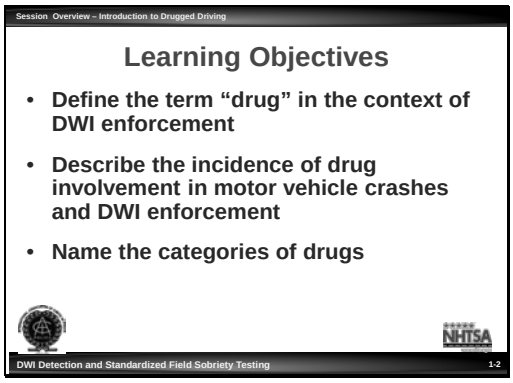
PREFACE

The Standardized Field Sobriety Testing (SFST) training prepares police officers and other qualified persons to administer and interpret the results of the SFST battery. This training under the auspices and direction of the International Association of Chiefs of Police (IACP) and the National Highway Traffic Safety Administration (NHTSA) has experienced remarkable success in detecting and apprehending intoxicated drivers since its inception in the 1980s.

As in any educational training program, an instruction manual is considered a “living document” that is subject to updates and changes based on advances in research technology and science. A thorough review is made of information by the Drug Evaluation Classification Program (DECP) Technical Advisory Panel (TAP) of the Highway Safety Committee of the IACP with contributions from many sources in health care science, toxicology, jurisprudence, and law enforcement. Based on this information, any appropriate revisions and modifications in background theory, facts, examination and decision making methods are made to improve the quality of the instruction as well as the standardization of guidelines for the implementation of the SFST Training Curriculum. The reorganized manuals are then prepared and disseminated, both domestically and internationally.

Changes will take effect 90 days after approval by the TAP, unless otherwise specified or when so designated by NHTSA/IACP or the DEC Program state coordinator.

SFST Introduction to Drugged Driving



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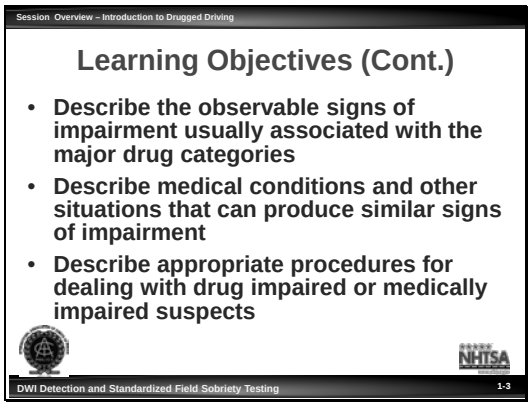
At the conclusion of this session, participants will be able to:

- Define the term "drug" in the context of DWI enforcement
- Describe in approximate, quantitative terms the incidence of drug involvement in motor vehicle crashes and in DWI enforcement
- Name the categories of drugs



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Learning Objectives (Cont.)

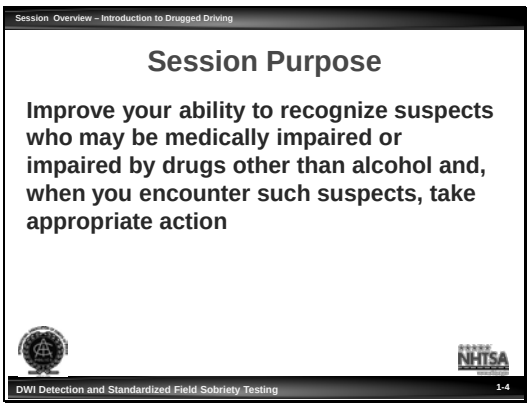
- Describe the observable signs usually associated with the drug categories
- Describe medical conditions and other situations that can produce similar signs
- Describe appropriate procedures for dealing with drug‑impaired or medically impaired suspects.

CONTENT SEGMENTS

A. Overview
B. Eye Examinations: Detecting Signs of Drug Influence
C. Drug Categories and Their Observable Effects
D. Combination of Drugs
E. Dealing with Suspected Drug Influence or Medical Impairment

LEARNING ACTIVITIES

Instructor Led Presentations
Participant Practice



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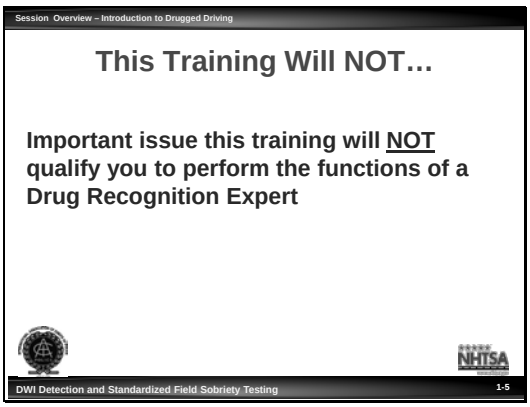
A. Overview

- The purpose of this session is to improve your ability to recognize suspects who may be medically impaired or impaired by drugs other than alcohol and, when you encounter such suspects, take appropriate action.
- Alcohol certainly remains the most frequently abused drug, and most impaired drivers are under the influence of alcohol
- Many other drugs also are routinely abused by many drivers.
- It is highly likely that every experienced DWI enforcement officer has encountered at least some drivers who were under the influence of drugs other than alcohol.
- Depending upon the specific types of drugs they have taken, some drug-impaired drivers may look and act quite a bit like persons who are under the influence of alcohol, but others will look and act very differently from alcohol-impaired drivers.
- It is important that you be able to recognize subjects who may be under the influence of other drugs, so that you will know when to summon assistance from physicians or other appropriate persons, or trained drug recognition experts. (DREs)



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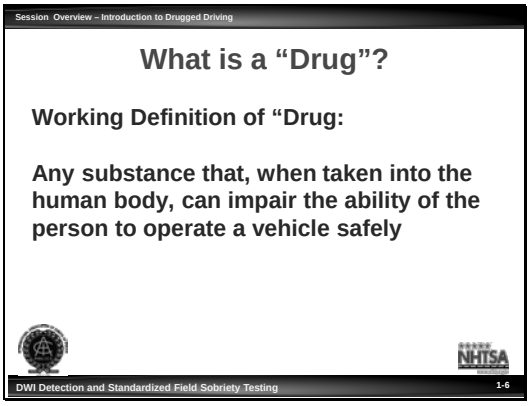
One important thing that this session will not accomplish: it will NOT qualify you to perform functions of a Drug Recognition Expert (DRE).

Officers become DREs only after they have completed a very challenging program that includes nine days of classroom training and many weeks of closely-supervised on-the-job training. (Two-Day Pre-School followed by Seven-Day classroom training.)



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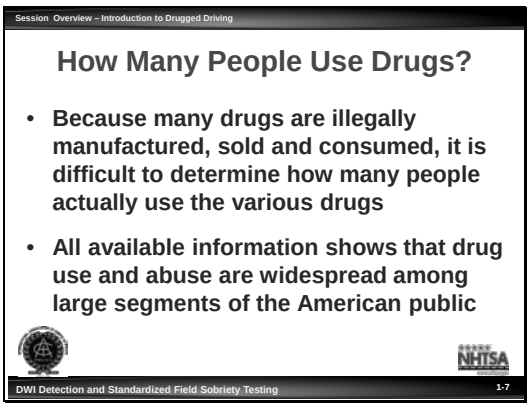
Definition of "Drug"

- The word "drug" is used in many different ways, by many different people.
- The corner druggist and the U.S. Drug Enforcement Administration are both concerned with "drugs", but they don't have exactly the same thing in mind when they use that word, and neither the druggist nor the DEA have the same perspective as the DWI enforcement officer.

For our purposes, a "drug: is:

- Any substance when taken into the human body, can impair the ability of the person to operate a vehicle safely.
- This definition excludes some substances that physicians consider to be drugs.
- This definition includes some substances that physicians don't usually think of as drugs.



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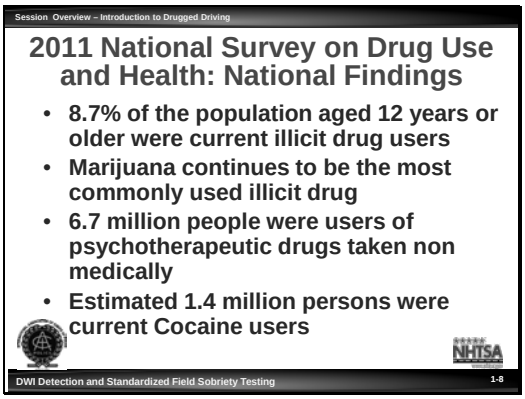
How many people use drugs?

- Because many drugs are illegally manufactured, sold and consumed, it is difficult to determine how many people actually use the various drugs.
- All available information shows that drug use and abuse are widespread among large segments of the American public.



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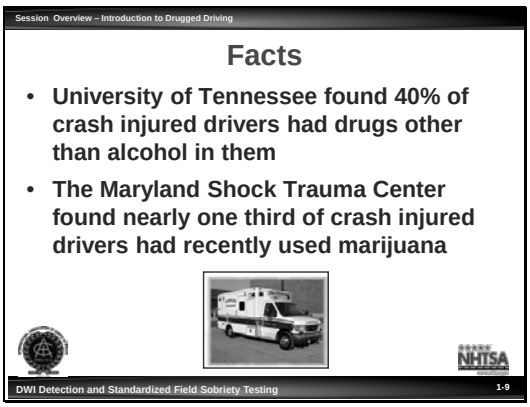
Results from the 2011 National Survey on Drug Use and Health: National Findings

- In 2011, 8.7% of the population aged 12 years or older were current illicit drug users.
- Marijuana was the most commonly used illicit drug in 2011, with 18.1 million users.
- In 2011, 6.7 million people were users of psychotherapeutic drugs taken non medically
- In 2011, an estimated 1.4 million persons were current Cocaine users

Source: Results from the 2010 National Survey on Drug Use and Health: National Findings



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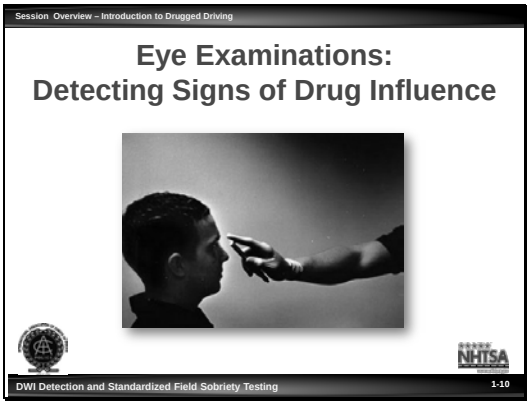
Evidence of drug use frequently shows up in people killed or injured in motor vehicle crashes.

- Fact: University of Tennessee (1988) found 40% of crash injured drivers had drugs other than alcohol in them.
- Fact: The Maryland Shock Trauma Center (1986) found nearly one-third of crash injured drivers had recently used Marijuana.

Studies of fatally-injured drivers consistently show that nearly 20% had drugs or the combination of drugs and alcohol in their systems at the time of the crash.

Source: FARS, 2010



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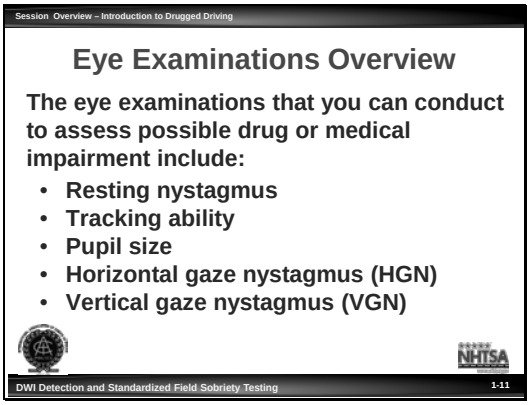
B. Eye Examinations: Detecting Signs of Dug Influence

The eyes disclose some of the clearest signs of drug impairment or medical conditions.

- Horizontal gaze nystagmus is a very clear indication, in subject's eyes, of possible alcohol impairment.
- There are a number of drugs, other than alcohol, that will cause horizontal gaze nystagmus.
- There are a number of other drugs that will not cause horizontal gaze nystagmus.
- There are many other clues that the eyes will disclose, all of which will suggest the presence or absence of drugs or medical impairment.



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Eye Examinations Overview:

The eye examinations that you can conduct to assess possible drug or medical impairment include:

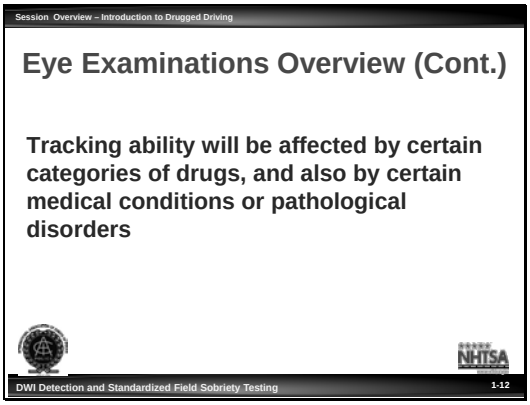
- Resting nystagmus
- Tracking ability
- Pupil size
- Horizontal gaze nystagmus (HGN)
- Vertical gaze nystagmus (VGN)

Resting Nystagmus is referred to as jerking as the eyes look straight ahead. This condition is not frequently seen. Its presence usually indicates a pathological disorder or high doses of a Dissociative Anesthetic drug such as PCP.

Tracking Ability will be affected by certain categories of drugs, and also by certain medical conditions or pathological disorders.

If the two eyes do not track together, the possibility of a medical condition or injury is present.

By passing a stimulus across both eyes, you can check to see if both eyes are tracking equally.



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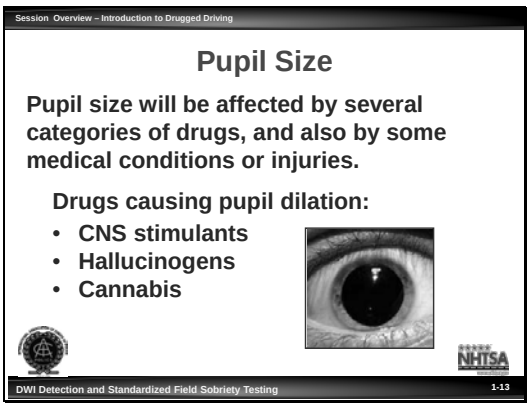
Tracking Ability will be affected by certain categories of drugs, and also by certain medical conditions or pathological disorders.

If the two eyes do not track together, the possibility of a medical condition or injury is present.

By passing a stimulus across both eyes, you can check to see if both eyes are tracking equally.

If they don't (i.e., if one eye tracks the stimulus, but the other fails to move, or lags behind the stimulus) there is the possibility of a pathological disorder.

If a person has sight in both eyes, but the eyes fail to track together, there is a possibility that the person is suffering from an injury or illness.



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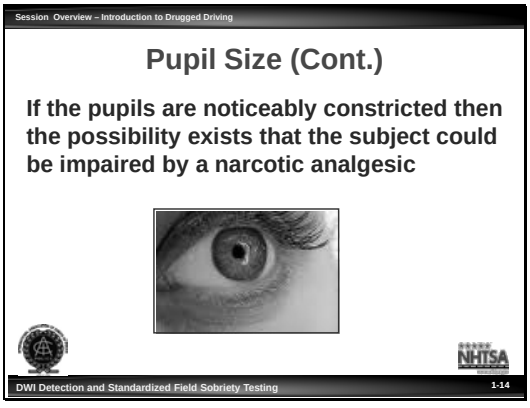
Pupil Size

Pupil Size will be affected by several categories of drugs, and also by some medical conditions or injuries:

- If the two pupils are distinctly different in size, it is possible that the subject has a glass eye, or is suffering from a head injury or a neurological disorder.

If the pupils are noticeably dilated, then the possibility exists that the subject could be impaired by certain categories of drugs:

- CNS stimulants
- Hallucinogens
- Cannabis



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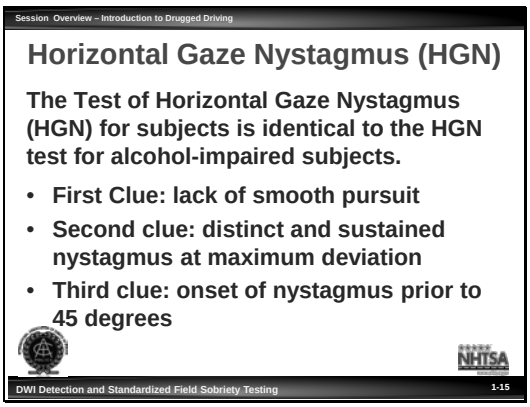
Pupil Size (Cont.)

If the pupils are noticebly constricted then the possiblity exists that the subject could be impaired by a narcotic analgesic.

CNS Depressants, Dissociative Anesthetics, and Inhalants usually do not affect pupil size.



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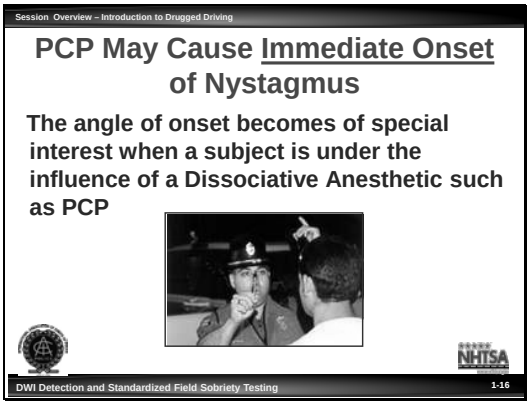
Horizontal Gaze Nystagmus

The test of Horizontal Gaze Nystagmus (HGN) for subjects is identical to the HGN test for alcohol-impaired subjects.

- First Clue: Lack of smooth pursuit
- Second clue: Distinct and sustained nystagmus at maximum deviation
- Third clue: Onset of nystagmus prior to 45 degrees

If the eyes track equally, but "jerk" while they are moving, then the possible presence of three categories of drugs should be noted:

- Central Nervous System Depressants
- Dissociative Anesthetics
- Inhalants



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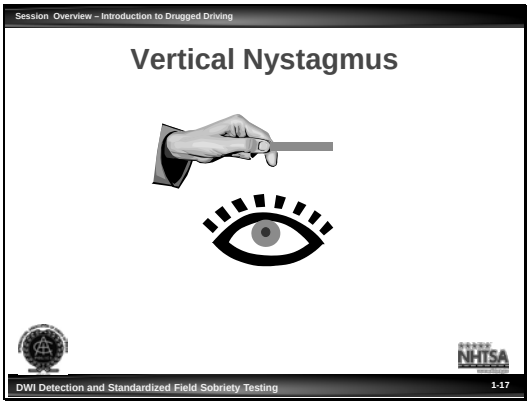
PCP May Cause Immediate Onset of Nystagmus

PCP impaired subjects may exhibit immediate onset, i.e., the jerking begins virtually as soon as the eyes start to move toward the side.

Sometimes, PCP- impaired subjects will exhibit resting nystagmus, i.e., the eyes jerk while they are looking straight ahead.



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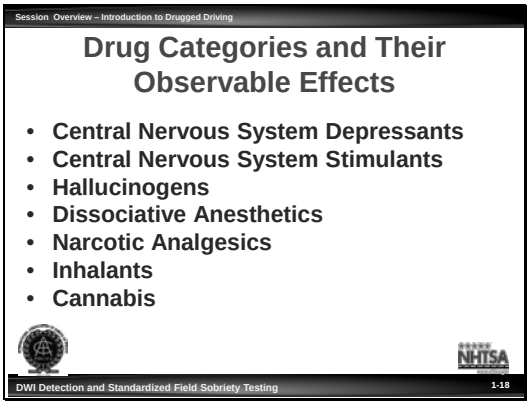
Vertical Nystagmus

The Vertical Nystagmus test is very simple to administer.

- Position the stimulus horizontally. Approximately 12-15 inches (30-38 cm) in front of the subject's nose.
- Instruct the subject to hold their head still, and follow the stimulus with the eyes only.
- Raise the stimulus until the subject's eyes are elevated as far as possible, hold for a minimum of four seconds.
- Watch closely for evidence of jerking (up and down).

Vertical Nystagmus may be present in subjects under the influence of CNS depressants or inhalants.



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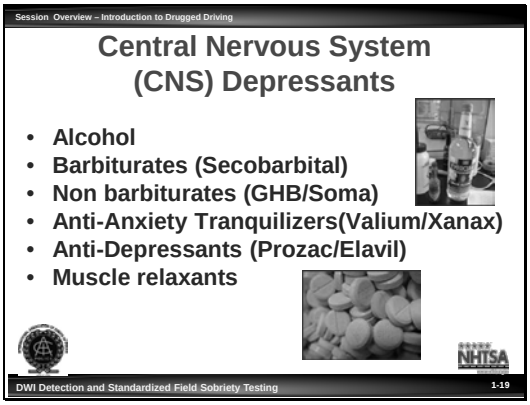
C. Drug Categories and Their Observable Effects

Seven Categories of "Drugs"

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

Within this simple, enforcement-oriented definition, there are seven categories of drugs:

- Central Nervous System Depressants
- Central Nervous System Stimulants
- Hallucinogens
- Dissociative Anesthetics
- Narcotic Analgesics
- Inhalants
- Cannabis



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Central Nervous System (CNS) Depressants

CNS Depressants slow down the operations of the brain, and usually depress the heartbeat, respiration, and many other processes controlled by the brain.

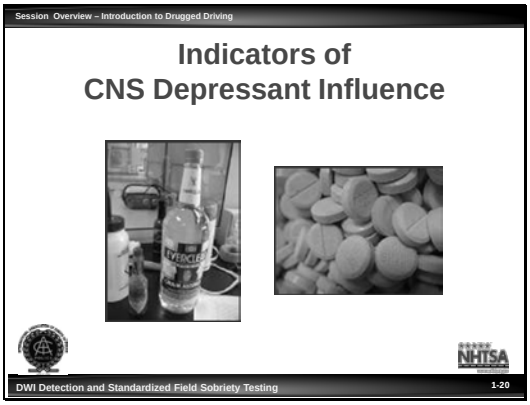
The most familiar CNS Depressant is alcohol.

Other CNS Depressants include:

- Barbiturates (such as Secobarbital (Seconal), and Pentobarbital (Luminal))
- Non-Barbiturates (GHB-gamma-hydroxybutyrate and Soma)
- Anti-Anxiety Tranquilizers (Such as Valium, Librium, Xanax, and Rohpynol)
- Anti-Depressants (such as Prozac and Elavil)
- Muscle relaxants and many other drugs (Soma)

CNS Depressants usually are taken orally, in the form of pills, capsules, liquids, etc.

In general, people under the influence of any CNS Depressant look and act like people under the influence of alcohol.



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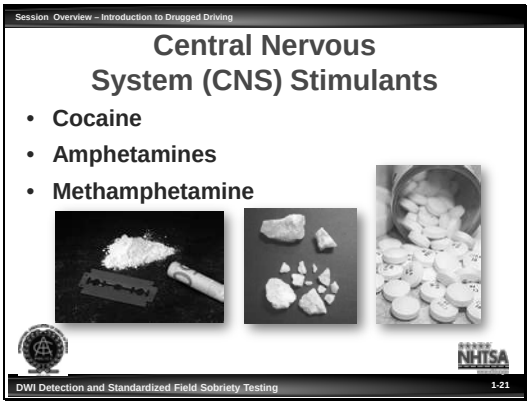
General indicators of CNS Depressant influence are:

- "Drunken" behavior and appearance
- Uncoordinated
- Drowsy
- Sluggish
- Disoriented
- Thick, slurred speech

Eye indicators of CNS Depressant influence are:

- Horizontal gaze nystagmus usually will be present
- Vertical nystagmus may be present (with high doses)
- Pupil size usually will not be effected, except that Methaqualone and Soma may cause pupil dilation



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Central Nervous System Stimulants

Central Nervous System Stimulants accelerate the heart rate, respiration and many other processes of the body.

The two most widely abused kinds of CNS Stimulants are cocaine and methamphetamines.

Cocaine is made from the leaves of the coca plant.

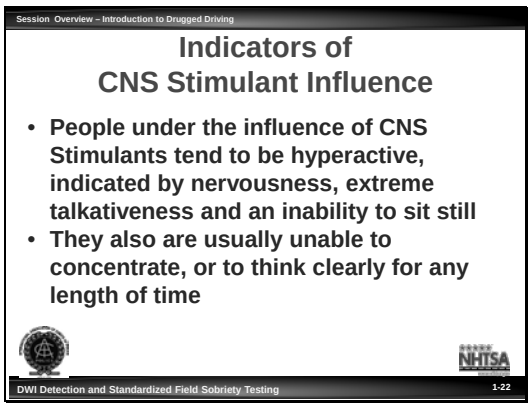
Methamphetamines are chemically produced (manufactured) drugs.

Cocaine abusers may take the drug:

- By “snorting”
- By smoking (freebase, or “Crack”)
- By injection
- Orally

Abusers of amphetamines may take their drugs:

- By injection
- Orally
- By “snorting”
- Smoked (i.e., “ice”)



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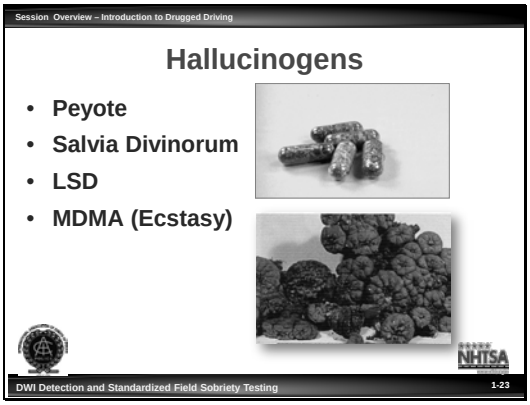
General indicators of CNS Stimulant influence:

People under the influence of CNS Stimulants tend to be hyperactive, indicated by nervousness, extreme talkativeness and an inability to sit still. They also are usually unable to concentrate, or to think clearly for any length of time.

- Restlessness
- Talkative
- Excitation
- Euphoria
- Exaggerated reflexes
- Loss of appetite
- Anxiety
- Grinding teeth (bruxism)
- Redness to nasal area (if “snorting”)
- Body tremors

Eye indicators of CNS Stimulant Influence:

- Neither horizontal nor vertical nystagmus will be observed
- The pupils generally will be dilated.



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Hallucinogens

Hallucinogens are drugs that affect a person's perceptions, sensations, thinking, self-awareness and emotions.

One common type of hallucination caused by these drugs is called synesthesia, which means a transposing of the senses.

Sounds for example, may be transposed into sights.

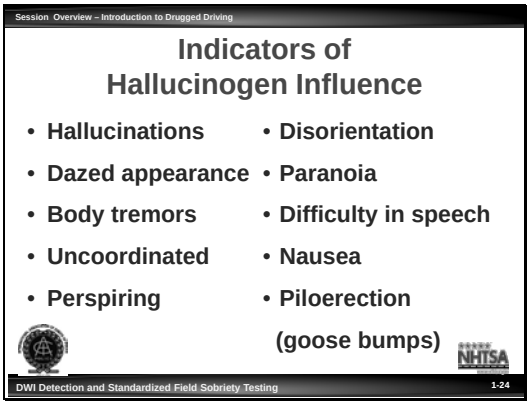
Sights, for example, may be transposed into odors or sounds.

Some hallucinogenic drugs come from natural sources:

- Peyote is an hallucinogen found in a particular specie of cactus.
- Psilocybin is an hallucinogen found in a number of species of mushroom.

Other hallucinogens are synthetically manufactured:

- LSD (Lysergic Acid Diethylamide)
- MDA (3, 4-Methylene-dioxyamphetamine)
- MDMA (Ecstasy)
- Many others



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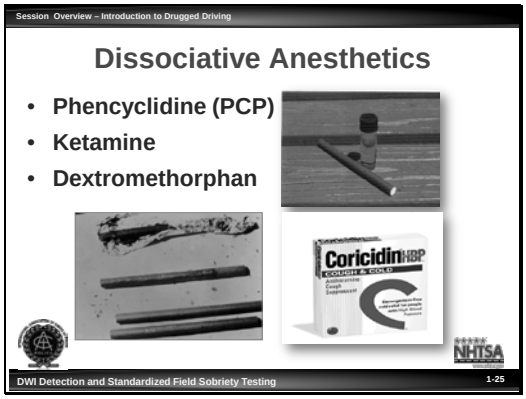
General indicators of hallucinogen influence:

Hallucinogen abusers usually take their drugs orally; however, some hallucinogens can be smoked, or injected or “snorted”.

- Hallucinations
- Dazed appearance
- Body tremors
- Uncoordinated
- Perspiring
- Disorientation
- Paranoia
- Difficulty in speech
- Nausea
- Piloerection (goose bumps)

Eye indicators of hallucinogen influence:

- Neither horizontal nor vertical nystagmus should be present
- The pupils usually will be noticeably dilated



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Dissociative Anesthetics

Dissociative Anesthetics is the category of drugs that includes PCP, its various analogs, and Dextromethorphan (DXM).

PCP is a synthetic drug that was first developed as an intravenous anesthetic.

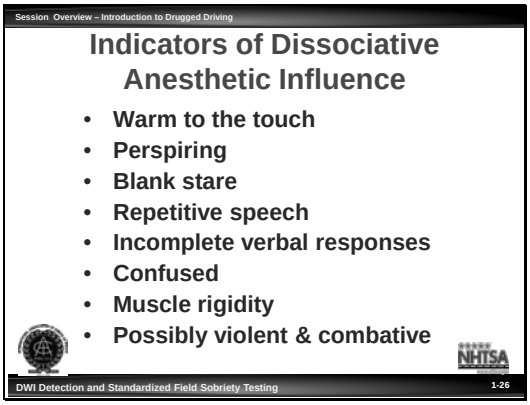
Because PCP produces very undesirable side effects, it is no longer legally manufactured. However, an analog (chemical cousin) Ketamine is still being legally manufactured and available.

However, it is easy to manufacture:

- The formula for making PCP and PCP analogs have been widely publicized.
- The manufacturing process involves readily available chemicals.

Many Dissociative Anesthetic users smoke the drug, by using it to adulterate tobacco, marijuana, or various other substances.

Dissociative Anesthetics can also be taken orally or by injection, or inhaled.



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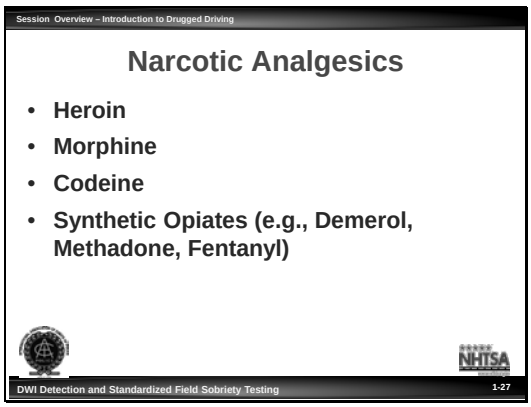
General Indicators of Dissociative Anesthetics:

Dissociative Anesthetics cans also be taken orally or by injection, or inhaled.

- Warm to the touch
- Perspiring
- Blank stare
- Repetitive speech
- Incomplete verbal responses
- Confused
- Muscle rigidity
- Possibly violent & combative

Eye Indicators of Dissociative Anesthetic influence:

- Horizontal gaze nystagmus generally will be present, often with very early onset and very distinct jerking.
- Vertical nystagmus generally will be present.
- Pupil Size usually will not be affected.



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Narcotic Analgesics

Narcotic Analgesics include a large number of drugs that share three important characteristics:

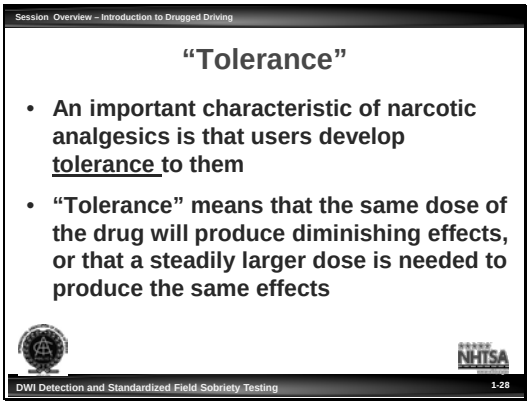
- They will relieve pain.
- They will produce withdrawal signs and symptoms, when the drug is stopped after chronic administration.
- They will suppress the withdrawal signs and symptoms of chronic morphine administration.

Some drugs classified as Narcotic Analgesics are natural derivatives of opium:

- Heroin
- Morphine
- Codeine

Some are synthetic narcotic analgesics, such as:

- Demerol
- Methadone
- Numorphan
- Fentanyl
- OxyContin



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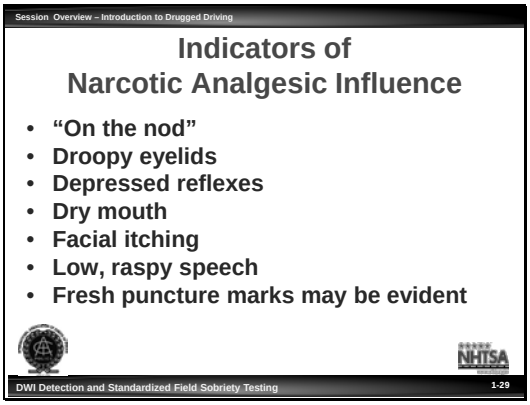
Tolerance

- An important characteristic of narcotic analgesics is that users develop tolerance to them. "Tolerance" means that the same dose of the drug will produce diminishing effects, or that a steadily larger dose is needed to produce the same effects. A tolerant user who has taken his or her "normal" dose of heroin (for example), may exhibit little or no evidence of physical impairment.



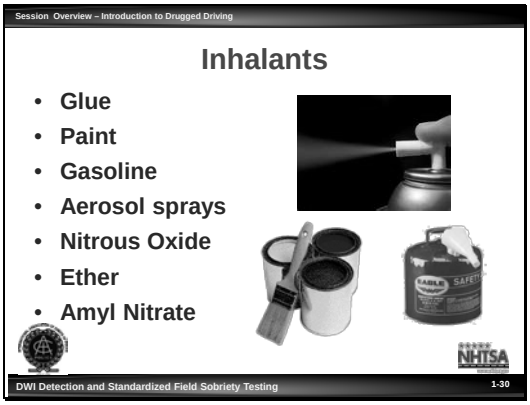
General indicators of Narcotic Analgesic influence:

- "On the nod"
- Droopy eyelids
- Depressed reflexes
- Dry mouth
- Facial itching
- Low, raspy speech
- Fresh puncture marks may be evident

Eye indicators of Narcotic Analgesic influence:

- Neither horizontal nor vertical nystagmus will be present

- Pupils generally will be constricted



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Inhalants

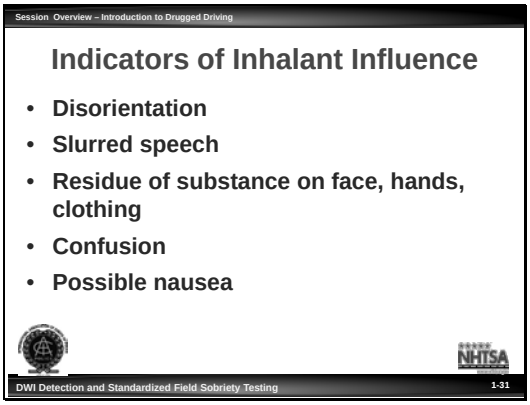
Inhalants are breathable chemicals that produce mind-altering results.

Inhalants include many familiar household materials, such as glue (“Toluene”), paint, gasoline, aerosol sprays, etc. that produce volatile fumes.

Some drugs that are classified as Inhalants include:

- Glue (i.e., model airplane glue, Toluene)
- Paint
- Gasoline
- Aerosol sprays (i.e., vegetable frying pan lubricants, hair sprays, insecticides)
- Nitrous Oxide
- Ether
- Amyl Nitrate

Certain anesthetics also may be used as inhalants.



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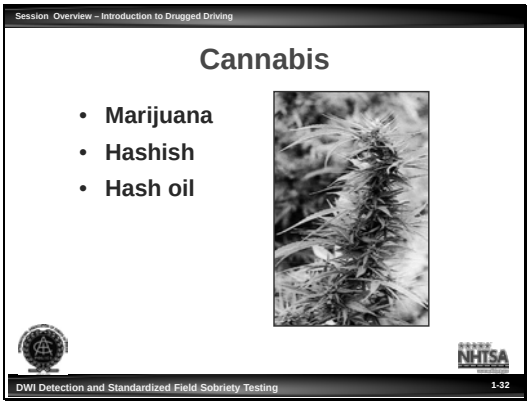
General indicators of Inhalant influence:

- Disorientation
- Slurred speech
- Residue of substance on face, hands, clothing
- Confusion
- Possible nausea

Eye indicators of Inhalant influence:

- Horizontal gaze nystagmus generally will be present.
- Vertical nystagmus may be present (especially with high doses).
- Pupil size generally will not be effected.



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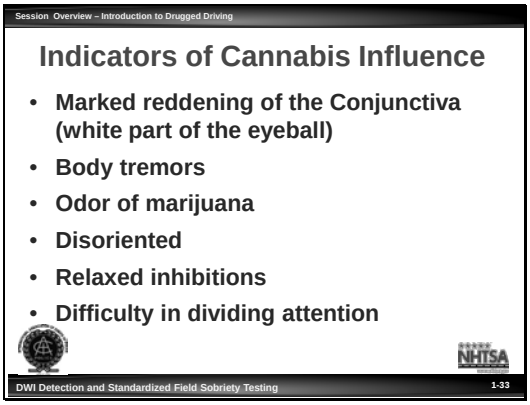
Cannabis

The category Cannabis includes the various products of the Cannabis Sativa plant, including:

- Marijuana
- Hashish
- Hash oil
- Synthetic THC (Marinol or Dronabinol)
- Synthetic cannabinoid products (Spice, K2, JWH-18, etc.)

Cannabis products generally are smoked, although they also can be ingested orally.



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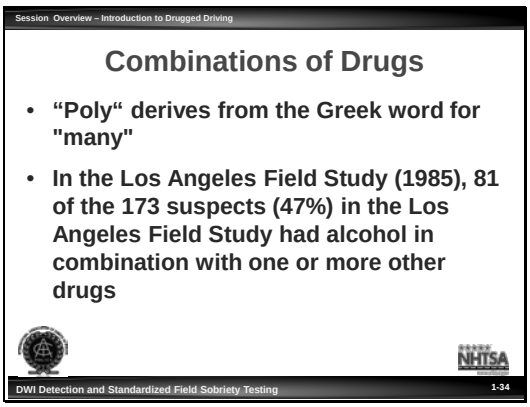
General Indicators of Cannabis Influence:

- Marked reddening of the Conjunctiva (white part of the eyeball)
- Body tremors
- Odor of marijuana
- Disoriented
- Relaxed inhibitions
- Difficulty in dividing attention

Eye indicators of Cannabis Influence:

- Neither horizontal nor vertical nystagmus will be present
- Pupil size generally will be dilated, but also may not be effected



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D. Combinations of Drugs

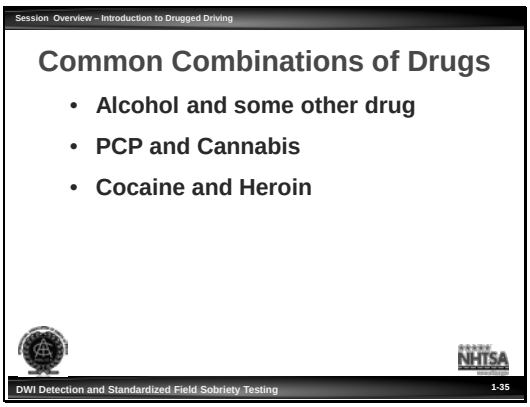
Many drug users routinely ingest drugs from two or more drug categories at the same time.

- The term for this condition is "polydrug use".

In the Los Angeles Field Study (1985), 72% of the suspects had two or more drugs in them.

In that study, alcohol was often found in combination with one or more other drugs.

But even if we discount alcohol, nearly half (45%) of the Field Study suspects had two or more other drugs in them.



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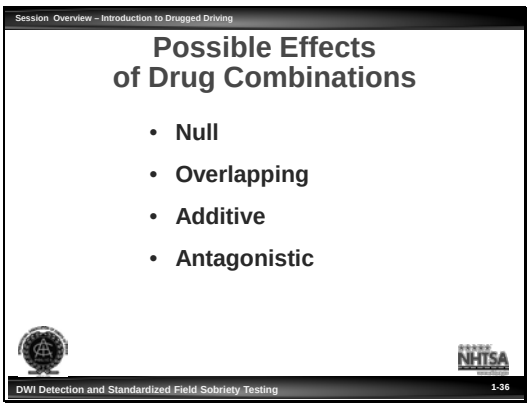
Common Combinations of Drugs

- Alcohol and some other drug is the most frequent combination
- PCP and Cannabis is another common combination
- Cocaine and Heroin is another common combination

Because polydrug use is so common, you should not be surprised to encounter subjects who are under the influence of more than one category of drugs.

- At some times and places polydrug users may be more common than single drug users.
- Be especially alert to the possibility that subjects who have been drinking alcohol may also have ingested some other drug or drugs.

The effects of polydrug use may vary widely, depending on exactly what combination of drugs is involved, how ingested and when they were ingested.



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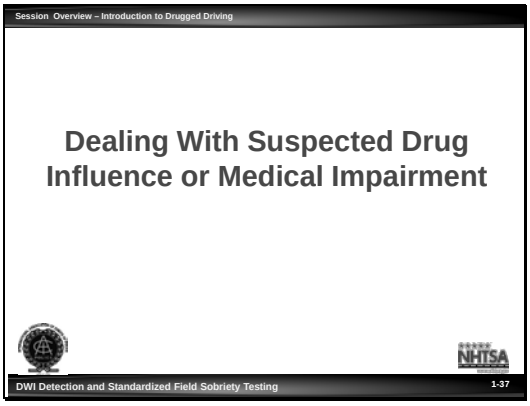
Any particular combination of drugs may produce four general kinds of effects:

- Null: Neither drug has an effect on the indicator.
- Overlapping: Each drug may effect the subject in some different way. In combination, both effects may appear.
- Additive: The two drugs may independently produce some similar effects. In combination, these effects may be enhanced.
- Antagonistic: The two drugs may produce some effects that are exactly opposite. In combination, these effects may mask each other.
- Example of Antagonistic Effect: A CNS Stimulant usually causes pupil dilation. A narcotic usually causes pupil constriction. It is possible that someone who is simultaneously under the influence of a stimulant and narcotic may have pupils that are nearly normal in size. It is also possible that the pupils will change as the effects of one drug diminishes while the other increases.



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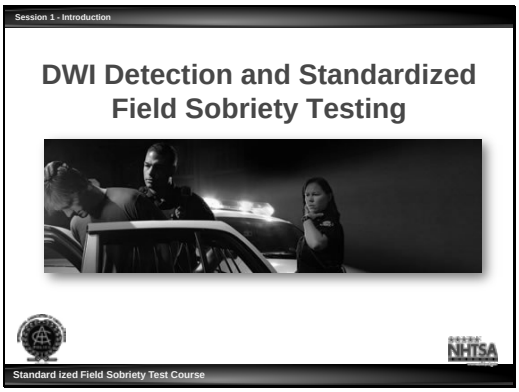
Although this course is not designed to qualify you as a DRE, it is intended to make you more knowledgeable when encountering drivers impaired by substances other than alcohol.



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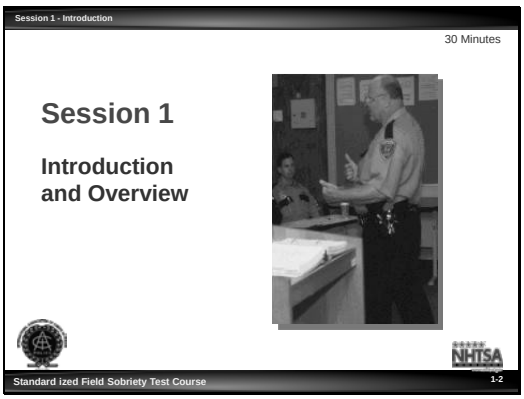

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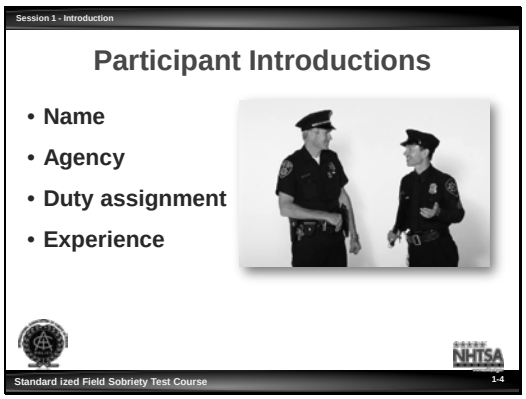

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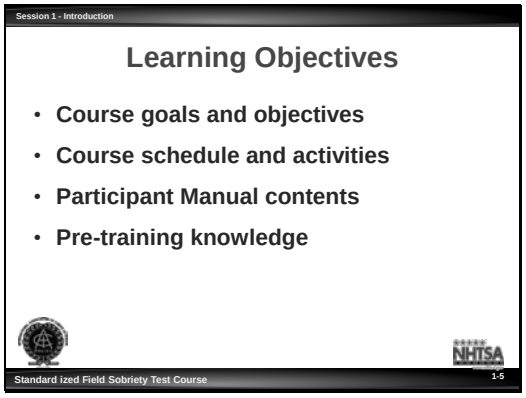

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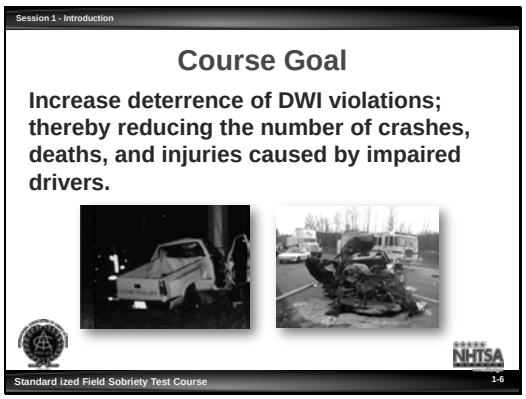
Upon successfully completing this session the participant will be able to:

- State the goals and objectives of the course
- Describe the course schedule and activities
- Recognize the Participant Manual contents
- Demonstrate their pre-training knowledge of course topics

CONTENT SEGMENTS	LEARNING ACTIVITES
A. Welcoming Remarks and Objectives	Instructor Led Presentations
B. Administrative Details	Written Examination
C. Pre-Test	



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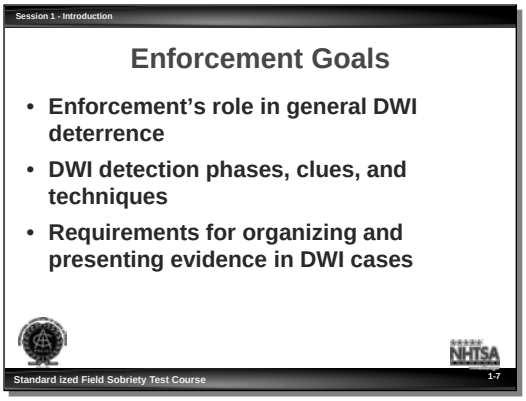
The goal of this course is to ultimately increase deterrence of DWI violations; thereby reducing the number of crashes, deaths, and injuries caused by impaired drivers.



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Enforcement goals are to identify:

- Enforcement's role in general DWI deterrence
- DWI detection phases, clues and techniques
- Requirements for organizing and presenting testimonial and documentary evidence in DWI cases

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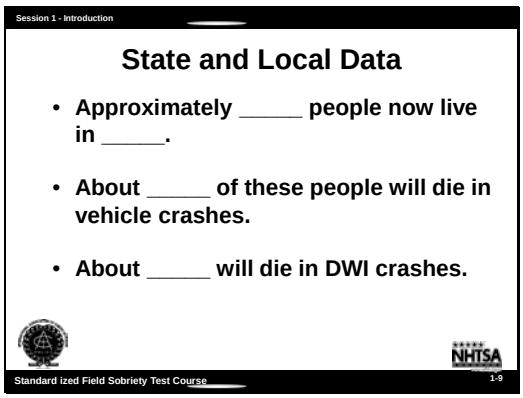
65 deaths and injuries each hour!



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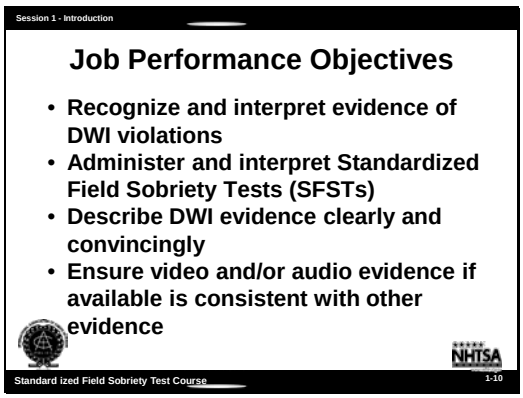
- Approximately _____ people now live in _____.
- About _____ of these people will die in vehicle crashes.
- About _____will die in DWI crashes.



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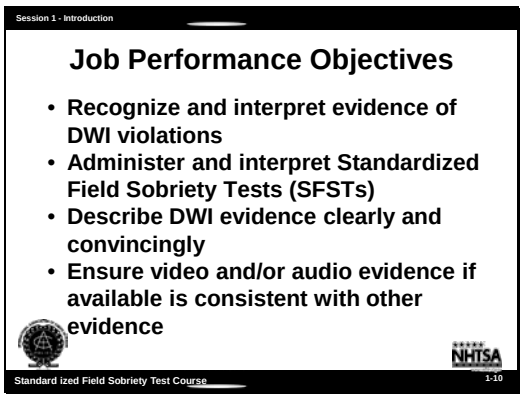
At the conclusion of this training, participants will demonstrate the ability to:

- Recognize and interpret evidence of DWI violations
- Administer and interpret Standardized Field Sobriety Tests
- Describe DWI evidence clearly and convincingly in written reports and verbal testimony
- Ensure video and/or audio evidence, if available, is consistent with other evidence



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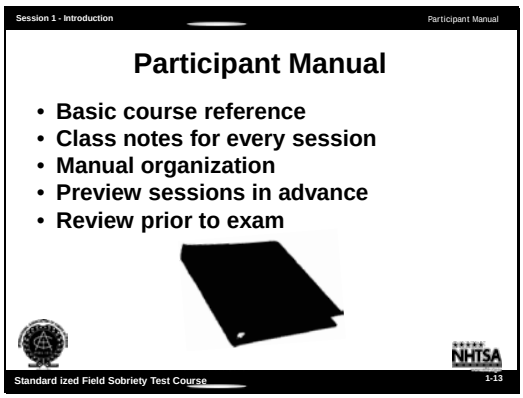
Job Performance Enabling Objectives

- Understand the tasks and decisions of DWI detection.
- Recognize the magnitude and scope of DWI-related crashes, deaths, injuries, property loss and other social aspects of the DWI problem.
- Understand the deterrent effects of DWI enforcement.
- Understand the DWI enforcement legal environment.
- Know and recognize typical vehicle maneuvers and human indicators symptomatic of DWI that are associated with initial observation of vehicles in operation.
- Know and recognize typical reinforcing maneuvers and indicators that come to light during the stopping sequence.
- Know and recognize typical sensory and other clues of alcohol and/or other drug impairment that may be seen during face to face contact with DWI subjects.
- Know and recognize typical behavioral clues of alcohol and/or other drug impairment that may be seen during the subject's exit from the vehicle.
- Understand the role and relevance of psychophysical testing in pre-arrest screening of DWI subjects.
- Understand the role and relevance of preliminary breath testing in pre-arrest screening of DWI subjects.
- Know and carry out appropriate administrative procedures for the Horizontal Gaze Nystagmus test.
- Know and carry out appropriate administrative procedures for validated divided attention psychophysical tests.
- Know and recognize typical clues of alcohol and/or other drug impairment that may be seen during administration of the SFSTs.
- Understand the factors that may affect the accuracy of preliminary breath testing devices.
- Understand the elements of DWI prosecution and their relevance to DWI arrest reporting.
- Choose appropriate descriptive terms to convey relevant observations of DWI evidence.
- Write clear, descriptive narrative DWI arrest reports.



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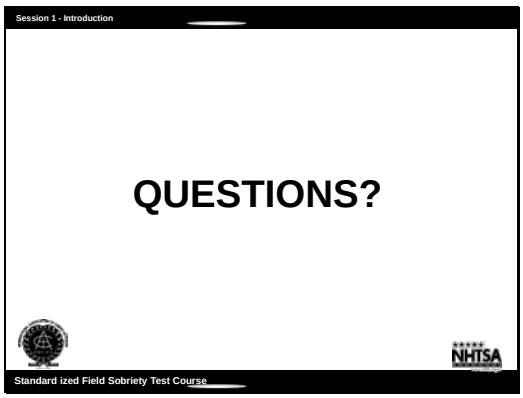
The Participant Manual is the basic reference document for this course. The manual contains thumbnails of each instructor presentation that includes key messages for each frame. The manual also contains a glossary of terms that are used in this course.

- Read each session prior to class.
- Use the manual to review the material prior to taking the final exam.



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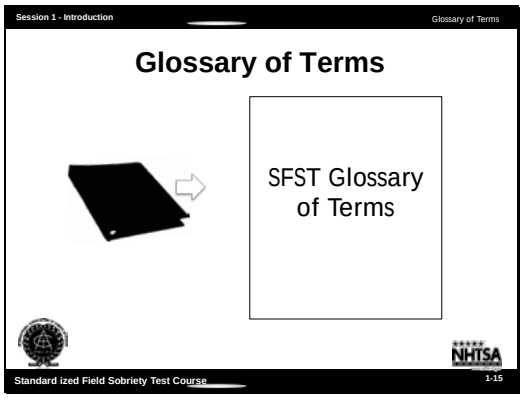

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SFST Master Glossary of Terms

ACCOMMODATION REFLEX

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

ADDICTION

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

ADDITIVE EFFECT

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.

AFFERENT NERVES

See: "Sensory Nerves."

ALKALOID

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

ALVEOLAR BREATH - Breath from the deepest part of the lung.

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 normal range of size.

ARRHYTHMIA

An abnormal heart rhythm.

ARTERY

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

ATAXIA

A blocked ability to coordinate movements. A staggering walk and poor balance may be caused by damage to the brain or spinal cord. This can be the result of trauma, birth defect, infection, tumor, or drug use.

AUTONOMIC NERVE

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

AXON

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

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.

BRADYCARDIA

Abnormally slow heart rate; pulse rate below the normal range.

BRADYPNEA

Abnormally slow rate of breathing.

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 primarily from the leaves of certain species of Cannabis plants that grow readily all over the temperate zones of the earth. Hashish is another drug in this category, and is made from dried and pressed resin of a marijuana plant. The active ingredient in both Marijuana and Hashish is a chemical called delta-9 tetrahydrocannabinol, usually abbreviated THC.

This is the drug category that includes Mari

CARBOXY THC

A metabolite of THC (tetrahydrocannabinol).

CHEYNE- STOKES RESPIRATION

Abnormal pattern of breathing. Marked by breathlessness and deep, fast breathing.

CLUE - Something that leads to the solution of a problem.

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, Preludin, and numerous other drugs.

CONJUNCTIVITIS

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

CONVERGENCE

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

CRACK/ROCK

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

CUE - A reminder or prompting as a signal to do something. A suggestion or a hint.

CURRICULUM VITAE

A written summary of a person's education, training, experience, noteworthy achievements and other relevant information about a particular topic.

CYCLIC BEHAVIOR

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

DENDRITE

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

DIACETYL MORPHINE

The chemical name for Heroin.

DIASTOLIC

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

DIPLOPIA

Double vision.

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 attention.

DIVIDED ATTENTION TEST

A test which requires the subject to concentrate on both mental and physical tasks at the same time.

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.

DWI/DUI

The acronym "DWI" means driving while impaired and is synonymous with the acronym "DUI", driving under the influence or other acronyms used to denote impaired driving. These terms refer to any and all offenses involving the operation of vehicles by persons under the influence of alcohol and/or other drugs.

DWI DETECTION PROCESS

The entire process of identifying and gathering evidence to determine whether or not a subject should be arrested for a DWI violation. The DWI detection process has three phases:

1. Phase One - Vehicle In Motion
2. Phase Two - Personal Contact
3. Phase Three - Pre-arrest Screening

DYSARTHIA

Slurred speech. Difficult, poorly articulated speech.

DYSPNEA et. al.

Shortness of breath.

DYSMETRIA

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

DYSPHORIA

A disorder of mood. Feelings of depression and anguish.

EFFERENT NERVES

See: "Motor Nerves".

ENDOCRINE SYSTEM

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

EVIDENCE

Any means by which some alleged fact that has been submitted to investigation may either be established or disproved. Evidence of a DWI violation may be of various types:

- Physical (or real) evidence: something tangible, visible, or audible.
- Well established facts (judicial notice).
- Demonstrative evidence: demonstrations performed in the courtroom.
- Written matter or documentation.
- Testimony.

EXPERT WITNESS

A person skilled in some art, trade, science or profession, having knowledge of matters not within knowledge of persons of average education, learning and experience, 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.)

FIELD SOBRIETY TEST

Any one of several roadside tests that can be used to determine whether a subject is impaired.

FLASHBACK

A vivid recollection of a portion of an 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.

GARRULITY

Chatter, rambling or pointless speech. Talkative.

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 higher 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".

HIPPUS

A rhythmic change in the pupil size of the eyes, as they dilate and constrict when observed in darkness independent of changes in light intensity, accommodation (focusing), or other forms of sensory stimulation. Normally only observed with specialized equipment.

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. The first test administered in the SFST battery.

HORMONES

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

HYDROXY THC

A metabolite of THC (tetrahydrocannabinol).

HYPERFLEXIA

Exaggerated or over extended motions.

HYPERGLYCEMIA

Excess sugar in the blood.

HYPERPNEA

A deep, rapid or labored breathing.

HYPERPYREXIA

Extremely high body temperature.

HYPERREFLEXIA

A neurological condition marked by increased reflex reactions.

HYPERTENSION

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

HYPOGLYCEMIA

An abnormal decrease of blood sugar levels.

HYPOPNEA

Shallow or slow breathing.

HYPOTENSION

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

HYPOTHERMIA

Decreased body temperature.

ICE

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

ILLEGAL PER SE

Unlawful in and of itself. Used to describe a law which makes it illegal to drive while having a statutorily prohibited Blood Alcohol Concentration.

INHALANTS

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

INSUFFLATION

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.

INTRAOCULAR

"Within the eyeball".

KOROTKOFF SOUNDS

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

LACK OF CONVERGENCE

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.

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 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 dilated pupils.

NARCOTIC ANALGESICS

One of the seven drug categories. Narcotic analgesics include opium, the natural alkaloids of opium (such as morphine, codeine and thebaine), the derivatives of opium (such as heroin, dilaudid, oxycodone and percodan), and the synthetic narcotics (such as demerol and numorphan).

NERVE

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

NEURON

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

NEUROTRANSMITTER

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

NULL EFFECT

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.

ONE LEG STAND (OLS)

A divided attention field sobriety test. The third test administered in the SFST battery.

"ON THE NOD"

A semi-conscious state of deep relaxation. Typically induced by impairment due to Heroin or other narcotic analgesic. 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.

PALLOR

An abnormal paleness or lack of color in the skin.

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".

PARASYMPATHETIC NERVE

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

PARASYMPATHOMIMETIC DRUGS

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

PDR (Physician's Desk Reference)

A basic reference source for drug recognition experts. The PDR provides detailed information on the physical appearance and psychoactive effects of licitly-manufactured drugs.

PERSONAL CONTACT

The second phase in the DWI detection process. In this phase the officer observes and interviews the driver face to face; determines whether to ask the driver to step from the vehicle; and observes the driver's exit and walk from the vehicle.

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

Physiology is 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.

POLY DRUG USE

Ingesting drugs from two or more drug categories.

PRE-ARREST SCREENING

The third phase in the DWI detection process. In this phase the officer administers field sobriety tests to determine whether there is probable cause to arrest the driver for DWI, and administers or arranges for a preliminary breath test.

PRELIMINARY BREATH TEST (PBT)

A pre-arrest breath test administered during investigation of a possible DWI violator to obtain an indication of the person's blood alcohol concentration.

PROBABLE CAUSE

It is more than mere suspicion; facts and circumstances within the officer's knowledge, and of which he or she has reasonably trustworthy information, are sufficient to warrant a person of reasonable caution to believe that an offense has been or is being committed.

PSYCHEDELIC

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

PSYCHOPHYSICAL TESTS

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

PSYCHOTOGENIC

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

PSYCHOTOMIMETIC

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

PTOSIS

Droopy eyelids.

PULSE

The expansion and relaxation of the walls of an artery, caused by the surging flow 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.

REASONABLE SUSPICION

Less than probable cause but more than mere suspicion; exists when an officer, in light of his or her training and experience, reasonably believes and can articulate that criminal activity is taking, has taken or is about to take place.

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).

SENSORY NERVES

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

SINSEMILLA

The unpollenated female cannabis plant, having a relatively high concentration of THC.

STANDARDIZED FIELD SOBRIETY TESTING (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 alcohol 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.

SPHYGMOMANOMETER

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

STETHOSCOPE

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

SYMPATHETIC NERVE

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

SYMPATHOMIMETIC DRUGS

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

SYNAPSE (or Synaptic Gap)

The gap or space between two neurons (nerve cells).

SYNESTHESIA

A sensory perception disorder, in which an input via one sense is perceived by the brain as an input via another sense. In its simplest terms, it is a transposition of senses. For example, seeing a particular sight may cause the user to perceive a sound.

SYSTOLIC

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

TACHYCARDIA

Abnormally rapid heart rate; pulse rate above the normal range.

TACHYPNEA

Abnormally rapid rate of breathing.

THC (Tetrahydrocannabinol)

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

TIDAL BREATH

Breath from the upper part of the lungs and mouth.

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.

TRAFFIC SAFETY RESOURCE PROSECUTOR (TSRP)

Is usually a current or former prosecutor who provides training, education and technical support to traffic crimes prosecutors and law enforcement agencies throughout their state. For the contact information of your TSRP go to: www.ndaa.org/apri/programs/traffic/legal_issues_resources.html

VALID

Conforming to accepted principles. Producing accurate and reliable results.

VALIDATED

A documented act of demonstrating that a procedure, process, and/or activity will consistently lead to accurate and reliable results.

VEHICLE IN MOTION

The first phase in the DWI detection process. In this phase the officer observes the vehicle in operation, determines whether to stop the vehicle, and observes the stopping sequence.

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.

VOLUNTARY NERVE

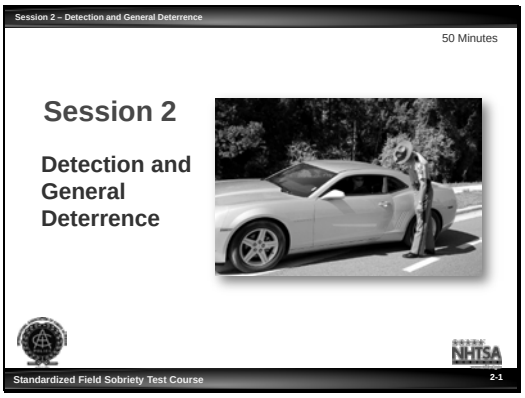
A motor nerve that carries messages to a muscle that we consciously control.

WALK AND TURN (WAT)

A divided attention field sobriety test. The second test administered in SFST battery.

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.


Session 2 – Detection and General Deterrence
50 Minutes
Session 2
Detection and General Deterrence
NHTSA
Standardized Field Sobriety Test Course
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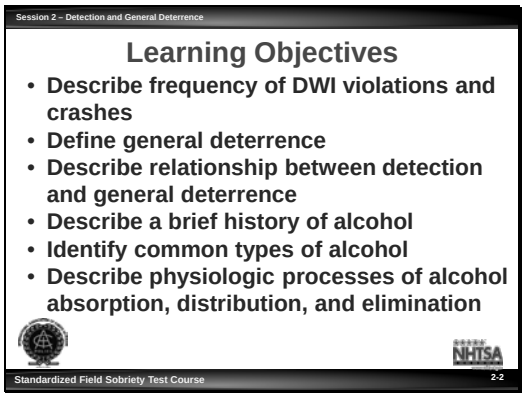

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Learning Objectives

At the conclusion of this session, participants will be able to:

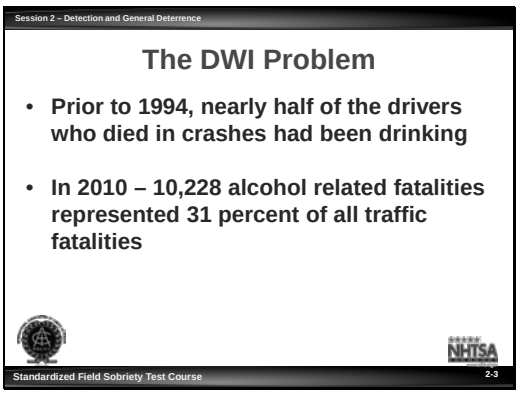
- Describe the frequency of DWI violations and crashes
- Define general deterrence
- Describe the relationship between detection and general deterrence
- Describe a brief history of alcohol
- Identify common types of alcohol
- Describe the physiologic processes of absorption, distribution, and elimination of alcohol in the body

CONTENT SEGMENTS

A. The DWI Problem
B. The Concept of General Deterrence
C. Relating Detection to Deterrence Potential
D. Evidence of Effective Detection and Effective Deterrence
E. Physiology of Alcohol

LEARNING ACTIVITIES

Instructor Led Presentations
Video Presentation
Reading Assignments



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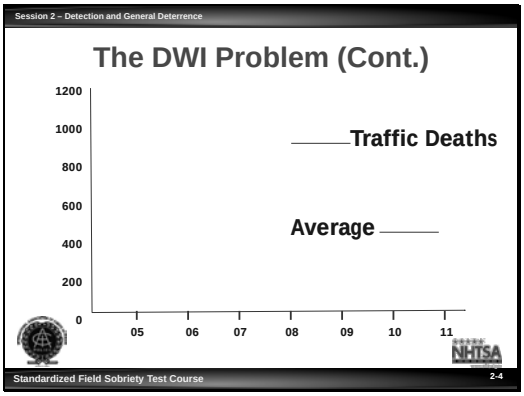
A. The DWI Problem (Local, State and National)

How Widespread Is DWI?

While not all of those who drive after drinking have a BAC of 0.08 or more, the presumptive or illegal per se limit for DWI in all states, some drivers do have BACs in excess of these limits.

Prior to 1994, nearly half of the drivers who died in crashes had been drinking.

Each year, tens of thousands of people die in traffic crashes. Throughout the nation, alcohol is the major contributor to traffic fatalities. In 2010, there were 10,228 alcohol related fatalities representing 31 % of all traffic fatalities. *(NHTSA, Traffic Safety Facts; 2010 Motor Vehicle Crashes: Overview, DOT HS 811 552, February 2012.)*



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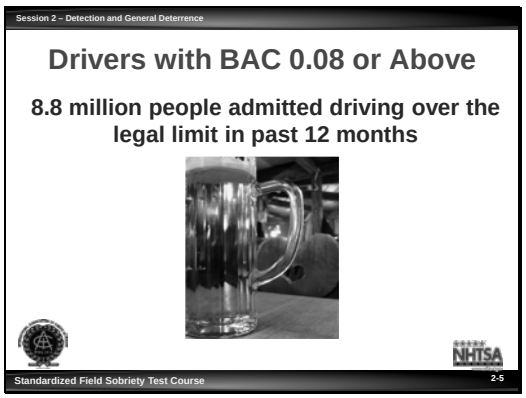
Impaired drivers are more likely than other drivers to take excessive risks such as speeding or turning abruptly. Impaired drivers also are more likely than other drivers to have slowed reaction times. They may not be able to react quickly enough to slow down before crashing and are less likely to wear seatbelts. On the average, two percent of drivers on the road at any given time are DWI. DWI violations and crashes are not simply the work of a relatively few "problem drinkers" or "problem drug users." Many people commit DWI, at least occasionally.



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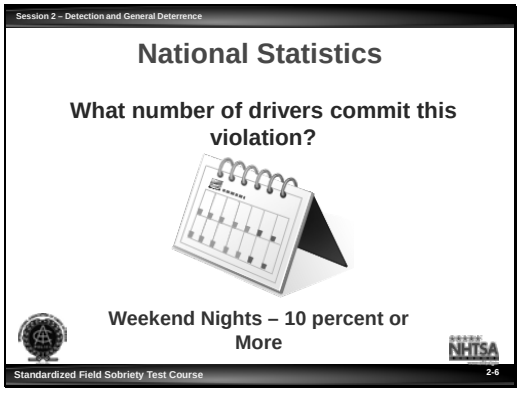
Estimates indicate that nationwide about 8.8 million persons 16 and over, self-reported that they drove over the legal limit in the past 12 months.

It is also estimated that 1 in 88 drivers over the legal limit was arrested for DWI.



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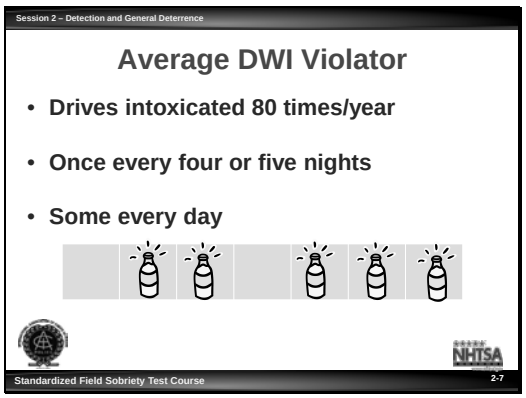
A frequently quoted, and often misinterpreted, statistic places the average incidence of DWI at one driver in fifty. Averaged across all hours of the day and all days of the week, two percent of the drivers on the road are DWI. The 1 in 50 figure is offered as evidence that a relatively small segment of America's drivers, the so called "problem" group, account for the majority of traffic deaths. There's nothing wrong with that figure as a statistical average, but police officers know that at certain times and places many more than two percent of drivers are impaired. NHTSA research suggests that during the late night, weekend hours, as many as 10 % of drivers on the roads may be DWI. On certain holiday weekends, and other critical times, the figure may go even higher.

How Many? How Often?

The issue of how many DWIs are on the road at any given time is an important factor in measuring the magnitude of the problem. However, from an overall traffic safety perspective, the more important issue may be the number of drivers who ever commit DWI. Just how widespread is this violation?



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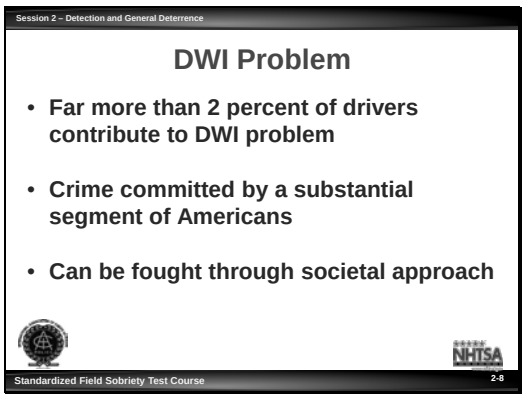
It is conservatively estimated that the typical DWI violator commits that offense about 80 times per year. In other words, the average DWI violator drives while under the influence once every four or five nights.

Clearly, it is more than one in fifty. Although it may be true that, on the average, two percent of drivers are DWI at any given time, it certainly is not the same two percent every time. It is even more than one in ten. Not everyone who commits DWI is out on the road impaired every Friday and Saturday night. Some of them, at least, must skip an occasional weekend. Thus, the 10 % who show up, weekend after weekend, in the Friday and Saturday statistics must come from a larger pool of violators, each of whom "contributes" to the statistics on some nights, but not necessarily on all nights.

An analysis of BAC roadside survey data suggests that the average DWI violator commits the violation approximately 80 times each year. Undoubtedly, there are some who drive impaired virtually every day; others commit the violation less often. It is likely that at least one quarter of all American motorists drive while impaired at least once in their lives. That figure falls approximately midway between the 55 % of drivers who at least occasionally drive after drinking and the 10 % of weekend, nighttime drivers who have BACs above the so called legal limit.



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These estimates include everyone who drives impaired every day, as well as everyone who commits the violation just once and never offends again; and it includes everyone in between. In short, it includes everyone who ever runs the risk of being involved in a crash while impaired.

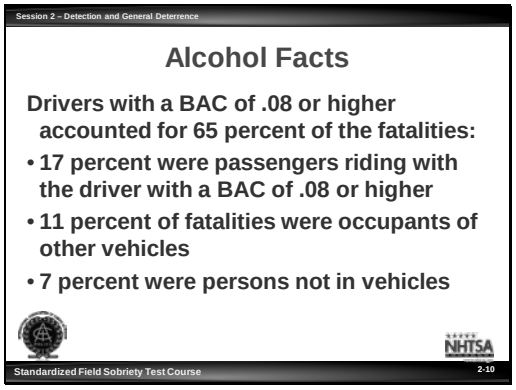
Society's Problem and the Solution

The fact is that far more than two percent of American drivers actively contribute to the DWI problem. DWI is a crime committed by a substantial segment of Americans. It has been and remains a popular crime; one that many people from all walks and stations of life commit. DWI is a crime that can be fought successfully only through a societal approach of comprehensive community based programs.

Notes:_____

- 31 percent of all fatal crashes on weekends alcohol-impaired.
- Alcohol impaired drivers involved in fatal crashes were 4 times higher at night.
- 1.41 million drivers were arrested for DWI in 2010.
- These alcohol related fatalities represent an average of one alcohol related fatality every 51 minutes.
- Based on the most current cost data available, these alcohol related fatalities cost society approximately $54 billion in lost productivity, medical expenses, property damages, and other related expenditures.

Source: NHTSA Traffic Safety Facts, 2010 Data, DOT HS 811 606, April 2012.



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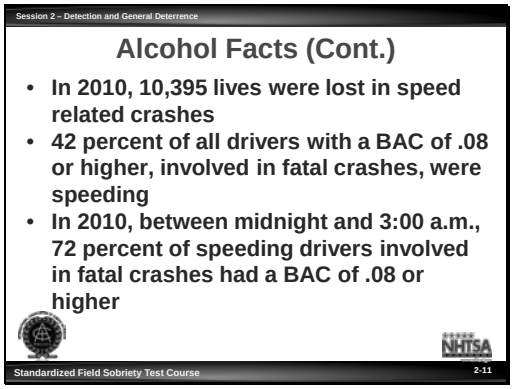
- In 2010, 11,773 lives were lost in alcohol impaired crashes representing 32 percent of the total motor vehicle fatalities in the U.S.
- Drivers with a BAC of .08 or higher accounted for 65 percent of the fatalities, 17 percent were passengers riding with a driver with a BAC of .08 or higher, 11 percent of these fatalities were occupants of other vehicles, and 7 percent were persons not in vehicles.

Source: NHTSA Traffic Safety Facts, 2010 Data, DOT HS 811 606, April 2012.



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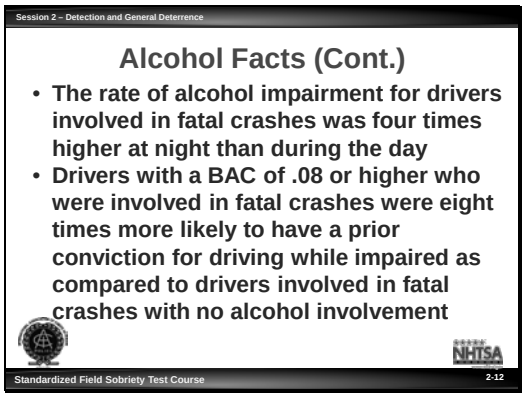
- In 2010, 10,395 lives were lost in speed related crashes.
- 42 percent of all drivers with a BAC of .08 or higher, involved in fatal crashes, were speeding.
- In 2010, between midnight and 3:00 a.m., 72 percent of speeding drivers involved in fatal crashes had a BAC of .08 or higher.

Source: NHTSA Traffic Safety Facts, 2010 Data, DOT HS 811, 636, August 2012.



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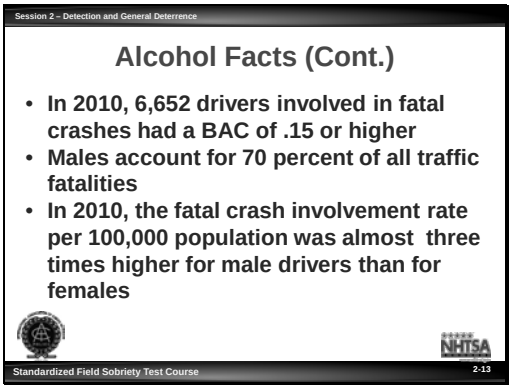
- The rate of alcohol impairment for drivers involved in fatal crashes was four times higher at night than during the day.
- Drivers with a BAC of .08 or higher who were involved in fatal crashes were eight times more likely to have a prior conviction for driving while impaired as compared to drivers involved in fatal crashes with no alcohol involvement.



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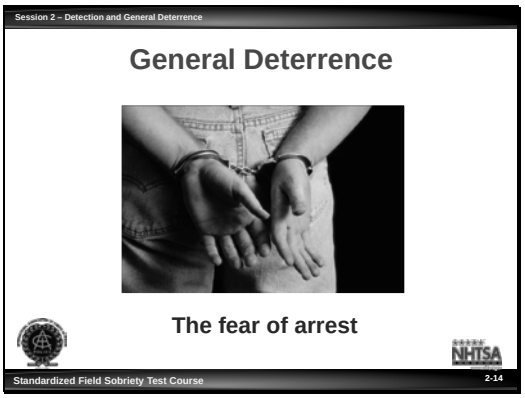
- In 2010, 6,652 drivers involved in fatal crashes had a BAC of .15 or higher.
- Males account for 70 percent of all traffic fatalities.
- In 2010, the fatal crash involvement rate per 100,000 population was almost three times higher for male drivers than for females.



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B. Concept of General Deterrence

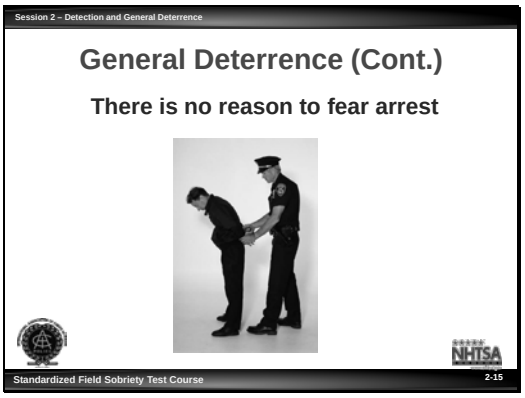
The fear of arrest is the leading deterrent.

One approach to reducing the number of drinking drivers is general deterrence of DWI. General deterrence of DWI is based in the driving public's fear of being arrested. If enough violators come to believe that there is a good chance that they will get caught, at least some of them will stop committing DWI at least some of the time. However, unless there is a real risk of arrest, there will not be much fear of arrest.

Law enforcement officers must arrest enough violators enough of the time to convince the general public that they will get caught, sooner or later, if they continue to drive while impaired.

How many DWI violators must be arrested in order to convince the public that there is a real risk of arrest for DWI?

Several programs have demonstrated that significant deterrence can be achieved by arresting 1 DWI violator for every 400 DWI violations committed. Currently, however, for every 1 DWI violator arrested, there are between 500 and 2,000 DWI violations committed.



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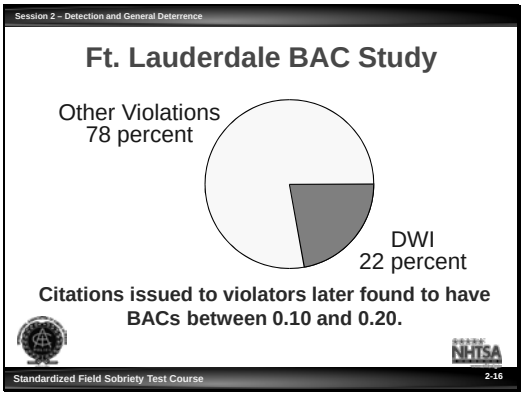
When the chances of being arrested are one in two thousand, the average DWI violator really has little to fear.

There are three noteworthy reasons.

- DWI violators vastly outnumber police officers. It is not possible to arrest every drinking driver each time they commit DWI.
- Some officers are not highly skilled at DWI detection. They fail to recognize and arrest many DWI violators.
- Some officers are not motivated to detect and arrest DWI violators.



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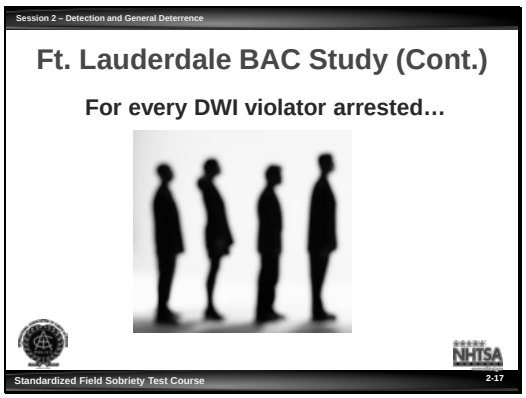
Significant Findings

In a 1975 study conducted in Fort Lauderdale, Florida, only 22 percent of traffic violators who were stopped with BACs between 0.10 and 0.20 were arrested for DWI. The remainder were cited for other violations, even though they were legally impaired. In this study breath tests were administered to the violators by researchers after the police officers had completed their investigations. The officers failed to detect 78 percent of the DWI violators they investigated.

Police officers sometimes fail to recognize and arrest a DWI violator. Ft. Lauderdale (Florida) BAC study (1975): only 22 % of traffic violators with BACs between 0.10 and 0.20 were arrested for DWI.



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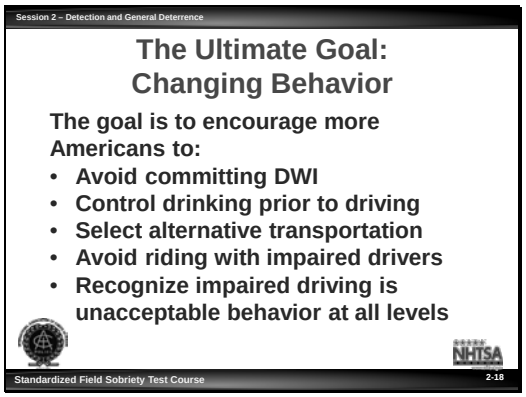
Implication: For every DWI violator actually arrested three others are contacted by police officers, face to face, but are released without arrest.

Significant improvement in arrest rate could be achieved if officers were more skilled at DWI detection.



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The Solutions

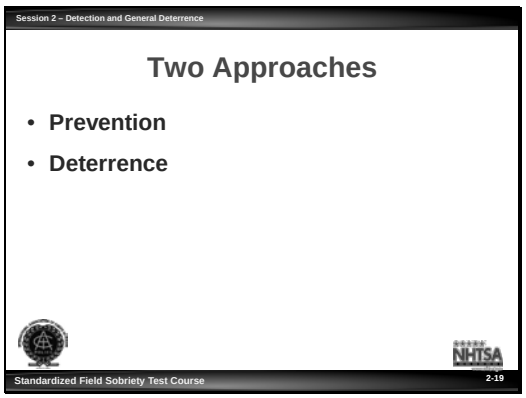
The Ultimate Goal: Changing Behavior

What must the comprehensive community based DWI programs seek to accomplish?

Ultimately, nothing less than fundamental behavioral change, on a widespread basis. The goal is to encourage more Americans to:

- Avoid committing DWI, either by avoiding or controlling drinking prior to driving or by selecting alternative transportation.
- Intervene actively to prevent others from committing DWI (for example, putting into practice the theme "friends don't let friends drive drunk")
- Avoid riding with drivers who are impaired.

The final test of the value of DWI countermeasures on the national, state and local levels is whether they succeed in getting significantly more people to modify their behavior. The programs also pursue other more immediate objectives that support or reinforce the ultimate goal. However, the ultimate goal is to change driving while impaired to an unacceptable form of behavior at all levels.



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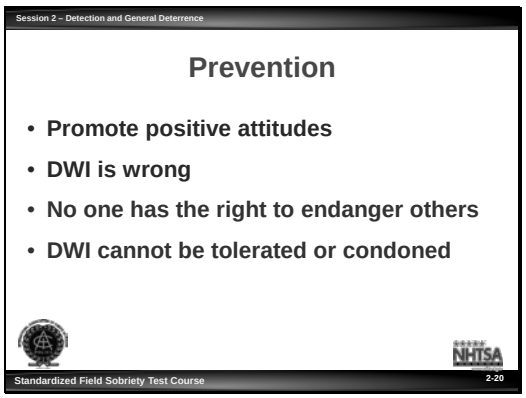
Pursuing the Goal: Two Approaches

How can we bring about these changes in behavior? How can we discourage impaired driving, prevent others from drinking and driving, and avoid becoming passive "statistics" by refusing to ride with drinking drivers?

Basically, there are two general approaches that must be taken to achieve this goal.

One: prevention -- gives promise of the ultimate, lasting solution to the DWI problem; but it will require a substantial amount of time to mature fully.

Two: deterrence -- only offers a partial or limited solution, but it is available right now.



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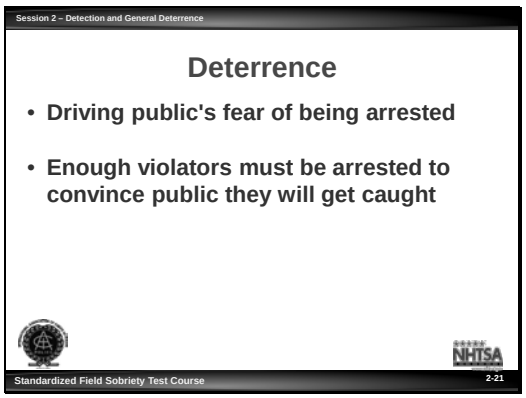
Prevention: the Ultimate Solution

DWI countermeasures that strive for the ultimate achievement of drinking and driving behavioral changes have been grouped under the label "Prevention." There are many kinds of DWI preventive activities. Some are carried out by and in our schools, some through the mass media, some through concerned civic groups, and so forth. The various preventive efforts focus on different specific behaviors and address different target groups.

However, they seek to change drinking and driving behavior by promoting more positive attitudes and by fostering a set of values that reflects individual responsibilities toward drinking and driving.

Preventive countermeasures seek society's acceptance of the fact that DWI is wrong. Some people believe that drinking and driving is strictly an individual's personal business; that it is up to each person to decide whether or not to accept the risk of driving after drinking. Preventive activities try to dispel that outmoded and irresponsible belief. Instead, they promote the idea that no one has the right to endanger others by drinking and driving, or to risk becoming a burden (economically and otherwise) to others as a result of injuries suffered while drinking and driving. Realistically, everyone has an obligation not only to control their own drinking and driving, but also to speak up when others are about to commit the violation. Only when all of society views DWI as a negative behavior that cannot be tolerated or condoned, will the public's behavior begin to change. That is the long term solution.



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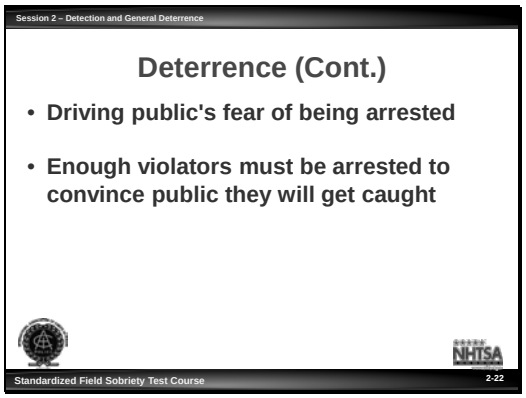
General deterrence of DWI is based on the driving public's fear of being arrested. If enough violators come to believe that there is a good chance that they will get caught, some of them (at least) will stop committing DWI at least some of the time.

Unless there is a real risk of being arrested, there will not be much fear of arrest.

Law enforcement must arrest enough violators to convince the public that they will get caught, if they continue to drive while impaired.



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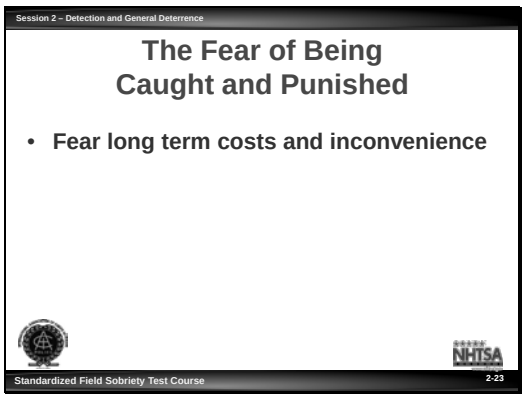
C. Relating Detection to Deterrence Potential

Deterrence: the Interim Solution

DWI countermeasures that seek a short cut to the ultimate goal of behavioral change usually are labeled "Deterrence." Deterrence can be described as negative reinforcement. Some deterrence countermeasures focus primarily on changing individual drinking and driving behavior while others seek to influence people to intervene into others' drinking and driving decisions.

The key feature of deterrence is that it strives to change DWI behavior without dealing directly with the prevailing attitudes about the rightness or wrongness of DWI. Deterrence uses a mechanism quite distinct from attitudinal change: fear of apprehension and application of sanctions.



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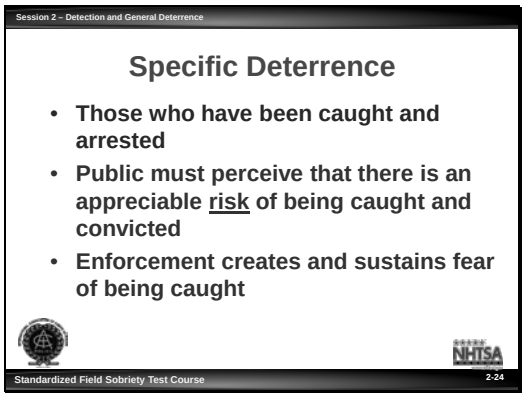
The Fear of Being Caught and Punished

Large scale DWI deterrence programs try to control the DWI behavior of the driving public by appealing to the public's presumed fear of being caught. Most actual or potential DWI violators view the prospect of being arrested with extreme distaste. For some, the arrest, with its attendant handcuffing, booking, publicity and other stigmatizing and traumatizing features, is the thing most to be feared. For others, it is the prospective punishment (jail, stiff fine, etc.) that causes most of the concern. Still others fear most the long term costs and inconvenience of a DWI arrest: the license suspension and increased premiums for automobile insurance. For many violators the fear probably is a combination of all of these. Regardless, if enough violators are sufficiently fearful of DWI arrest, some of them will avoid committing the violation at least some of the time. Fear by itself will not change their attitudes; if they do not see anything inherently wrong with drinking and driving in the first place, the prospect of arrest and punishment will not help them see the light. However, fear sometimes can be enough to keep them from putting their anti-social attitudes into practice. This type of DWI deterrence, based on the fear of being caught, is commonly called general deterrence. It applies to the driving public generally and presumably affects the behavior of those who have never been caught. There is an element of fear of the unknown at work here.



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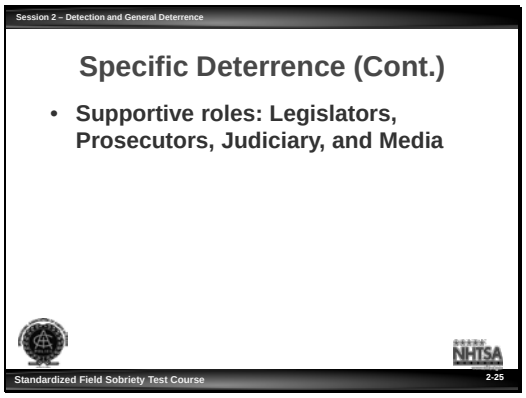
Another type of DWI deterrence, called specific deterrence, applies to those who have been caught and arrested. The typical specific deterrent involves some type of punishment, perhaps a fine, involuntary community service, a jail term or action against the driver's license. The punishment is imposed in the hope that it will convince the specific violator that there is indeed something to fear as a result of being caught, and to emphasize that if there is a next time, the punishment will be even more severe. It is the fear of the known that comes into play in this case.

The concept of DWI deterrence through fear of apprehension or punishment seems sound. But will it work in actual practice? The crux of the problem is this: If the motoring public is to fear arrest and punishment for DWI, they must perceive that there is an appreciable risk of being caught and convicted if they commit the crime. If actual and potential DWI violators come to believe that the chance of being arrested is minimal, they will quickly lose whatever fear of arrest they may have felt.

Enforcement is the mechanism for creating and sustaining a fear of being caught for DWI. No specific deterrence program can amount to much, unless police officers arrest large numbers of violators; no punishment or rehabilitation program can affect behavior on a large scale unless it is applied to many people. General deterrence depends on enforcement -- the fear of being caught is a direct function of the number of people who are caught.



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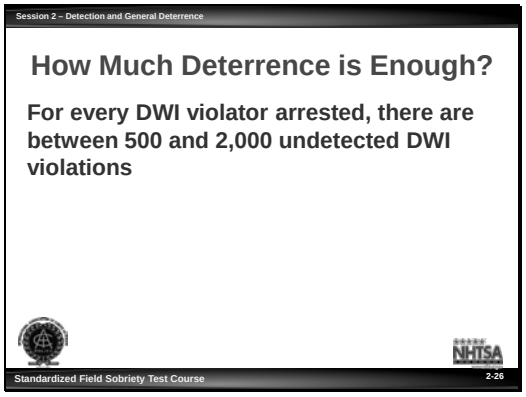
Obviously, the police alone cannot do the job. Legislators must supply laws that the police can enforce. Prosecutors must vigorously prosecute DWI violators, and the judiciary must adjudicate fairly and deliver the punishments prescribed by law. The media must publicize the enforcement effort and communicate the fact that the risk is not worth the probable outcome. Each of these elements plays a supportive role in DWI deterrence.



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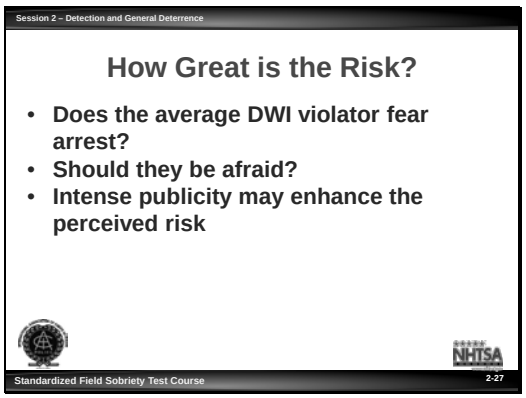
How much deterrence is enough?

Estimates from around the country: For every DWI violator arrested, there are between 500 and 2,000 undetected DWI violations.



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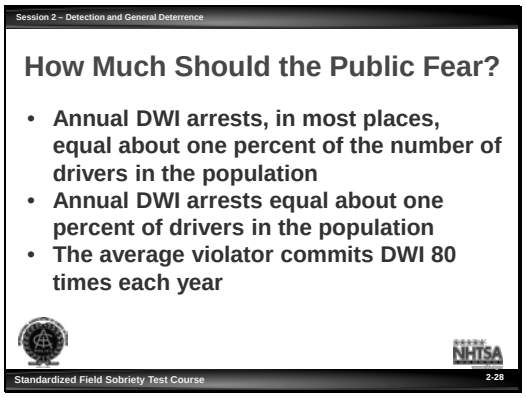
How Great is the Risk?

Sometimes, it is possible to enhance the perceived risk, at least for a while, through intensive publicity. However, media "hype" without intensified enforcement has never been enough to maintain the fear of arrest for very long.



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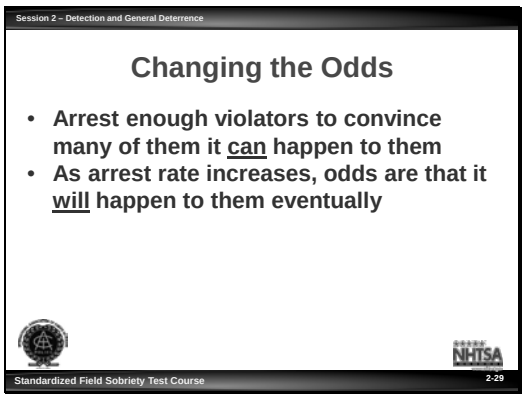
How Much Should the Public Fear?

We can draw some reasonable estimates of DWI enforcement intensity, based on what we know and on certain assumptions we have already made. Suppose we deal with a random sample of 100 Americans of driving age. If they come from typical enforcement jurisdictions, chances are that exactly one of them will be arrested for DWI in any given year: our annual DWI arrests, in most places, equal about one percent of the number of drivers in the population. That is one arrest out of 100 drivers during one year; however, how many DWI violations do those drivers commit? Recall our previous estimates that some 25 % of America's drivers at least occasionally drive while under the influence, and that the average violator commits DWI 80 times each year. Then, our sample of 100 drivers includes 25 DWI violators who collectively are responsible for 2,000 DWI violations yearly.



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Changing the Odds

If an arrest/violation ratio of 1 in 2,000 is not enough to make deterrence work, is it then reasonable to think that we can ever make deterrence work? After all, if we doubled DWI arrests to 1 in 1,000, we would still be missing 999 violators for every one we managed to catch. If we increased arrests ten fold, to 1 in 200, 199 would escape for every one arrested. How much deterrence would that produce?

Surprisingly, it would probably produce quite a bit. We don't have to arrest every DWI offender every time in order to convince them that they have something to fear. We only have to arrest enough of them enough of the time to convince many of them that it can happen to them. As the arrest rate increases, the odds are that it will happen to them eventually. The law of averages (or cumulative probability) will catch up with them, and sooner than we might at first expect.

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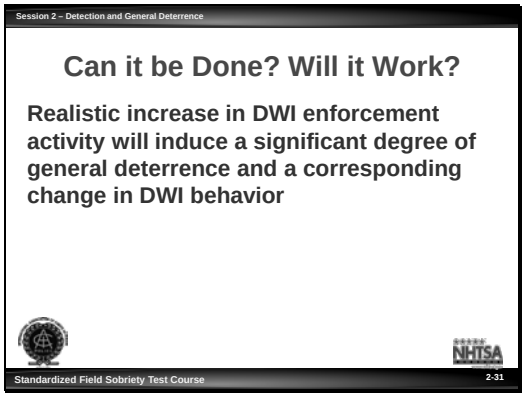
The statistics on the chart display the cumulative probability (as a percentage) of being arrested at least once during the course of one, two or three years as a function of the arrest rate on any given night. These statistics are based on the assumption that the average violator commits DWI 80 times each year.

Clearly, the chances of being caught accumulate very quickly as the arrest/violation ratio increases. If we could maintain a ratio of one arrest in every 500 violations (a level of enforcement currently maintained in some jurisdictions), then by the time one year has passed, slightly more than one of every seven people (14.8 %) who have committed DWI during that year will have been arrested at least once. It probably is a high enough chance to get the attention -- and fear -- of many violators. If we could achieve an arrest ratio of 1 in 200 (a level attainable by officers skilled in DWI detection) we will arrest fully one third of all DWI violators at least once every year and we will arrest more than half of them by the time two years have gone by.



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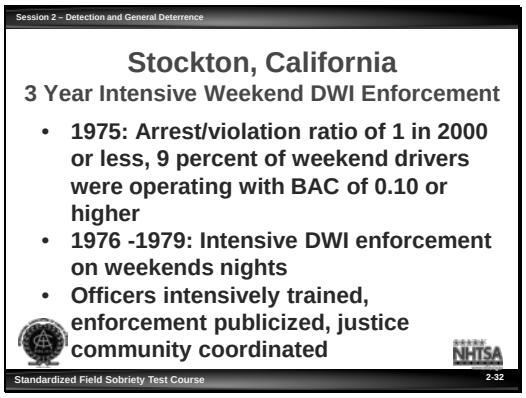
D. Evidence of Effective Detection and Effective Deterrence

Can it Be Done, and Will it Work?

Is there any evidence that a practical and realistic increase in DWI enforcement activity will induce a significant degree of general deterrence and a corresponding change in DWI behavior? Yes there is.



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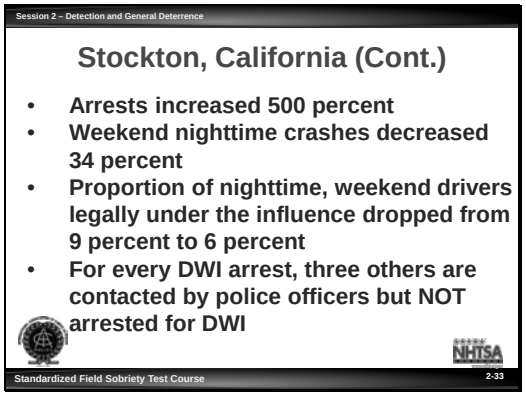
Several enforcement programs have succeeded in achieving significant DWI deterrence. Consider, for example, the three year intensive weekend DWI enforcement program in Stockton, California.

As early as 1975, a study showed that the city's total number of DWI arrests (700) were considerably less than one percent of the areas licensed number of drivers (130,000). The implication here was that Stockton police were only maintaining the arrest/violation ration of 1:2,000, or less. In addition, roadside surveys on Friday and Saturday nights disclosed that nine percent of the drivers were operating with BAC's of 0.10 or higher.

Then things changed. Beginning in 1976 and continuing at planned intervals through the first half of 1979, Stockton police conducted intensive DWI enforcement on weekend nights. The officers involved were extensively trained. The enforcement effort was heavily publicized and additional equipment (PBTs and cassette recorders) was made available. The police effort was closely coordinated with the District Attorney's office, the County Probation office, and other allied criminal justice and safety organizations.



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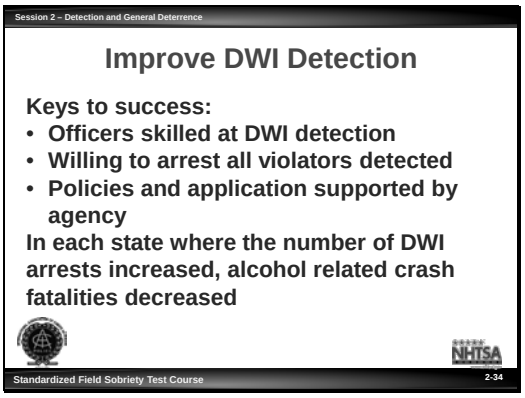
All this paid off. By the time the project came to a close (in 1979) DWI arrests had increased by over 500 %, and weekend nighttime collisions had decreased by 34 %, and the number of operators committing DWI dropped one third.

The implication of this study, and of other similar studies, is that for every DWI violator actually arrested for DWI, three others are contacted by police officers, but are not

arrested for DWI. It is clear that significant improvement in the arrest rate could be achieved if officers were more skilled at DWI detection.



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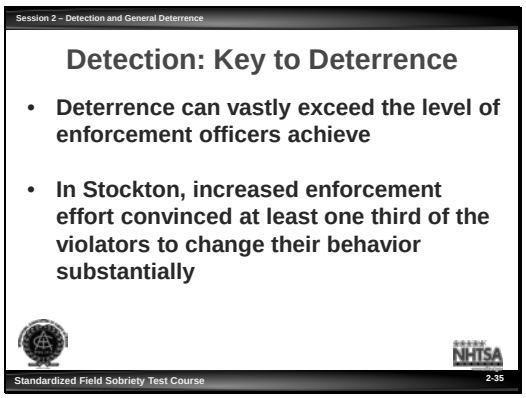
Improved DWI detection can be achieved in virtually every jurisdiction in the country.

The keys to success are police officers who are:

- Skilled at DWI detection
- Willing to arrest every DWI violator who is detected
- Supported by their agencies in all aspects of this program, from policy through practical application.

Since the historical Stockton study numerous states have conducted similar studies to determine the degree of effect that DWI arrests would have on alcohol related fatalities in general, and total fatalities in particular. Most of these studies were conducted between 1978 and 1986.

The results of these studies graphically illustrated in each state that when the number of arrests for DWI increased, the percent of alcohol related fatalities decreased. Further, the results of a study conducted in Florida from 1981-1983, showed that when DWI arrests per licensed driver increased, total fatalities decreased (12 month moving average).



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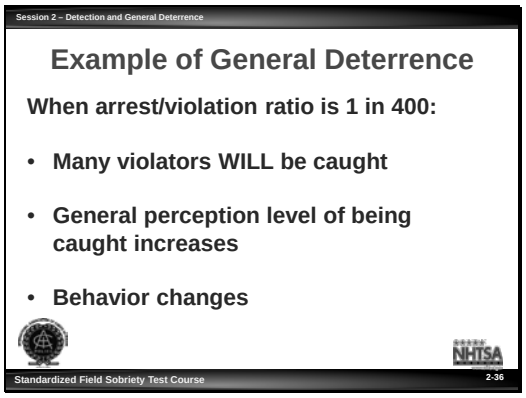
Detection The Key to Deterrence

It is important to understand how increased DWI enforcement can affect deterrence. Deterrence can vastly exceed the level of enforcement officers achieve on any given night. True, weekend DWI arrests can increase by as much as 500 %, as in the Stockton study. However, even though the study showed they started with an enforcement ratio no better than 1 in 2000, the tremendous increase in DWI arrests probably only brought the arrest ratio to about 1 in 400. Regardless of the fact that 399 DWI drivers avoided arrest, the increased enforcement effort convinced at least one third of the violators to change their behavior substantially.



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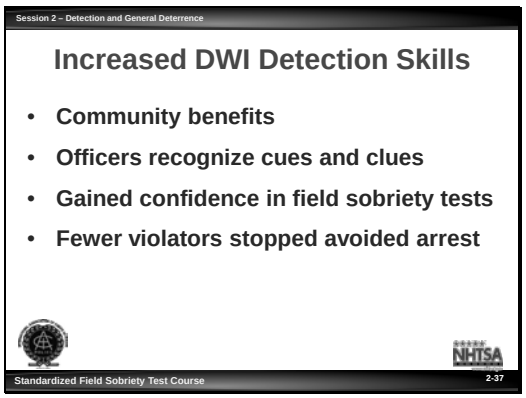
The law of averages quickly starts to catch up with DWI drivers when the enforcement ratio improves to the 1 in 400 ratio. At that level, unless violators change their behavior, many of them will be caught, or at least will have known someone who has been arrested. Coupled with the heavy publicity given to the enforcement effort, those experiences were enough to raise the perception level of apprehension among DWI operators that sooner or later they would be caught. As a result, many of them changed their behavior. This is the best example of general deterrence.

In addition, during the same time that DWI arrests went up over 500 % in Stockton, citations for other traffic violations increased by a comparatively modest 99 %. The implication is that Stockton's officers were stopping and contacting only twice as many possible violators as they had before, but they were coming up with more than five times as many arrests.



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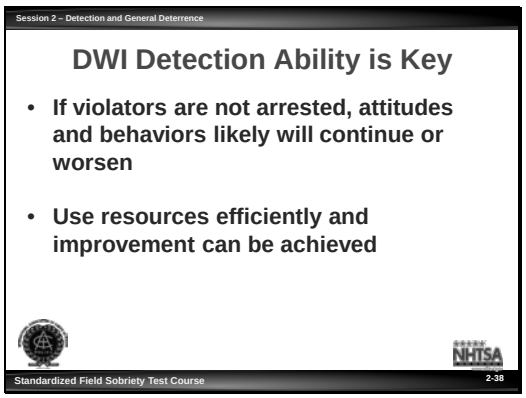
What have the results of these studies shown? Basically, they have shown that a community will benefit from their officers' increased skills at DWI detection. Principally because of their special training, the officers were better able to recognize "cues" of impairment when they observed vehicles in motion, and they were more familiar with the "clues" or human indicators of impairment exhibited by violators during personal contact. The officers also had more confidence in the field sobriety tests they used to investigate their suspects. The most important factor was that far fewer of the violators being stopped now avoided detection and arrest.

The difficulty in detecting DWI among operators personally contacted by officers has been well documented. Analysis of roadside survey and arrest data suggest that for every DWI violator arrested, three others actually have face to face contact with police officers but are allowed to go without arrest. Direct support of that inference was found in the Fort Lauderdale BAC study, where researchers demonstrated that police officers arrested only 22 % of the DWI operators they contacted, whose BAC levels were subsequently shown to be between 0.10 and 0.20.



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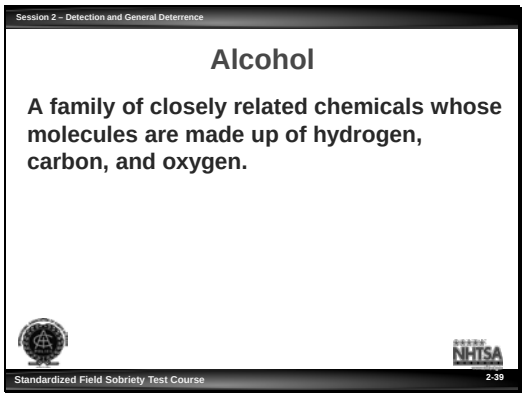
The ability to detect DWI violators is the key to general deterrence and possibly, the greatest impediment to it. If we accept the three to one ratio of failed detections as being reasonably accurate, the implications are rather alarming. Consider the impact on a DWI violator's subsequent behavior when, after being stopped by the police, is allowed to continue driving. Very likely, these DWI violators and their friends will become even more convinced of their ability to handle drinking and driving. Further, they will come to believe that they will never be arrested because police officers can't determine when they are "over the limit." Instead of creating general DWI deterrence, this attitude breeds specific reinforcement. This helps to develop a feeling among DWI violators that they have nothing more to fear from police than an occasional ticket for a minor traffic offense.

On the positive side, the ratio of undetected to detected violations suggests that much can be accomplished with existing resources, if we use those resources as efficiently as possible. By just being able to improve detection skills of law enforcement officers we could experience an increase in the arrest/violation ratio of 1 in 500 without any increase in contacts.

This same, or better, degree of effectiveness can happen here.



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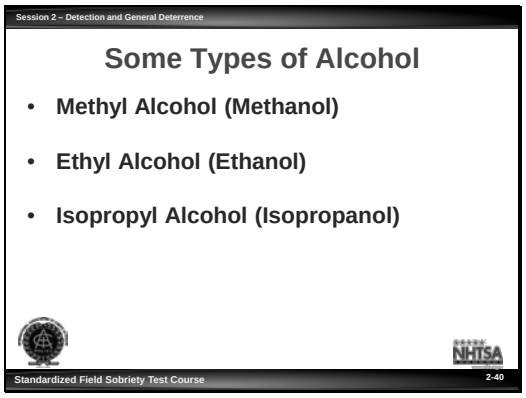
E. Physiology of Alcohol

A brief overview of alcohol:

Alcohol is the most abused drug in the United States.

"Alcohol" is the name given to a family of closely related and naturally occurring chemicals. Each of the chemicals that is called an "alcohol" contains a molecule chemists refer to as a "hydroxy radical." This radical contains one oxygen atom and one hydrogen atom bonded together. The simplest alcohol has only one carbon atom, three hydrogen atoms, and one hydroxy radical. The next alcohol has two carbon atoms, five hydrogen atoms and one hydroxy radical. The third alcohol has three carbon atoms, seven hydrogen atoms and one hydroxy radical. That is how the alcohols differ from one another.

Alcohols are molecularly very similar and produce similar effects. They produce intoxicating effects when ingested into the human body. Only one of them is meant for human consumption. However, when ingested in substantial quantities it can cause death.



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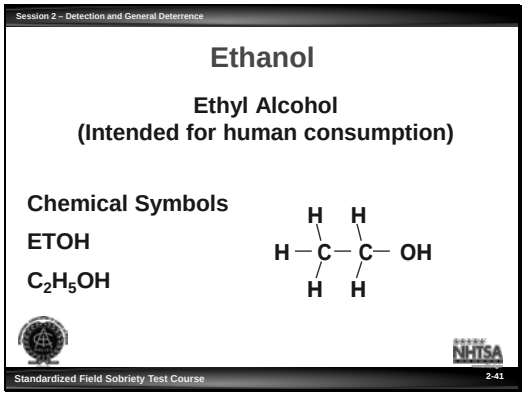
Three of the more commonly known alcohols are Methyl, Ethyl, and Isopropyl.

- Methyl alcohol also known as Methanol or wood alcohol.
- Ethyl alcohol also known as Ethanol or beverage alcohol.

- Isopropyl Alcohol (Isopropanol) also known as rubbing alcohol.



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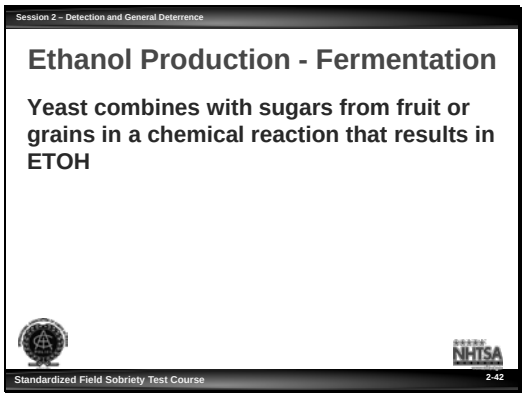
The ingestible alcohol is known as ethyl alcohol, or ethanol. Its chemical abbreviation is ETOH. The "ET" stands for "ethyl" and the "OH" represents the single oxygen atom bonded to one of the hydrogen atoms, ("hydroxy radical"). Ethanol is the variety of alcohol that has two carbon atoms. Two of ethanol's best known analogs are methyl alcohol (or methanol), commonly called "wood alcohol", and isopropyl alcohol (or isopropanol), also known as "rubbing alcohol".



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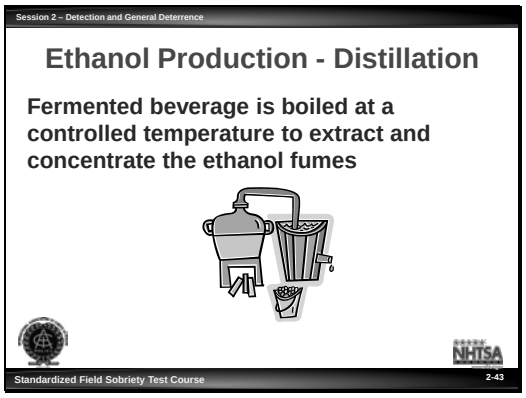
Ethanol is what interests us because it is the kind of alcohol that features prominently in impaired driving. Ethanol is beverage alcohol, the active ingredient in beer, wine, whiskey, liquors, etc. Ethanol production starts with fermentation. That is a kind of decomposition in which the sugars in fruit, grains and other organic materials combine with yeast to product the chemical we call ethanol. This can occur naturally, as yeast spores in the air come into contact with decomposing fruit and grains. However, most of the ethanol in the world didn't ferment naturally, but was produced under human supervision.

When an alcoholic beverage is produced by fermentation, the maximum ethanol content that can be reached is about 14 %. At that concentration, the yeast dies, so the fermentation stops. Obtaining a higher ethanol content requires a process called distillation. This involves heating the beverage until the ethanol "boils off", then

collecting the ethanol vapor. It is possible to do this because ethanol boils at a lower temperature than does water.



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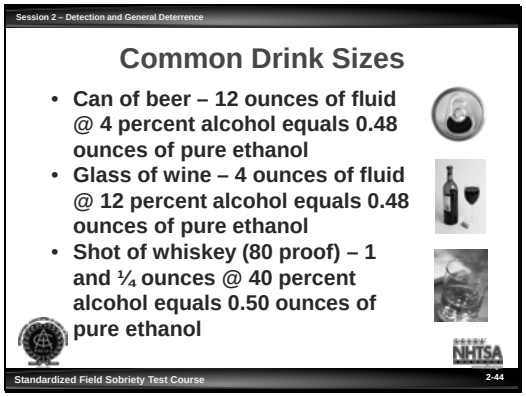
Distilled spirits is the name we give to high ethanol concentration beverages produced by distillation. These include rum, whiskey, gin, vodka, etc. The ethanol concentration of distilled spirits usually is expressed in terms of proof, which is a number corresponding to twice the ethanol percentage.

For example, an 80 proof beverage has an ethanol concentration of 40 %.



Notes:_____

- Over the millennia during which people have used and abused ethanol, some common sized servings of the different beverages have evolved. Beer, for example, is normally dispensed in 12 ounce servings. Since beer has an ethanol concentration of about four percent, the typical bottle or can of beer contains a little less than one half ounce of pure ethanol.
- A standard glass of wine has about four ounces of liquid. Wine is about 12 % alcohol, so the glass of wine also has a bit less than one half ounce of ethanol in it.
- Whiskey and other distilled spirits are dispensed by the "shot glass", usually containing about one and one quarter ounce of fluid. At a typical concentration of 40 % ethanol (80 proof), the standard shot of whiskey has approximately one half ounce of ethanol.

Therefore, as far as their alcoholic contents are concerned, a can of beer, a glass of wine and a shot of whiskey are all the same.

(National Institute on Alcohol Abuse and Alcoholism of the National Institute of Health.)

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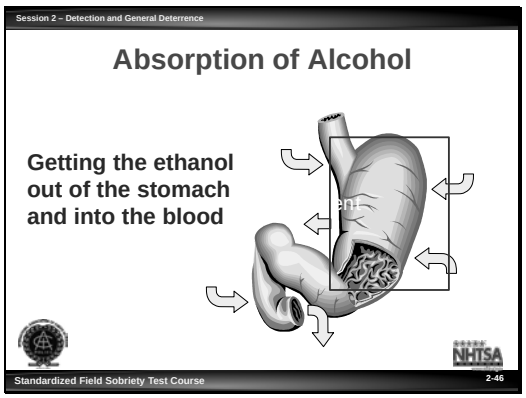
Ethanol is a Central Nervous System Depressant. It doesn't affect a person until it gets into their central nervous system, i.e., the brain, brain stem and spinal cord. Ethanol gets to the brain by getting into the blood. In order to get into the blood, it has to get into the body.

There are actually a number of different ways in which ethanol can get into the body. It can be inhaled. Ethanol fumes, when taken into the lungs, will pass into the bloodstream and a positive blood alcohol concentration (BAC) will develop.

However, prolonged breathing of fairly concentrated fumes would be required to produce a significantly high BAC. Ethanol could also be injected, directly into a vein; it would then flow with the blood back to the heart, where it would be pumped first to the lungs and then to the brain. And, it could be inserted, as an enema, and pass quickly from the large intestine into the blood. But none of these methods are of any practical significance, because alcohol is almost always introduced into the body orally, i.e., by drinking.



Notes:_____

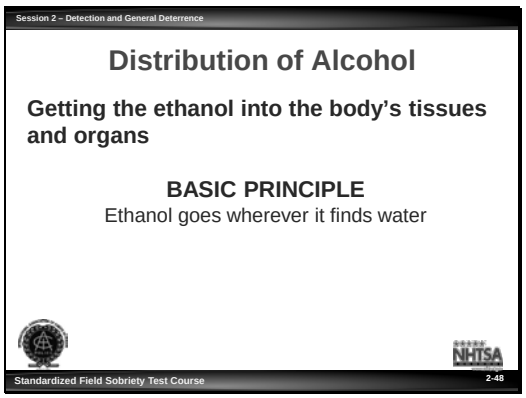
Once the ethanol gets into the stomach, it has to move into the blood. The process by which this happens is known as absorption. One very important fact that pertains to alcohol absorption is that it doesn't have to be digested in order to move from the stomach to the blood.

Another very important fact is that alcohol can pass directly through the walls of the stomach. These two facts, taken together, mean that, under the right circumstances, absorption of alcohol can be accomplished fairly quickly. The ideal circumstance for rapid absorption is to drink on an empty stomach.

When the alcohol enters the empty stomach, about 20 % of it will make its way directly through the stomach walls. The remaining 80 % will pass through the stomach and enter the small intestine, from which it is readily absorbed into the blood. Because the body doesn't need to digest the alcohol before admitting it into the bloodstream, the small intestine will be open to the alcohol as soon as it hits the stomach.

But what if there is food in the stomach? Suppose the person has had something to eat shortly before drinking, or eats food while drinking; will that affect the absorption of alcohol?

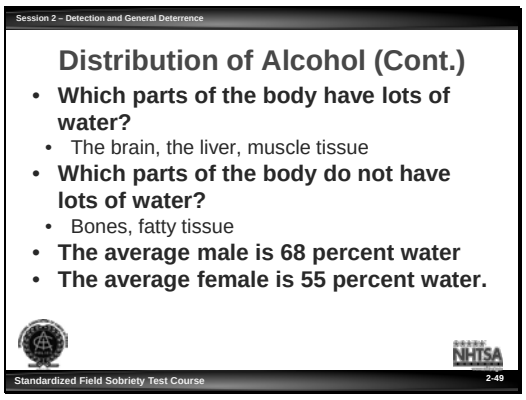
Yes it will. Food has to be at least partially digested in the stomach before it can pass to the small intestine. When the brain senses that food is in the stomach, it commands a muscle at the base of the stomach to constrict, and cut off the passage to the small intestine. The muscle is called the pylorus, or pyloric valve. As long as it remains constricted, little or nothing will move out of the stomach and into the small intestine. If alcohol is in the stomach along with the food, the alcohol will also remain trapped behind the pylorus. Some of the alcohol trapped in the stomach will begin to break down chemically before it ever gets into the blood. In time, as the digestive process continues, the pylorus will begin to relax, and some of the alcohol and food will pass through. But the overall effect will be to slow the absorption significantly. Because the alcohol only slowly gets into the blood, and because the body will continue to process and eliminate the alcohol that does manage to get in there, the drinker's BAC will not climb as high as it would have if he or she had drunk on an empty stomach.



Notes:_____

Once the alcohol moves from the stomach into the blood, it will be distributed throughout the body by the blood. Alcohol has an affinity for water. The blood will carry the alcohol to the various tissues and organs of the body, and will deposit the alcohol in them in proportion to their water contents.

Brain tissue has a fairly high water content, so the brain receives a substantial share of the distributed alcohol. Muscle tissue also has a reasonably high water content, but fat tissue contains very little water. Thus, very little alcohol will be deposited in the drinker's body fat. This is one factor that differentiates alcohol from certain other drugs, notably PCP and THC, which are very soluble in fat.



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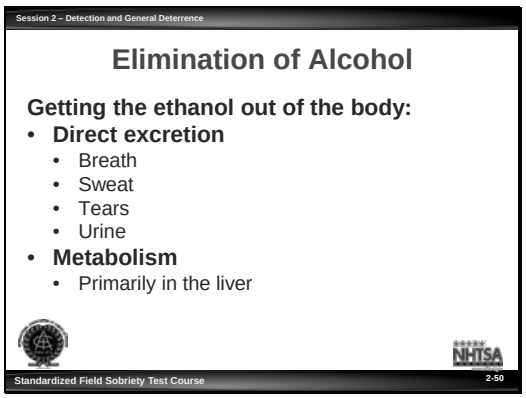
The affinity of alcohol for water, and its lack of affinity for fat, helps explain an important difference in the way alcohol affects women and men. Pound for pound, the typical female's body contains a good deal less water than does the typical man's.

This is because women have additional adipose (fatty) tissue, designed in part to protect a child in the womb. A Swedish pioneer in alcohol research, E.M.P. Widmark, determined that the typical male body is about 68 % water, the typical female only about 55 %. Thus, when a woman drinks, she has less fluid -- pound for pound -- in which to distribute the alcohol.

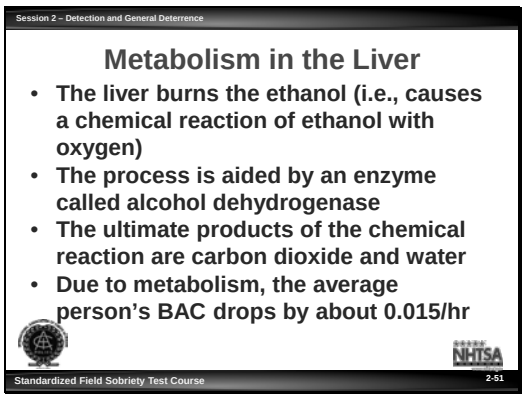
If a woman and a man who weighed exactly the same drank exactly the same amount of alcohol under the same circumstances, her BAC would climb higher than his. When we couple this to the fact that the average woman is smaller than the average man, it becomes apparent that a given amount of alcohol will cause a higher BAC in a woman than it usually will in a man.



Notes:_____

As soon as the alcohol enters the blood stream, the body starts trying to get rid of it. Some of the alcohol will be directly expelled from the body chemically unchanged. For example, some alcohol will leave the body in the breath, in the urine, in sweat, in tears, etc. However, only a small portion (about 2-10 %) of the ingested alcohol will be directly eliminated.

Most of the alcohol a person drinks is eliminated by metabolism. Metabolism is a process of chemical change. In this case, alcohol reacts with oxygen in the body and changes, through a series of intermediate steps, into carbon dioxide and water, both of which are directly expelled from the body.



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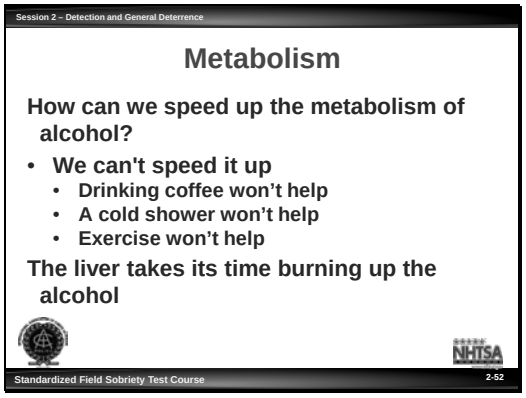
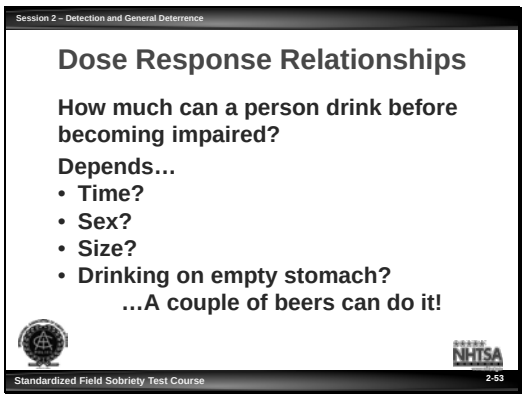
Most of the metabolism of alcohol in the body takes place in the liver. An enzyme known as alcohol dehydrogenase acts to speed up the reaction of alcohol with oxygen. The speed of the reaction varies somewhat from person to person, and even from time to time for any given person. On the average, however, a person's blood alcohol concentration -- after reaching peak value -- will drop by about 0.015 per hour. For example, if the person reaches a maximum BAC of 0.15, it will take about ten hours for the person to eliminate all of the alcohol.

For the average sized male, a BAC of 0.015 is equivalent to about two thirds of the alcohol content of a standard drink (i.e., about two thirds of a can of beer, or glass of wine or shot of whiskey). For the average sized female, that same BAC would be reached on just one half of a standard drink. So the typical male will eliminate about two thirds of a drink per hour, while the typical female will burn up about one half of a drink in that hour.



Notes:_____

We can control the rate at which alcohol enters our bloodstream. For example, we can gulp down our drinks, or slowly sip them. We can drink on an empty stomach, or we can take the precaution of eating before drinking. We can choose to drink a lot, or a little. But once the alcohol gets into the blood, there is nothing we can do to affect how quickly it leaves. Coffee won't accelerate the rate at which our livers burn alcohol. Neither will exercise, or deep breathing, or a cold shower. We simply have to wait for the process of metabolism to move along at its own speed.



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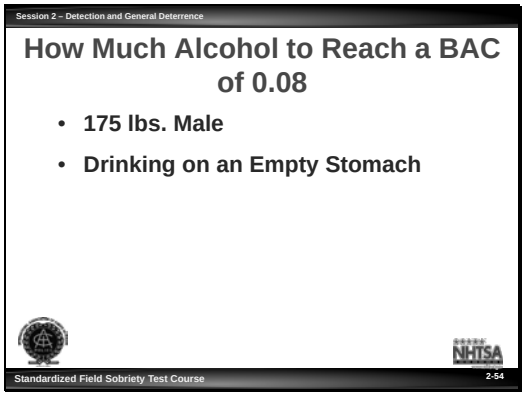
Dose Response Relationships

People sometimes ask, "how 'high' is 'drunk'?" What is the "legal limit" for "drunk driving"? How much can a person drink before becoming "impaired"?

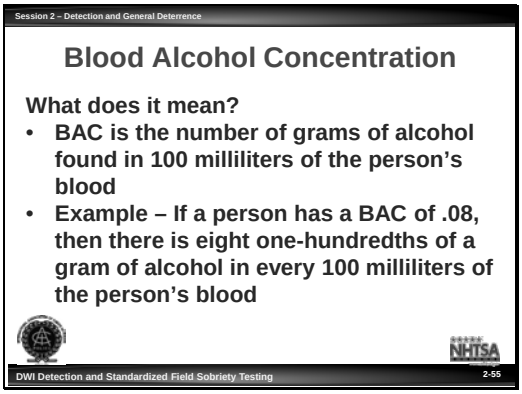
There is no simple answer to these or similar questions, except to say that any amount of alcohol will affect a person's ability to drive to some degree. It is true that the laws of nearly all States establish a BAC limit at which it is explicitly unlawful to operate a vehicle. In those cases, that "limit" is 0.08 BAC. But every State also makes it unlawful to drive when "under the influence" of alcohol, and the law admits the possibility that a particular person may be under the influence at much lower BACs.



Notes:_____

How much alcohol does someone have to drink to reach these kinds of BACs?

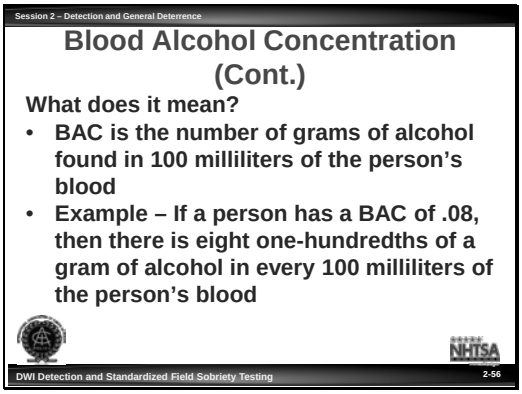
Obviously, as we've already seen, it depends on how much time the person spends drinking, on whether the person is a man or a woman, on how large the person is, on whether the drinking takes place on an empty stomach, and on certain other factors. But let's take as an example a 175 pound man. If he drinks two beers, or two shots of whiskey, in quick succession on an empty stomach, his BAC will climb to slightly above 0.04. Two more beers will boost him above 0.08. One more will push him over 0.10. In one respect, then, it doesn't take very much alcohol to impair someone: "a couple of beers" can do it.



Notes:_____

But in another respect, when we contrast alcohol with virtually any other drug, we find that impairment by alcohol requires a vastly larger dose than does impairment by the others. Consider exactly what a BAC of 0.08 means. Blood alcohol concentration is expressed in terms of the "number of grams of ethanol in every 100 milliliters of blood." Therefore, 0.08 means that there is 0.08 grams (g) of ethanol in every 100 milliliters (mL) of blood. You will find that BAC results are reported in a variety of units. Two common variations are milligrams/milliliters and percent. There are 1,000 milligrams (mg) in one gram; therefore, 0.08 grams equals 80 milligrams (mg) and a BAC of 0.08 would be reported as 80 mg of ethanol/100 mL of blood. Percent means parts per one hundred. In this example 0.08 grams/100 milliliters of blood is equivalent to 0.08 percent BAC.

Note: The term BAC is used in the manual. However, it should be understood to refer to either Blood Alcohol Concentration (BAC) or Breath Alcohol Concentration (BrAC) depending on the legal requirements of the jurisdiction.



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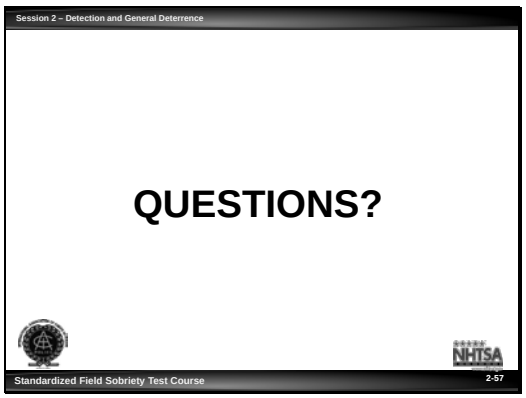

Session 2 – Detection and General Deterrence
QUESTIONS?
NHTSA
Standardized Field Sobriety Test Course
2-57

Notes:_____

Test Your Knowledge

1. The average DWI violator commits that violation ____ times a year.
2. In typical enforcement jurisdictions one DWI violation in ____ results in arrest.
3. In the Fort Lauderdale study, police officers arrested ____ % of the drivers they contacted whose BACs were .10 to .20.
4. Name three different chemicals that are alcohols.

5. Which of these is beverage alcohol, intended for human consumption?

6. What is the chemical symbol for beverage alcohol?

7. What is the name of the chemical process by which beverage alcohol is produced naturally?

8. What is the name of the process used to produce high concentration beverage alcohol?

9. Multiple choice: Blood alcohol concentration is the number of ____ of alcohol in every 100 milliliters of blood.

   a. Grams

   b. Milligrams

   c. Nanograms

10. True or false: Pound for pound, the average woman contains more water than does the average man.

11. What do we mean by the "proof" of an alcoholic beverage?

12. Every chemical that is an "alcohol" contains what three elements?

13. True or false: Alcohol can pass directly through the stomach walls and enter the bloodstream.

14. What is the name of the muscle that controls the passage from the stomach to the lower gastrointestinal tract?

15. True or false: Most of the alcohol that a person drinks is absorbed into the blood via the small intestine.

Test Your Knowledge (Cont'd)

16. Multiple choice: Suppose a man and a woman who both weigh 160 pounds arrived at a party and started to drink at the same time. And suppose that, two hours later, they both have a BAC of 0.10. Chances are ....

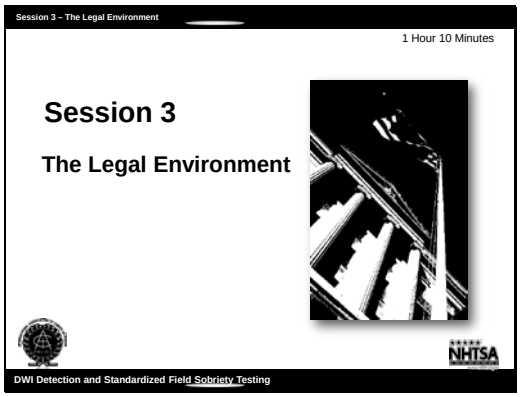
    a. He had more to drink than she did.
    b. They drank just about the same amount of alcohol.
    c. He had less to drink than she did.

17. In which organ of the body does most of the metabolism of the alcohol take place?

18. What is the name of the enzyme that aids the metabolism of alcohol?

19. Multiple choice: Once a person reaches their peak BAC, it will drop at a rate of about ___ per hour.
    a. 0.025
    b. 0015
    c. 0.010

20. True or False: It takes about thirty minutes for the average 175 pound man to "burn off" the alcohol in one 12 ounce can of beer.



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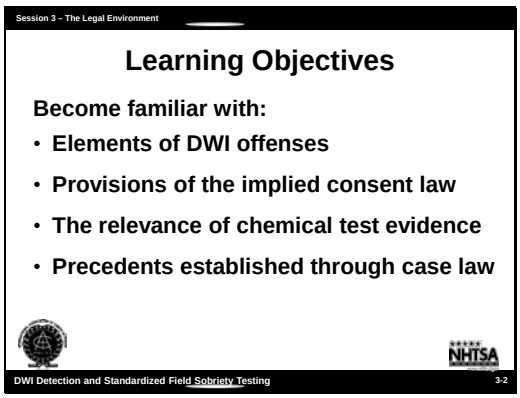
An understanding of impaired driving laws that apply in your jurisdiction is critical to successful DWI enforcement.

All states (and many local jurisdictions) have their own impaired driving laws. While the specific language of these laws may vary significantly, most include the following provisions:

- Basic DWI Law
- Implied Consent Law
- Illegal Per Se Law
- Preliminary Breath Testing Law



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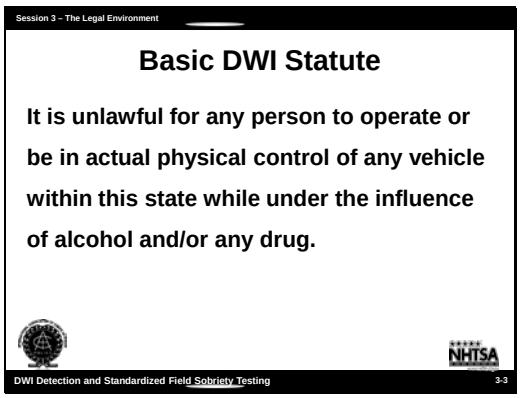
At the conclusion of this session, participants will be familiar with:

- Elements of DWI offenses
- Provisions of the implied consent law
- The relevance of chemical test evidence
- Precedents established through case law

In this session these four types of impaired driving laws are discussed in detail. The illustrations provided are drawn from the Uniform Vehicle Code. You are responsible for learning whether and how each law applies in your jurisdiction.

CONTENT SEGMENTS	LEARNING ACTIVITIES
A. Basic DWI Statute: Driving While Under the Influence	Instructor Led Presentations
B. Illegal Per Se Statute: Driving With a Prohibited Blood Alcohol Concentration	
C. Implied Consent Law and Presumptions	Reading Assignments
D. Preliminary Breath Testing	
E. Case Law Review	



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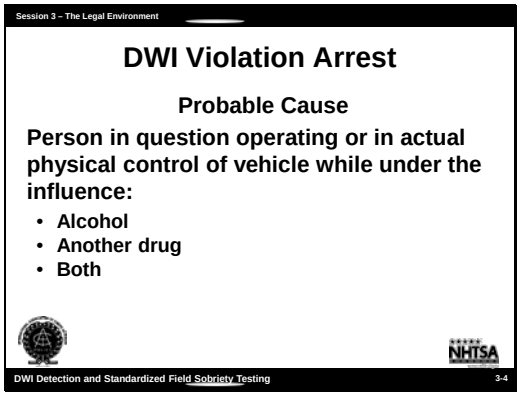
A. Basic DWI Statute: Driving While Under the Influence

A state's basic DWI statute may be subtitled Driving While Under the Influence, or something similar. Typically the statute describes the who, what, where and how of the offense in language.

For example:

It is unlawful for any person to operate or be in actual physical control of any vehicle within this state while under the influence of alcohol and/or any drug.



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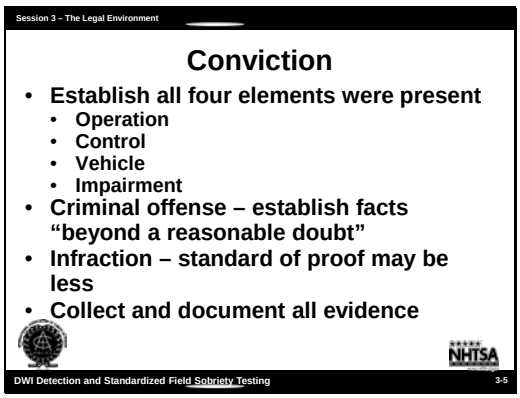
Arrest

In order to arrest someone for a basic DWI violation, a law enforcement officer must have probable cause to believe that all elements of the offense are present. That is, the officer must believe that:

The person in question was operating or in actual physical control of a vehicle (truck, van, automobile, motorcycle, even bicycle, according to specific provisions in various states) while under the influence of alcohol, another drug, or both.



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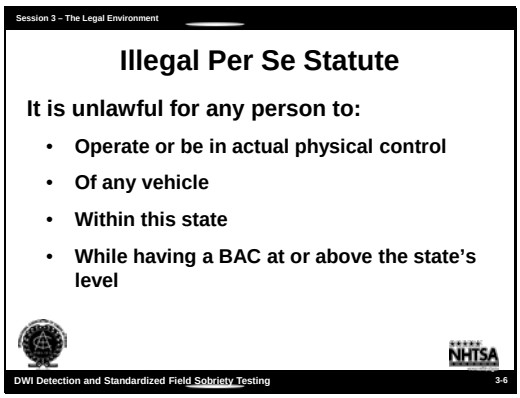
Conviction

In order to convict a person of DWI, it is necessary to establish that all four elements were present.

- Operation
- Control
- Vehicle
- Impairment

With regard to under the influence, courts have usually held that phrase to mean that the ability to operate a vehicle has been affected or impaired. To convict a person of a basic DWI violation, it is usually necessary to show that the person's capability of safely operating the vehicle has been impaired. If DWI is a criminal offense, the facts must be established "beyond a reasonable doubt." If DWI is an infraction, the standard of proof may be less. In either case, it is the officer's responsibility to collect and thoroughly document all evidence.



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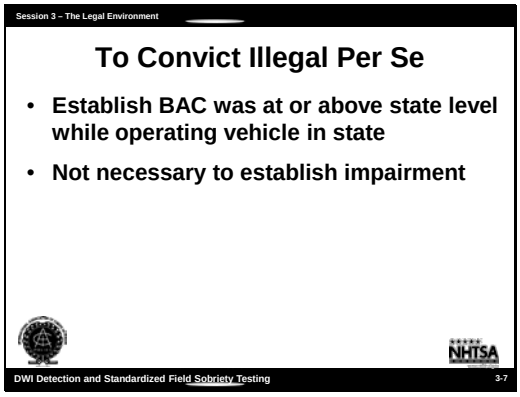
B. Illegal Per Se Statute: Driving with a Prohibited Blood Alcohol Concentration

Description

Most states include in their DWI law or implied consent law a provision making it illegal to drive with a prescribed blood alcohol concentration (BAC). This provision, often called an illegal per se law, creates another alcohol-related driving offense which is related to, but different from the basic DWI offense. Following is a typical illegal per se provision:

It is unlawful for any person to:

- Operate or be in actual physical control
- Of any vehicle
- Within this state
- While having a blood alcohol concentration at or above state's level.



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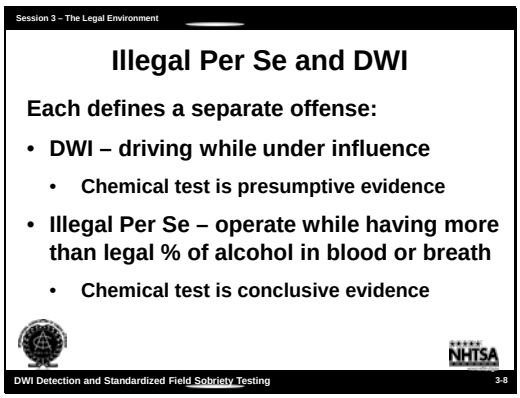
The illegal per se law makes it an offense in and of itself to drive while having a BAC at or above state's level. To convict a driver of an illegal per se violation, it is sufficient to establish that their BAC was at or above state's level while operating a vehicle in the state. It is not necessary to establish impairment.



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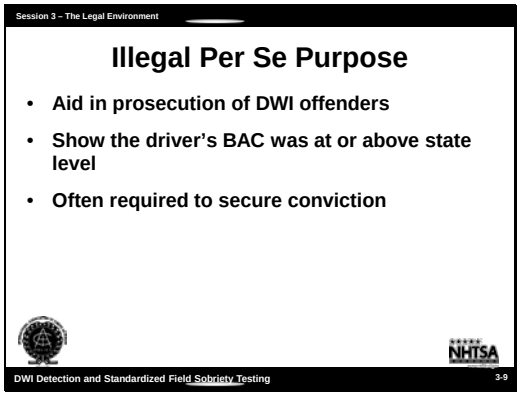
The illegal per se law does not replace the basic DWI law. Rather, the two work together. Each defines a separate offense:

- The basic DWI law makes it an offense to drive while under the influence of alcohol and/or any drug.
- The illegal per se law makes it an offense to drive while having more than a certain percentage of alcohol in the blood or breath.

For the basic DWI offense, the chemical test result is presumptive evidence. For the illegal per se offense, the chemical test result is conclusive evidence.

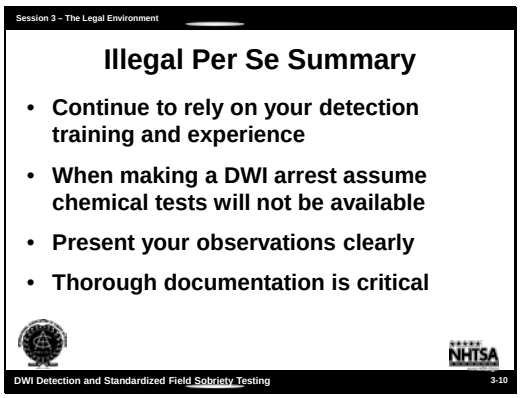


Notes:_____

Illegal Per Se Purpose

The principal purpose of the illegal per se law is to aid in prosecution of DWI offenders. It is not necessary for the prosecutor to show that the driver was "under the influence." The state is not required to demonstrate that the driver's ability to drive was affected. It is sufficient for the state to show that the driver's BAC was at or above the state's level.

While the statute aids in prosecution, it does not really make DWI enforcement easier. An officer must still have probable cause to believe that the driver is impaired before making an arrest. The implied consent law usually requires that the driver be arrested before the request of a chemical test. The law also requires that the arrest be made for "acts alleged to have been committed while operating a vehicle while under the influence." Therefore, the officer usually must establish probable cause that the offense has been committed and make a valid arrest before the chemical test can be requested.



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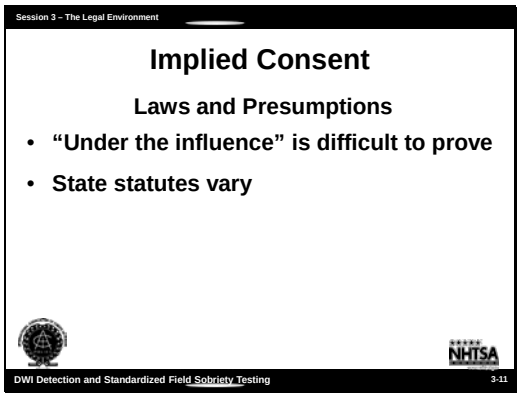
Illegal Per Se Summary

Police officers dealing with impaired drivers must continue to rely primarily on their own training and experience in detection to determine whether an arrest should be made. Usually it is impossible to obtain a legally admissible chemical test result until after the arrest has been made. Sometimes drivers will refuse the chemical test after they have been arrested. Then the case will depend primarily upon the officer's observations and ability to articulate their testimony. When making a DWI arrest, always assume that the chemical test evidence will not be available. It is critical that you organize and present your observations and testimony in a clear and convincing manner. This will allow more impaired drivers to be convicted regardless of whether they take the chemical test(s) or the test(s) results.



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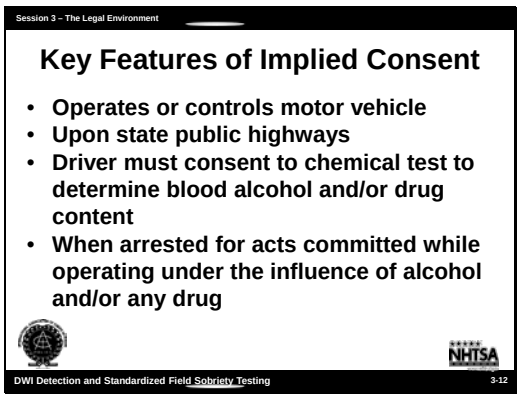
C. Implied Consent Law and Presumptions

Description

It is not completely clear to what degree the level of impairment equates to driving while under the influence. Some courts have held that the slightest degree of impairment in the ability to drive means the driver is "under the influence." Other courts have held that there must be evidence of substantial impairment of the ability to drive before a DWI conviction is warranted. Therefore, proving that a driver was "under the influence" has been (and continues to be) difficult.

To help resolve this difficulty, states have enacted implied consent laws. The principal purpose of the implied consent law is to encourage people arrested for DWI to submit to a chemical test to provide scientific evidence of alcohol influence.



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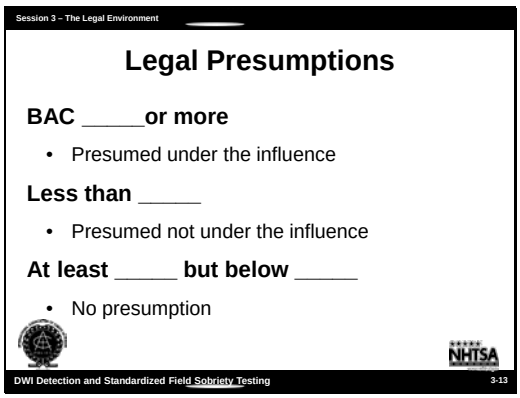
The implied consent law usually includes language similar to “Any person who”:

- Operates or is in actual physical control of a motor vehicle
- Upon the public highways of this state
- Shall be deemed to have given consent to a chemical test for the purpose of determining the alcohol and/or drug content of that person’s blood
- When arrested for any acts alleged to have been committed while the person was operating or in actual physical control of a vehicle while under the influence of alcohol and/or any drug.

The implied consent law states drivers must submit to a chemical test(s). The law provides penalties for refusal to submit to the test. The law also provides that the individual's driver's license may be suspended or revoked if the refusal is found to be unreasonable. The purpose of the implied consent law is to encourage those arrested for DWI to submit to a chemical test so that valuable evidence may be obtained.



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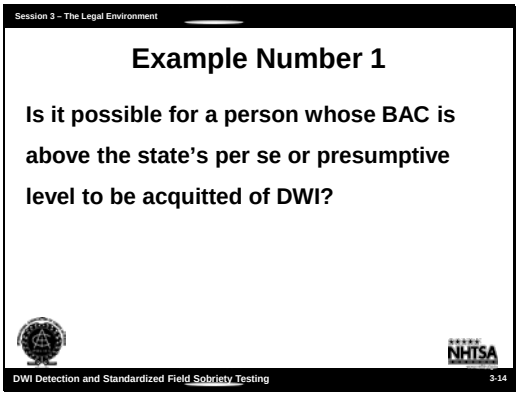
Legal presumptions define the significance of the scientific chemical test evidence. Usually the implied consent law provides an interpretation or presumption for the chemical test evidence like the following, for example:

If the chemical test shows that the person's blood alcohol concentration (BAC) is .08 or more it shall be presumed that the person is under the influence.

In some states – If the test shows that the BAC is _____ or less, it shall be presumed that the person is not under the influence.

If the test shows that the BAC is more than _____but less than ____, there is no presumption as to whether the person is or is not under the influence. The weight of the chemical test evidence is presumptive of alcohol influence, not conclusive.

The court may accept the legal presumption and conclude that the driver was or was not impaired on the basis of the chemical test alone. However, other evidence such as testimony about the defendant's driving, odor of alcohol, appearance, behavior, movements, speech, etc. may be sufficient to overcome the presumptive weight of the chemical test.



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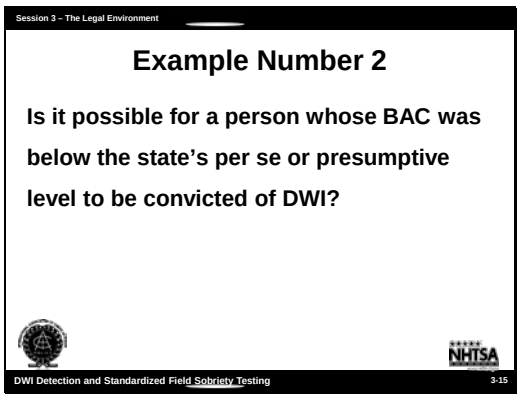
It is possible for a person whose BAC at the time of arrest is above the per se or presumptive level legal limit to be acquitted of DWI. It is also possible for a person whose BAC at the time is below the per se or presumptive level to be convicted of DWI. Consider the following examples:

Example 1

A driver is arrested for DWI. A chemical test administered to the driver shows a BAC of 0.13. At the subsequent trial, the chemical test-evidence is introduced. In addition, the arresting officer testifies about the defendant's driving, appearance and behavior. The testimony is sketchy, confused and unclear.

Another witness testifies that the driver drove, behaved and spoke normally. The court finds the defendant not guilty of DWI.

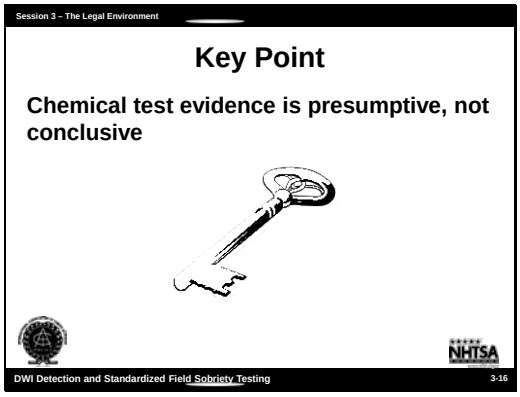


Notes:_____

Example 2

A driver is arrested for DWI. A chemical test administered to the driver shows a BAC of 0.05. At the subsequent trial, the chemical test evidence is introduced. In addition, the arresting officer testifies about the defendant's driving, odor of alcohol, appearance, slurred speech, and inability to perform divided attention field sobriety tests. The testimony is clear and descriptive. The court finds the defendant guilty of DWI.

The difference in outcomes in the two examples cited is directly attributable to how well the arresting officer articulates the evidence other than the chemical test. Remember that the chemical test provides presumptive evidence of alcohol influence; it does not provide conclusive evidence. While the "legal limit" in a given jurisdiction may be 0.08 BAC, many people will demonstrate impaired driving long before that "legal limit" is reached.



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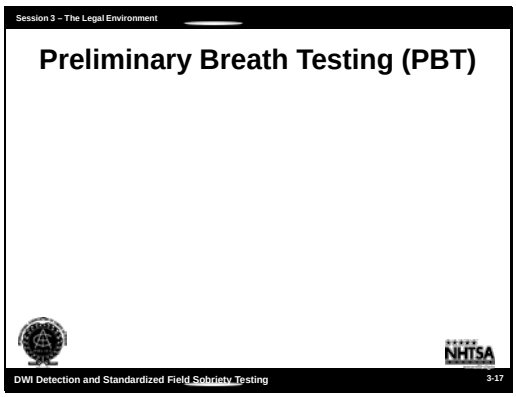
Summary point: The chemical test provides presumptive evidence of alcohol influence, but does not provide conclusive evidence.



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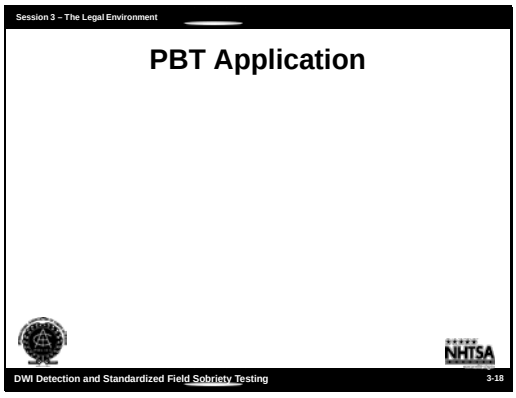
D. Preliminary Breath Testing

Description

Many states have enacted preliminary breath testing (PBT) laws. These laws permit a police officer to request a driver suspected of DWI to submit to a roadside breath test prior to arrest. PBT laws vary significantly from one state to another. A typical statute reads as follows:

"When an officer has reason to believe from the manner in which a person is operating or has operated a motor vehicle that the person has or may have committed the offense of operating while under the influence, the officer may request that person to provide a sample of breath for a preliminary test of the alcohol content of the blood using a device approved for this purpose."



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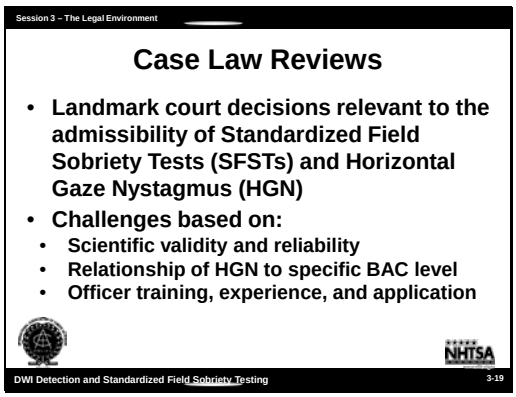
Application

PBT results are used to assist in determining whether an arrest should be made. The results usually are not admissible as substantive evidence against the defendant in court. However, PBT laws may provide statutory or administrative penalties if the driver refuses to submit to the test. These penalties may include license suspension, fines or other sanctions.



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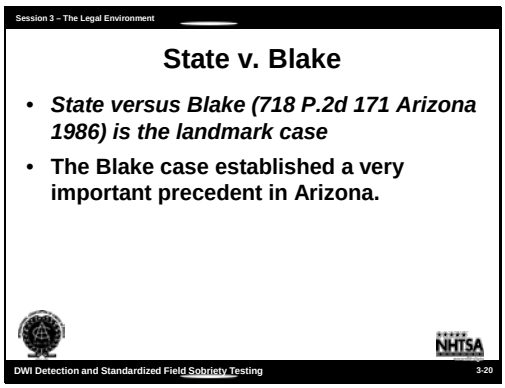
E. Case Law Reviews

The following cases are landmark court decisions relevant to the admissibility of Standardized Field Sobriety Tests (SFSTs) and Horizontal Gaze Nystagmus (HGN). Challenges to the admissibility have been based on (1) scientific validity and reliability; (2) relationship of HGN to specific BAC level; and (3) officer training, experience, and application.



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Emphasize that Blake is the landmark case.

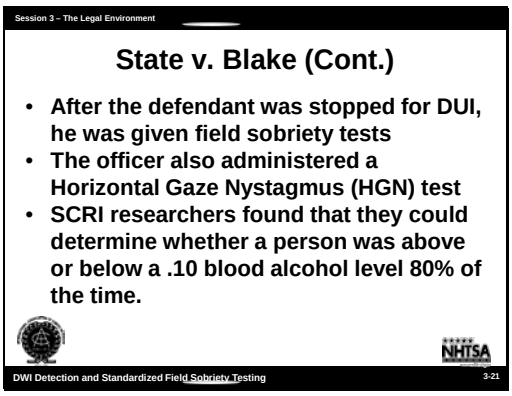
State versus Blake (718 P.2d 171 Arizona 1986)

The State of Arizona (Petitioner) vs. The Superior Court of the State of Arizona, in and for the county of Cochise, and the Hon. James L. Riles, Division III (Respondent) and Frederick Andrew Blake (Real Party in Interest) No. 18343-PR Court of Appeals No. 2 CA-SA 0254 Cochise Co. No. 11684 April 7, 1986.

The Blake case established a very important precedent in Arizona. The trial court ruled that the HGN test was not reliable under Frye v. United States, 293 F.2d 1013 (DC Cir. 1923) and thus could not be used as part of probable cause. The case was dismissed by the trial court. This ruling was appealed by the state and the order of dismissal was reversed by the court of appeals and the case was remanded for further proceedings (7/25/85).

The appellate court decision was reviewed by the State Supreme Court. The State Supreme Court approved the court of appeal's opinion, as modified, and vacated the trial court's dismissal of the Blake prosecution for DWI and remanded the case for proceedings not inconsistent with its opinion.

Following is a summary of the facts of the case and a brief overview of the appellate court and Supreme Court opinions.



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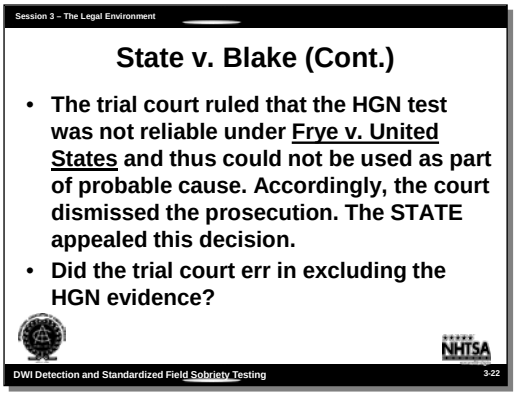
FACTS: After the defendant was stopped for DUI, he was given field sobriety tests on which he did fair. The officer also administered a Horizontal Gaze Nystagmus (HGN) test and estimated that defendant's blood alcohol content was .17. The intoxilyzer showed a .163 reading. At the motion to suppress, the state presented testimony from the SCRI project director which originally researched the HGN test.

SCRI researchers found that they could determine whether a person was above or below a .10 blood alcohol level 80% of the time. Finnish researchers had reached the same results. The project director testified that HGN has been accepted by various researchers, various police agencies and the National Highway Traffic Safety Administration. The police officer who helped develop and standardize HGN testified about his field experience with HGN and his work in the research on HGN. The officer testified that HGN was particularly useful in detecting drivers who had over .10 alcohol in their blood who would otherwise pass the field sobriety tests. The Arizona officer who administers HGN training testified that experienced drinkers with .13 or .14 reading could pass the other field sobriety tests and evade arrest. He testified that to be certified for HGN the officer had to perform 35 practice tests and then had to pass an exam where they must determine the blood alcohol level of subjects within .02 four out of five times.



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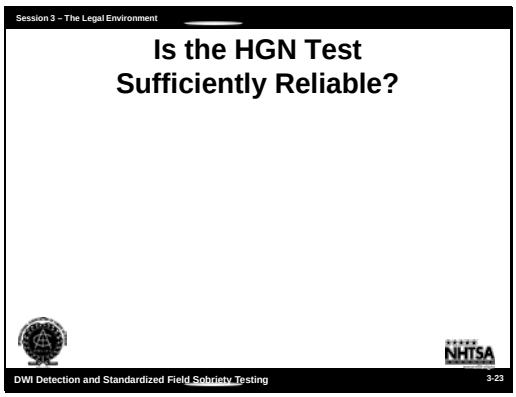
The training officer also testified that the officer must continue to use the test regularly in the field and should be evaluated to make sure the officer maintains his proficiency. The arresting officer testified that he was certified as an HGN specialist. The arresting officer testified without HGN results, he did not think he had probable cause to arrest the defendant. The trial court ruled that the HGN test was not reliable under Frye v. United States and thus could not be used as part of probable cause. Accordingly, the court dismissed the prosecution. The STATE appealed this decision.

ISSUE: Did the trial court err in excluding the HGN evidence?

RULING: Yes, "We conclude that the record shows not only that the HGN is sufficiently reliable to provide probable cause for arrest, but that with the proper foundation as to the expertise of the officer administering it, testimony concerning the administration of the test and its results is admissible at trial. The record shows that the HGN test has gained general acceptance in the field in which it belongs." The court went on to say that they were unable to rule on whether the results of this particular HGN test would be admissible because the only evidence about the officer's proficiency was his testimony that he was certified. The court of appeals noted that the officer kept a log of when he administered the test and said, "This log would be useful if it demonstrated that (the arresting officer) was as proficient in the field as he was on the examination." The order of dismissal is reversed and the case is remanded for further proceedings.

Mr. Blake sought review of the court of appeals opinion and it was granted by the Arizona Supreme Court.



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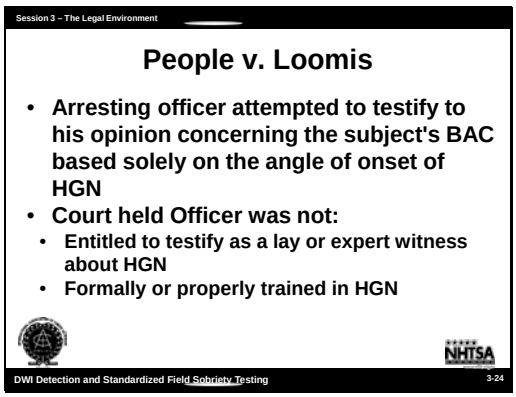
ISSUES: Whether the HGN test is sufficiently reliable to establish probable cause to arrest for DWI

Whether HGN test results are sufficiently reliable to be introduced in evidence at trial.

CONCLUSION: "We find that the Horizontal Gaze Nystagmus test properly administered by a trained police officer is sufficiently reliable to be a factor in establishing probable cause to arrest a driver for violating A.R.S.28-692(B). We further find that the Horizontal Gaze Nystagmus test satisfies the Frye test for reliability and may be admitted in evidence to corroborate or attack, but not to quantify, the chemical analysis of the accused's blood alcohol content. It may not be used to establish the accused's level of blood alcohol in the absence of a chemical analysis showing the proscribed level in the accused's blood, breath or urine. In subsection (A) prosecutions it is admissible, as is other evidence of defendant's behavior, to prove that he was under the influence."

We approve the court of appeals' opinion, as modified, vacate the trial court's dismissal of the Blake prosecution for violation of A.R.S.28-792(B), and remand for proceedings not inconsistent with this opinion.



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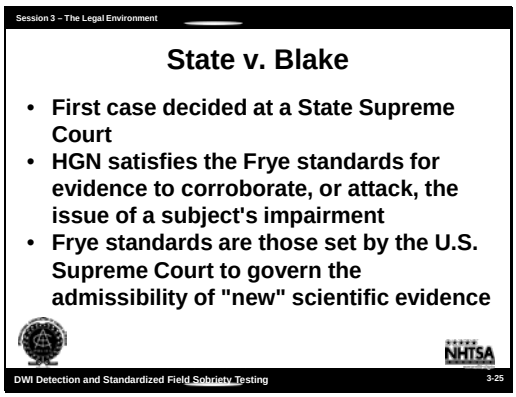
A detailed analysis of the facts reviewed by the Supreme Court is contained in the opinion PEOPLE vs. LOOMIS (California, 1984) 156 Cal. App. 3d 1, 203 Cal. Rptr. 767 (Cal. Super. 1984).

The arresting officer attempted to testify to his opinion concerning the subject's BAC, in quantitative terms, based solely on the angle of onset of HGN. The subject had refused to submit to a chemical test. The court held that the officer was not entitled to testify as either a lay or expert witness about HGN, or to give his opinion about the defendant's BAC. The court held that HGN is a new form of scientific evidence that will be allowed only when there is a preliminary showing of its general acceptance in the scientific community. Moreover, it was clear from the officer's testimony that he had not been formally or properly trained in HGN, and didn't really understand how the test is to be given.



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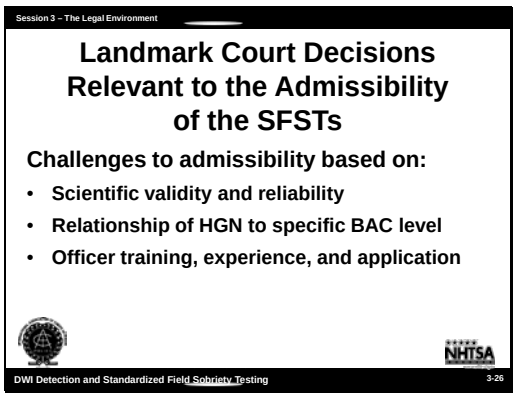
STATE vs. BLAKE (Arizona, 1986) 718 P.2d 171 (Arizona, 1986); see also State vs. Superior Court of County of Cochise, 149 Ariz 269, 718 P.2d 171, 60 ALR 4th, 1103.

This is the landmark ruling on HGN because it was the first case decided at a State Supreme Court. The Arizona Supreme Court found that HGN satisfies the Frye standards for evidence to corroborate, or attack, the issue of a subject's impairment.

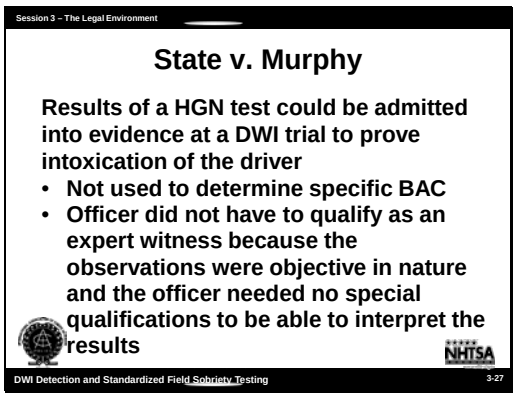
The Frye standards are those set by the U.S. Supreme Court to govern the admissibility of "new" scientific evidence. In effect, the Arizona Supreme Court took judicial notice of HGN, so that it is no longer necessary, in Arizona, to introduce expert scientific testimony to secure the admissibility of HGN. However, the court did set standards governing the training of officers who would be qualified to testify about HGN, and the court explicitly ruled that HGN cannot be used to establish BAC quantitatively in the absence of a chemical test.



Notes:_____

The following cases are landmark court decisions relevant to the admissibility of the SFSTs including Horizontal Gaze Nystagmus.

- Challenges to the admissibility have been based on:
- Scientific validity and reliability. (See Blake case)
- Relationship of HGN to specific BAC level. (See Loomis case)
- Officer training, experience, and application. (See Murphy case, See Homan case, See Smith case)



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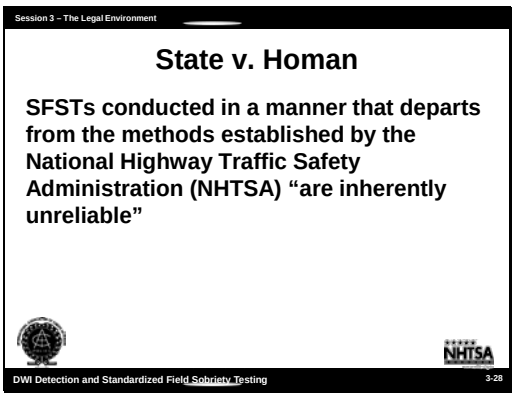
STATE vs. MURPHY (451 N.W.2d 154 Iowa, 1990)

The court held that the results of a HGN test could be admitted into evidence at a DWI trial to prove the intoxication of the driver. (Not to be used to determine specific BAC level.) The court considered HGN to be one of the SFST's officers administer and in this case the officer was properly trained to administer the test. The court felt that the officer did not have to qualify as an expert witness because the observations were objective in nature and the officer needed no special qualifications to be able to interpret the results.



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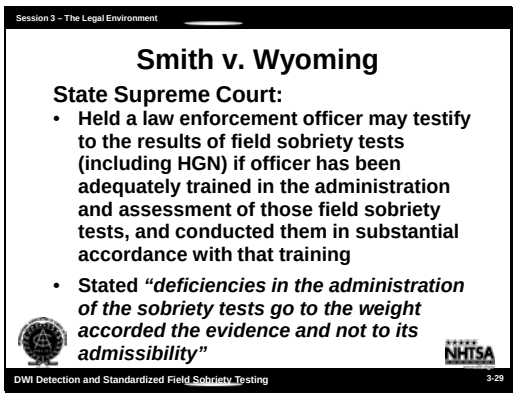
STATE v. HOMAN (732 N.E.2d 952, OHIO 2000)

This significant State Supreme Court case held that Standardized Field Sobriety Tests (SFSTs) conducted in a manner that departs from the methods established by the National Highway Traffic Safety Administration (NHTSA) "are inherently unreliable". The court determined that the administration of the SFSTs, including the One leg Stand and Walk and Turn tests, must be performed in strict compliance with the directives issued by NHTSA.

The court concluded that because the arresting officer admitted to not having strictly complied with established police procedure during the administration of the HGN and Walk and Turn tests, the results of the SFSTs must be excluded. In contrast with other court rulings, the *HOMAN* court found *"it is well established that in field sobriety testing even minor deviations from the standardized procedures can severely bias the results."* This decision was based upon an older edition of this manual where an ambiguous phrase was strictly interpreted by the court. The phrase in question only applied to the use of SFSTs for training purposes.



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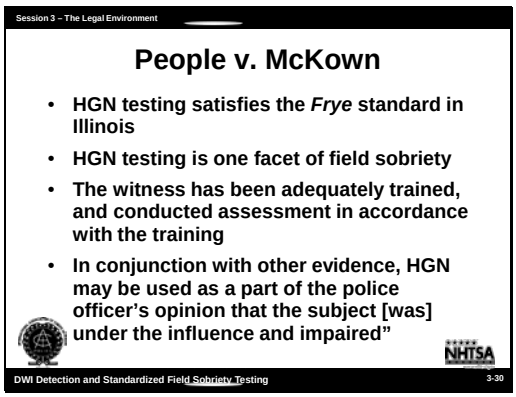
SMITH vs. WYOMING (11 P.3d 931 Wyoming, 2000)

The State Supreme Court held a law enforcement officer may testify to the results of field sobriety tests (including HGN) if it is shown that the officer has been adequately trained in the administration and assessment of those field sobriety tests, and conducted them in substantial accordance with that training. The court further stated *"deficiencies in the administration of the sobriety tests go to the weight accorded the evidence and not to its admissibility."*



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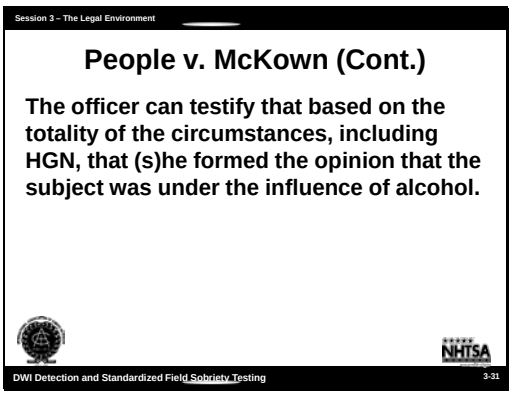
PEOPLE v. MCKOWN, (226 Ill. 2d 245 ILLINOIS 2007).

In February 2010, the Illinois Supreme Court issued an opinion indicating that HGN satisfies the Frye standard. This decision came upon a review of a fully litigated Frye hearing on HGN at the trial court level. The Supreme Court upheld and adopted the findings of the trial court, which are as follows: "(1) HGN testing satisfies the *Frye* standard in Illinois; (2) HGN testing is but one facet of field sobriety testing and is admissible as a factor to be considered by the trier of fact on the issue of alcohol or drug impairment; (3) A proper foundation must include that the witness has been adequately trained, has conducted testing and assessment in accordance with the training, and that he administered the particular test in accordance with his training and proper procedures; (4)[Testimony regarding] HGN testing results should be limited to the conclusion that a "failed" test suggests that the subject may have consumed alcohol and *may [have] be[en]* under the influence. There should be no attempt to correlate the test results with any particular blood-alcohol level or range or level of intoxication; (5) In conjunction with other evidence, HGN may be used as a part of the police officer's opinion that the subject [was] under the influence and impaired." (Emphasis in original.)



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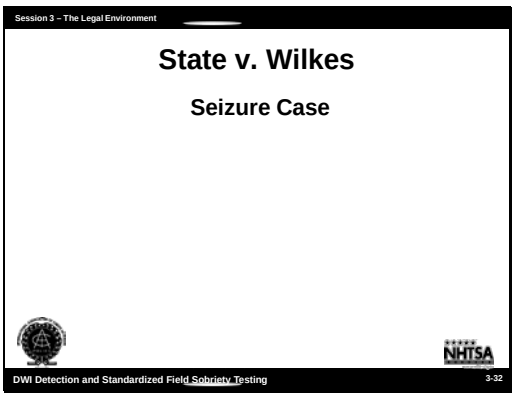
While HGN is admissible at a trial for DUI, the officer will be required to testify to the proper foundation. First, (s)he will have to testify regarding training and experience. That training will have to comply with the NHTSA standards, although whether that compliance is strict or substantial is unknown at this point. Second, the officer will have to testify as to how (s)he conducted the test on that particular occasion and will have had to have conducted the test in accordance with NHTSA training and standards. Once the proper foundation is met, the officer will be able to testify as to his or her observations and that the results of the test indicated that the subject had been drinking and may be impaired. Finally, the officer can testify that based on the totality of the circumstances, including HGN, that (s)he formed the opinion that the subject was under the influence of alcohol.



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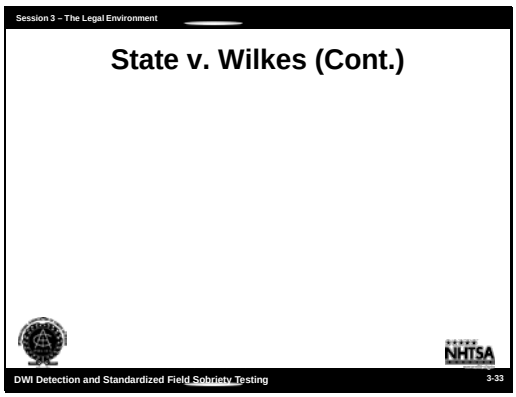
State v. Wilkes, (756 N.W.2d 838 Iowa 2008)

Wilkes was not originally looked at as a SFST case but rather a seizure case. However, at the urging of the Iowa TSRP the court closely looked at the issue of SFSTs. Wilkes claimed the State lacked probable cause to invoke implied consent pursuant to Iowa Code section 32 1J.6. To support his argument, Wilkes argued that the officer improperly administered the walk and turn and one leg stand tests. Even if true, any irregularity with respect to the walk and turn and one leg stand tests has no legal significance. The officer smelled the strong odor of alcohol on Wilkes' breath, obtained a concession that he had been drinking, and performed the horizontal gaze nystagmus (HGN) test. Based on this information, the officer had an articulable suspicion to administer a preliminary breath test (PBT) pursuant to Iowa Code section 321J.5(1)(a). The results of the PBT constituted probable cause to invoke implied consent. Iowa Code § 321J.6(1)(d); State v. Horton, 625 N.W.2d 362, 364 (Iowa 2001).



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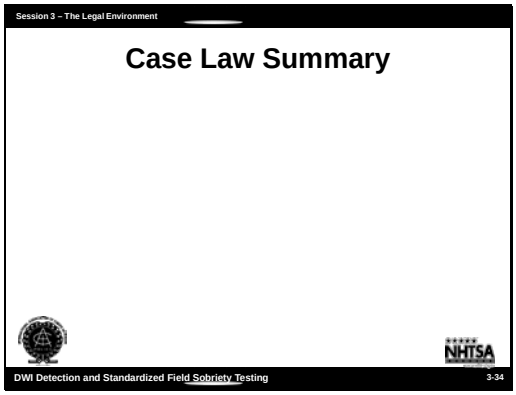
In determining grounds to arrest and/or invoke implied consent, the Court reviewed and considered the evidentiary value of all circumstances, including the defendant's statements, officer's observations of smell of alcohol, and SFST results even where two tests of the three SFSTs may not have been administered with textbook precision.



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TO SUMMARIZE:

The prevailing trend in court is to accept HGN as evidence of impairment, provided the proper scientific foundation is laid. However, most courts consistently reject any attempt to derive a quantitative estimate of BAC from HGN. Additionally, officers should recognize the relevance of administering the Standardized Field Sobriety Tests in accordance with the NHTSA/IACP guidelines and not significantly deviate from the established administrative procedures.

Session 3 – The Legal Environment
QUESTIONS?
NHTSA
Standardized Field Sobriety Test Course
3-38

Notes:_____

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Test your Knowledge

INSTRUCTIONS: Complete the following sentences.

1. The elements of the basic DWI law are:

   a. _____
   b. _____
   c. _____
   d. _____

2. If DWI is a criminal offense, the standard of proof is

3. The purpose of the implied consent law is _____

4. Under the implied consent law, chemical test evidence is _____ evidence.

5. The illegal per se law makes it unlawful to _____

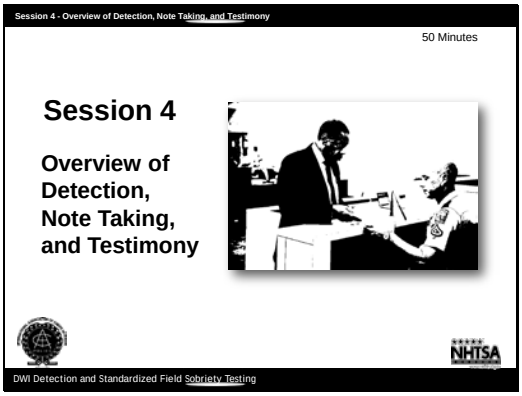
6. The PBT law permits a police officer to request a driver suspected of DWI to _____
_____

7. PBT results are used to assist in determining _____.

8. The landmark Supreme Court case regarding HGN was _____ .

   a. O'Leary
   b. Paquette
   c. Blake
   d. Overton

Participant Manual SFST - Session 4 – Overview of Detection, Note Taking and Testimony



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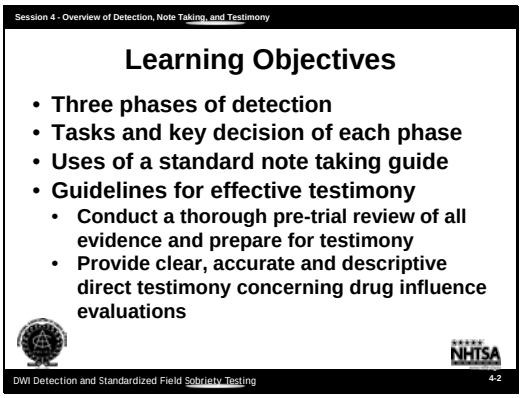

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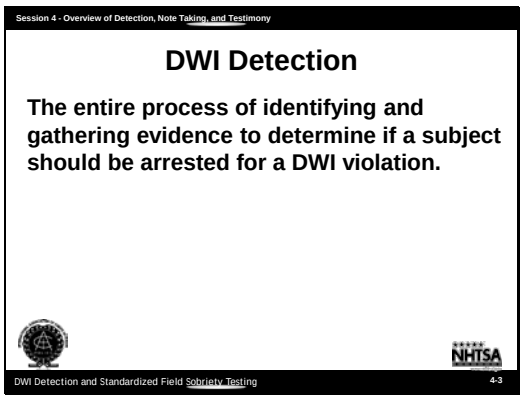
Upon successfully completing this session the participant will be able to:

- Describe the three phases of detection.
- Describe the tasks and key decision of each phase.
- Discuss the uses of a standard note taking guide.
- Discuss guidelines for effective testimony.

Detection is both the most important and difficult task in the DWI enforcement effort. If officers fail to detect DWI offenders, the DWI countermeasures program will ultimately fail. If officers do not detect and arrest DWI offenders, then prosecutors cannot prosecute them, the courts and driver licensing officials cannot impose sanctions on them, and treatment and rehabilitation programs will go unused.

CONTENT SEGMENTS	LEARNING ACTIVITIES
A. Three Phases of Detection	Instructor Led Presentation
B. DWI Investigation Field Notes	Reading Assignments
C. Courtroom Testimony	



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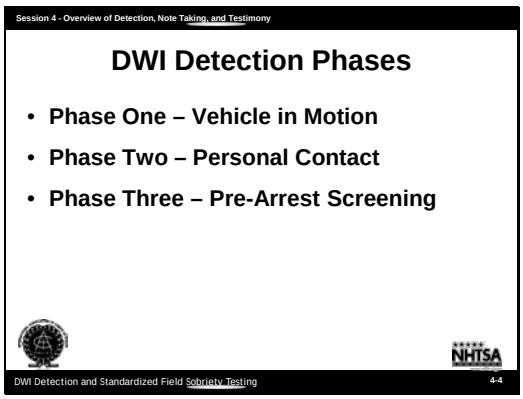
The term DWI detection has been used in many different ways. Consequently it does not mean the same thing to all law enforcement officers. For the purposes of this training, DWI detection is defined as: The entire process of identifying and gathering evidence to determine if a subject should be arrested for a DWI violation.

Detection begins when the officer develops the first suspicion of a DWI violation.

Detection ends when the officer decides whether or not there is sufficient probable cause to arrest the driver for DWI. Your attention may be called to a particular vehicle or individual for a variety of reasons. The precipitating event may be a loud noise, an obvious equipment or moving violation, behavior that is unusual, but not necessarily illegal, or almost anything else. Initial detection may carry with it an immediate suspicion that the driver is impaired; or a slight suspicion; or even no suspicion at all. In any case, it sets in motion a process wherein you focus on a particular vehicle or individual and have the opportunity to observe that vehicle or individual and to gather additional evidence.

The detection process ends when you decide either to arrest or not to arrest the individual for DWI. That decision is based on all of the evidence that has come to light since your attention was first drawn to the vehicle or individual. Effective DWI enforcers do not leap to the arrest/no arrest decision. Rather, they proceed carefully through a series of intermediate steps, each of which helps to identify the collective evidence.



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A. Three Phases of Detection

The typical DWI contact involves three separate and distinct phases:

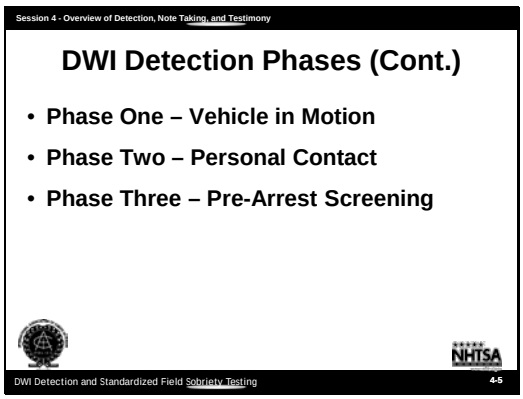
- Phase One: Vehicle in motion
- Phase Two: Personal contact
- Phase Three: Pre-arrest screening

In Phase One, you usually observe the driver operating the vehicle.

In Phase Two, after you have stopped the vehicle, there usually is an opportunity to observe and speak with the driver face to face.

In Phase Three, you usually have an opportunity to administer Standardized Field Sobriety Tests to the driver to determine impairment.

In addition to SFSTs, some jurisdictions may allow you to administer other field sobriety tests, and/or a preliminary breath test (PBT) to verify that alcohol is the cause of the impairment. PBTs can be used to assist in making an arrest decision and should rarely be the only factor in deciding to arrest. PBTs should be used after administering SFSTs.



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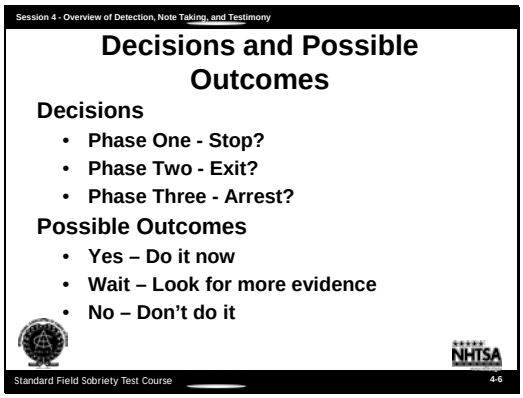
The DWI detection process does not always include all three phases. Sometimes there are DWI detection contacts in which Phase One is absent. These are cases in which you have no opportunity to observe the vehicle in motion. This may occur at the crash scene, at a roadblock or checkpoint, or when you have responded to a request for motorist assistance. Sometimes there are DWI contacts in which Phase Three is absent. There are cases in which you would not administer formal tests to the driver. This may occur when the driver is grossly impaired, badly injured, or refuses to submit to tests.



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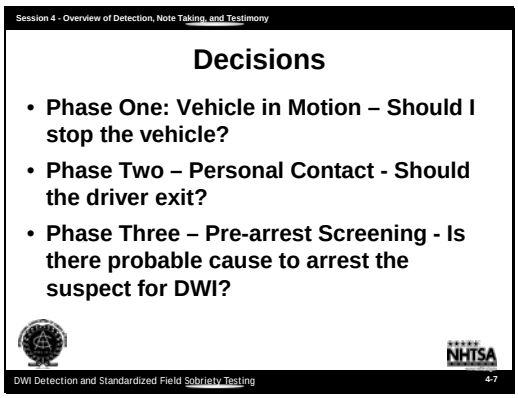
In each of the three phases, there will be decisions and possible outcomes.



Notes:_____

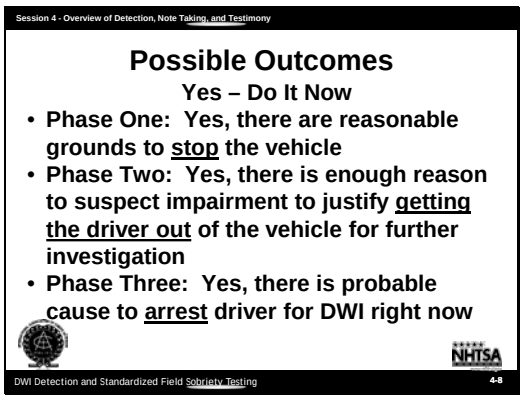
Major Tasks and Decisions

Each detection phase usually involves two major tasks and one major decision.

In Phase One: Your first task is to observe the vehicle in operation. Based on this observation, you must decide whether there is sufficient cause to command the driver to stop. Your second task is to observe the stopping sequence. You may want to take a picture of the vehicle or scene, especially if the vehicle was involved in a crash.

In Phase Two: Your first task is to observe and interview the driver face to face. Based on this observation, you must decide whether there is sufficient cause to instruct the driver to step from the vehicle for further investigation. Your second task is to observe the driver's exit and walk from the vehicle. You may want to take a photo of the defendant.

In Phase Three: Your first task is to administer structured, formal psychophysical tests. Based on these tests, you must decide whether there is sufficient probable cause to arrest the driver for DWI. Your second task is then to arrange for (or administer) a Preliminary Breath Test.



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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

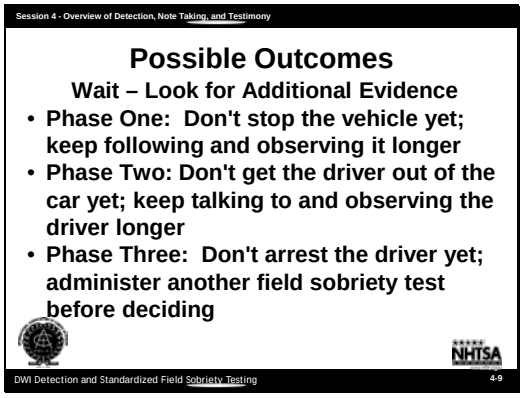
Consider the following examples.

Yes - Do It Now

Phase One: Yes, there are reasonable grounds to stop the vehicle.

Phase Two: Yes, there is enough reason to suspect impairment to justify getting the driver out of the vehicle for further investigation.

Phase Three: Yes, there is probable cause to arrest the driver for DWI right now.



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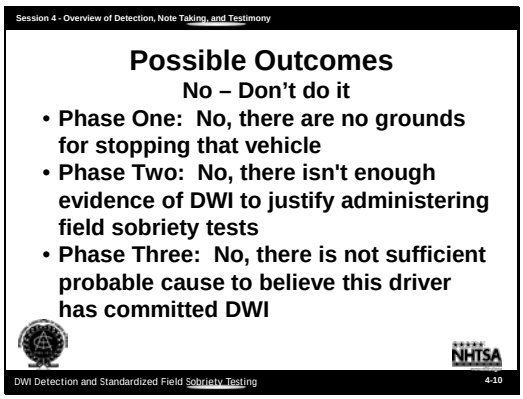
Wait - Look for Additional Evidence

Phase One: Don't stop the vehicle yet; keep following and observing it a bit longer.

Phase Two: Don't get the driver out of the car yet; keep talking to and observing the driver a bit longer. (This option may be limited if the officer's personal safety is at risk.)

Phase Three: Don't arrest the driver yet; administer another field sobriety test before deciding.



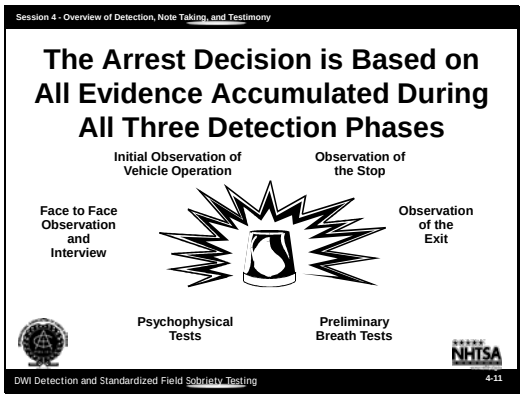
Notes:_____

Don't Do It:

Phase One: No, there are no grounds for stopping that vehicle.

Phase Two: No, there isn't enough evidence of DWI to justify administering field sobriety tests.

Phase Three: No, there is not sufficient probable cause to believe this driver has committed DWI.



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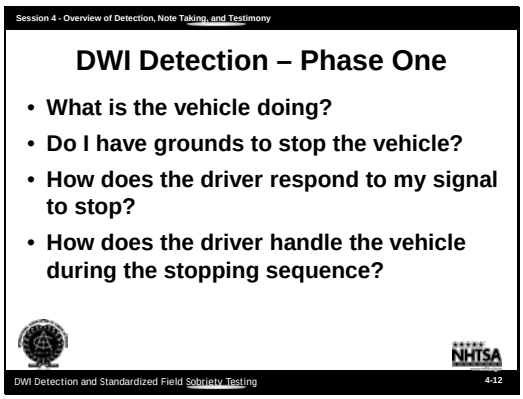
Officer Responsibility

In each phase of detection, you must determine whether there is sufficient evidence to establish the "reasonable suspicion" necessary to proceed to the next step in the detection process. It is always your duty to carry out whatever tasks are appropriate, to make sure that ALL relevant evidence of DWI is gathered.



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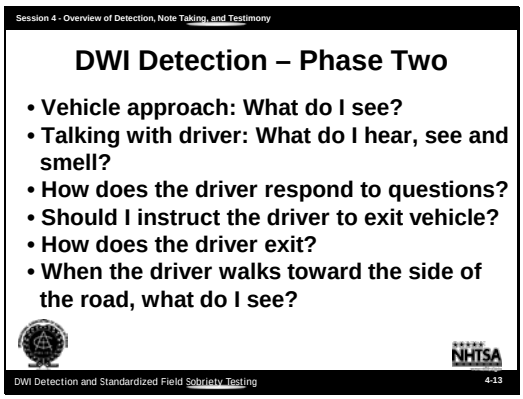
DWI Detection – Phase One

Answers to questions like these can aid you in DWI detection.

Phase One:

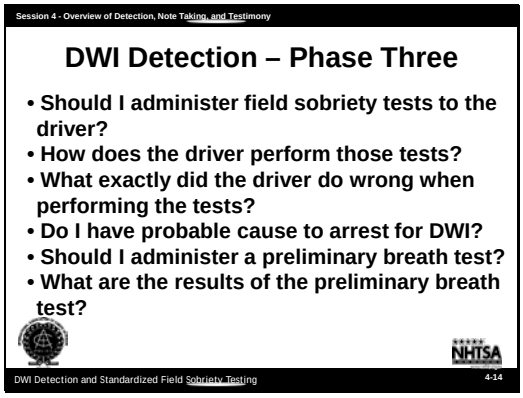
- What is the vehicle doing?
- Do I have grounds to stop the vehicle?
- How does the driver respond to my signal to stop?
- How does the driver handle the vehicle during the stopping sequence?



Notes:_____

Phase Two:

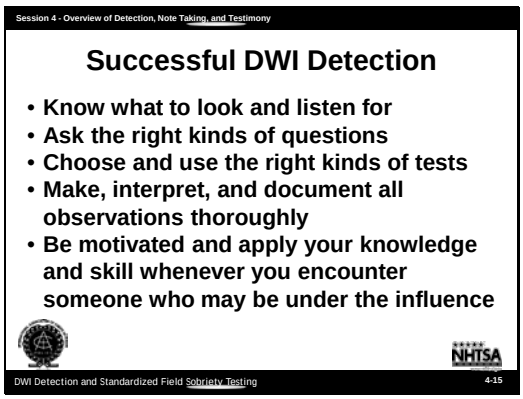
- When I approach the vehicle, what do I see?
- When I talk with the driver, what do I hear, see and smell?
- How does the driver respond to my questions?
- Should I instruct the driver to exit the vehicle?
- How does the driver exit?
- When the driver walks toward the side of the road, what do I see?



Notes:_____

Phase Three:

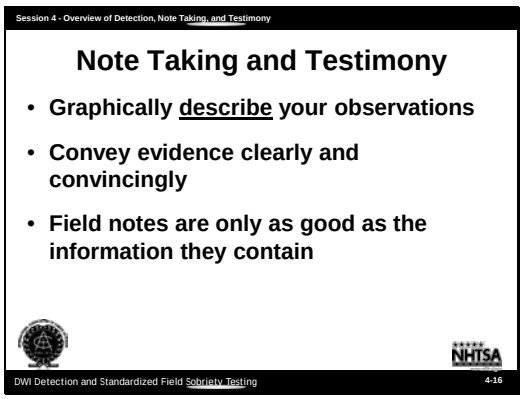
- Should I administer field sobriety tests to the driver?
- How does the driver perform those tests?
- What exactly did the driver do wrong when performing the tests?
- Do I have probable cause to arrest for DWI?
- Should I administer a preliminary breath test?
- What are the results of the preliminary breath test?



Notes:_____

The most successful DWI detectors are those officers who:

- Know what to look and listen for
- Ask the right kinds of questions
- Choose and use the right kinds of tests
- Make, interpret, and document all observations thoroughly
- Are motivated and apply their knowledge and skill whenever they encounter someone who may be under the influence



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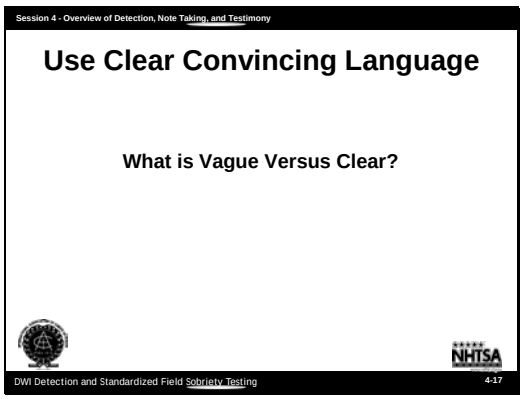
Note Taking and Testimony

A basic skill needed for DWI enforcement is the ability to graphically describe your observations. Just as detection is the process of collecting evidence, description largely is the process of conveying or articulating evidence.

Successful description demands the ability to convey evidence clearly and convincingly. Your challenge is to communicate evidence to people who weren't there to see, hear and smell the evidence themselves. Your tools are the words that make up your written report and verbal testimony. You must communicate with the supervisor, the prosecutor, the judge, the jury and even with the defense attorney. You are trying to "paint a word picture" for those people, to develop a sharp mental image that allows them to "see" what you saw; "hear" what you heard; and "smell" what you smelled.

Officers with the knowledge, skills and motivation to select the most appropriate words for both written reports and courtroom testimony will communicate clearly and convincingly, making them more successful in DWI prosecution.



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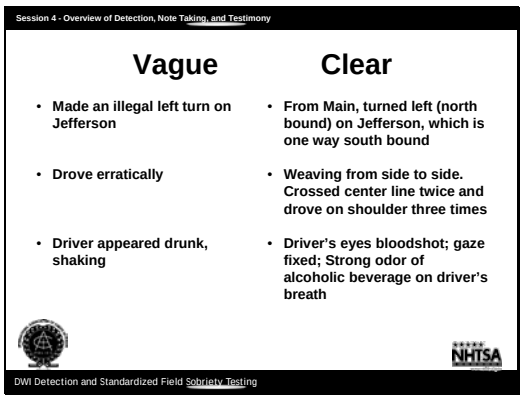
Use Clear and Convincing Language

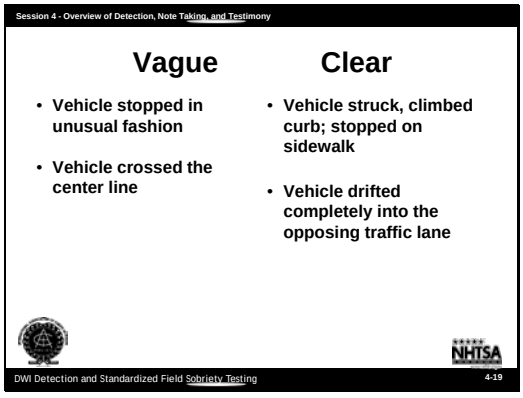
Field notes are only as good as the information they contain. Reports must be clearly written and events accurately described if the reports are to have evidentiary value. One persistent problem with DWI incident reports is the use of vague language to describe conditions, events and statements. When vague language is used, reports provide an inaccurate picture of what happened. Clear and complete field notes help in preparation for your testimony.



Notes:_____

Consider the following examples. Vague Language and Clear Language

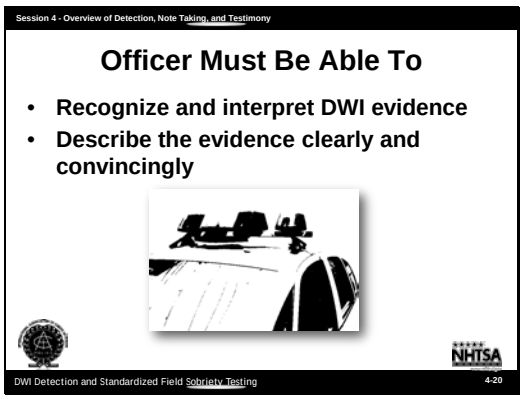
- Made an illegal left turn on Jefferson
- From Main, turned left (north bound) on Jefferson, which is one way south bound
- Drove erratically
- Weaving from side to side. Crossed center line twice and drove on shoulder three times
- Driver appeared drunk, shaking
- Driver's eyes bloodshot; gaze fixed; Strong odor of alcoholic beverage on driver's breath



Notes:_____

Consider the following examples. Vague Language and Clear Language

- Vehicle stopped in unusual fashion
- Vehicle struck, climbed curb; stopped on sidewalk
- Vehicle crossed the center line
- Vehicle drifted completely into the opposing traffic lane



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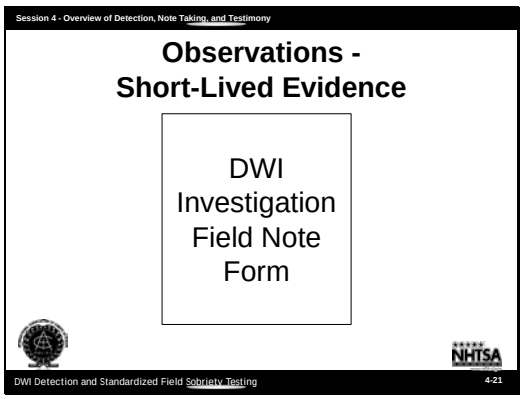
B. DWI Investigation Field Notes

One of the most critical tasks in the DWI enforcement process is the recognition and retention of facts and clues that establish reasonable suspicion to stop, investigate and subsequently arrest persons suspected of DWI. The evidence gathered during the detection process must establish the elements of the violation, and must be completely documented to support successful prosecution of the defendant. This evidence is largely sensory (sight, smell, hearing) in nature, and therefore is extremely short lived.

You must be able to recognize and act on the facts and circumstances with which you are confronted. But you also must completely document your observations and describe them clearly and convincingly to secure a conviction. You may be inundated with evidence of DWI, i.e., sights, sounds, smells. You recognize this evidence, sometimes subconsciously, and on this evidence base your decisions to stop, to investigate and ultimately to arrest.

Since evidence of a DWI violation is short lived, you need a system and tools for recording field notes at scenes of DWI investigations.



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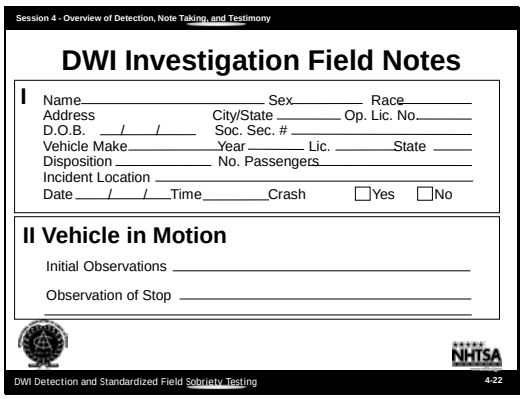
One way to improve the effectiveness of your handwritten field notes is to use a structured note taking guide. The guide makes it easy to record brief "notes" on each step of the detection process and ensures that vital evidence is documented.

The field notes provide the information necessary to complete required DWI report forms and assist you in preparing a written account of the incident. The field notes will also be useful if you are required to provide oral testimony, since they can be used to refresh your memory.

A model note taking guide is provided for your use. A brief description follows. Details are provided in subsequent units.

Note Taking Guide

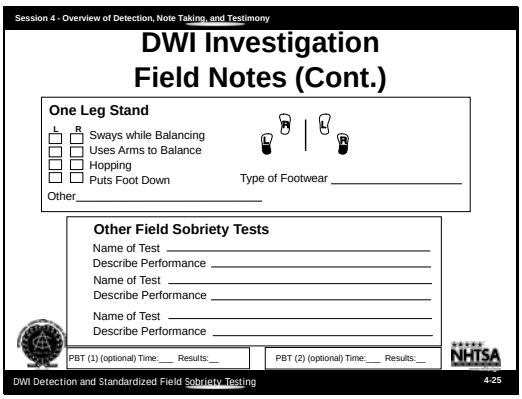
Remember that you must document those actions which gave you reasonable suspicion or probable cause to justify further investigation of a suspected DWI incident.



Notes:

- Section I provides space to record basic information describing the subject, the vehicle, the location, and the date and time the incident occurred.
- Section II provides space to record brief descriptions of the vehicle in motion (Detection Phase One), including initial observation of the vehicle in operation, and observation of the stopping sequence.
- Section III provides space to record brief descriptions of the personal contact with the subject (Detection Phase Two), including observations of the driver.

General Observations provides space to record the subject's manner of speech, attitude, clothing, etc. Any physical evidence collected should also be noted in this section.



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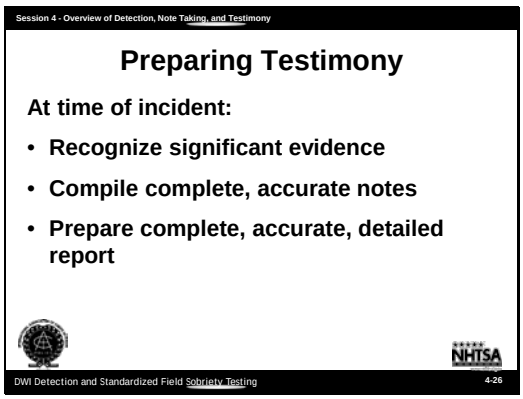
Section IV provides space to record the results of all field sobriety tests that were administered, and the results of the preliminary breath test (PBT) if such a test was given.

Section V provides space to record the officer's general observations, such as the subject's manner of speech, attitude, clothing, etc. Any physical evidence collected should also be noted in this section.

Since this is a note taking guide and space is limited, you will have to develop your own "shorthand" system. Your notes should be detailed and descriptive of the facts, circumstances or events being described. These notes may be used to refresh your memory and to write the narrative report documenting your observations to testify in court.

NOTE: Field notes may be subpoenaed as evidence in court. It is important that any "shorthand" system you use be describable, usable, complete and consistent.



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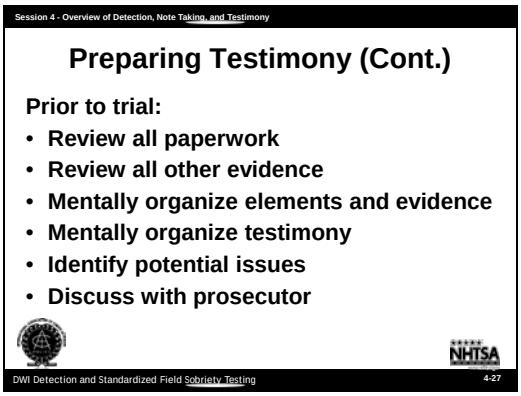
C. Courtroom Testimony

Testimonial evidence in DWI cases establishes that the defendant was in fact the driver and was under the influence. Your testimony should be clear, detailed, and concise. Requirements: Preparation at the scene and prior to trial.

To be effective, testimonial evidence must be clear and convincing. The first requirement for effective testimony is preparation. Testimony preparation begins at the time of the DWI incident. From the very beginning of the DWI contact, it is your responsibility to:

- Recognize significant evidence
- Compile complete, accurate field notes
- Prepare a complete, accurate, detailed report



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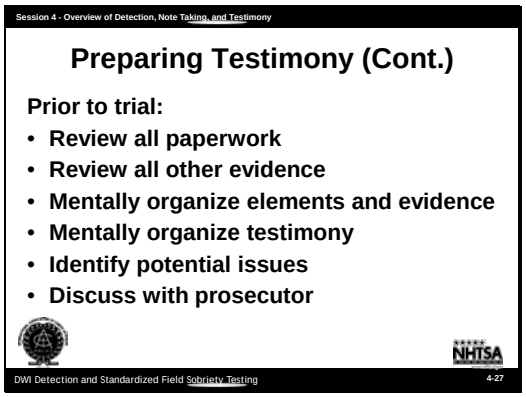
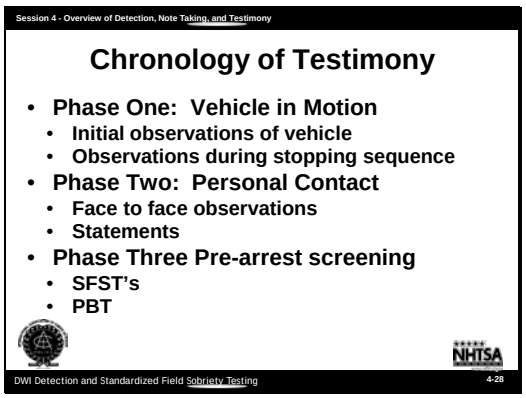


Notes:_____

Testimony preparation continues prior to trial. Just before the trial, you should:

- Review field notes, incident report, narrative and other paperwork
- Review other evidence, i.e., video, photographs, etc.
- Mentally organize elements of offense, and the evidence available to prove each element
- Mentally organize testimony to convey observations clearly and convincingly
- Identify weak spots and/or potential issues with the case and decide how to address those issues
- Discuss the case with the prosecutor

The foundation for preparation and successful testimony 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 groups' objectives and expectations is essential for successful prosecution.



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Chronology of Testimony

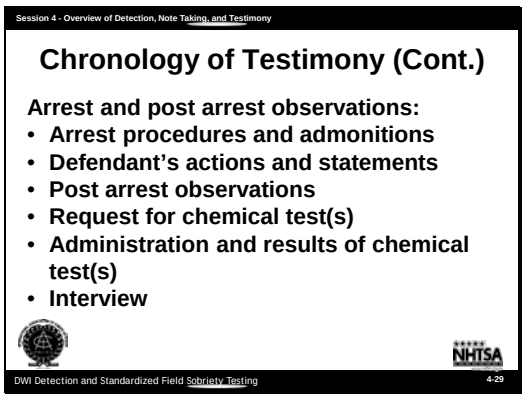
In court, your testimony should be organized chronologically and should cover each phase of the DWI incident:

Phase One: Vehicle in Motion – initial observation of vehicle, the driver or both including what first attracted your attention to the vehicle/driver and details about the driving before you initiated the traffic stop

Reinforcing cues, maneuvers or actions, observed after signaling the driver to stop, but before driver's vehicle came to a complete stop.

Phase Two: Personal Contact – face to face observations including personal appearance, statements and other evidence obtained during your initial contact with driver.

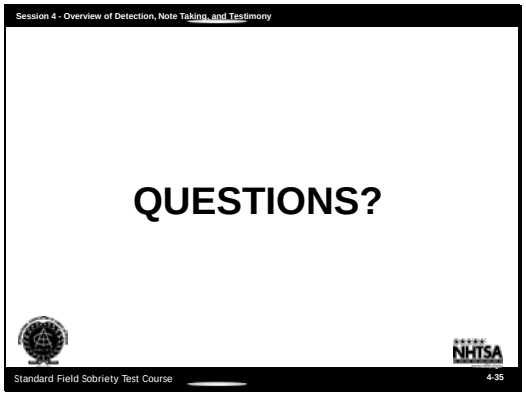
Phase Three: Pre-arrest Screening – sobriety tests administered to the driver and the results of any preliminary breath tests.



Notes:_____

Arrest and Post Arrest Observations

- The arrest itself; including procedures used to inform driver of arrest, admonish subject of rights, and so on
- Defendant's actions, statements, and/or admissions subsequent to the arrest
- Observation of defendant subsequent to the arrest; including not just what the defendant said but actions and reactions
- The request for the chemical test; including the procedures used, admonition of rights and requirements, and so on
- The conduct, actions, reactions, and results of the chemical test, if you were also the testing officer
- The interview of the defendant, including any new observations, statements and/or admissions.



Notes:_____

Test your Knowledge

INSTRUCTIONS: Complete the following sentences.

1. DWI detection is defined as _____
   _____

2. The three phases in a typical DWI contact are:

   Phase One _____
   Phase Two _____
   Phase Three _____

3. In Phase One, the officer usually has an opportunity to _____

4. Phase Three may not occur if _____

5. In Phase Two, the officer must decide _____

6. Each major decision can have any one of _____ different outcomes. These are:
   _____

7. At each phase of detection, the officer must determine _____

8. Evidence of DWI is largely _____ in nature.

9. Law enforcement officers need a system and tools for recording field notes at scenes of DWI investigations because DWI evidence is _____

10. Testimony preparations begins _____

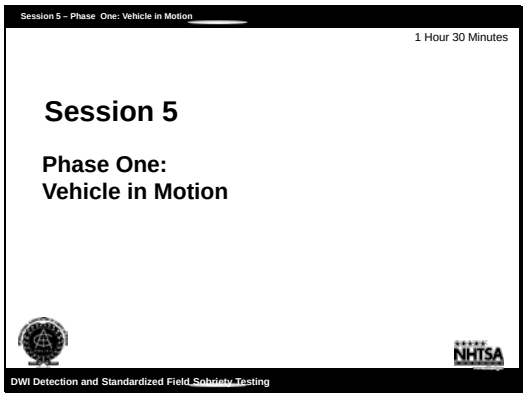
11. List two things the officer should do to prepare testimony just before the trial.

    a.

    b.

12. In court, the officer's testimony should be organized _____

13. Conditions and results of the chemical test are included in the arresting officer's testimony if _____



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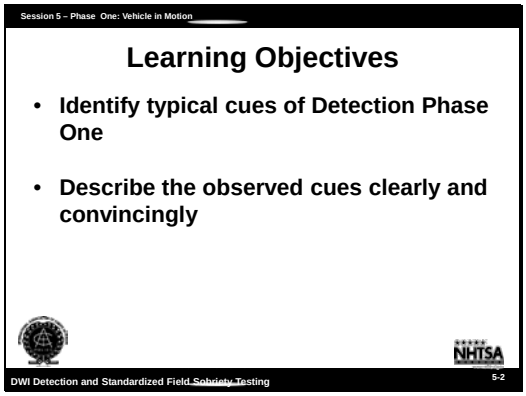
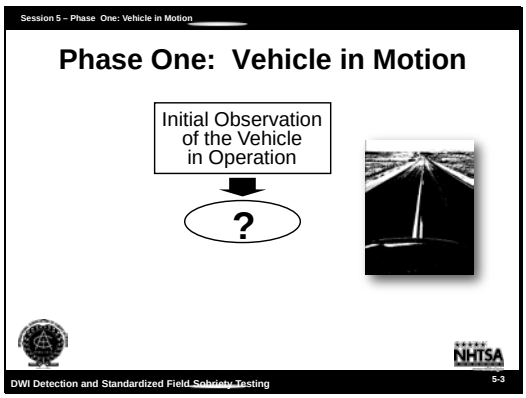


Notes:_____

At the conclusion of this session, participants will be able to:

- Identify typical cues of Detection Phase One
- Describe the observed cues clearly and convincingly

CONTENT SEGMENTS	LEARNING ACTIVITIES
A. Overview: Tasks and Decision	Instructor Led Presentations
B. Initial Observations: Visual Cues of Impaired Operation (Automobiles)	Video Presentation
C. Initial Observations: Visual Cues of Impaired Operation (Motorcycles)	Video Presentation
D. Recognition and Description of Initial Cues	Instructor Led Demonstrations
E. Typical Reinforcing Cues of the	Participant Presentations
F. Stopping Sequence	
G. Recognition and Description of Initial and Reinforcing Cues	



Notes:_____

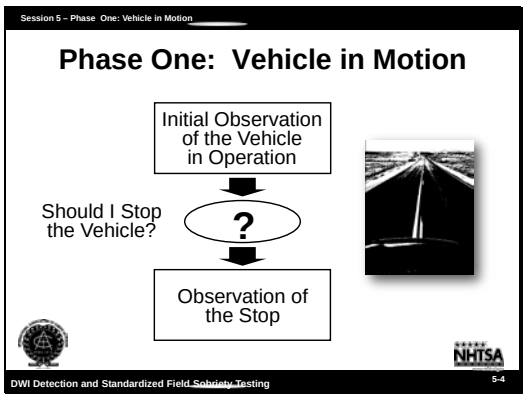
A. Overview: Tasks and Decision

Your first task in Phase One: Vehicle in Motion is to observe the vehicle in operation to note any initial cues of a possible DWI violation. At this point you must decide whether there is reasonable suspicion to stop the vehicle, either to conduct further investigation to determine if the driver may be impaired, or for another traffic violation. You are not committed to arresting the driver for DWI based on this initial observation, but rather should concentrate on gathering all relevant evidence that may suggest impairment. Your second task during phase one is to observe the manner in which the driver responds to your signal to stop, and to note any additional evidence of a DWI violation.

The first task, observing the vehicle in motion, begins when you first notice the vehicle, driver or both. Your attention may be drawn to the vehicle by such things as:

- A moving traffic violation
- An equipment violation
- An expired registration or inspection sticker
- Unusual driving actions, such as weaving within a lane or moving at a slower than normal speed
- Evidence of drinking or drugs in vehicle

If this initial observation discloses vehicle maneuvers or human behaviors that may be associated with impairment, you may develop an initial suspicion of DWI.



Notes:_____

Based upon this initial observation of the vehicle in motion, you must decide whether there is reasonable suspicion to stop the vehicle. At this point you have three choices:

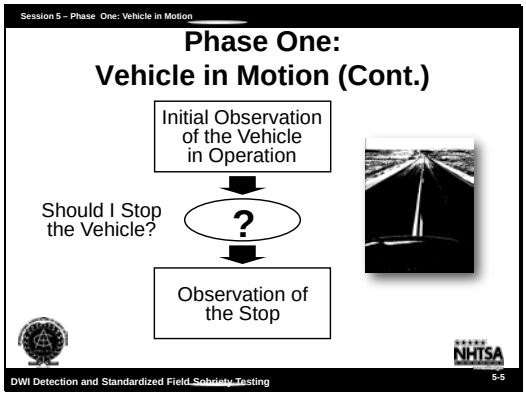
- Stop the vehicle.
- Continue to observe the vehicle.
- Disregard the vehicle.

Alternatives to stopping the vehicle include:

- Delaying the stop/no stop decision, in order to continue observing the vehicle
- Disregarding the vehicle

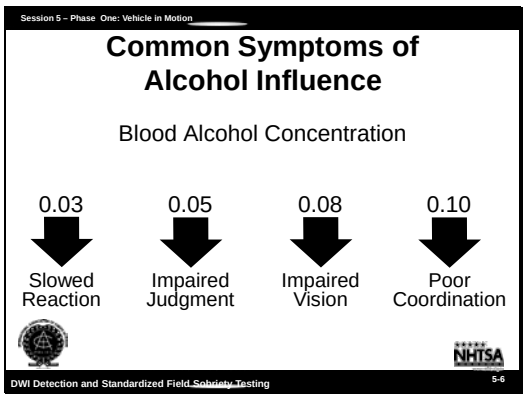
Whenever there is a valid reason to stop a vehicle, the officer should be alert to the possibility that the driver may be impaired by alcohol and/or other drugs.

Once the stop command has been communicated to the suspect driver, the officer must closely observe the driver's actions and vehicle maneuvers during the stopping sequence.



Notes:_____

Sometimes, significant evidence of alcohol influence comes to light during the stopping sequence. In some cases, the stopping sequence might produce the first suspicion of DWI. Drivers impaired by alcohol and/or other drugs may respond in unexpected and dangerous ways to the stop command.

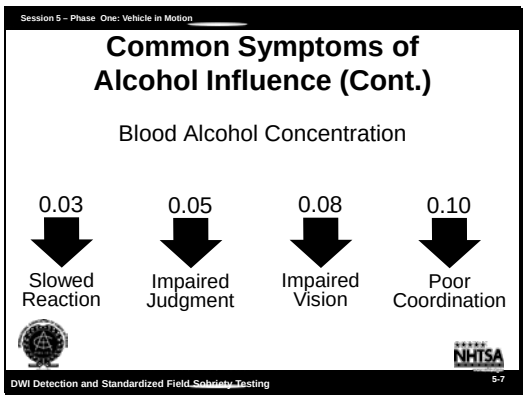


Notes:_____

B. Initial Observations: Visual Cues of Impaired Vehicle Operation (Automobiles)

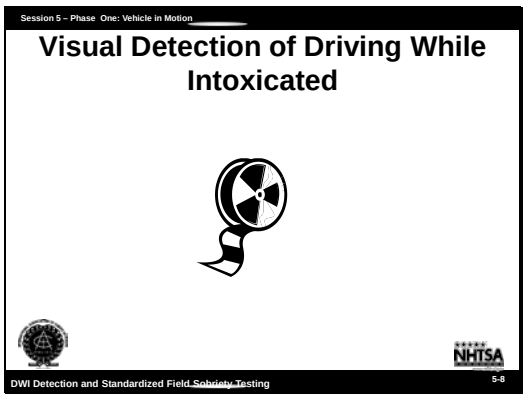
Drivers who are impaired frequently exhibit certain effects or symptoms of impairment. These include:

- Slowed reactions.
- Impaired judgment as evidenced by a willingness to take risks.
- Impaired vision.
- Poor coordination.



Notes:_____

This unit focuses on alcohol impairment because research currently provides more information about the effects of alcohol on driving than it does about the effects of other drugs on driving. Remember that whether the driver is impaired, the law enforcement detection process is the same, and the offense is still DWI.



Notes:_____

The common effects of alcohol on the driver's mental and physical faculties lead to predictable driving violations and vehicle operating characteristics. The National Highway Traffic Safety Administration (NHTSA) sponsored research to identify the most common and reliable initial indicators of DWI. This research identified 24 cues, each with an associated high probability that the driver exhibiting the cue is impaired. These cues and their associated probabilities are described in the NHTSA publication, The Visual Detection of DWI Motorists.

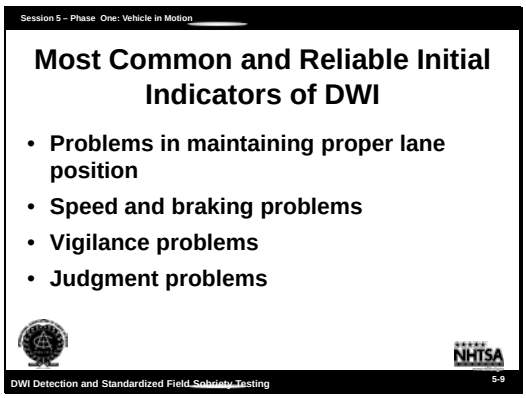
They also are discussed in Visual Detection of Driving While Intoxicated, a video sponsored by NHTSA to assist law enforcement officers to recognize DWI detection cues.

(ANACAPA Sciences, DOT HS 808 654, 1997.)

The National Highway Traffic Safety Administration sponsored research to identify the most common and reliable initial indicators of DWI.

Research identified 100 cues, each providing a high probability indication that the driver is under the influence.

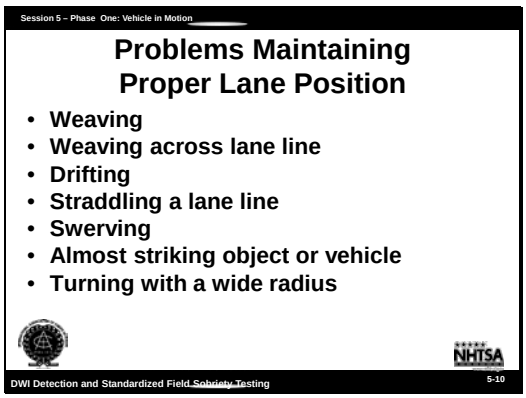
The list was reduced to 24 cues during three field studies involving hundreds of officers and more than 12,000 enforcement stops.



Notes:_____

The driving behaviors are presented in four categories:

- Problems in maintaining proper lane position
- Speed and braking problems
- Vigilance problems
- Judgment problems



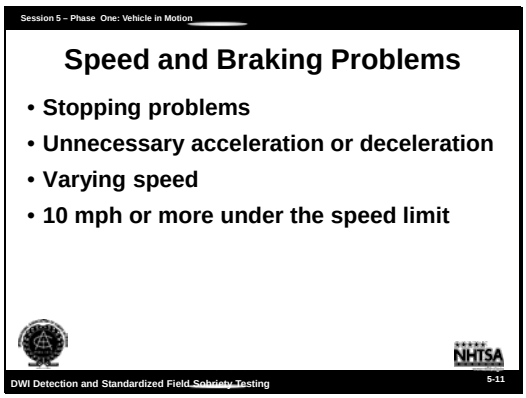
Notes:_____

There is a brochure published by NHTSA that contains these cues. The title is "The Visual Detection of DWI Motorists" DOT HS 808 677.

The first category is:

Problems in maintaining proper lane position. [p=.50-.75]

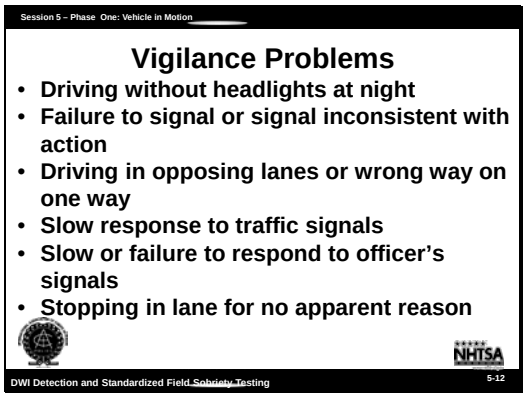
- Weaving.
- Weaving across lane lines.
- Drifting.
- Straddling a lane line.
- Swerving.
- Almost striking object or vehicle.
- Turning with a wide radius.



Notes:_____

Speed and braking problems. [p=.45-.70].

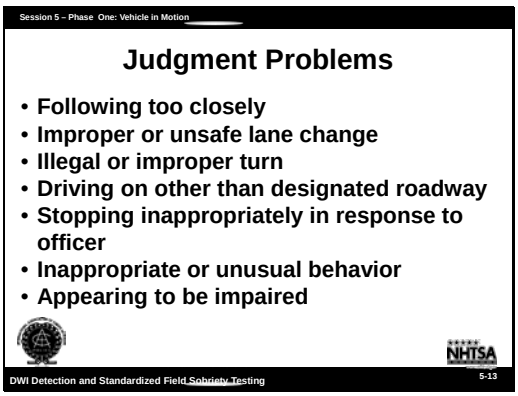
- Stopping problems (too far, too short, or too jerky).
- Unnecessary acceleration or deceleration
- Varying speed
- 10 mph or more under the speed limit



Notes:_____

The third problem is vigilance problems. [P=.55-.65]. This category includes, but is not limited to:

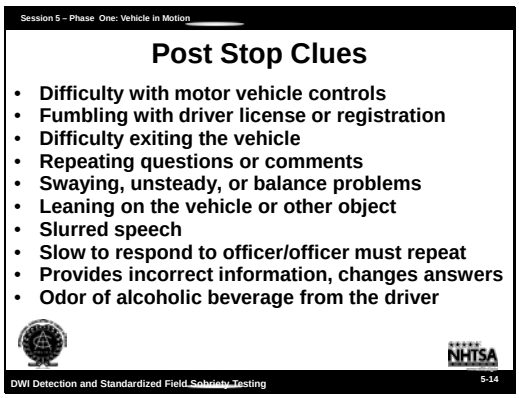
- Driving without headlights at night
- Failure to signal or signal inconsistent with action
- Driving in opposing lanes or wrong way on one way
- Slow response to traffic signals
- Slow or failure to respond to officer's signals
- Stopping in lane for no apparent reason



Notes:_____

Judgment problems. [P=.35-.90].

- Following too closely (tailgating)
- Improper or unsafe lane change
- Illegal or improper turn
- Driving on other than designated roadway
- Stopping inappropriately in response to officer
- Inappropriate or unusual behavior (throwing objects, arguing, etc.)
- Appearing to be impaired

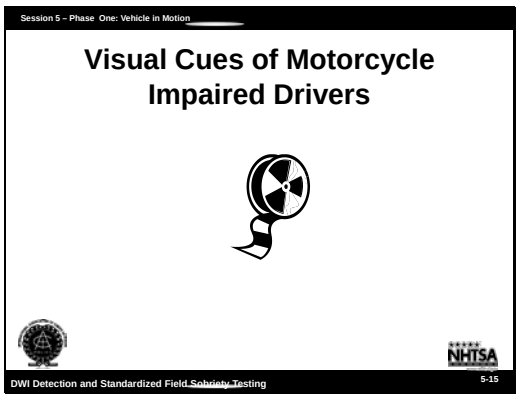


Notes:_____

The research also identified 10 post stop cues. [P $\geq$ .85].

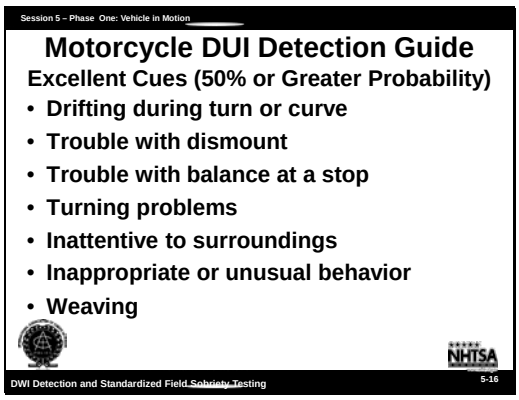
- Difficulty with motor vehicle controls
- Fumbling with driver license or registration
- Difficulty exiting the vehicle
- Repeating questions or comments
- Swaying, unsteady, or balance problems
- Leaning on the vehicle or other object
- Slurred speech
- Slow to respond to officer/officer must repeat
- Provides incorrect information, changes answers
- Odor of alcoholic beverage from the driver

Explanation and illustration of the 24 detection cues.



Notes:_____

C. Initial Observations: Visual Cues of Impaired Vehicle Operation (Motorcycles)



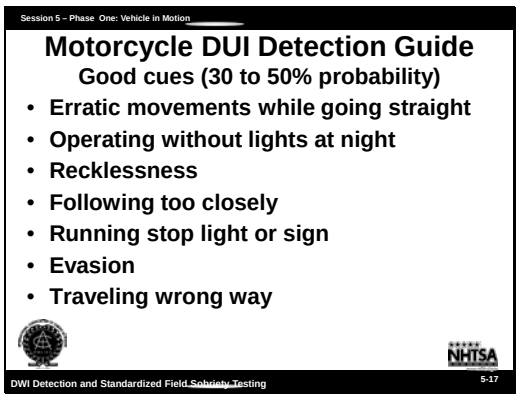
Notes:_____

Research has identified driving impairment cues for motorcyclists.

(ANACAPA Sciences, DOT HS 807 839, 1993.)

Excellent cues (50% or greater probability).

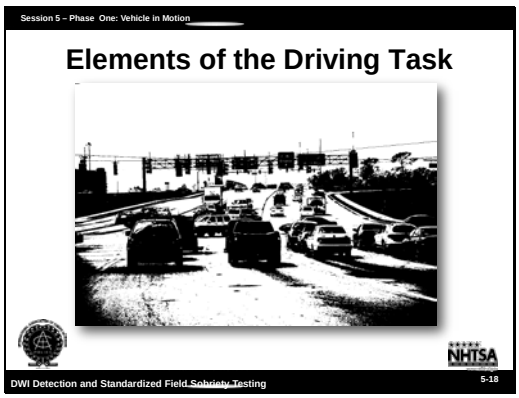
- Drifting during turn or curve
- Trouble with dismount
- Trouble with balance at a stop
- Turning problems (e.g., unsteady, sudden corrections, late braking, improper lean angle)
- Inattentive to surroundings
- Inappropriate or unusual behavior (e.g., carrying or dropping object, urinating at roadside, disorderly conduct, etc.)
- Weaving



Notes:_____

Good Cues (30 to 50% probability)

- Erratic movements while going straight
- Operating without lights at night
- Recklessness
- Following too closely
- Running stop light or sign
- Evasion
- Traveling wrong way



Notes:_____
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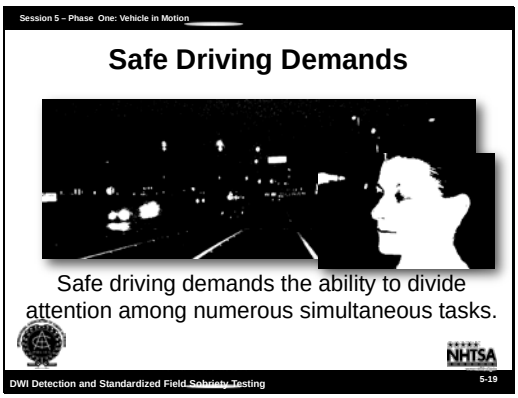
_____

Relationship of Visual Cues to Impaired Divided Attention Capability

Driving is a complex task, composed of many parts:

- Steering
- Controlling accelerator
- Signaling
- Controlling brake pedal
- Operating clutch (if applicable)
- Operating gearshift (if applicable)
- Observing other traffic
- Observing signal lights, stop signs, other traffic control devices
- Making decisions (whether to stop, turn, speed up, slow down, etc.)
- Many other things



Notes:_____

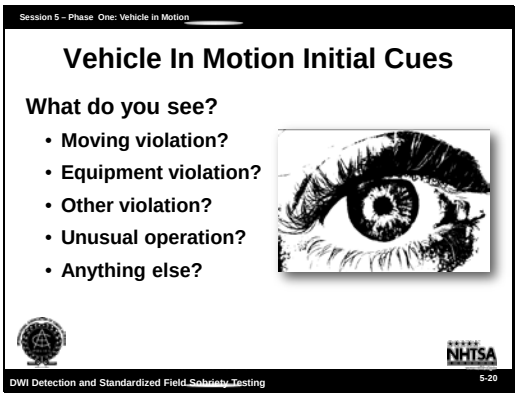
In order to drive safely, a driver must be able to divide attention among all of these various activities.

Under the influence of alcohol or many drugs, a person's ability to divide attention becomes impaired.

The impaired driver tends to concentrate on certain parts of driving and to disregard other parts.

- Alcohol has impaired ability to divide attention.
- Driver is concentrating on steering and controlling the accelerator and brake.
- Does not respond to the particular color of the traffic light.

Some of the most significant evidence from all three phases of DWI detection can be related directly to the effects of alcohol and/or other drugs on divided attention ability.

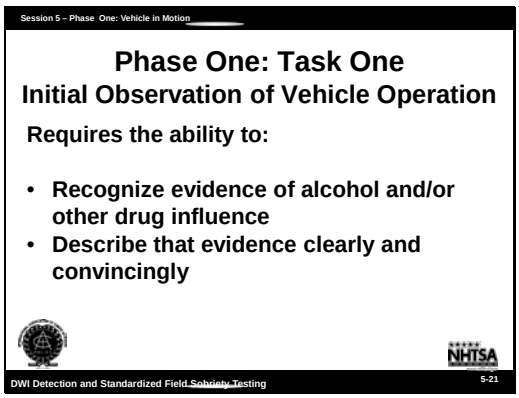


Notes:_____

D. Recognition and Description of Initial Cues

What do you see?

- Moving violation?
- Equipment violation?
- Other violation?
- Unusual operation?
- Anything else?



Notes:_____

Phase One: Task One Initial Observation of Vehicle Operation

The task of making initial observations of vehicle operation is the first step in the job of DWI detection.

Proper performance of that task demands two distinct but related abilities:

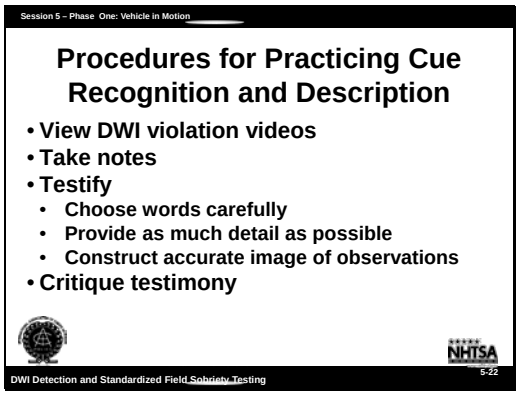
- Ability to recognize evidence of alcohol and/or other drug influence.
- Ability to describe that evidence clearly and convincingly.

It is not enough that a police officer observe and recognize symptoms of impaired driving. The officer must be able to articulate what was observed so that a judge or jury will have a clear mental image of exactly what took place.

Improving the ability to recognize and clearly describe observational evidence requires practice.

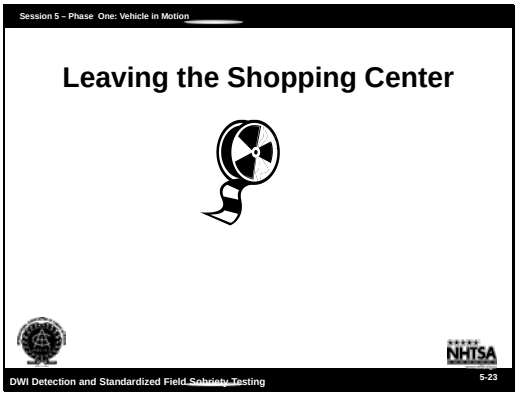
It isn't practical to have impaired drivers actually drive through the classroom.

The next best thing is to use video to portray typical DWI detection contacts.

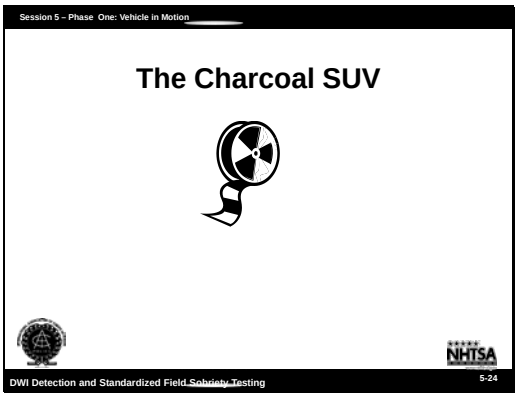


Notes:_____

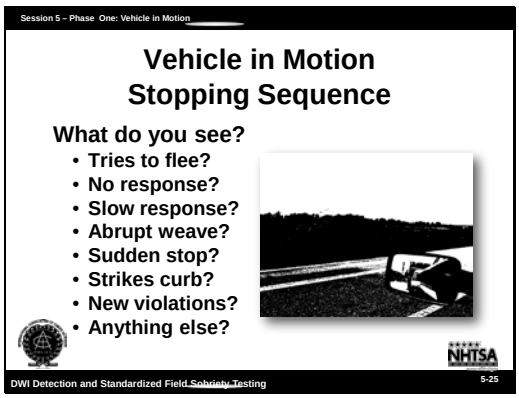
Procedures for Practicing Cue Recognition and Description


Session 5 – Phase One: Vehicle in Motion
Leaving the Shopping Center
NHTSA
DWI Detection and Standardized Field Sobriety Testing
5-23

Notes:_____


Session 5 – Phase One: Vehicle in Motion
The Charcoal SUV
NHTSA
DWI Detection and Standardized Field Sobriety Testing
5-24

Notes:_____



Notes:_____

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E. Typical Reinforcing Cues of the Stopping Sequence

After the command to stop is given, the alcohol impaired driver may exhibit additional important evidence of DWI.

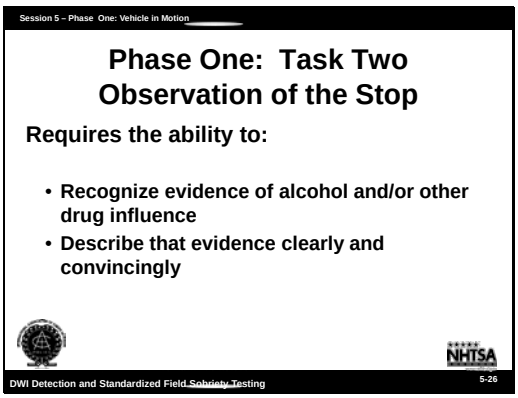
Some of these cues are exhibited because the stop command places additional demands on the driver's ability to divide attention.

The signal to stop creates a new situation, to which the driver must devote some attention, i.e., emergency flashing lights, siren, etc., demand and divert the subject's attention.

Signal to stop requires the driver to turn the steering wheel, operate the brake pedal, activate the signal light, etc.

As soon as officer gives the stop command, the subject's driving task becomes more complex.

If subject is under the influence, the subject may not be able to handle this more complex driving very well.



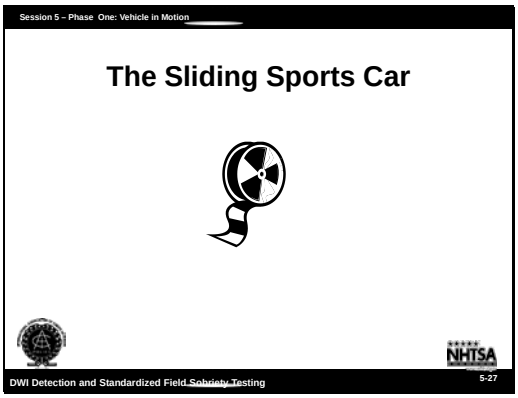
Notes:_____

Phase One: Task Two Observation of the Stop

It is the officer's responsibility to capture and convey the additional evidence of impairment that may be exhibited during the stopping sequence.

- Requires ability to recognize evidence of alcohol and/or other drug influence.
- Requires ability to describe that evidence clearly and convincingly.
- **<u>Recognition and Description of Initial and Reinforcing Cues</u>**

Procedures for practicing cue recognition and description.



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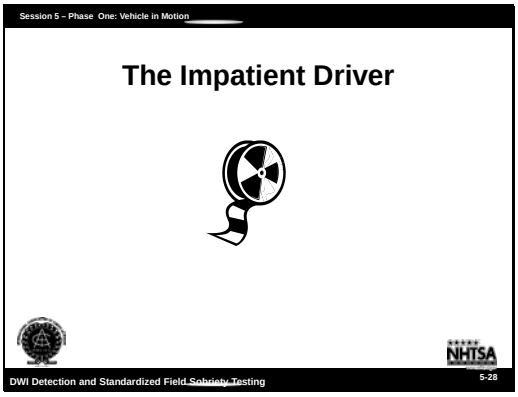

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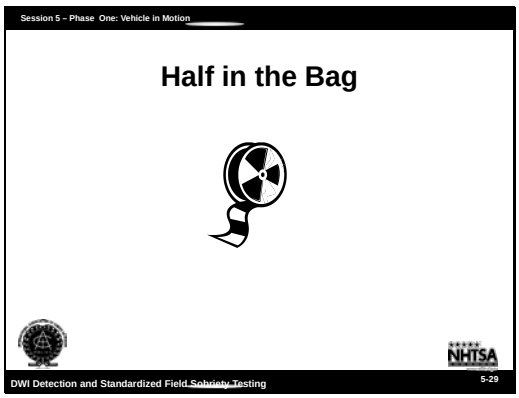

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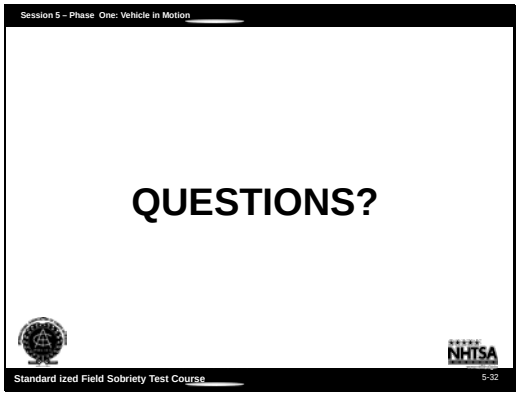


Notes:_____

Test your Knowledge

INSTRUCTIONS: Complete the following sentences.

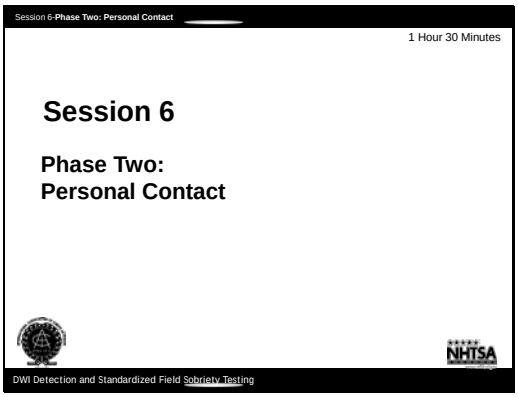
1. The Phase One tasks are_____
2. Two common symptoms of impairment are:

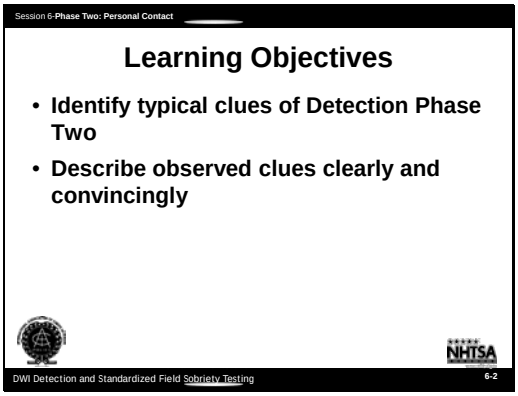
   _____

   _____
3. Alcohol impairs the ability to_____ among tasks.
4. Three cues reinforcing the suspicion of DWI which may be observed during the stopping sequence are:

   _____

   _____

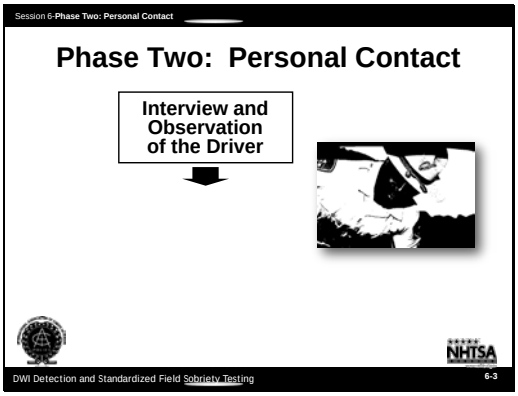




Upon successfully completing this session the participant will be able to:

- Identify typical clues of Detection Phase Two.
- Describe the observed clues clearly and convincingly.

CONTENT SEGMENTS	LEARNING ACTIVITIES
A. Overview: Tasks and Decision	Instructor Led Presentations
B. Typical Investigation Clues of the Driver Interview	Video Presentation
C. Recognition and Description of Investigation Clues	Instructor Led Demonstrations
D. Interview/Questioning Techniques	Participant Presentations
E. Recognition and Description of Clues Associated with the Exit Sequence	

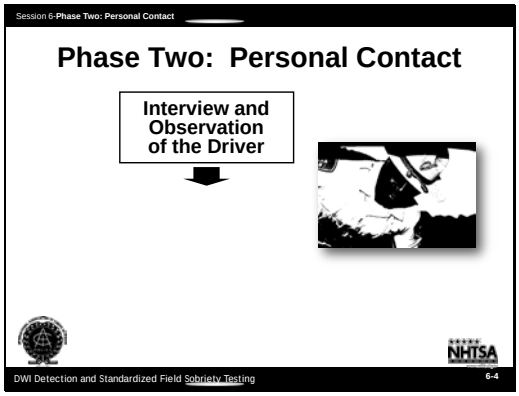


Notes:_____

A. Overview Tasks and Decisions

DWI Detection Phase Two: Personal Contact, like Phases One and Three, comprise two major evidence gathering tasks and one major decision. Your first task is to approach, observe, and interview the driver while they are still in the vehicle to Note any face to face evidence of impairment. During this face to face contact you may administer some simple pre-exit sobriety tests to gain additional information to evaluate whether or not the driver is impaired. After this evaluation, you must decide whether to request the driver to exit the vehicle for further field sobriety testing. In some jurisdictions, departmental policy may dictate that all drivers stopped on suspicion of DWI be instructed to exit. It is important to Note that by instructing the driver to exit the vehicle, you are not committed to an arrest; this is simply another step in the DWI detection process. Once you have requested the driver to exit the vehicle, your second task is to observe the manner in which the driver exits and to Note any additional evidence of impairment.

You may initiate Phase Two without Phase One. This may occur, for example, at a checkpoint, or when you have responded to the scene of a crash.



Notes:_____

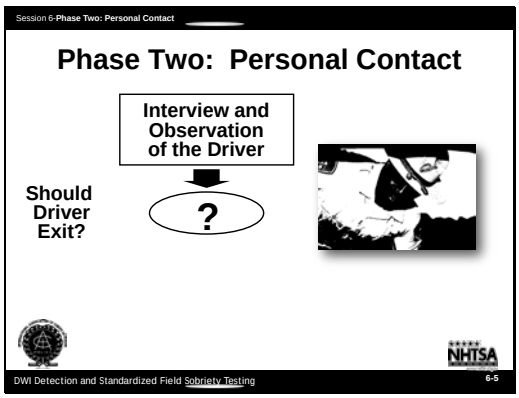
Task One

The first task of Phase Two, interview and observation of the driver, begins as soon as the driver vehicle and the patrol vehicle have come to complete stops. It continues through your approach to the driver vehicle and involves all conversation between you and the driver prior to the driver's exit from the vehicle.

You may have developed a strong suspicion that the driver is impaired prior to the face to face observation and interview. You may have developed this suspicion by observing something unusual while the vehicle was in motion, or during the stopping sequence. You may have developed no suspicion of DWI prior to the face to face contact. The vehicle operation and the stop may have been normal; you may have seen no actions suggesting DWI.

For example, you may have stopped the vehicle for an equipment/registration violation, or where no unusual driving was evident. In some cases, Phase One will have been absent. For example, you may first encounter the driver and vehicle after a crash or when responding to a request for motorist assistance.

Regardless of the evidence that may have come to light during Detection Phase One, your initial face to face contact with the driver usually provides the first definite indications that the driver is impaired.



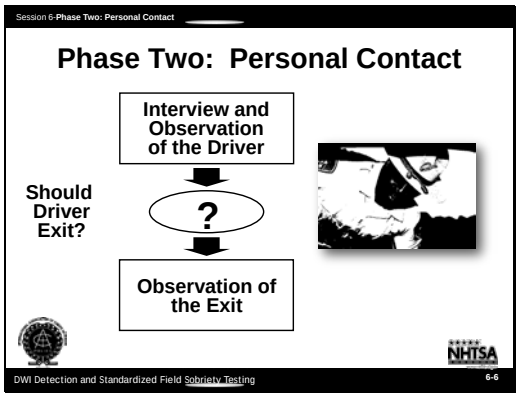
Notes:_____

Decision

Based upon your face to face interview and observation of the driver, and upon your previous observations of the vehicle in motion and the stopping sequence, you must decide whether there is sufficient reason to instruct the driver to step from the vehicle.

For some law enforcement officers, this decision is automatic since their agency's policy dictates that the driver always be told to exit the vehicle, regardless of the cause for the stop. Other agencies; however, treat this as a discretionary decision to be based on what the officer sees, hears, and smells during observation and interview with the driver while the driver is seated in the vehicle.

If you decide to instruct the driver to exit, closely observe the driver's actions during the exit from the vehicle and Note any evidence of impairment.

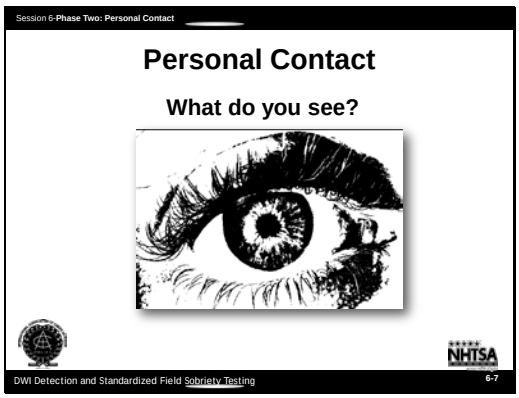


Notes:_____

B. Typical Investigation Clues of the Driver Interview

Face to face observation and interview of the driver allows you to use three senses to gather evidence of alcohol and/or other drug influence:

- The sense of sight
- The sense of hearing
- The sense of smell



Notes:_____

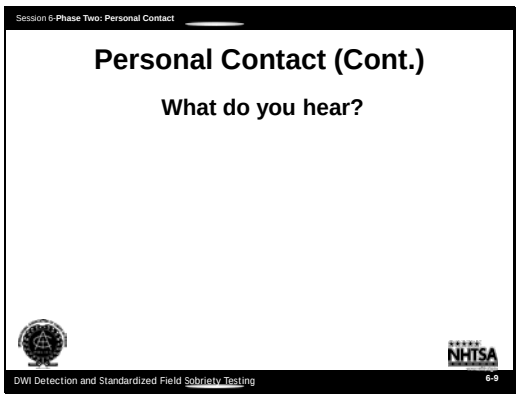
Sight

There are a number of things you might see during the interview that would be describable clues or evidence of alcohol and/or other drug influence. Among them are:

Notes:_____

What do you see?

- Bloodshot eyes?
- Soiled clothing?
- Fumbling fingers?
- Alcohol containers?
- Drugs or drug paraphernalia?
- Bruises, bumps or scratches?
- Unusual actions?



Notes:_____

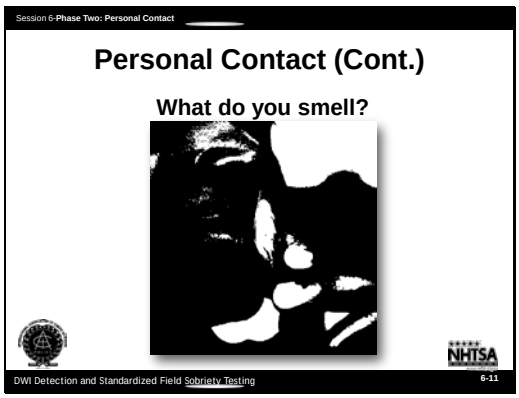
Hearing

Among the things you might hear during the interview that would be describable clues or evidence of alcohol and/or other drug influence are these:

Notes:_____

What do you hear?

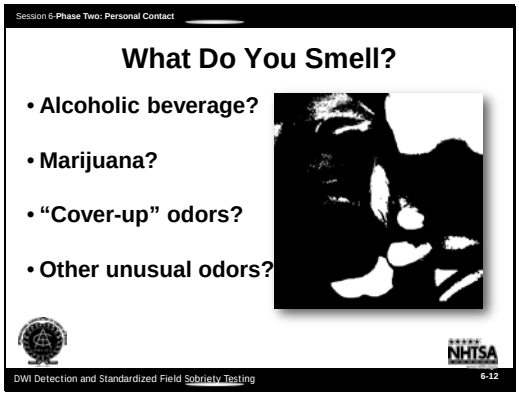
- Slurred speech?
- Admission of drinking?
- Inconsistent responses?
- Unusual statements?
- Abusive language?
- Anything else?



Notes:_____

Smell

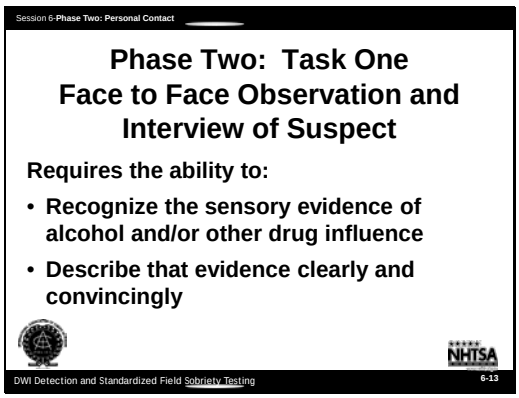
There are things you might smell during the interview that would be describable clues or evidence of alcohol and/or other drug influence. Typically these include:



Notes:_____

What do you smell?

- Alcoholic beverages?
- Marijuana?
- Cover up odors?
- Other unusual odors?



Notes:_____

Proper face to face observation and interview of the driver demands two distinct but related abilities:

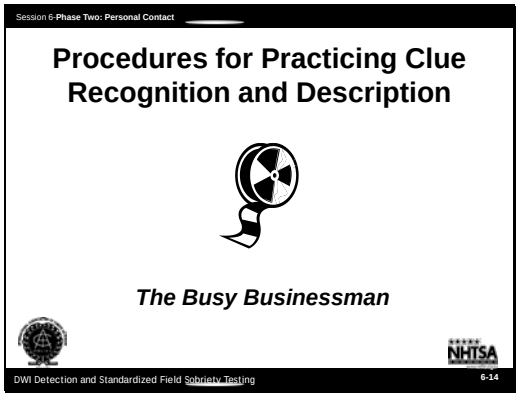
- The ability to recognize the sensory evidence of alcohol and/or other drug influence
- The ability to describe that evidence clearly and convincingly

Developing these abilities requires practice.

C. Recognition and Description of Investigation Clues

A basic purpose of the face to face observation and interview of the driver is to identify and gather evidence of alcohol and/or other drug influence. This is the purpose of each task in each phase of DWI detection.

During the face to face observation and interview stage, it is not necessary to gather sufficient evidence to arrest the driver immediately for DWI.

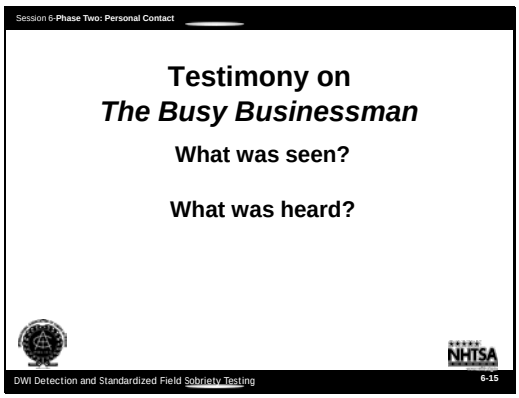


Notes:_____

Procedures for Practicing Clue Recognition and Description

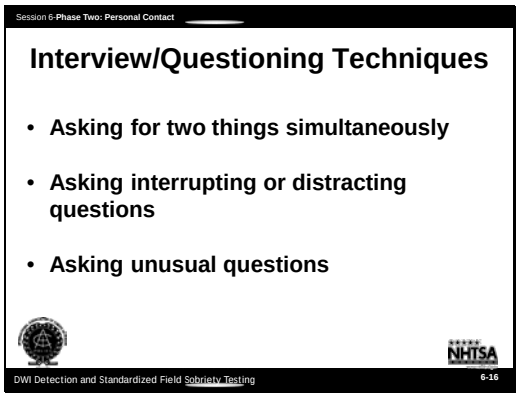
You will have to base your description of the driver's possible impairment strictly on what you see and hear during the face to face contact.

Both senses provide some critically important evidence, not only in this video segment, but in all face to face contacts.



Notes:_____

Testimony on Video Segment "The Busy Businessman"



Notes:_____

D. Interview/Questioning Techniques

There are a number of techniques you can use to assess impairment while the driver is still behind the wheel. Most of these techniques apply the concept of divided attention. They require the driver to concentrate on two or more things at the same time. They include both questioning techniques and psychophysical (mind/body) tasks.

These techniques are not as reliable as the Standardized Field Sobriety Tests but they can still be useful for obtaining evidence of impairment. **THESE TECHNIQUES DO NOT REPLACE THE SFSTs.**

Questioning Techniques

The questions you ask and the way in which you ask them can constitute simple divided attention tasks. Three techniques are particularly pertinent:

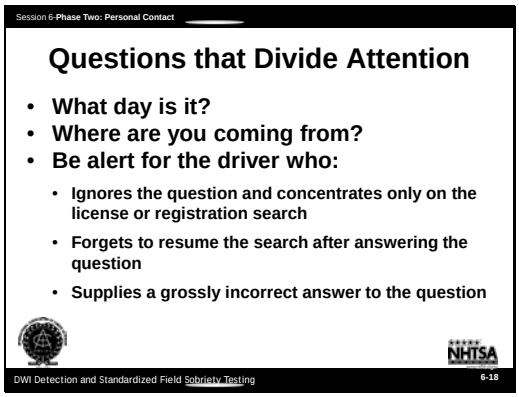
- Asking for two things simultaneously
- Asking interrupting or distracting questions
- Asking unusual questions.

An example of the first technique, asking for two things simultaneously, is requesting the driver to produce both the driver's license and the vehicle registration. Possible evidence of impairment may be observed as the driver responds to this dual request.

Notes:_____

Be alert for the driver who:

- Forgets to produce both documents
- Produces documents other than the ones requested
- Fails to see the license, registration or both while searching for them
- Fumbles or drops wallet, purse, license or registration
- Is unable to retrieve documents using fingertips

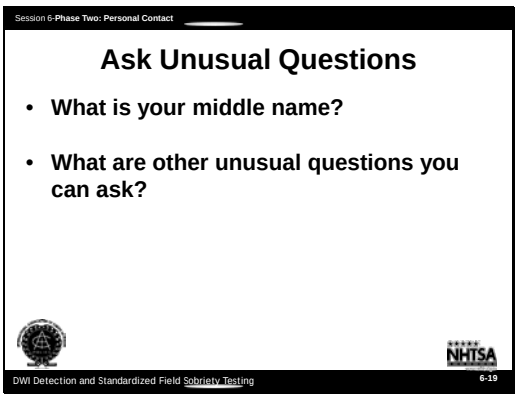


Notes:_____

The second technique would be to ask questions that require the driver to divide attention between searching for the license or registration and answering a new question. While the driver is responding to the request for license, registration or both, you ask unrelated questions; "What day is it?" or "Where are you coming from?"

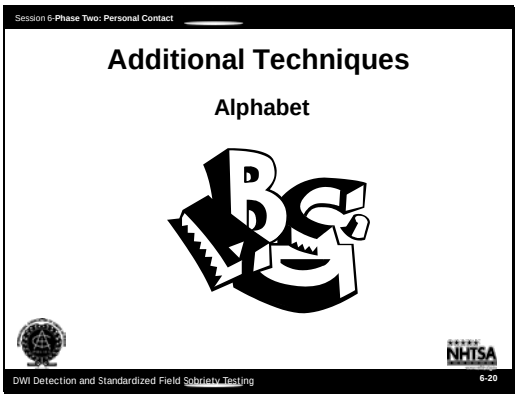
Possible evidence of impairment may be disclosed by the actions of the driver after this question has been posed. Be alert for the driver who:

- Ignores the question and concentrates only on the license or registration search
- Forgets to resume the search after answering the question
- Supplies a grossly incorrect answer to the question



Notes:_____

The third technique, asking unusual questions, is employed after you have obtained the driver's license and registration. Using this technique, you seek verifying information through unusual questions. For example, while holding the driver's license, you might ask the driver, "What is your middle name?"
There are many such questions which the driver normally would be able to answer easily, but which might prove difficult if the driver is impaired, simply because they are unusual questions. Unusual questions require the driver to process information; this can be especially difficult when the driver does not expect to have to process information. For example, a driver may respond to the question about the middle name by giving a first name. In this case the driver ignored the unusual question and responded instead to a usual -- but unasked -- question.

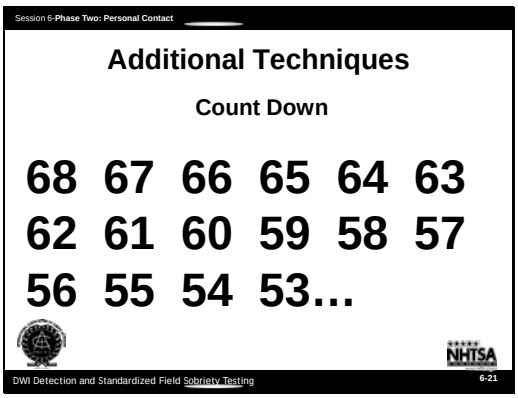


Notes:_____

Additional Techniques

Alphabet

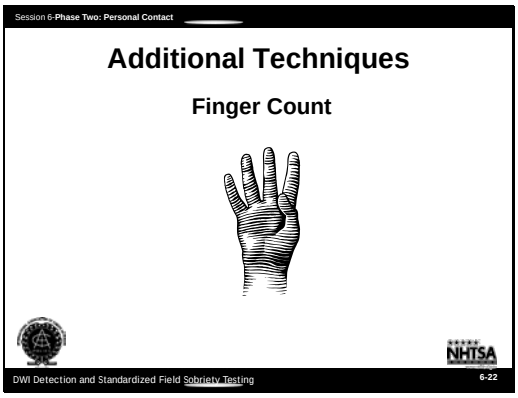
This technique requires the driver to recite a part of the alphabet. You instruct the driver to recite the alphabet beginning with a letter other than A and stopping at a letter other than Z. For example, you might say to a driver, "Recite the alphabet, beginning with the letter E as in Edward and stopping with the letter P as in Paul." This divides the driver's attention because the driver must concentrate to begin at an unusual starting point and recall where to stop.



Notes:_____

Count Down

This technique requires the driver to count out loud 15 or more numbers in reverse sequence. For example, you might request a driver to, "Count out loud backwards, starting with the number 68 and ending with the number 53." This, too, divides attention because the driver must continuously concentrate to count backwards while trying to recall where to stop.

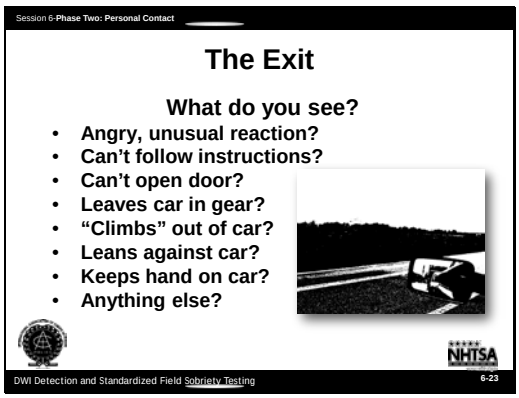


Notes:_____

Finger Count

In this technique, the driver is asked to touch the tip of the thumb to the tip of each finger on the same hand while simultaneously counting up one, two, three, four; then to reverse direction on the fingers while simultaneously counting down four, three, two, one.

In each instance, Note whether and how well the driver is able to perform the divided attention task.



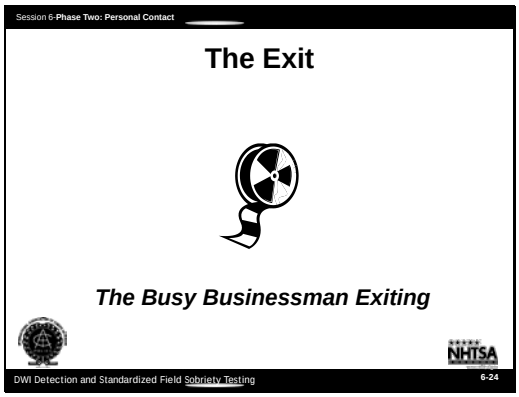
Notes:_____

E. Recognition and Description of Clues Associated With the Exit Sequence

Your decision to instruct the driver to step from the vehicle usually is made after you have developed a suspicion that the driver is impaired. Even if that suspicion may be very strong, the driver is usually not under arrest when you give the instruction.

How the driver steps and walks from the vehicle and actions or behavior during the exit sequence may provide important evidence of impairment. Be alert to the driver who:

Proper face to face observation and interview of a driver requires the ability to recognize the sensory evidence of alcohol and/or other drug influence and the ability to describe that evidence clearly and convincingly. Developing these abilities takes practice.



Notes:_____

Notes:_____

Test your Knowledge

INSTRUCTIONS: Complete the following sentences.

1. The two major evidence gathering tasks of Phase Two are:
   1) _____

   2) _____

2. The major decision of Phase Two is _____

3. Among the describable clues an officer might see during the Phase Two interview are these three:
   a._____

   b._____

   c._____

4. Among the describable clues an officer might hear during the interview are these three:
   a._____

   b._____

   c._____

5. Among the describable clues an officer might smell during the interview are these two:
   a._____

   b._____

6. Three techniques an officer might use in asking questions constitute simple divided attention tasks. These techniques are:

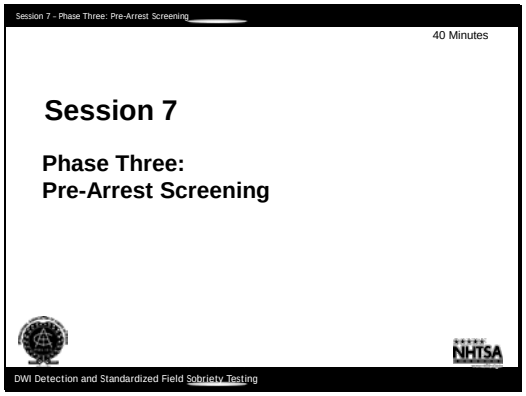
   a._____

   b._____

   c._____

7. The Countdown Technique requires the driver to _____

8. Leaning against the vehicle is a clue to DWI which may be observed during _____



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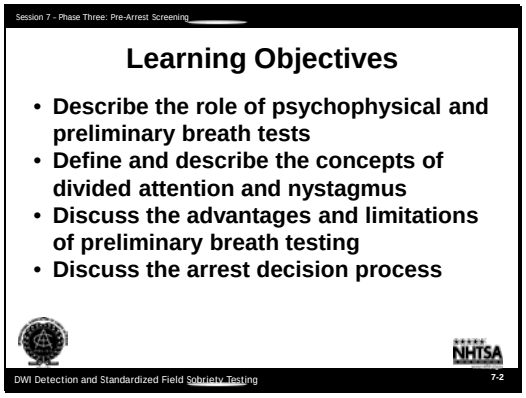


Notes:_____

At the conclusion of this session, participants will be able to:

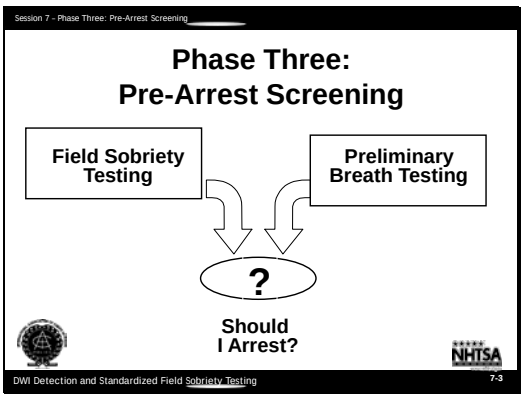
- Describe the role of psychophysical and preliminary breath tests;
- Define and describe the concepts of divided attention and nystagmus;
- Discuss the advantages and limitations of preliminary breath testing; and
- Discuss the arrest decision process.

CONTENT SEGMENTS

A. Overview: Tasks and Decision
   Gaze Nystagmus - Definition
B. Horizontal Gaze Nystagmus – Definition, Concepts, Demonstration
C. Vertical Gaze Nystagmus – Definition, Concepts, Demonstration
D. Divided Attention Tests: Concepts, Examples, Demonstration
E. Advantages and Limitations of Preliminary
F. Breath Testing
G. The Arrest Decision

LEARNING ACTIVITIES

Instructor Led Presentation
Instructor Led Demonstrations
Video Presentation



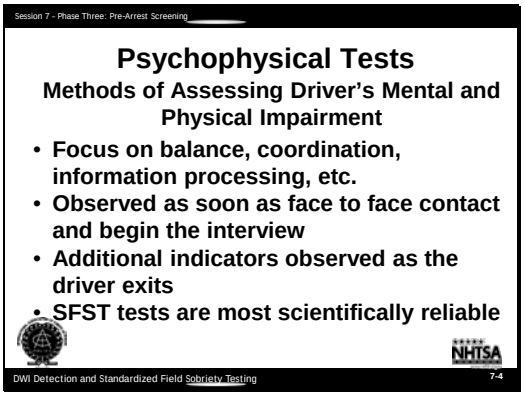
Notes:_____

A. Overview: Tasks and Decision

Like Phases One and Two, DWI Detection Phase Three, Pre-arrest Screening has two major evidence gathering tasks and one major decision.

Phase Three: Pre-Arrest Screening

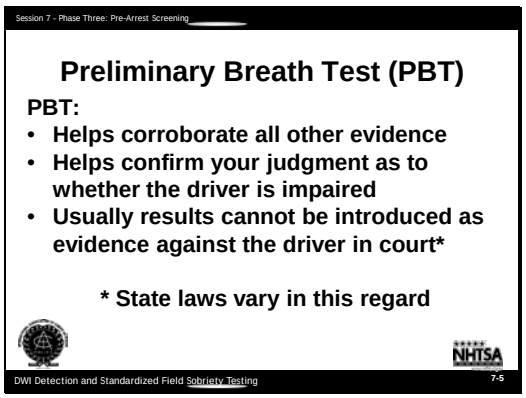
Your first task in Phase Three is to administer three scientifically validated Standardized Field Sobriety Tests. If your agency uses preliminary breath tests (PBTs), your second task would be to administer (or arrange for) a PBT to confirm the chemical basis of the subject's impairment. Based on these tests and on all other evidence from Phase One and Two, you must decide whether there is sufficient probable cause to arrest the subject for DWI. The entire detection process culminates in the arrest/no arrest decision.



Notes:_____

Psychophysical tests are methods of assessing a subject's mental and physical impairment. These tests focus on the abilities needed for safe driving: balance, coordination, information processing and so on.

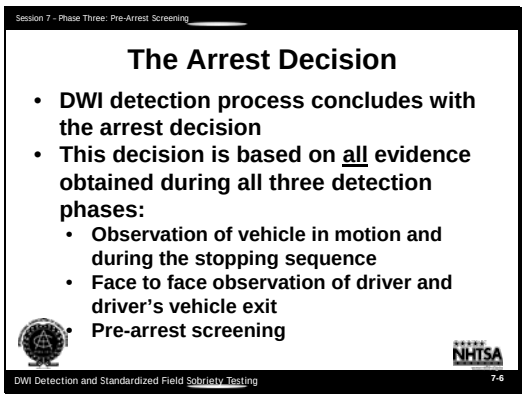
Indicators of psychophysical impairment may be observed as soon as you come into face to face contact with the subject and begin the interview. Additional indicators of impairment can be observed as the subject exits the vehicle to begin the field sobriety tests. The Standardized Field Sobriety Tests are the most scientifically reliable.



Notes:_____

Preliminary Breath Test

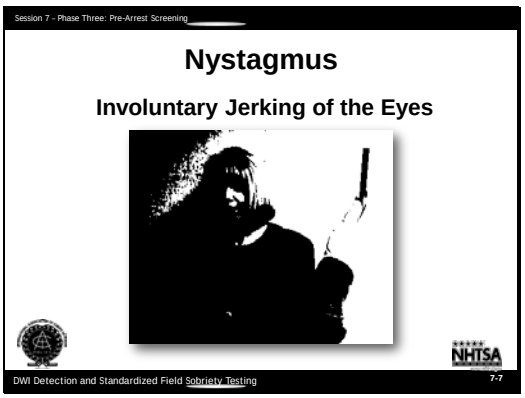
The preliminary breath test (PBT) can help to corroborate all other evidence and to confirm your judgment as to whether the subject is impaired. Usually PBT results cannot be introduced as evidence against the subject in court; however, state laws vary in this regard.



Notes:_____

The Arrest Decision

The DWI detection process concludes with the arrest decision. This decision is based on all of the evidence you have obtained during all three detection phases: on observation of the vehicle in motion and during the stopping sequence; on face to face observation of the subject and the subject's exit from the vehicle; and, pre-arrest screening.



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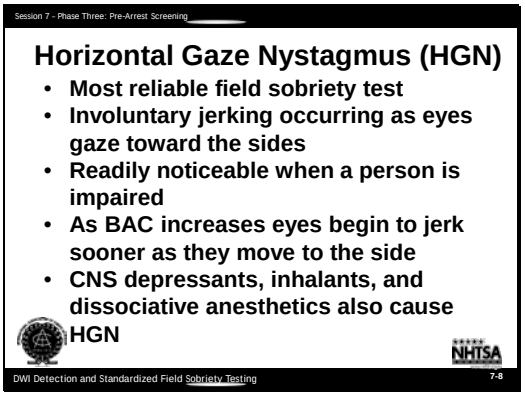
B. Gaze Nystagmus – Definition

"Nystagmus" means an involuntary jerking of the eyes.

Alcohol and certain other drugs cause Horizontal Gaze Nystagmus.



Notes:_____

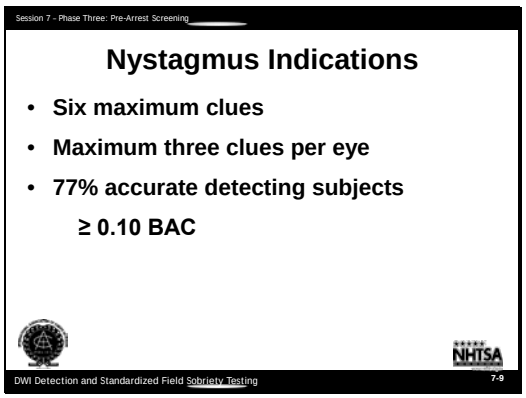
C. Horizontal Gaze Nystagmus – Definition, Concepts, Demonstration

Horizontal Gaze Nystagmus (HGN) is the most reliable field sobriety test. Especially when used in combination with the divided attention tests, it will help law enforcement officers correctly identify subjects who are impaired.

Involuntary jerking of the eyes becomes readily noticeable when a person is impaired. As a person's blood alcohol concentration increases, the eyes will begin to jerk sooner as they move to the side.

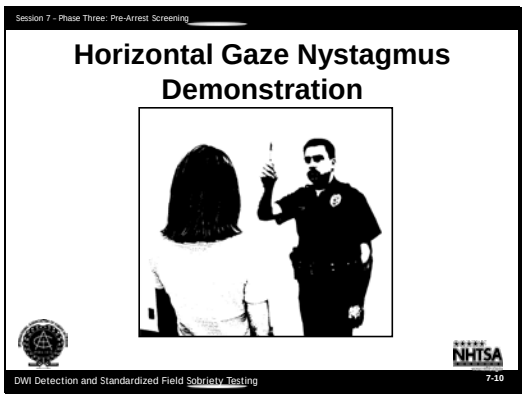
Horizontal Gaze Nystagmus refers to an involuntary jerking occurring as the eyes gaze toward the side. In addition to being involuntary the person experiencing the nystagmus is usually unaware that the jerking is happening.

In administering the HGN test, the officer has the subject follow the motion of a small stimulus with the eyes only. The stimulus may be the tip of a pen or penlight, or an eraser on a pencil, whichever contrasts with the background.



Notes:_____

- When the HGN test is administered always begin with subject's left eye. Each eye is examined for three specific clues.
- As the eye moves from side to side, does it move smoothly or does it jerk noticeably? (As people become impaired by alcohol, their eyes exhibit a lack of smooth pursuit as they move from side to side.)
- When the eye moves as far to the side as possible and is kept at that position for four seconds, does it jerk distinctly? (Distinct and sustained nystagmus at maximum deviation is another clue of impairment.)
- As the eye moves toward the side, does it start to jerk prior to a 45 degree angle? (Onset of nystagmus prior to 45 degrees is another clue of impairment.)
- As a person's blood alcohol concentration increases it is more likely these clues will appear.
- The maximum total number of clues is six. The maximum number of clues that may appear in one eye is three.
- The original research was conducted by the Southern California Research Institute (SCRI) and used to develop the initial curriculum showing this test was 77% accurate at detecting subjects at or above a 0.10 BAC.



Notes:_____

To test for Horizontal Gaze Nystagmus, the subject is instructed to stand with feet together, hands at sides, hold the head still, and follow the motion of a stimulus with the eyes only.

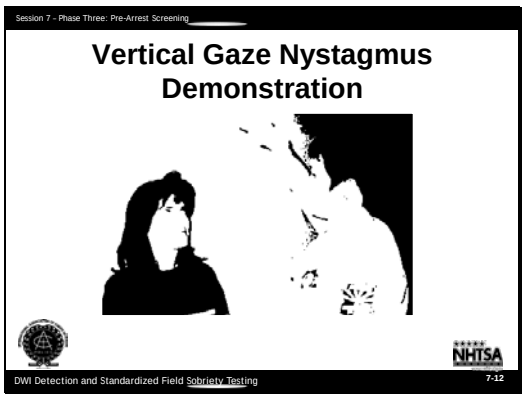
The object may be the tip of a pen or penlight or the eraser on a pencil, which contrasts with the background.

Each eye is checked, beginning with the subject's left. A subject's height might restrict ability to clearly see nystagmus. Subject may be placed in sitting position to accommodate a better view.

Two or more "passes" are made before each eye, to look for each of the clues of nystagmus.

Subject height may restrict ability to see nystagumus in those cases, a sitting position may work.

Notes:_____

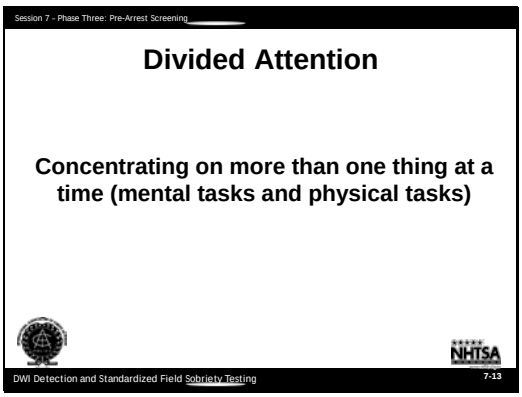


Notes:_____

D. Vertical Gaze Nystagmus – Definition, Concepts, Demonstration

Vertical Gaze Nystagmus is an involuntary jerking of the eyes occurring as the eyes are held at maximum elevation.

For VGN to be recorded, it must be distinct and sustained for a minimum of four seconds at maximum elevation.



Notes:_____

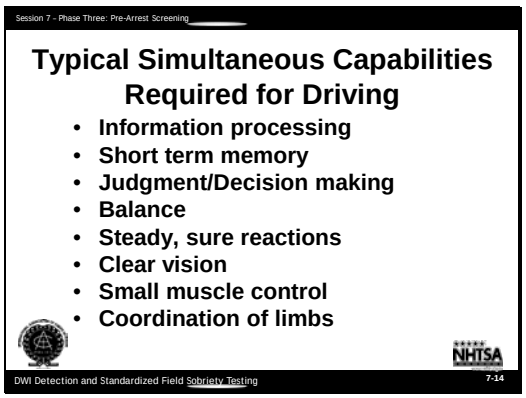
E. Divided Attention Tests: Concepts, Examples, Demonstration

Many of the most reliable and useful psychophysical tests employ the concept of divided attention: they require the subject to concentrate on more than one thing at a time (mental tasks and physical tasks). Driving is a complex divided attention task. In order to operate a vehicle safely, subjects must simultaneously control steering, acceleration and braking; react appropriately to a constantly changing environment; and perform many other tasks.

Alcohol and many other drugs reduce a person's ability to divide attention. Impaired subjects often ignore the less critical tasks of driving in order to focus their impaired attention on the more critical tasks. For example, a subject may ignore a traffic signal and focus instead on speed control.

Even when impaired, many people can handle a single, focused attention task fairly well. For example, a subject may be able to keep the vehicle well within the proper traffic lane as long as the road remains fairly straight. However, most people, when impaired, cannot satisfactorily divide their attention to handle multiple tasks at the same time.

The concept of divided attention has been applied to psychophysical testing. Field sobriety tests that simulate the divided attention characteristics of driving have been developed and are being used by law enforcement agencies nationwide. The best of these tests exercise the same mental and physical capabilities that a person needs to drive safely.

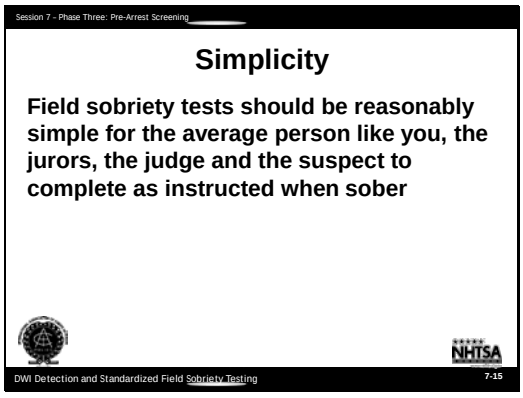


Notes:_____

Typical simultaneous capabilities required for driving:

- Information processing
- Short term memory
- Judgment and decision making
- Balance
- Steady, sure reactions
- Clear vision
- Small muscle control
- Coordination of limbs

Any test that requires a person to demonstrate two or more of these capabilities simultaneously is potentially a good psychophysical test.



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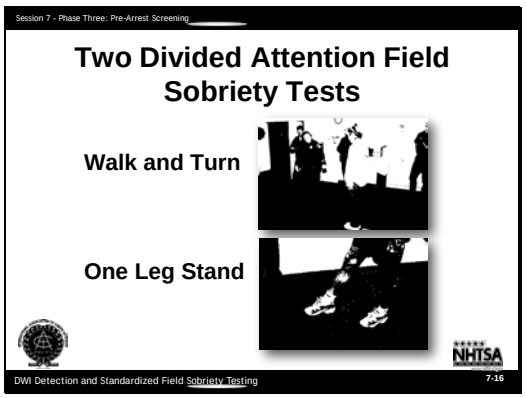
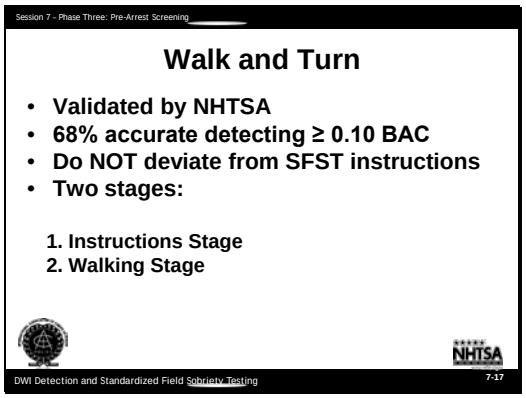
Simplicity is the key to divided attention field sobriety testing. It is not enough to select a test that just divides the subject's attention. The test also must be one that is reasonably simple for the average person to complete as instructed when sober. Tests that are difficult for a sober subject to perform have little or no evidentiary value.



Notes:_____

Two divided attention field sobriety tests that have proven accurate and effective in DWI detection are the Walk and Turn and the One Leg Stand.



Notes:_____

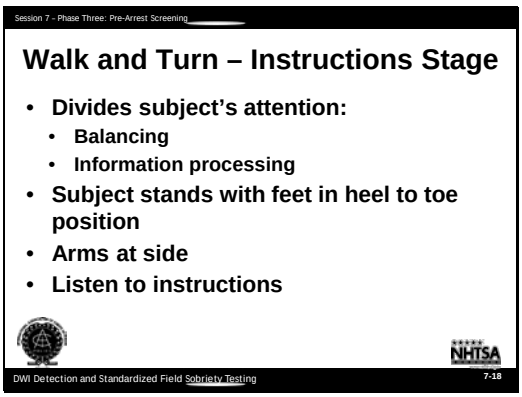
Walk and Turn

Walk and Turn is a test that has been validated through extensive research sponsored by the National Highway Traffic Safety Administration.

The original research was conducted by the SCRI and used to develop the initial curriculum showing this test was 68% accurate at detecting subjects at or above a 0.10 BAC.

Walk and Turn is a divided attention test consisting of two stages:

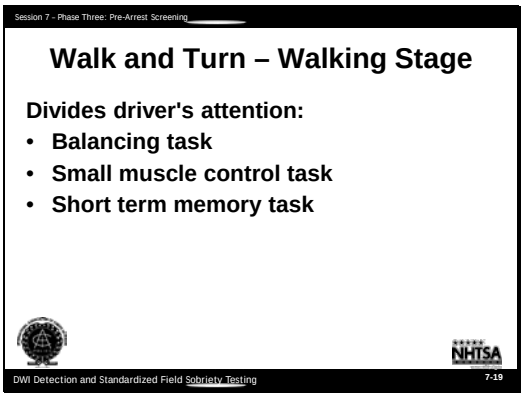
- Instructions stage
- Walking stage



Notes:_____

The Instructions Stage divides the subject's attention between a balancing task (standing while maintaining the heel to toe position) and an information processing task (listening to and remembering instructions).

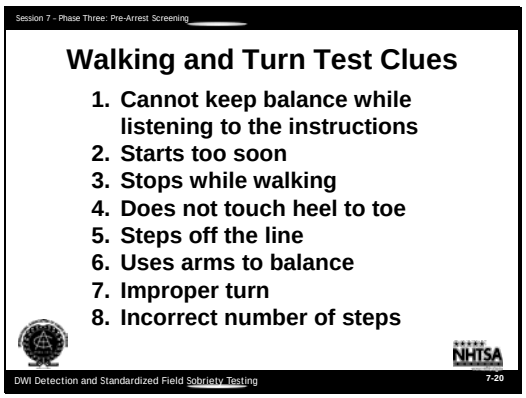
In the Instructions Stage, the subject must stand with their feet in a heel to toe position, keep their arms at their sides, and listen to the instructions.



Notes:_____

In the Walking Stage the subject takes nine heel to toe steps, turns in a prescribed manner, takes nine heel to toe steps back, counts the steps out loud, and watches their feet. During the turn, the subject keeps their front foot on the line, turns in a prescribed manner, and uses the other foot to take several small steps to complete the turn. The Walking Stage divides the subject's attention among a balancing task (walking heel to toe and turning); a small muscle control task (counting out loud); and a short term memory task (recalling the number of steps and the turning instructions).

The walking stage divides the subject's attention between a task of listening, comprehending and carrying out the instruction.

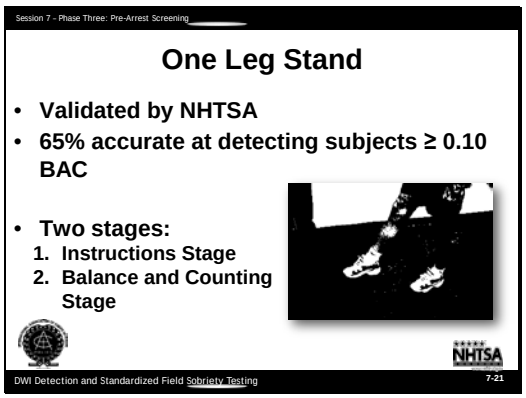


Notes:_____

The Walk and Turn test is administered and interpreted in a standardized manner, i.e., the same way every time. Officers administering the Walk and Turn test observe the subject's performance for eight clues:

- Cannot keep balance while listening to the instructions
- Starts too soon
- Stops while walking
- Does not touch heel to toe
- Steps off the line
- Uses arms to balance
- Improper turn
- Incorrect number of steps

Inability to complete the Walk and Turn test may occur when the subject is in danger of falling or otherwise cannot complete the test.



Notes:_____

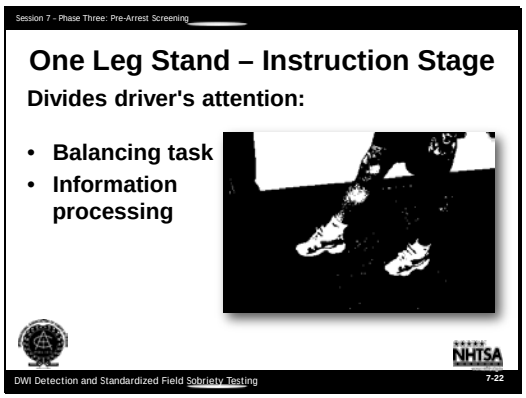
One Leg Stand

The One Leg Stand has also been validated through NHTSA sponsored research.

The original research was conducted by the SCRI and used to develop the initial curriculum showing this test was 65% accurate at detecting subjects at or above a 0.10 BAC.

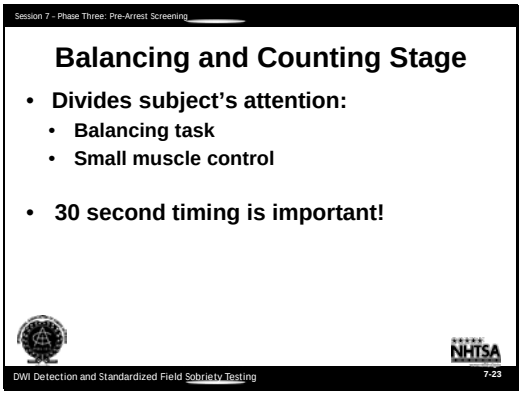
It is a divided attention test consisting of two stages:

- Instructions stage
- Balance and counting stage



Notes:_____

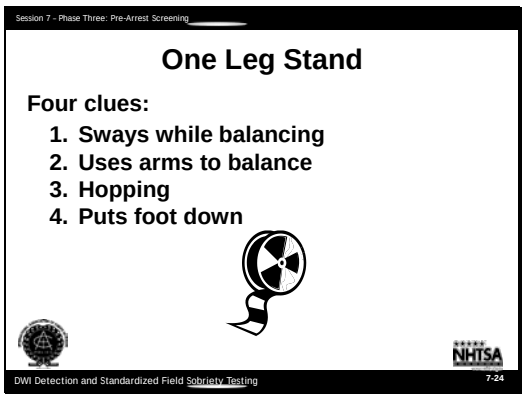
In the Instruction Stage, the subject must stand with their feet together, keep their arms at their sides, and listen to instructions.



Notes:_____

In the Balance and Counting Stage, the subject must raise one foot, either foot, with the raised foot approximately six inches off the ground, with both legs straight and the raised foot parallel to the ground. While looking at the elevated foot, count out loud in the following manner: "one thousand one", "one thousand two", "one thousand three" until told to stop. This divides the subject's attention between balancing (standing on one foot) and small muscle control (counting out loud).

The timing for a thirty second period by the officer is an important part of the One Leg Stand test. The original research conducted by SCRI in 1977 showed that many impaired subjects are able to stand on one leg for up to 25 seconds, but that few can do so for 30 seconds.

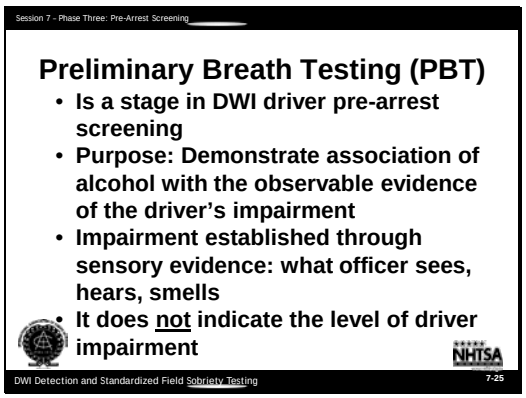


Notes:_____

One Leg Stand is also administered and interpreted in a standardized manner. Officers carefully observe the subject's performance and look for four specific clues:

- Sways while balancing
- Uses arms to balance
- Hopping
- Puts foot down

Inability to complete the One Leg Stand test occurs when the subject is in danger of falling or otherwise cannot complete the test.



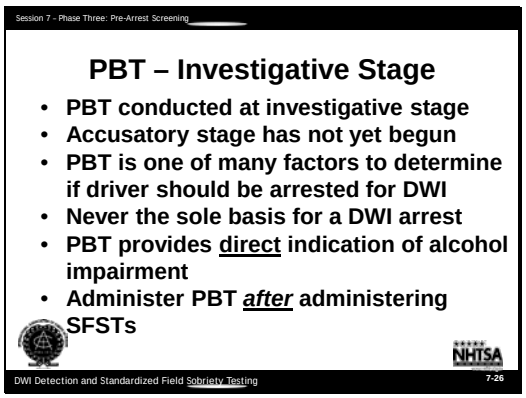
Notes:_____

F. Advantages and Limitations of Preliminary Breath Testing

Preliminary breath testing, like psychophysical testing, is a stage in the pre-arrest screening of a DWI subject. Usually the subject is not yet under arrest when requested to submit to the preliminary breath test.

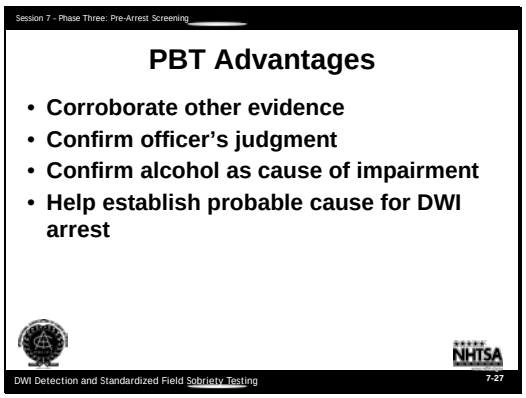
The basic purpose of preliminary breath testing (PBT) is to demonstrate the association of alcohol with the observable evidence of the subject's impairment. The subject's impairment is established through sensory evidence: what the officer sees, hears and smells.

The PBT provides the evidence that alcohol is the chemical basis of that impairment by yielding an on the spot indication of the subject's blood alcohol concentration (BAC). The PBT provides direct indication of the BAC level. **It does not indicate the level of the subject's impairment.** Impairment varies widely among individuals with the same BAC level.



Notes:_____

The DWI incident remains at the investigative stage; the accusatory stage has not yet begun. The PBT result is only one of many factors the officer considers in determining whether the subject should be arrested for DWI. Whenever possible, it should never be the sole basis for a DWI arrest. The PBT result is an important factor because it provides direct indication of alcohol impairment. All other evidence, from initial observation of the vehicle in operation through psychophysical testing, indicates alcohol impairment.

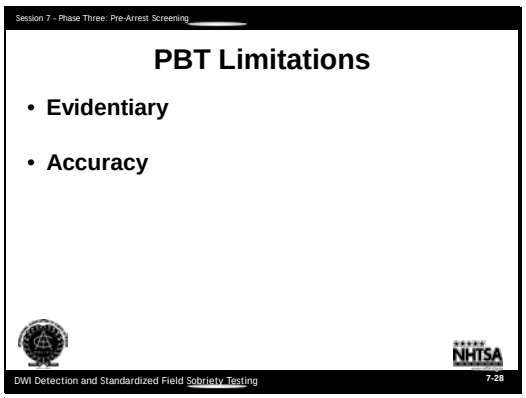


Notes:_____

PBT Advantages

A PBT offers several important advantages for DWI detection. It may:

- Corroborate other evidence by demonstrating that the suspicion of alcohol impairment is consistent with the officer's observations of the subject's mental and physical impairment.
- Confirm the officer's own judgment and help gain confidence in evaluating alcohol impairment accurately, based on observations and psychophysical tests. (Many officers experienced in DWI enforcement find that they rely less and less on the PBT as their confidence in their own powers of detection increases).
- Disclose the possibility of medical complications or impairment due to drugs other than alcohol. (The PBT can confirm or deny that alcohol is the cause of the observed impairment. For example, observed psychophysical impairment coupled with a PBT result showing a very low BAC indicates an immediate need to investigate the possibility that the subject has ingested a drug other than alcohol or suffers from a medical problem).
- Help to establish probable cause for a DWI arrest. (The role of the PBT in establishing probable cause may be affected by the evidentiary value of PBT results in your state. Consult your specific PBT law, your supervisor, or the local prosecutor for clarification, if necessary).

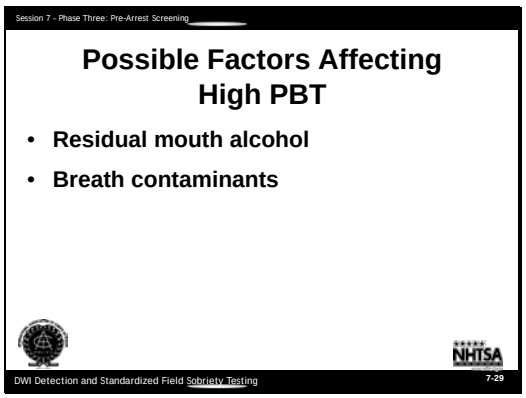


Notes:_____

PBT Limitations

Preliminary breath testing may have both evidentiary limitations and accuracy limitations. Evidentiary limitations vary with specific laws. In some states PBT results are admissible as evidence; in other states they are not admissible. Where the results are admissible, there may be differences in the weight or value they are given. Consult your state PBT law, your supervisor or your local prosecutor, as necessary, for clarification.

Although all PBT instruments currently used by law enforcement are reasonably accurate, they are subject to the possibility of some error, especially if they are not used in the proper fashion.



Notes:_____

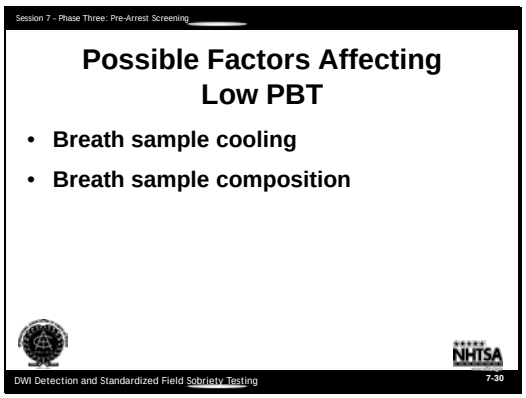
There are two common factors that tend to produce high results on a PBT.

Residual mouth alcohol. After a person takes a drink, some of the alcohol will remain in the mouth. If the person exhales soon after drinking, the breath sample will pick up some of this left over mouth alcohol. In this case, the breath sample will contain an additional amount of alcohol and the test result will be higher than the true BAC.

It takes approximately 15 minutes for the residual alcohol to be eliminated from the mouth.

The only sure way to eliminate this factor is to make sure the subject does not consume any alcohol for at least 15 to 20 minutes before conducting a breath test. Remember, too, most mouthwashes, breath sprays, cough syrups, etc., contain alcohol and may produce residual mouth alcohol. Therefore, do not permit the subject to put anything in their mouth for at least 15 to 20 minutes prior to testing.

Breath Contaminants. Some types of preliminary breath tests might react to certain substances other than alcohol. For example, substances such as ether, chloroform, acetone, acetaldehyde and cigarette smoke may produce a positive reaction on certain devices. If so, the test would be contaminated and its result would be higher than the true BAC. Normal characteristics of breath samples, such as halitosis (bad breath), food odors, etc., do not affect accuracy.



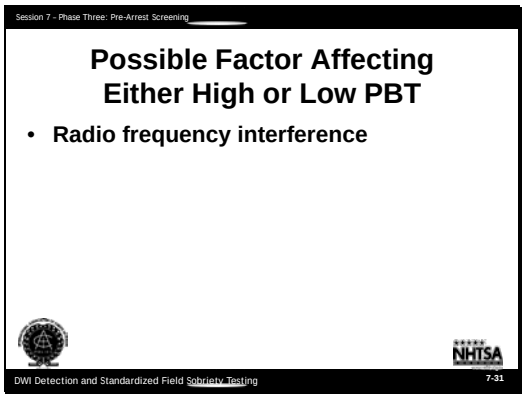
Notes:_____

PBT instruments have accuracy limitations. Although all PBT instruments currently used by law enforcement are reasonably accurate, they are subject to the possibility of error, especially if they are not used properly. There are factors that can affect the accuracy of preliminary breath testing devices. Some of these factors tend to produce "high" test results; others tend to produce "low" results.

There are two common factors that tend to produce low PBT results.

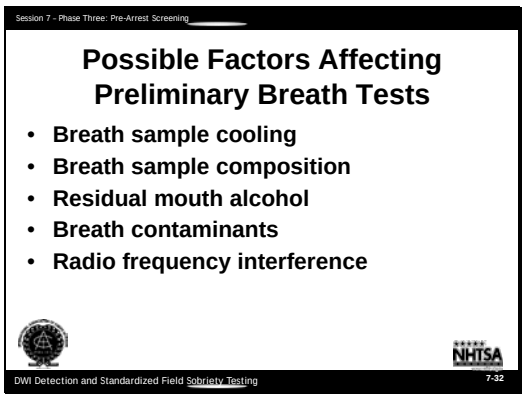
Breath sample cooling. If the captured breath sample is allowed to cool before it is analyzed, some of the alcohol vapor in the breath may turn to liquid and precipitate out of the sample. If that happens, the subsequent analysis of the breath sample will produce a low BAC result.

Breath sample composition. Breath composition means the mixture of the tidal breath and alveolar breath. Tidal breath is breath from the upper part of the lungs and the mouth. Alveolar breath is deep lung breath. Breath testing should be conducted on a sample of alveolar breath, obtained by having the subject blow into the PBT instrument until all air is expelled from the lungs.



Notes:_____

Radio frequency interference (RFI) can produce either high or low test results, or can prevent a breath test device from producing any result. Care should be exercised when utilizing a PBT around radio equipment.



Notes:_____

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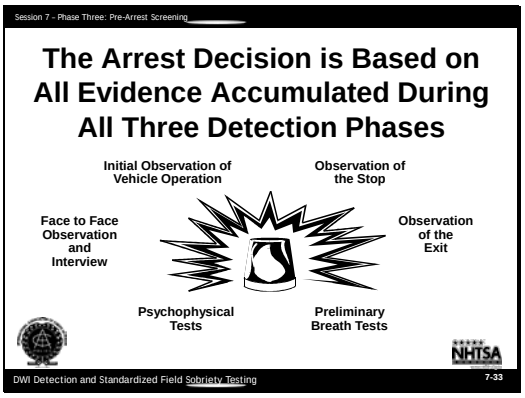


Notes:_____

G. The Arrest Decision

Your arrest/no arrest decision is the culmination of the DWI detection process. That decision is based on all of the evidence that has come to light since your attention was first drawn to the vehicle or individual.

PHASE ONE:

- Initial observation of vehicle in motion
- Observation of the stop.

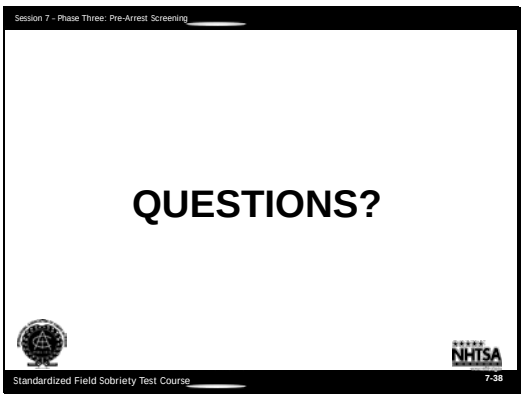
PHASE TWO:

- Face to face observation and interview
- Observation of the exit.

PHASE THREE:

- SFSTs
- Preliminary breath tests.

Your decision involves a careful review of each of the observations you have made. Conduct a "mental summary" of the evidence collected during vehicle in motion, personal contact and pre-arrest screening. If all of the evidence, taken together, establishes probable cause to believe that a DWI offense has been committed, you should arrest the subject.



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Test Your Knowledge

INSTRUCTIONS: Complete the following sentences.

1. The two major evidence gathering tasks of Phase Three are:

   _____

   _____

2. The major decision in Phase Three is _____

3. The entire DWI detection process culminates in _____

4. Divided attention tests require the driver to _____

5. Among the mental and physical capabilities a person needs to drive safely are these four:

   a. _____

   b. _____

   c. _____

   d. _____

6. The two stages of the Walk and Turn are:

   a. _____

   b. _____

7. The two stages of the One Leg Stand are:

a. _____

b. _____

8. The purpose of PBT is _____

Test Your Knowledge (Cont.)

9. Two factors that produce high results on a PBT are:

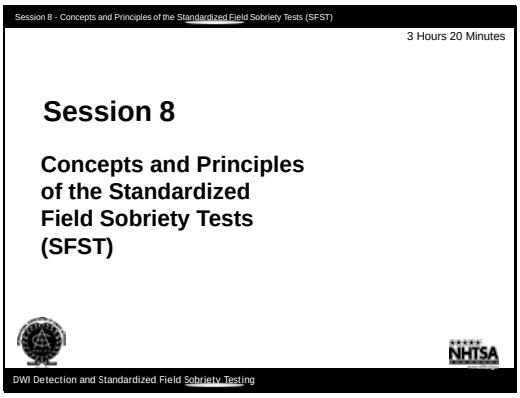
   a. _____

   b. _____

10. Two factors that produce low results on a PBT are:

    a. _____

    b. _____



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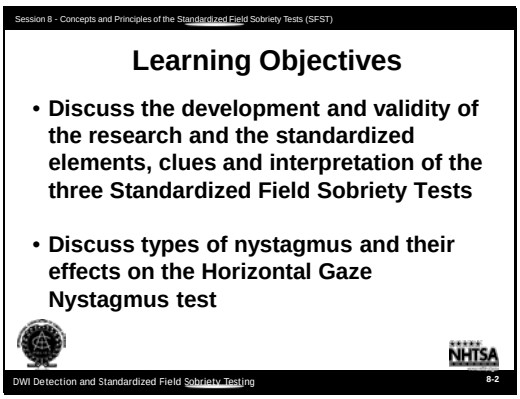
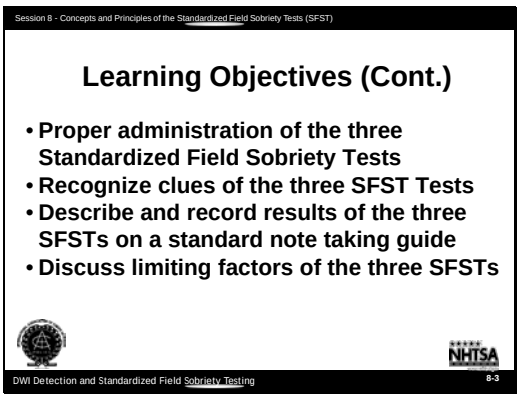


Notes:_____

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

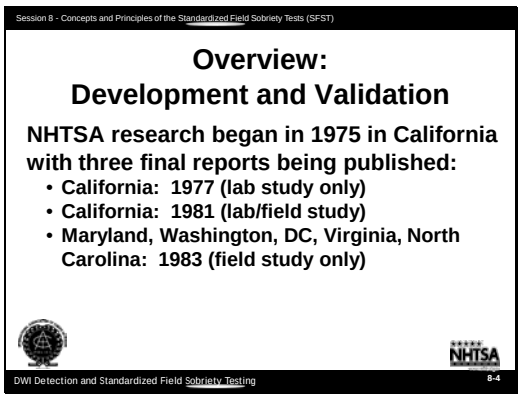
- Discuss the development and validity of the research and the standardized elements, clues and interpretation of the three Standardized Field Sobriety Tests.
- Discuss the different types of nystagmus and their effects on the Horizontal Gaze Nystagmus test.



Notes:_____

- Discuss and properly administer the three Standardized Field Sobriety Tests.
- Discuss and properly recognize the clues of the three Standardized Field Sobriety Tests.
- Describe in a clear and convincing manner and properly record the results of the three Standardized Field Sobriety Tests on a standard note taking guide.
- Discuss the limiting factors of the three Standardized Field Sobriety Tests.

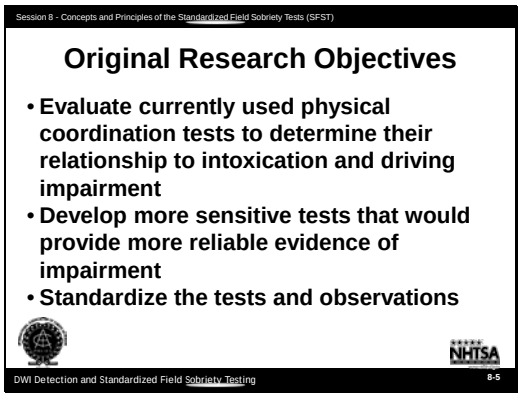
CONTENT SEGMENTS	LEARNING ACTIVITIES
A. Overview: Development and Validation	Instructor Led Demonstration
B. SFST Field Validation Studies	Participant Practice Session and
C. Horizontal Gaze Nystagmus	Demonstration
D. Vertical Gaze Nystagmus	
E. Walk and Turn	
F. One Leg Stand	
G. Taking Field Notes on the Standardized Field Sobriety Tests	



Notes:_____

A. Overview: Development and Validation

For many years law enforcement officers have utilized field sobriety tests to determine a driver's impairment due to alcohol influence. The performance of the driver on those field sobriety tests was used by the officer to develop probable cause for arrest and as evidence in court. A wide variety of field sobriety tests existed and there was a need to develop a battery of standardized valid tests.



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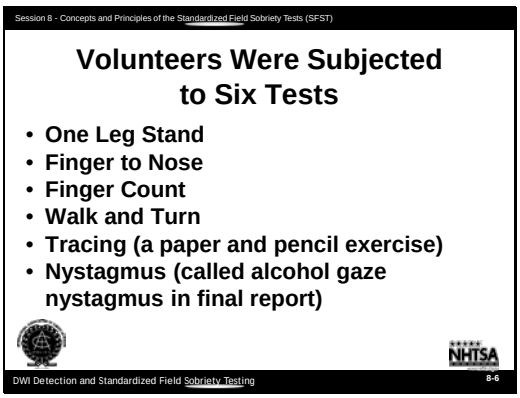
The original research objectives were to:

- Evaluate currently used physical coordination tests to determine their relationship to intoxication and driving impairment
- Develop more sensitive tests that would provide more reliable evidence of impairment
- Standardize the tests and observations.

Beginning in late 1975, extensive scientific research studies were sponsored by NHTSA through a contract with the Southern California Research Institute (SCRI) to determine which roadside field sobriety tests were most accurate. SCRI published the following three reports:

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



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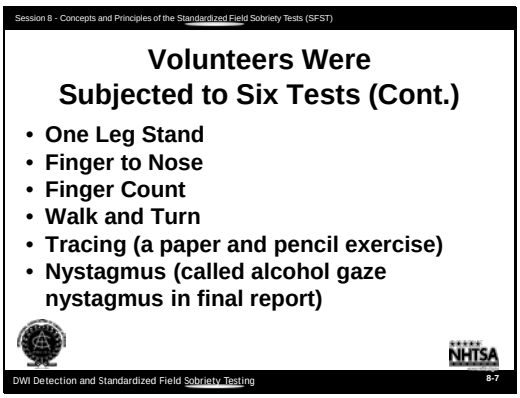
SCRI traveled to law enforcement agencies throughout the United States to select the most commonly used field sobriety tests. Six tests were used in the initial stages of this study.

- One Leg Stand
- Finger to Nose
- Finger Count
- Walk and Turn
- Tracing (a paper and pencil exercise)
- Nystagmus (called alcohol gaze nystagmus in final report).

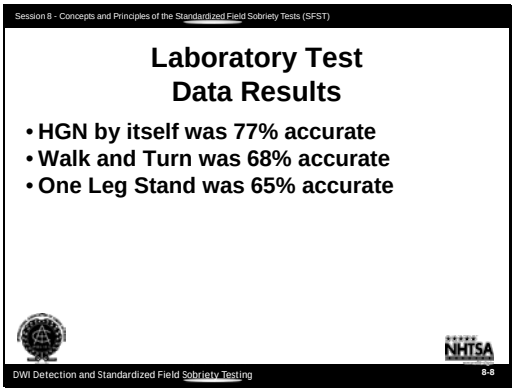


Notes:_____

Laboratory research indicated that three of these tests, when administered in a standardized manner, were a highly accurate and reliable battery of tests for distinguishing BACs at or above 0.10; Horizontal Gaze Nystagmus (HGN), Walk and Turn (WAT), and One Leg Stand (OLS).

The research showed that these three tests were the most accurate and the remaining tests were merely reassessing the same skills.

While many field sobriety tests are valid tests, the Standardized Field Sobriety Tests have been validated through numerous research studies.



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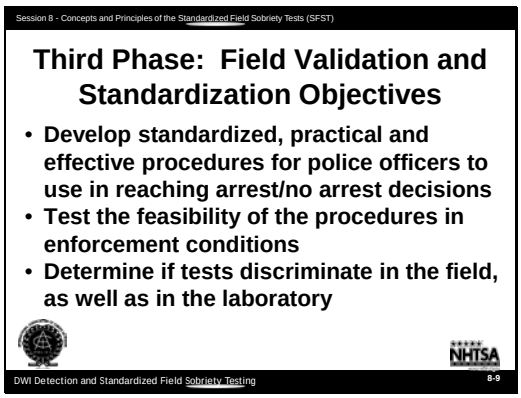
NHTSA analyzed the laboratory test data and found:

- HGN, by itself, was 77% accurate
- WAT, by itself, was 68% accurate
- OLS, by itself, was 65% accurate

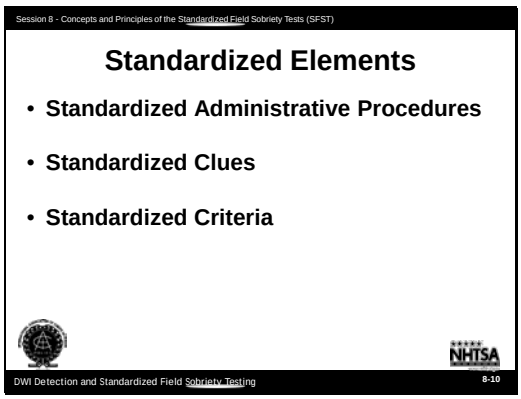


Notes:_____

B. SFST Field Validation Studies

The final phase of this study was conducted as a field validation.

- Standardized, practical and effective procedures were developed
- Determine the feasibility of the procedures for these tests in actual enforcement conditions
- The tests were determined to discriminate in the field, as well as in the laboratory.

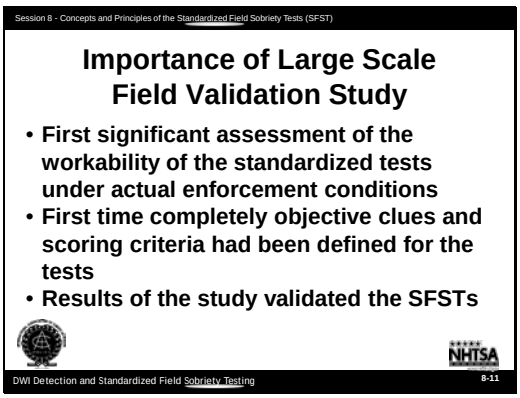


Notes:_____

The three standardized tests were found to be highly reliable in identifying subjects whose BACs were at or above 0.10. The results of the study unmistakably validated the SFSTs.

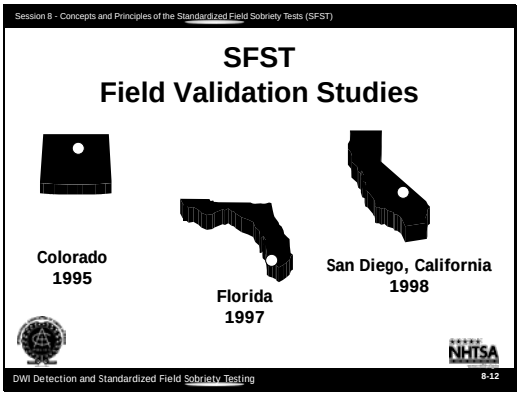
The “Standardized” elements included:

- Standardized Administrative Procedures
- Standardized Clues
- Standardized Criteria



Notes:_____

The large scale field validation study was the first significant assessment of the workability of the standardized tests under actual enforcement conditions. It was also the first time completely objective clues and scoring criteria had been defined for these tests. The results of this study validated the SFSTs.

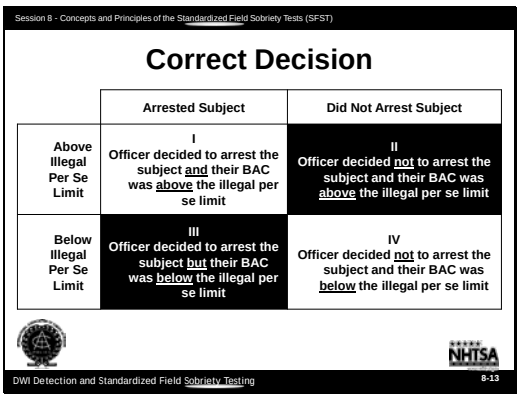


Notes:_____

Three SFST validation studies were undertaken between 1995 and 1998:

- Colorado - 1995
- Florida - 1997
- San Diego – 1998

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 for BAC or the officer decides to release a subject who is below the illegal per se limit for BAC.



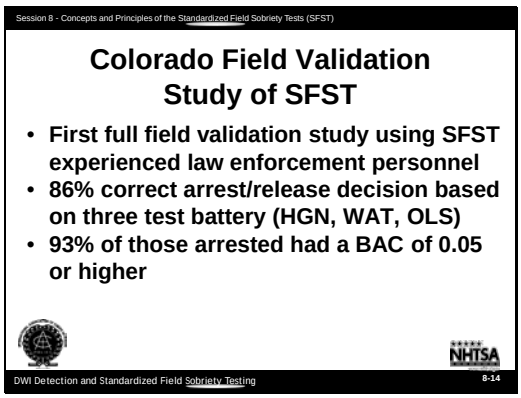
Notes:_____

Figure 1: Matrix of possible arrest decisions illustrates the four different decisions which are present in all the validation studies. There are four quadrants, each representing a different decision. The quadrants (I & IV), shaded in gray, represent a correct arrest decision.

The remaining subjects, incorrect arrest decisions, fall into two other categories. Members of the first group were not arrested, but tested above the illegal per se limit for BAC (quadrant II). The Colorado Study noted that a number (approximately 33%) of these individuals were considered alcohol tolerant and performed well on the SFSTs even though their BACs were above the illegal per se limit. Although these release decisions were recorded as errors based on the procedures outlined in the study, this non arrest decision ultimately benefited the driver.

The subjects in quadrant III 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 either above the illegal per se limit for BAC or have lost the normal use of their mental or physical faculties. Even though the arrests in quadrant III are 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.

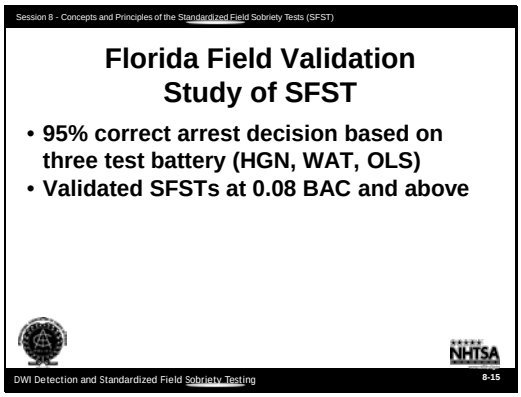
Each of these studies have shown that the SFST three test battery is a scientifically validated and reliable method for distinguishing between impaired and unimpaired drivers.



Notes:_____

"A Colorado Validation Study of Standardized Field Sobriety Test Battery"

- The Colorado SFST validation study was the first full field study that utilized law enforcement personnel experienced in the use of SFSTs.
- The initial 1977 study utilized only a few experienced officers in DWI enforcement in both a laboratory setting and field setting. These officers received approximately four hours of training in field sobriety testing prior to the laboratory study.
- In the Colorado study, correct arrest/release decisions at a 0.05 BAC were 86% accurate based on the three test battery (HGN, WAT, OLS). 93% of arrested drivers had a BAC of 0.05 or higher. These results, by officers who were trained in the Standardized Field Sobriety Testing curriculum, were substantially higher than the initial 1977 study results.



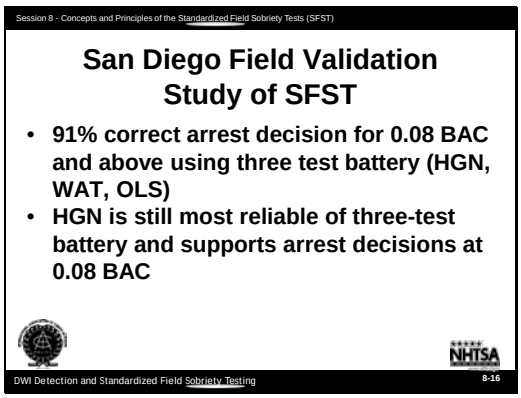
Notes:_____

"Florida Validation Study of the Standardized field Sobriety Test Battery"

- The Florida SFST field validation study was undertaken in order to answer the question of whether SFSTs are valid and reliable indices 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 three test battery (HGN, WAT, OLS).

This was the second SFST field validation study that was undertaken.

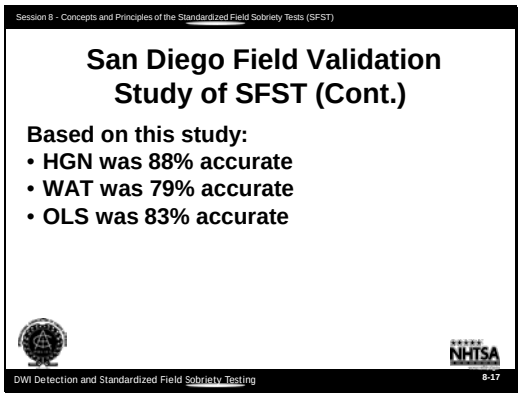
This study was the first study conducted at the lower BAC limit of 0.08.



Notes:_____

"Validation of the Standardized Field Sobriety Test Battery at BACs Below 0.10 %"

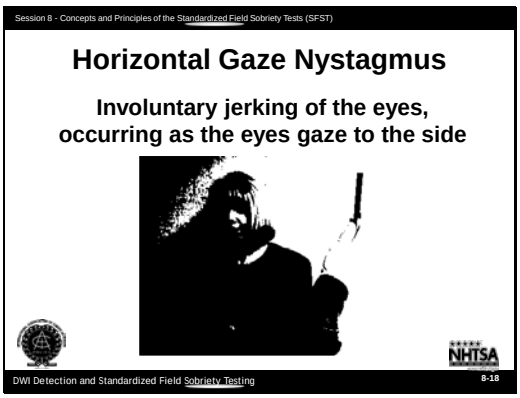
- The San Diego SFST validation field study was undertaken because of the nationwide trend towards lowering the BAC limits to 0.08. The question to be answered was "Do SFSTs discriminate at BACs below 0.10%?"
- The study examined the validity of SFST's for both .08% and .04%.
- Correct arrest decisions were made 91% of the time based on the three-test battery (HGN, WAT, OLS) at the 0.08 level and above.



Notes:_____

- HGN was 88% accurate
- WAT was 79% accurate
- OLS was 83% accurate

The results of this study provide clear evidence of the validity of the three test battery to support arrest decisions at above or below 0.08. It strongly suggests that the SFSTs also identify BACs at 0.04 and above.



Notes:_____

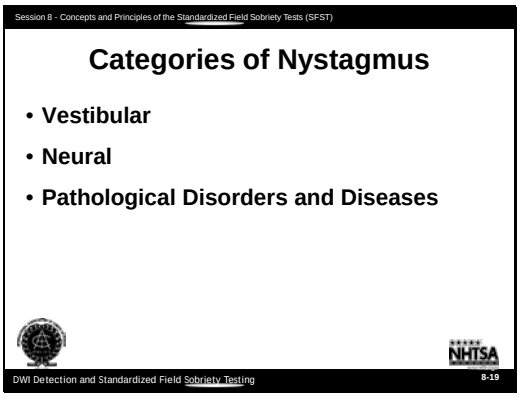
C. Horizontal Gaze Nystagmus

Definition Review: Involuntary jerking of the eyes, occurring as the eyes gaze to the side.

In addition to being involuntary:

- Person is usually unaware that it is happening.
- Person is powerless to stop it or control it.

Key Summary Point: Alcohol and certain other drugs cause Horizontal Gaze Nystagmus.



Notes:_____

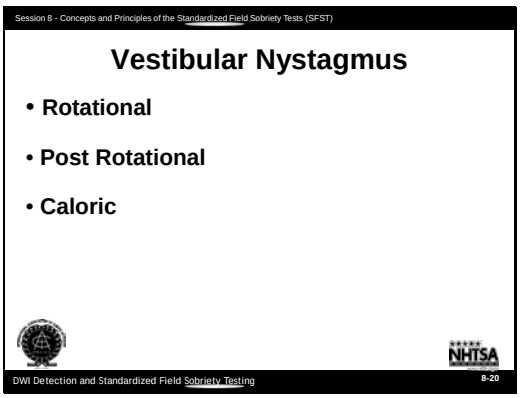
Categories of Nystagmus

Horizontal Gaze Nystagmus is not the only kind of nystagmus. There are other circumstances under which the eyes will jerk involuntarily.

It is important to know some of the other common types of nystagmus, to be aware of their potential impact on our field sobriety tests.

Nystagmus of several different origins may be seen. The three general categories of nystagmus are:

- Vestibular
- Neural
- Pathological Disorders and Diseases



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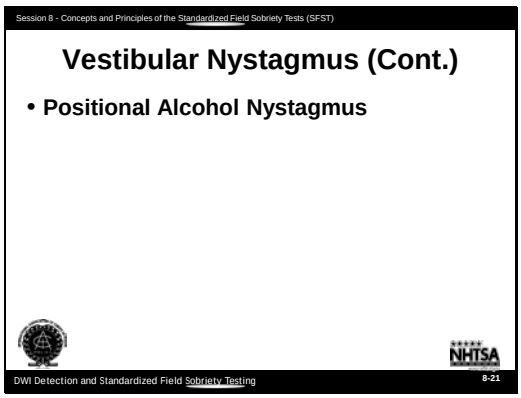
Vestibular Nystagmus is caused by movement or action to the vestibular system.

Types of vestibular nystagmus:

- Rotational Nystagmus occurs when the person is spun around or rotated rapidly, causing the fluid in the inner ear to be disturbed. If it were possible to observe the eyes of a rotating person, they would be seen to jerk noticeably.
- Post Rotational Nystagmus is closely related to rotational nystagmus: when the person stops spinning, the fluid in the inner ear remains disturbed for a period of time, and the eyes continue to jerk.

Neither Rotational nor Post Rotational Nystagmus will interfere with the Horizontal Gaze Nystagmus test because of the conditions under which they occur.

- Caloric Nystagmus occurs when fluid motion in the canals of the vestibular system is stimulated by temperature as by putting warm water in one ear and cold in the other.



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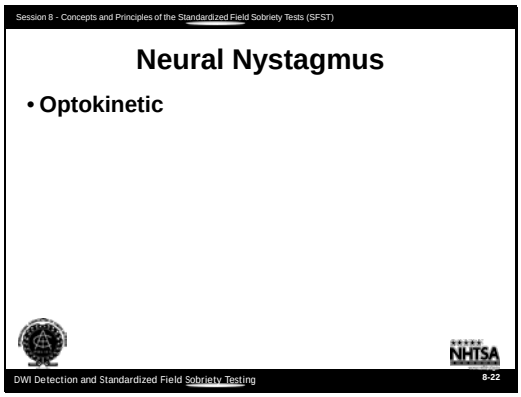
Positional Alcohol Nystagmus (PAN) occurs when a foreign fluid, such as alcohol, that alters the specific gravity of the blood is in unequal concentrations in the blood and the vestibular system. This causes the vestibular system to respond to gravity in certain head positions, resulting in nystagmus.

In the original HGN study, research was not conducted for performing HGN on people lying down. Current research demonstrates that HGN can be performed on someone in this position.



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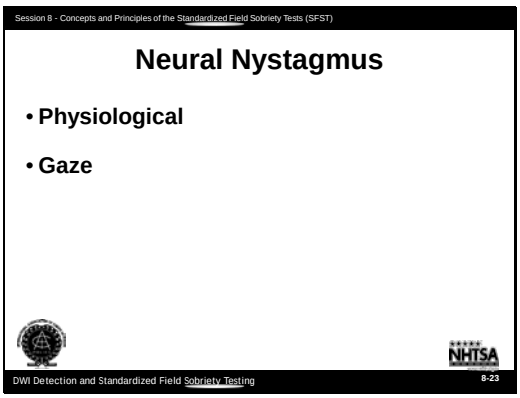
Nystagmus can also result directly from neural activity:

Optokinetic Nystagmus occurs when the eyes fixate on an object that suddenly moves out of sight, or when the eyes watch sharply contrasting moving images.

Examples of optokinetic nystagmus include watching strobe lights, rotating lights, or rapidly moving traffic in close proximity. The Horizontal Gaze Nystagmus test will not be influenced by optokinetic nystagmus when administered properly. During the Horizontal Gaze Nystagmus test, the suspect is required to fixate the eyes on a penlight, pencil or similar object that moves in accordance with the HGN testing procedures, thus optokinetic nystagmus will not occur. The movement of the stimulus and the fixation on the stimulus by the subject precludes this form of nystagmus from being observed by the officer.



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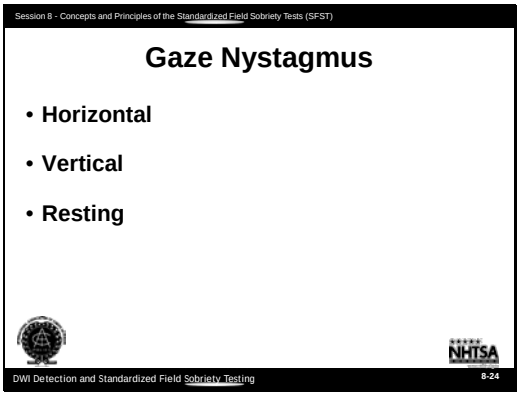
Physiological Nystagmus is a natural nystagmus that keeps the sensory cells of the eye from tiring. It is the most common type of nystagmus. It happens to all of us, all the time. This type of nystagmus produces extremely minor tremors or jerks of the eyes. These tremors are usually too small to be seen with the naked eye. Physiological nystagmus will have no impact on our Standardized Field Sobriety Tests, because it's tremors are usually invisible.

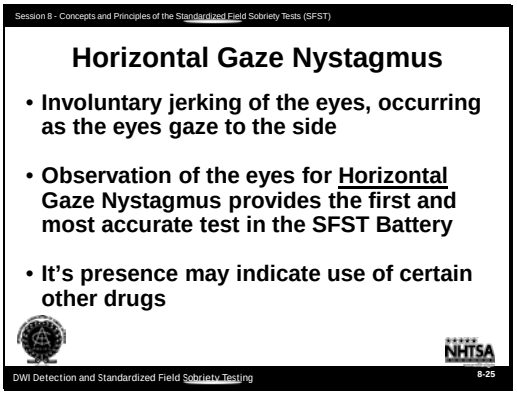
Gaze Nystagmus is a form of nystagmus that occurs when the eyes attempt to maintain visual fixation on a stimulus.



Notes:_____

For our purposes, gaze nystagmus is separated into three types:

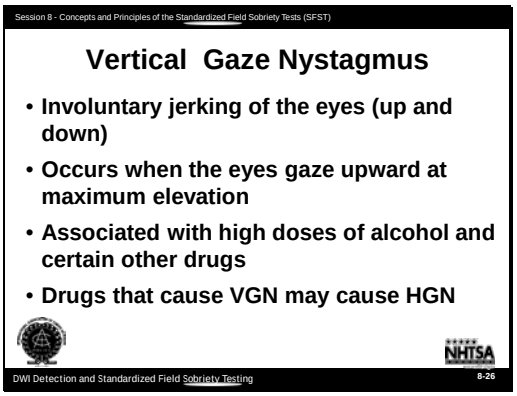
- Horizontal
- Vertical
- Resting



Notes:_____

Horizontal Gaze Nystagmus is an involuntary jerking of the eyes, occurring as the eyes gaze to the side. It is the observation of the eyes for Horizontal Gaze Nystagmus that provides the first and most accurate test in the Standardized Field Sobriety Test battery. Although this type of nystagmus is indicative of alcohol impairment, its presence may also indicate use of certain other drugs.

Examples of other drugs are: CNS Depressants, Inhalants, and Dissociative Anesthetics such as PCP and its analogs.



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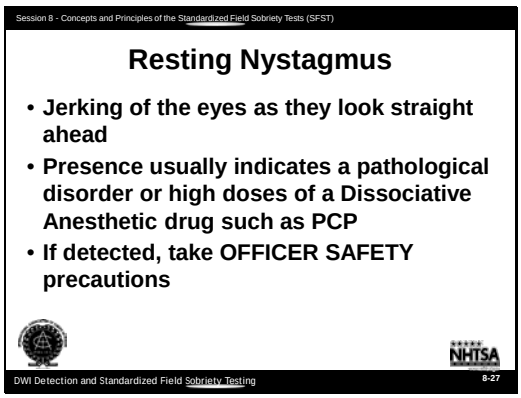
Vertical Gaze Nystagmus is an involuntary jerking of the eyes (up and down) which occurs when the eyes gaze upward at maximum elevation. The presence of this type of nystagmus is associated with high doses of alcohol for that individual and certain other drugs. The drugs that cause Vertical Gaze Nystagmus are the same ones that cause Horizontal Gaze Nystagmus.

There is no drug that will cause Vertical Gaze Nystagmus that may not cause Horizontal Gaze Nystagmus. If Vertical Gaze Nystagmus is present and Horizontal Gaze Nystagmus is not, it could be a medical condition.

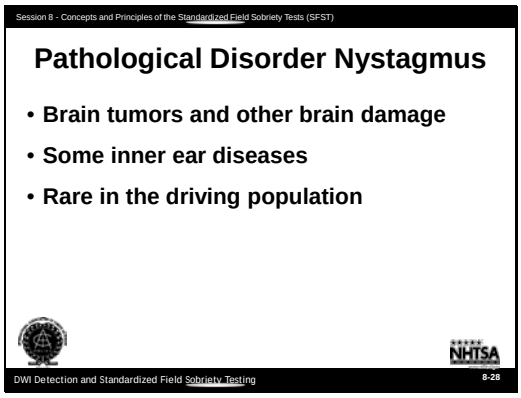
For VGN to be recorded, it must be definite, distinct and sustained for a minimum of four seconds at maximum elevation.



Notes:_____

Resting Nystagmus is referred to as a jerking of the eyes as they look straight ahead. Its presence usually indicates a pathological disorder or high doses of a Dissociative Anesthetic drug such as PCP. If detected, take precautions. (OFFICER SAFETY.)

Nystagmus may also be caused by certain pathological disorders. They include brain tumors and other brain damage or some diseases of the inner ear. These pathological disorders occur in very few people and in even fewer drivers.



Notes:_____

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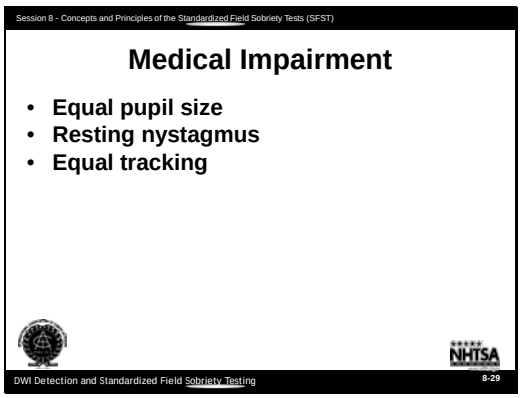


Notes:_____

Medical Impairment

The examinations that you conduct to assess possible medical impairment include:

- Equal pupil size
- Resting nystagmus
- Equal tracking

Pupil size will be affected by some medical conditions or injuries. If the two pupils are distinctly different in size, it is possible that the subject:

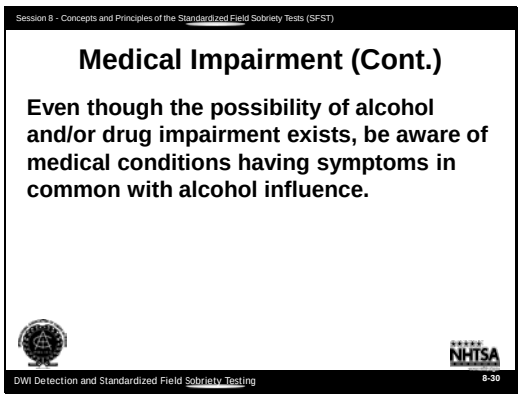
- Has a prosthetic eye
- Is suffering from a head injury
- Has a neurological disorder

Resting nystagmus is referred to as jerking as the eyes look straight ahead. This condition is not frequently seen. Its presence usually indicates a pathology or high doses of a drug such as a Dissociative Anesthetic like PCP.

Resting nystagmus may also be a medical problem.

Tracking ability will be affected by certain medical conditions or injuries involving the brain.

This observation is a medical assessment. If the two eyes do not track together, the possibility of a serious medical condition or injury is present.



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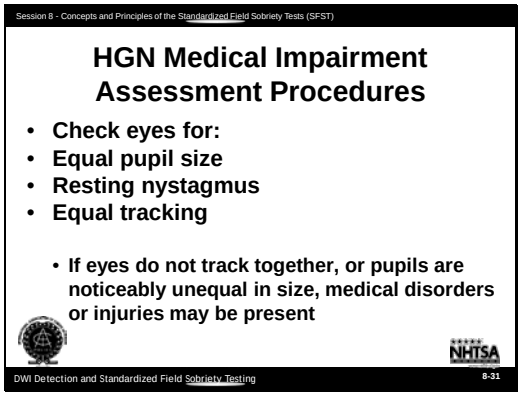
By passing a stimulus across both eyes, you can check to see if both eyes are tracking equally. If they don't (i.e., if one eye tracks the stimulus, but the other fails to move, or lags behind the stimulus) there is the possibility of a neurological disorder.

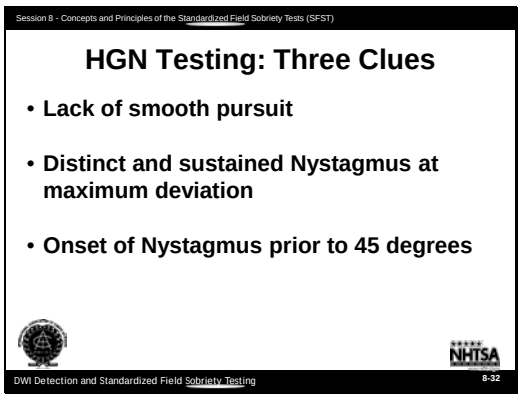
If a person has sight in both eyes, but the eyes fail to track together, there is a possibility that the person is suffering from an injury or illness affecting the brain.



Notes:_____

Procedures to Assess Possible Medical Impairment

Prior to administration of HGN, the eyes are checked for equal pupil size, resting nystagmus, and equal tracking (can they follow an object together). If the eyes do not track together, or if the pupils are noticeably unequal in size, the chance of medical disorders or injuries causing the nystagmus may be present.



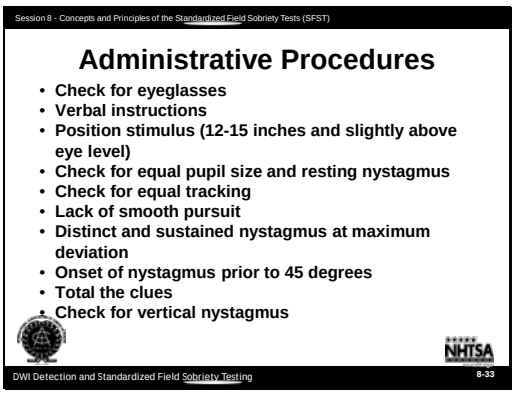
Notes:_____

Procedures of Horizontal Gaze Nystagmus Testing: The Three Clues

The test you will use at roadside is "Horizontal Gaze Nystagmus" -- an involuntary jerking of the eyes occurring as the eyes gaze to the side. When a person is impaired by alcohol or certain drugs, some jerking will be seen if the eyes are moved far enough to the side.

- The Lack of Smooth Pursuit (Clue Number One) - The eyes can be observed to jerk or "bounce" as they follow a smoothly moving stimulus, such as a pencil or penlight. The eyes of an impaired person will not follow smoothly, i.e., a marble rolling across sand paper, or windshield wipers moving across a dry windshield.
- Distinct and Sustained Nystagmus At Maximum Deviation (Clue Number Two) - Distinct and sustained nystagmus is evident when the eye is held at maximum deviation for a minimum of four seconds and continues to jerk toward the side.
- Onset of Nystagmus Prior To 45 Degrees (Clue Number Three) - The point at which the eye is first seen jerking. If the jerking begins prior to 45 degrees it is evident that the person has a BAC above 0.08, as shown by recent research.

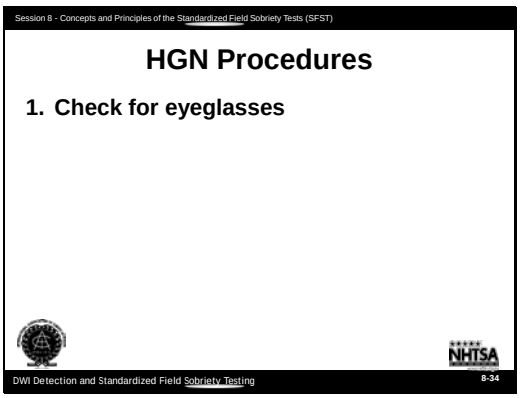
The higher the degree of impairment, the sooner the nystagmus will be observable.



Notes:_____

Horizontal and Vertical Gaze Nystagmus can be observed directly and does not require special equipment. You will need a contrasting stimulus for the subject to follow with their eyes. This can be a penlight or pen. The stimulus used should be held slightly above eye level, so that the eyes are wide open when they look directly at it. It should be held approximately 12 - 15 inches in front of the nose. Remain aware of your position in relation to the subject at all times.

- Check for eyeglasses
- Verbal instructions
- Position stimulus (12-15 inches and slightly above eye level)
- Check for equal pupil size and resting nystagmus
- Check for equal tracking
- Lack of smooth pursuit
- Distinct and sustained nystagmus at maximum deviation
- Onset of nystagmus prior to 45 degrees
- Total the clues
- Check for vertical nystagmus



Notes:_____

Administrative Procedures for Horizontal Gaze Nystagmus

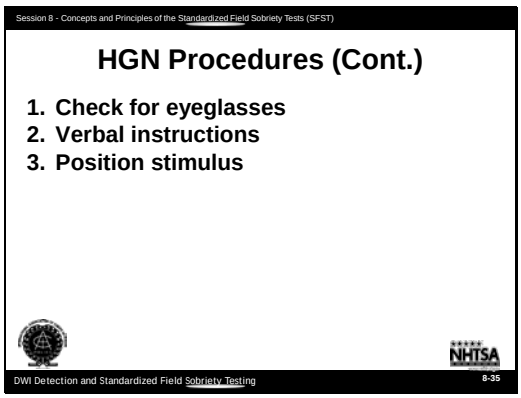
It is important to administer the Horizontal Gaze Nystagmus test systematically using the following steps, to ensure that nothing is overlooked.

There are 10 steps in the systematic administration of the Horizontal Gaze Nystagmus test.

Step 1: Check for Eyeglasses.

Begin by instructing the subject to remove eyeglasses, if worn.

It does not matter whether the subject can see the stimulus with perfect clarity, as long as subject can see it at all.



Notes:_____

Step 2: Verbal Instructions.

Give the subject the appropriate verbal instructions:

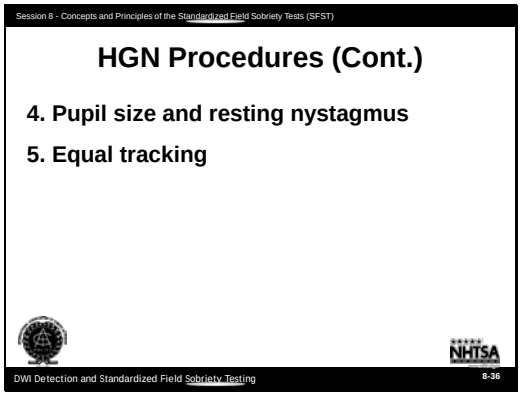
Point out that officers' should note whether subject sways, wobbles, etc. while trying to balance.

- Put feet together, hands at the side
- Keep head still
- Look at the stimulus
- Follow movement of the stimulus with the eyes only
- Keep looking at the stimulus until told the test is over

Step 3: Position the Stimulus.

Position the stimulus approximately 12 - 15 inches (30 - 38 cm) in front of subject's nose, and slightly above eye level to commence the test.

Resting Nystagmus may be observed at this time. Officers should note whether the subject displays Resting Nystagmus.

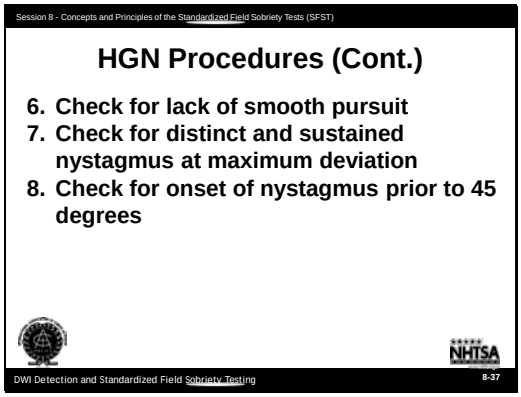


Notes:_____

Step 4: Equal Pupil Size and Resting Nystagmus. Check for equal pupil size and resting nystagmus.

Step 5: Equal Tracking.

Check for equal tracking. Move the stimulus rapidly from center to far right, to far left and back to center.



Notes:_____

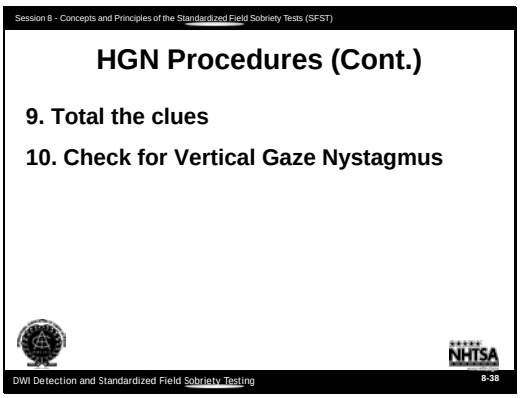
Step 6: Lack of Smooth Pursuit. Check the left eye for lack of the "Smooth Pursuit" clue. If the eye is observed to jerk while moving, that is one clue.

Check the right eye for lack of the "Smooth Pursuit" clue and compare.

Step 7: Check the right and left eye for the "distinct and sustained nystagmus at maximum deviation" clue. If the jerkiness is distinct and sustained, that is one clue.

Step 8: Onset of Nystagmus Prior to 45 Degrees. Check the left eye for the "onset of nystagmus prior to 45 degrees" clue. If the jerking begins prior to 45 degrees, that is one clue.

Check the right eye for "onset of nystagmus prior to 45 degrees" clue, and compare.



Notes:_____

Step 9: Total the clues

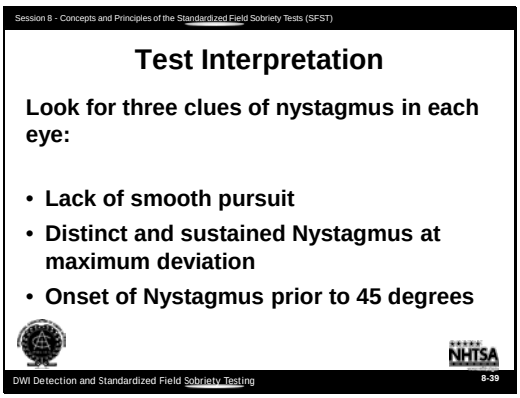
Maximum number of clues possible for each eye: 3

Total maximum number of clues possible for both eyes: 6.

Step 10: Check for Vertical Nystagmus

It is possible that all three clues definitely will be found in one eye, while only two (or sometimes only one) will show up in the other eye. It is always necessary to check both eyes, and to check them independently. Notwithstanding, it is unlikely that the eyes of someone under the influence of alcohol will behave totally different.

Thus, if one eye shows all three clues distinctly while the other eye gives no evidence of nystagmus, the person may be suffering from one of the pathological disorders covered previously.



Notes:_____

Test Interpretation

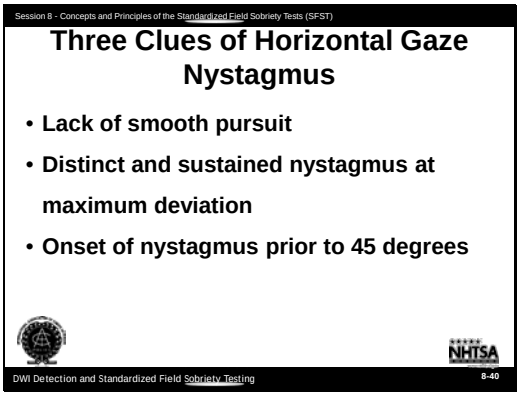
You should look for three clues of nystagmus in each eye.

Lack of Smooth Pursuit (The eye cannot follow a moving object smoothly)

Distinct and Sustained Nystagmus at Maximum Deviation (Nystagmus is distinct and sustained when the eye is held at maximum deviation for a minimum of four seconds)

Onset of Nystagmus Prior to 45 Degrees.

Based on recent research, if you observe four or more clues it is likely that the subject's BAC is at or above 0.08. Using this criterion you will be able to classify about 88% of your subjects accurately. This was determined during laboratory and field testing and helps you weigh the various Standardized Field Sobriety Tests in this battery as you make your arrest decision.



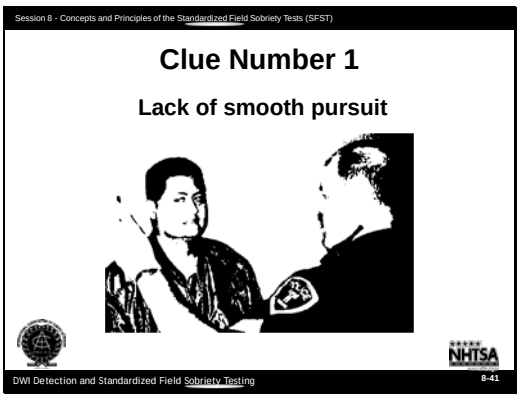
Notes:_____

When we administer the Horizontal Gaze Nystagmus test, we look for three specific clues as evidence of alcohol influence.

We check each eye independently for each clue.

For standardization, begin with the subject's left eye. Check for the first clue. Next, check right eye for same clue. Repeat this procedure for each clue starting with left eye, then right eye. Compare and document the results.

When we are checking an eye, it is good practice to administer the test by the numbers each time, to make sure that no step is overlooked.



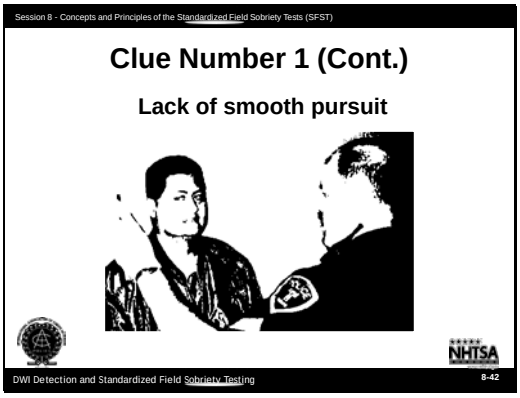
Notes:_____

Clue No. 1: Lack of Smooth Pursuit

The first clue requires that the subject move the eye to follow the motion of a smoothly moving stimulus.

The stimulus may be the eraser on a pencil, the tip of a penlight, the tip of your finger, or any similar small object.

Begin by holding the stimulus vertically approximately 12 - 15 inches (30 - 38 cm) in front of the subject's nose, and slightly above eye level.



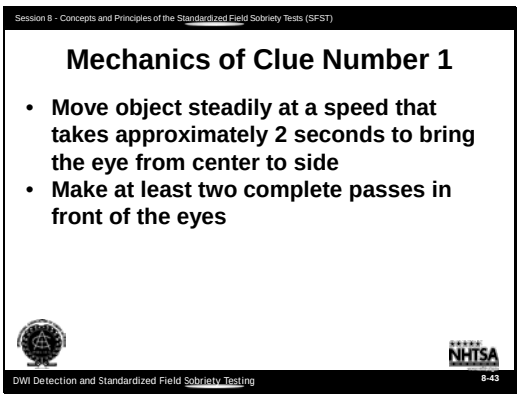
Notes:_____

Move the stimulus smoothly all the way out to the right (checking subject's left eye first) then move the stimulus smoothly all the way across the subject's face to the left side (checking the subject's right eye), then back to center.

Make at least two complete passes with the stimulus

If a person is not impaired by alcohol (or drugs that cause HGN), the eyes should move smoothly as the object is moved back and forth.

Analogy: movement of the eyes of a person not impaired by alcohol (or drugs that cause HGN) will be similar to the movement of windshield wipers across a wet windshield versus a dry windshield.



Notes:_____

The Mechanics of Clue Number 1

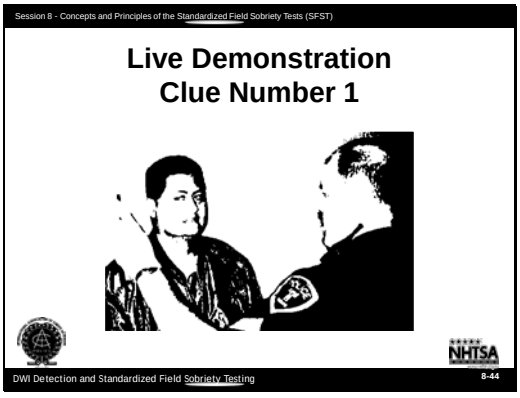
It is necessary to move the object smoothly in order to check the eye's ability to pursue smoothly.

The stimulus should be moved from center position, all the way out to the right side (checking subject's left eye) where the eye can go no further, and then all the way back across subject's face all the way out to the left side where the eye can go no further (checking subject's right eye) and then back to the center.

The object must be moved steadily, at a speed that takes approximately 2 seconds to bring the eye from center to side.

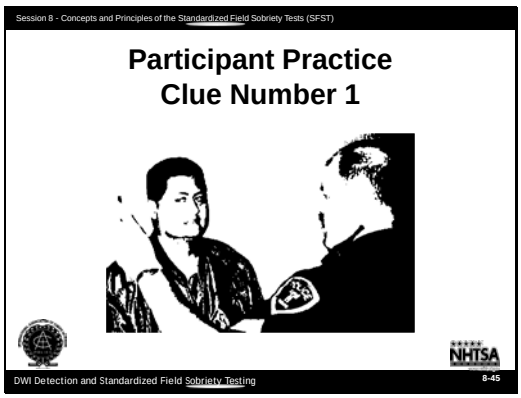
In checking for this clue, make at least two complete passes in front of the eyes.

If you are still not able to determine whether or not the eye is jerking as it moves, additional passes may be made in front of the eyes.



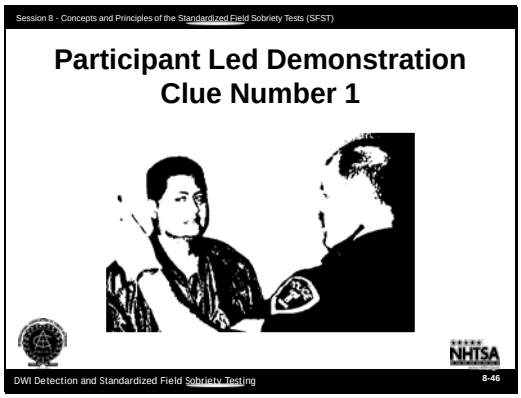
Notes:_____

Live Demonstration of the Mechanics of Clue No. 1



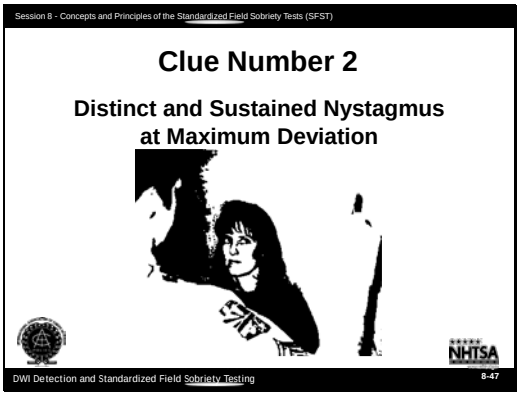
Notes:_____

Participant Practice of the Mechanics of Clue No. 1



Notes:_____

Participant Led Demonstration



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Clue No. 2: Distinct and Sustained Nystagmus at Maximum Deviation

Once you have completed the check for lack of smooth pursuit, you will check the eyes for distinct and sustained nystagmus when the eye is held at maximum deviation, beginning with the subject's left eye.

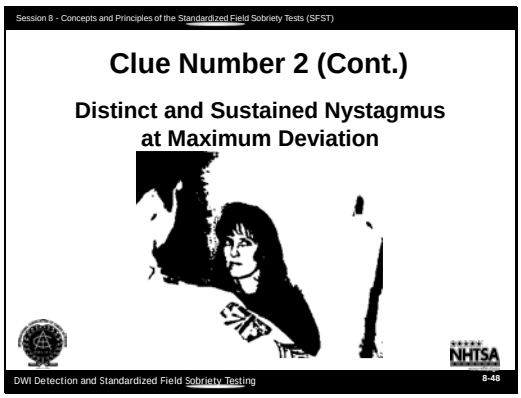
The Mechanics of Clue Number 2

Once again, position the stimulus approximately 12 - 15 inches (30 - 38 cm) in front of subject's nose and slightly above eye level.

Move the stimulus off to the right side (checking subject's left eye) until the eye has gone as far as possible.

Hold the stimulus steady at that position for a minimum of four (4) seconds, and carefully watch the eye.

Then, move the stimulus back across the subject's face all the way out to the left side (subject's right eye).



Notes:_____

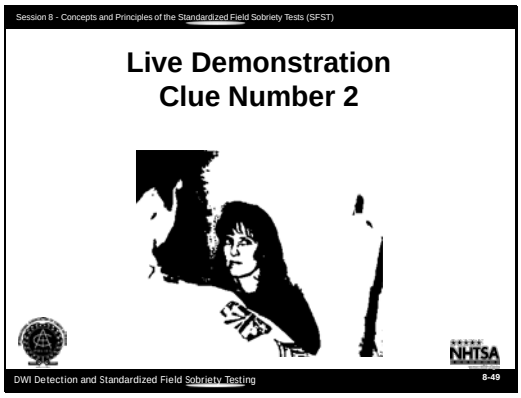
Four seconds will not cause fatigue nystagmus. This type of nystagmus may begin if a subject's eye is held at maximum deviation for more than 30 seconds.

Hold the stimulus steady and carefully watch the eye.

If the person is impaired, the eye is likely to exhibit definite, distinct and sustained jerking when held at maximum deviation for a minimum of 4 seconds.

In order to "count" this clue as evidence of impairment, the nystagmus must be distinct and sustained for a minimum of 4 seconds.

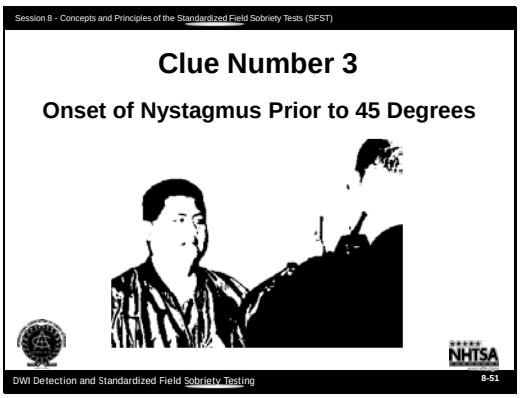
If you think you see only slight nystagmus at this stage of the test, or if you have to convince yourself that nystagmus is present, then it isn't really there.



Notes:_____

Live Demonstration of the Mechanics of Clue No. 2

Participant Led Demonstrations



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Clue No. 3: Onset of Nystagmus Prior to 45 Degrees

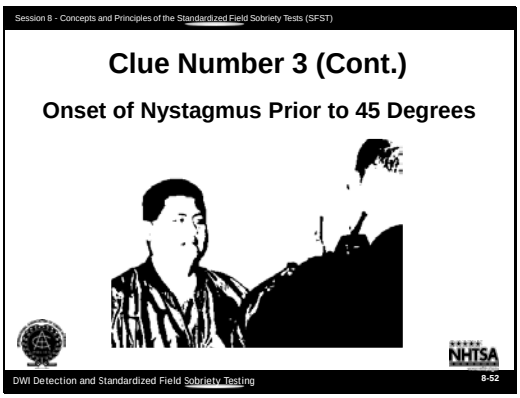
Once again, position the stimulus approximately 12 - 15 inches (30 - 38 cm) in front of subject's nose and slightly above eye level.

The angle of onset of nystagmus is simply the point at which the eye is first seen jerking.

Examples: With someone at a very high BAC (0.20+), the jerking might begin almost immediately after the eye starts to move toward the side. For someone at 0.08 BAC, the jerking might not start until the eye has moved nearly to the 45 degree angle.

Generally speaking, the higher the BAC, the sooner the jerking will start as the eye moves toward the side.

If the jerking begins prior to 45 degrees, that person’s BAC could be 0.08 or above.



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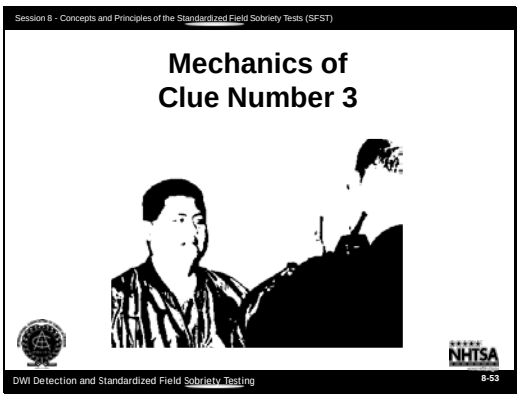
It is not difficult to determine when the eye has reached the 45 degree point, but it does require some practice.

If you start with the stimulus approximately 12 - 15 inches (30 - 38 cm) directly in front of the nose, you will reach 45 degrees when you have moved the stimulus an equal distance to the side. Two other important indicators can be used to determine if the eye is within 45 degrees.

At 45 degrees, some white usually will still be visible in the corner of the eye (for most people).

If you started with the stimulus approximately 12 - 15 inches (30 - 38 cm) in front of the subject, when you reach 45 degrees the stimulus will usually be lined up with, or slightly beyond, the edge of the subject's shoulder.



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The Mechanics of Clue No. 3

The stimulus is positioned approximately 12 - 15 inches from (30 - 38 cm) subject's nose and slightly above eye level. It is necessary to move the stimulus slowly to identify the point at which the eye begins to jerk.

Start moving the stimulus towards the right side (left eye) at the speed that would take approximately 4 seconds for the stimulus to reach the edge of the subject's shoulder.

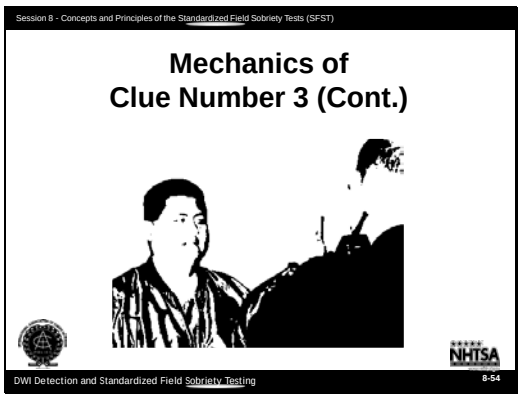
As you are slowly moving the stimulus, watch the eye carefully for any sign of jerking.

When you see the jerking begin, immediately stop moving the stimulus and hold it steady at that position.

With the stimulus held steady, look at the eye and verify that the jerking is continuing.

If the jerking is not evident with the stimulus held steady, you have not located the point of onset. Therefore, resume moving the stimulus slowly toward the side until you notice the jerking again.

When you locate the point of onset of nystagmus, you must determine whether it is prior to 45 degrees.



Notes:_____

Verify that some white is still showing in the corner of the eye.

Examine the alignment between the stimulus and the edge of the subject's shoulder.

Start moving the stimulus towards the left side (right eye) at the speed that would take approximately 4 seconds for the stimulus to reach the edge of the subject's shoulder.

As you are slowly moving the stimulus, watch the eye carefully for any sign of jerking.

When you see the jerking begin, immediately stop moving the stimulus and hold it steady at that position.

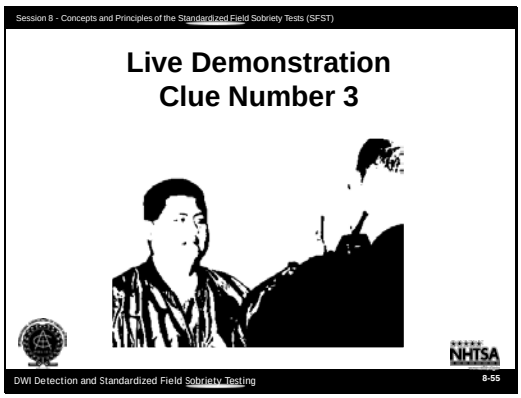
With the stimulus held steady, look at the eye and verify that the jerking is continuing.

If the jerking is not evident with the stimulus held steady, you have not located the point of onset. Therefore, resume moving the stimulus slowly toward the side until you notice the jerking again.

When you locate the point of onset of nystagmus, you must determine whether it is prior to 45 degrees.

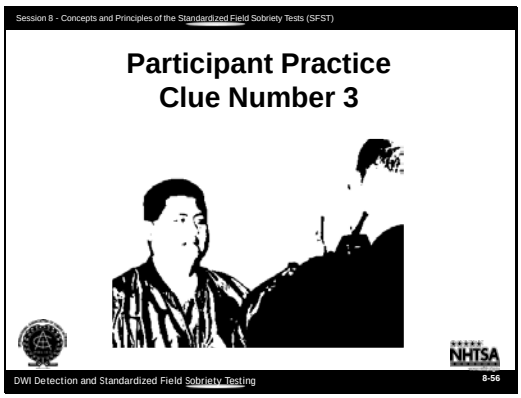
Verify that some white is still showing in the corner of the eye.

Examine the alignment between the stimulus and the edge of the subject's shoulder.



Notes:_____

Live Demonstration of the Mechanics of Clue No. 3

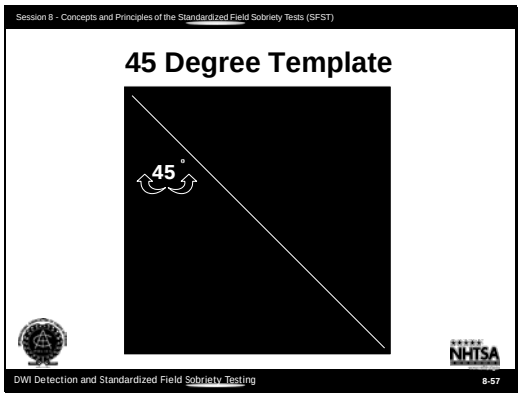


Notes:_____

Participant practice of the mechanics of Clue No. 3

Coaching and critiquing participants practice.

Participant led demonstration.



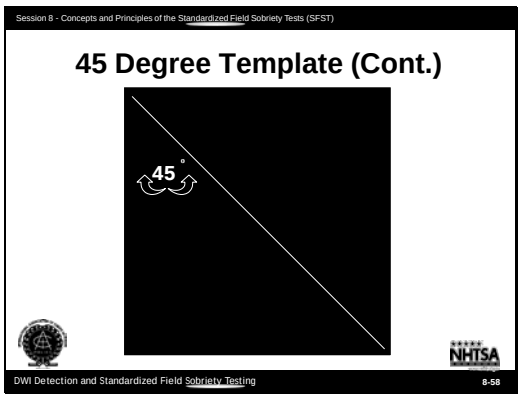
Notes:_____

Training Aid: The 45 Degree Template

A training aid has been provided to help you practice estimating a 45 degree angle.

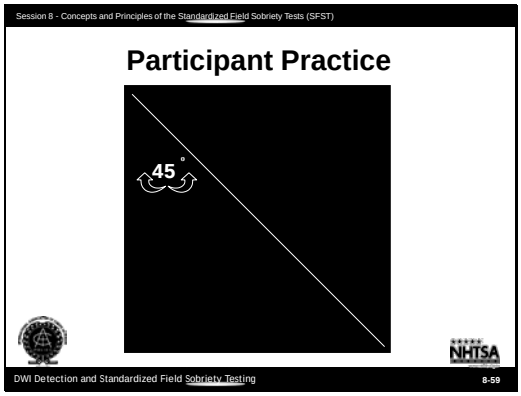
- The outline of a square, with its diagonal line, gives us a 45 degree angle.
- This outline, or template, is provided for practice only.
- It is not to be used with actual DWI subjects.

To use the template, have your training partner hold the corner of the square under the nose.



Notes:_____

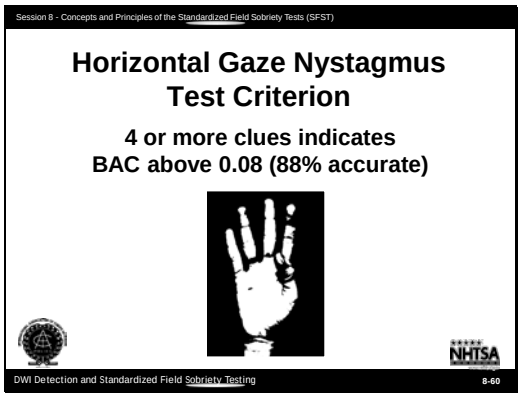
When you line up your stimulus with the diagonal line, your partner will be looking along a 45 degree angle.



Notes:_____

Coaching and Critiquing Participants' Practice

Participant led Demonstration



Notes:_____

Test Interpretation

Based upon the original developmental research into Horizontal Gaze Nystagmus, the criterion for this test is 4.

If a person exhibits at least 4 out of the possible 6 clues, the implication is a BAC above 0.08.

Using this criterion, the test is 88% accurate.

Horizontal Gaze Nystagmus Test Demonstration

Notes:_____

Test Demonstration

Administrative Procedures

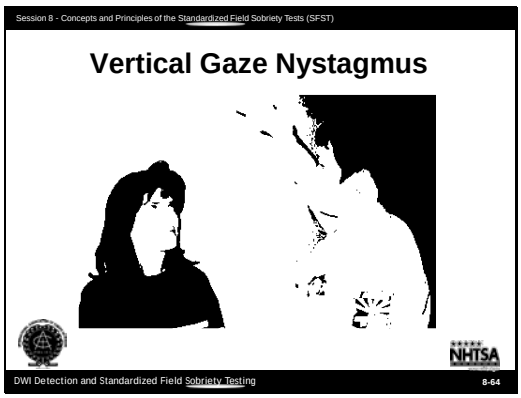
- **Check for eyeglasses**
- **Verbal instructions**
- **Position stimulus (12-15 inches and slightly above eye level)**
- **Check for equal pupil size and resting nystagmus**
- **Check for equal tracking**

Notes:_____

Administrative Procedures (Cont.)

- **Lack of smooth pursuit**
- **Distinct and sustained nystagmus as maximum deviation**
- **Onset of nystagmus prior to 45 degrees**
- **Total the clues**
- **Check for vertical nystagmus**

Notes:_____

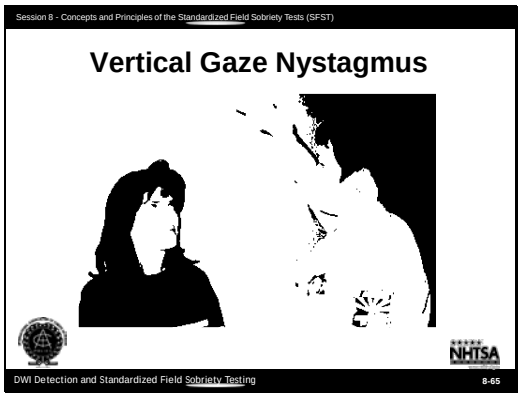


Notes:_____

D. Vertical Gaze Nystagmus

The Vertical Gaze Nystagmus test is simple to administer. During the Vertical Gaze Nystagmus test, look for jerking as the eyes move up and are held for a minimum of four seconds at maximum elevation.

- Position the stimulus horizontally, about 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 four seconds.
- Watch closely for evidence of the eyes jerking upward.

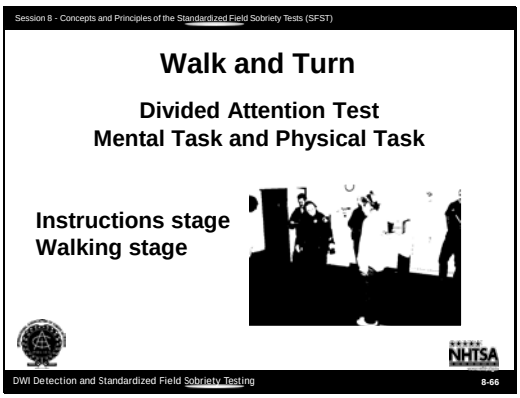


Notes:_____

Participant led demonstration.

For VGN to be recorded, it must be distinct and sustained for a minimum of four seconds at maximum elevation.

VGN may be present in subjects under the influence of high doses of alcohol for that individual, and some other drugs.



Notes:_____

E. Walk and Turn

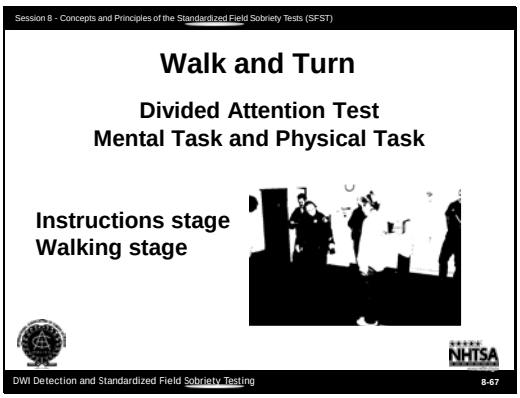
Test Stages

Like all divided attention tests, Walk and Turn has two stages.

They are:

- Instructions Stage
- Walking Stage

Both stages are important, because they can affect the subject's overall performance on the test.

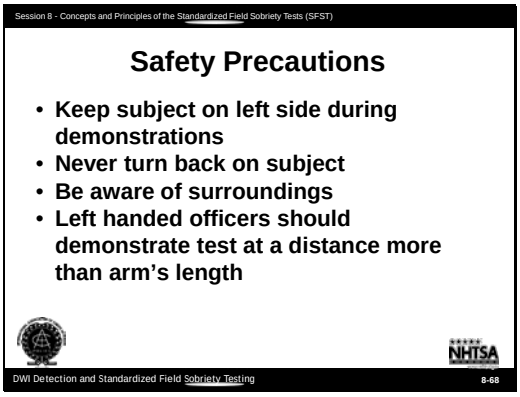


Notes:_____

Test Conditions

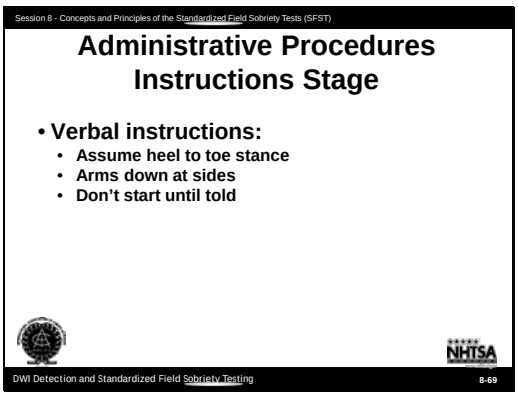
Whenever possible, the Walk and Turn test should be conducted on a reasonably dry, hard, level, non-slippery surface. There should be sufficient room for subjects to complete nine heel to toe steps. Recent field validation studies have indicated that varying environmental conditions have not affected a subject's ability to perform this test.

The original SCRI studies suggested that individuals 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 individuals wearing heels more than 2 inches high should be given the opportunity to remove their shoes. Officers should consider all factors when conducting SFSTs.



Notes:_____

Procedures for Walk and Turn Testing



Notes:_____

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Instructions Stage: Initial Positioning and Verbal Instructions

For standardization in the performance of this test, have the subject assume the heel to toe stance by giving the following verbal instructions, accompanied by demonstrations:

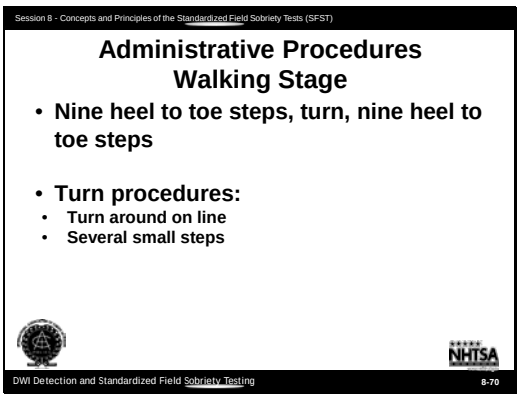
Place your left foot on the line (real or imaginary).

Place your right foot on the line ahead of the left foot, with the heel of your right foot against the toe of the left foot.

Place your arms down at your sides.

Maintain this position until I have completed the instructions. Do not start to walk until told to do so.

Do you understand the instructions so far? (Make sure subject indicates understanding.)



Notes:_____

Demonstrations and Instructions for the Walking Stage

Explain the test requirements by giving instructions, accompanied by demonstrations:

When I tell you to start, take nine heel to toe steps on the line, turn, and take nine heel to toe steps down the line.

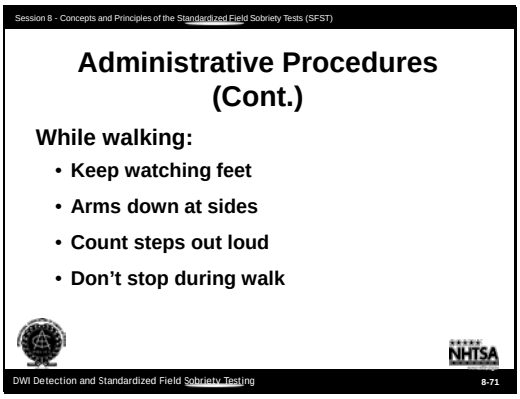
When you turn, keep the front (lead) foot on the line, and turn by taking a series of small steps with the other foot, like this.

While you are walking, keep your arms at your sides, watch your feet at all times, and count your steps out loud.

Once you start walking, don't stop until you have completed the test.

Do you understand the instructions? (Make sure subject understands.)

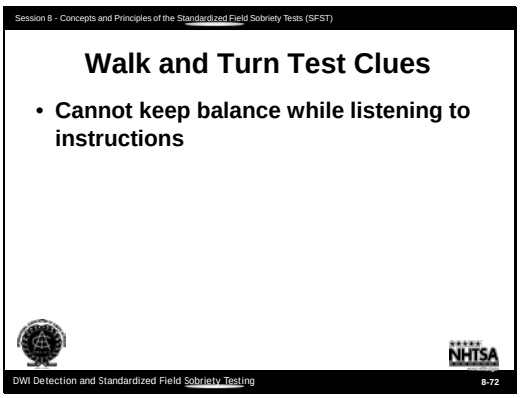
Instruct the person to begin the test.



Notes:_____

While walking:

- Keep watching feet
- Arms down at sides
- Count steps out loud
- Don’t stop during walk

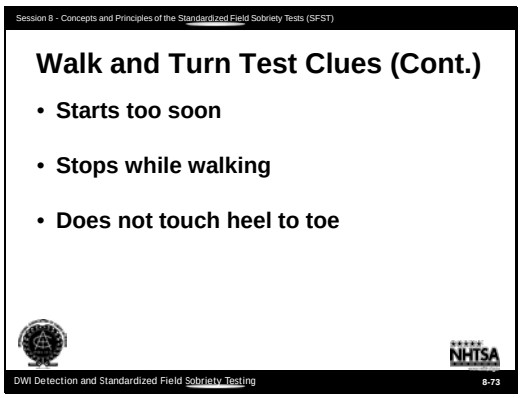


Notes:_____

Test Interpretation

You may observe a number of different behaviors when a subject performs this test. Original research demonstrated that the behaviors listed below are likely to be observed in someone with a BAC at or above 0.08. Look for the following clues each time this test is given:

Cannot keep balance while listening to the instructions. Two tasks are required at the beginning of this test. The subject must balance heel to toe on the line, and at the same time, listen carefully to the instructions. Typically, the person who is impaired can do only one of these things. The subject may listen to the instructions, but not keep balance. Record this clue if the subject does not maintain the heel to toe position throughout the instructions. (Feet must actually break apart or step off the line.) Do not record this clue if the subject sways or uses the arms to balance but maintains the heel to toe position.

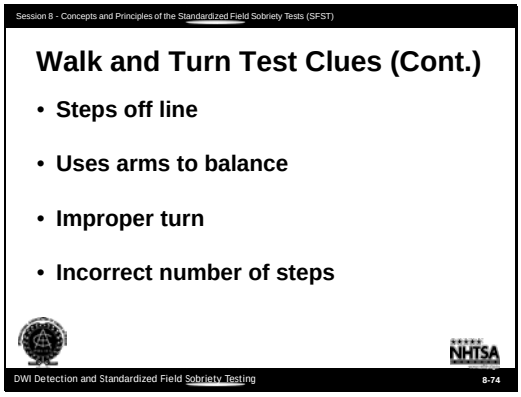


Notes:_____

Starts too soon. The impaired person may also keep balance, but not listen to the instructions. Since you specifically instructed the subject not to start walking "until I tell you to begin," record this clue if the subject does not wait.

Stops while walking. The subject stops while walking. Do not record this clue if the subject is merely walking slowly.

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.



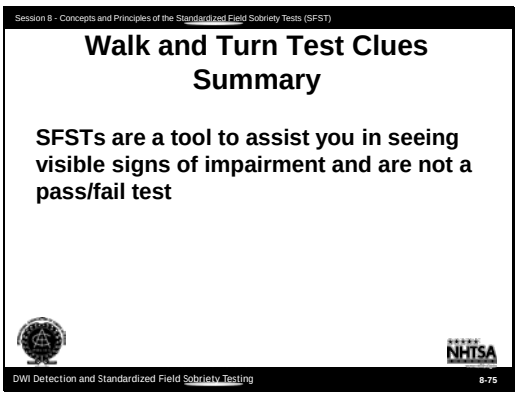
Notes:_____

Steps off the line. The subject steps so that one foot is entirely off the line.

Uses arms to balance. The subject raises one or both arms more than 6 inches from the sides in order to maintain balance.

Improper turn. The subject removes the front foot from the line while turning. Also record this clue if the subject has not followed directions as demonstrated, i.e., spins or pivots around or loses balance while turning.

Incorrect number of steps. Record this clue if the subject takes more or fewer than nine steps in either direction.



Notes:_____

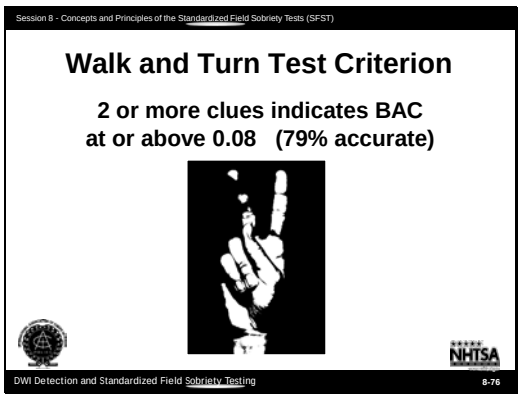
If subject can't do the test, record observed clues and document the reason for not completing the test, e.g. subject's safety.

Remember that the SFSTs are a tool to assist you in seeing visible signs of impairment and are not a pass/fail test.

Subject gets into a "leg lock" position (legs crossed, unable to move.)

If the subject has difficulty with the test (for example, steps off the line), Continue from that point, not from the beginning. This test may lose its sensitivity if it is repeated several times.

Observe the subject from a safe distance and limit your movement which may distract the subject during the test. **Always consider officer safety.**



Notes:_____

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.

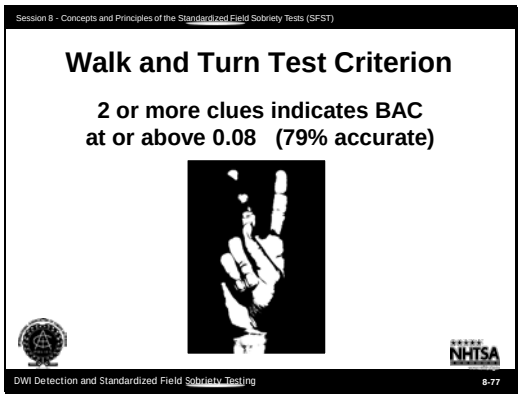
Review of Divided Attention Definition

Walk and Turn is a field sobriety test based on the important concept of divided attention.

The test requires the subject to divide attention among mental tasks and physical tasks.

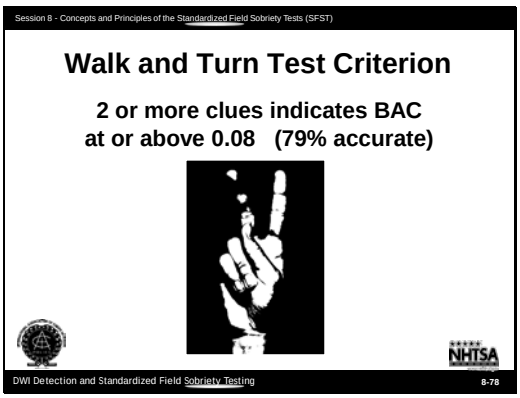
The mental tasks include comprehension of verbal instructions; processing of information; and, recall of memory.

The physical tasks include balance and coordination; the subject is required to maintain balance and coordination while standing still, walking, and turning.



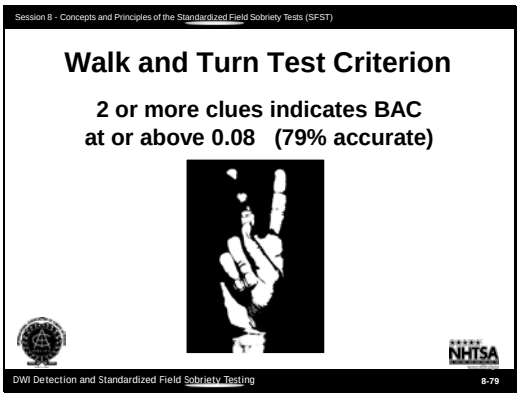
Notes:_____

Instruction Stage



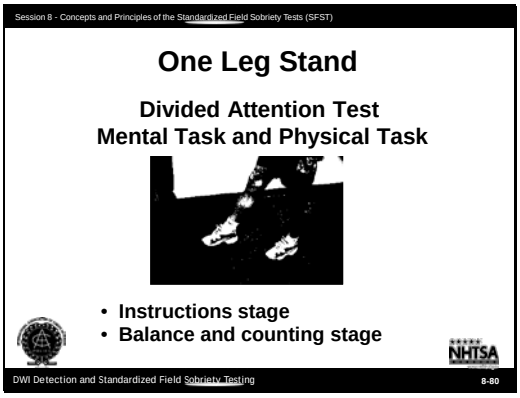
Notes:_____

Balance and Counting Stage



Notes:_____

Test Demonstrations



Notes:_____

F. One Leg Stand

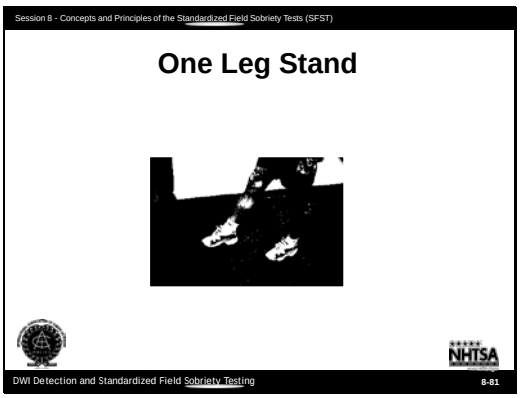
Test Stages

Like all divided attention tests, One Leg Stand has two stages.

They are:

- Instructions stage
- Balance and counting stage

Both stages are important, because they can affect the subject's overall performance on the test.



Notes:_____

Test Conditions

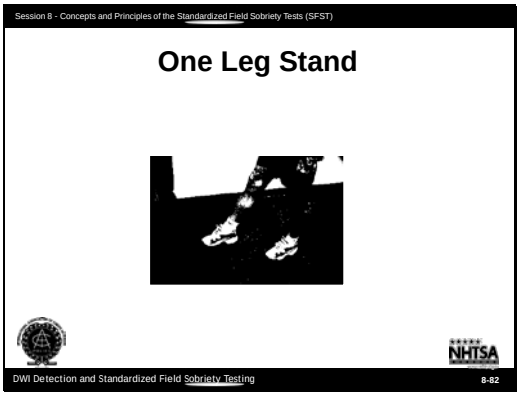
One Leg Stand requires a reasonably dry, hard, level, and non-slippery surface. Subject's safety should be considered at all times.

Standardizing this test for every type of road condition is unrealistic. The original research study recommended that this test be performed on a dry, hard, level, non-slippery surface and relatively safe conditions. If not, the research recommends:

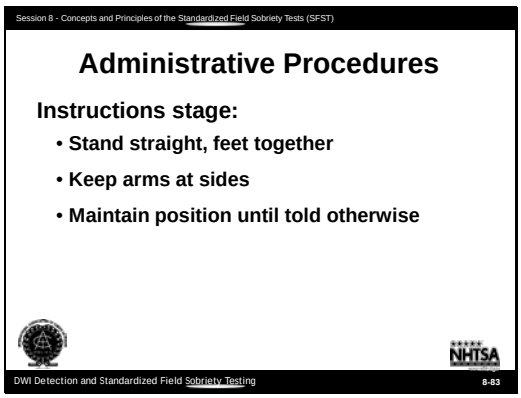
- subject be asked to perform the test elsewhere, or
- only HGN be administered

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 individuals 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 individuals wearing heels more than 2 inches high should be given the opportunity to remove their shoes.



Notes:_____



Notes:_____

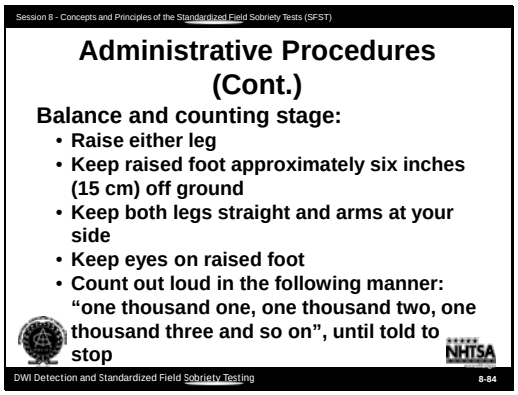
Instructions Stage: Initial Positioning and Verbal Instructions

Initiate the test by giving the following instructions, accompanied by demonstrations.

Please stand with your feet together and your arms down at the sides, like this.

Do not start to perform the test until I tell you to do so.

Do you understand the instructions so far?



Notes:_____

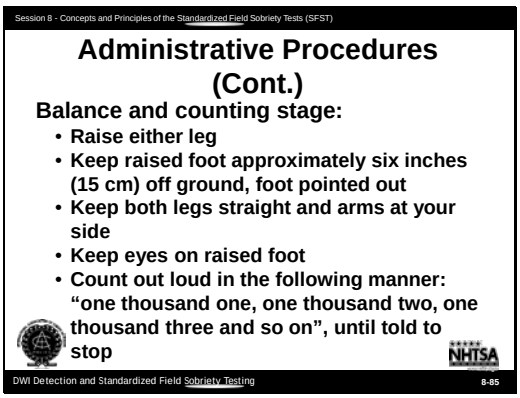
Demonstrations and Instructions for the Balance and Counting Stage

Explain the test requirements, using the following verbal instructions, accompanied by demonstrations:

When I tell you to start, raise either leg with the foot approximately six inches off the ground.

Keep both legs straight and your arms at your side.

While holding that position, count out loud in the following manner: "one thousand one, one thousand two, one thousand three," and so on until told to stop.



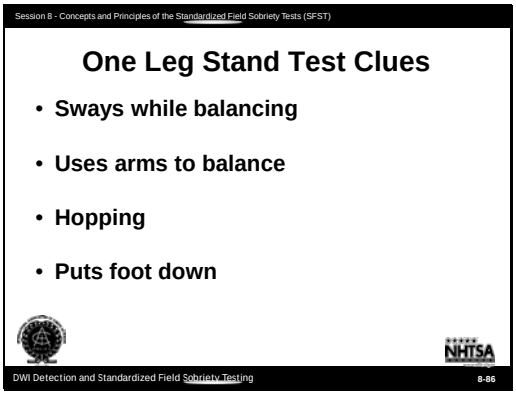
Notes:_____

Keep your arms at your sides at all times and keep watching the raised foot.

Do you understand?

Go ahead and perform the test. (Officer should always time the 30 seconds. Test should be discontinued after 30 seconds.)

Observe the subject from a safe distance. If the subject puts the foot down, give instructions to pick the foot up again and continue counting from the point at which the foot touched the ground. If the subject counts very slowly, terminate the test after 30 seconds.



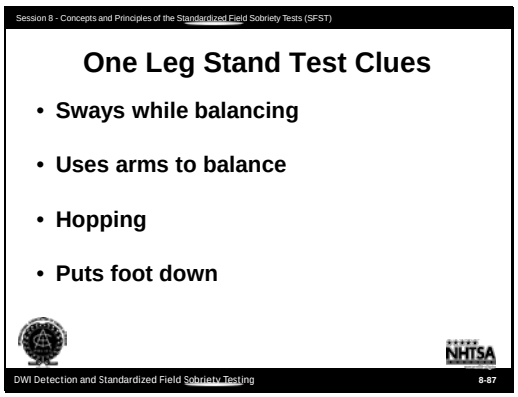
Notes:_____

Test Interpretation

You may observe a number of different behaviors when a subject performs this test. The original research found the behaviors listed below are the most likely to be observed in someone with a BAC at or above 0.08. When administering the One Leg Stand test, we look for certain specific behaviors. Each behavior or action is considered one clue. There is a maximum number of 4 clues on this test. Look for the following clues each time the One leg Stand test is administered.

The subject sways while balancing. This refers to side to side or back and forth motion while the subject maintains the one leg stand position.

Slight tremors of the foot or body should not be interpreted as swaying.



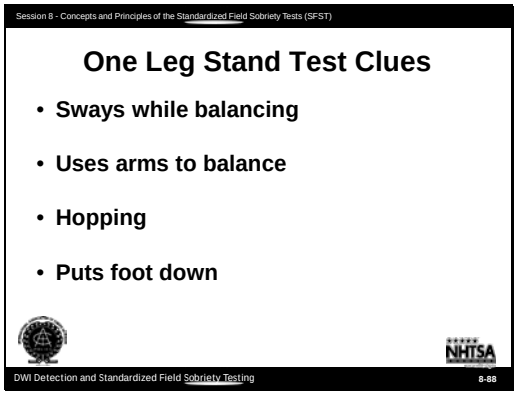
Notes:_____

Uses arms to balance. Subject moves arms 6 or more inches from the side of the body in order to keep balance.

Hopping. Subject is able to keep one foot off the ground, but resorts to hopping in order to maintain balance.

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.

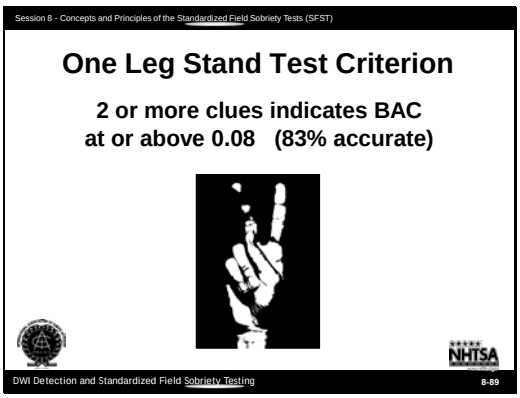
If the subject puts the foot down, give instructions to pick the foot up again and continue counting from the point at which the foot touched.



Notes:_____

If subject can't do the test, record observed clues and document the reason for not completing the test, e.g. subject's safety.

Remember that time is critical in this test. The original SCRI research has shown a person with a BAC above 0.10 can maintain balance for up to 25 seconds, but seldom as long as 30.



Notes:_____

Based on recent research, if an individual 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.

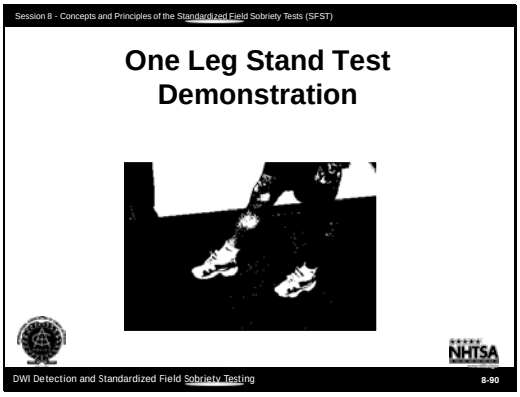
Observe the subject from a safe distance and minimize movement during the test so as not to interfere. If the subject puts the foot down, give instructions to pick the foot up again and continue counting from the point at which the foot touched the ground. If the subject counts very slowly, terminate the test after 30 seconds.

Review of Divided Attention Definition

One Leg Stand is another field sobriety test that employs divided attention.

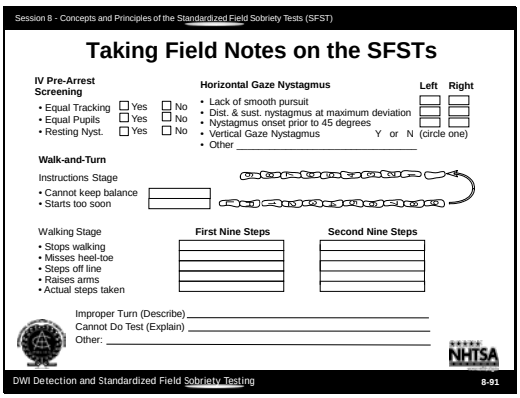
The subject's attention is divided among such simple tasks as balancing, listening, and counting out loud.

Although none of these is particularly difficult in itself, the combination can be very difficult for someone who is impaired.



Notes:_____

Test Demonstrations



Notes:_____

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G. Taking Field Notes on the Standardized Field Sobriety Tests

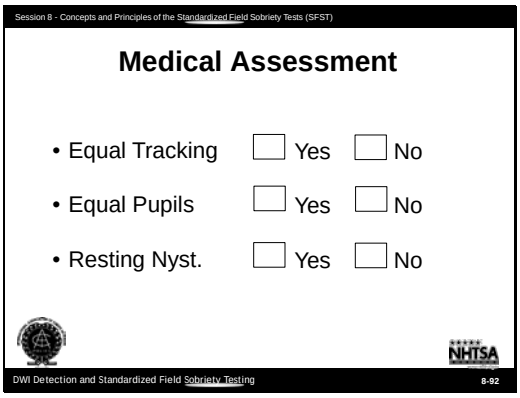
For purposes of the arrest report and courtroom testimony, it is not enough to report the number of clues on the three tests.

The numbers are important to the police officer in the field, because they help determine whether there is probable cause to arrest.

But to secure a conviction, more descriptive evidence is needed.

The officer must be able to describe how the subject performed on the tests, and what the subject did.

The standard note taking guide is designed to help develop a clear description of the subject's performance on the tests.



Notes:_____

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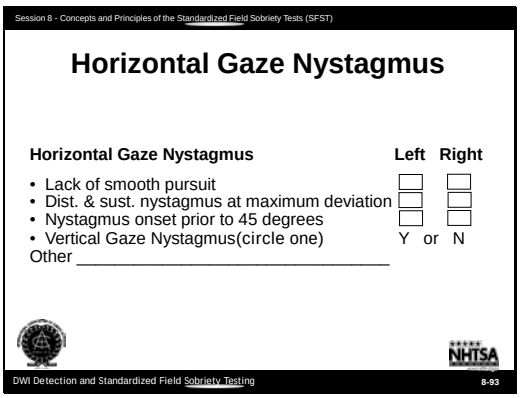
Equal Pupils □ Yes □ No

Equal Tracking □ Yes □ No

Resting Nystagmus □ Yes □ No

Other _____



Notes:_____

Complete the entire procedure for both eyes, checking "yes" or "no" for each clue.

Check box ✓ if the clue is present.

For standardization, test the subject's left eye first.

Then, check for the same clue in the right eye.

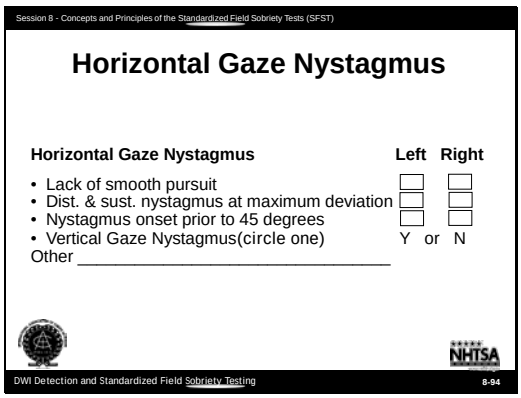
If clue is not present, leave box blank.

After both eyes have been completely checked, total the number of HGN clues observed.

Complete the check for vertical gaze nystagmus

If present, circle Y. If not present, circle N.

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



Notes:_____

Examples of additional evidence of impairment emerging while checking for nystagmus:

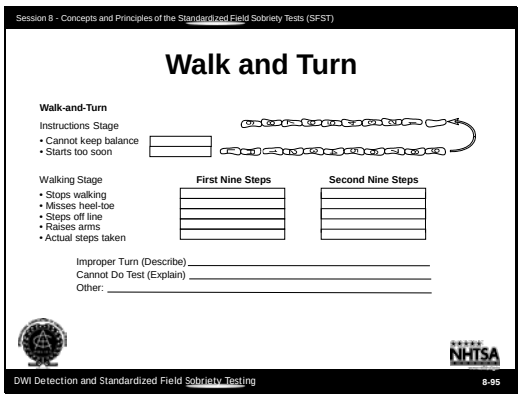
- Subject unable to keep head still
- Subject swaying noticeably
- Subject utters incriminating statements

Examples of conditions that may interfere with subject's performance while checking for nystagmus:

- Wind, dust, etc. (irritating subject's eyes).

NOTE: Try to face subject away from flashing or strobe lights that could cause visual or other distractions that could impede the test.

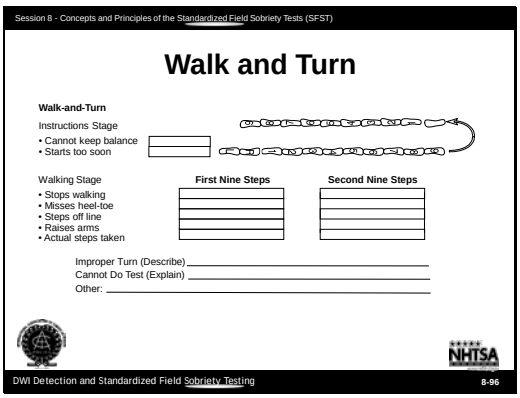
- Visual or other distractions impeding the test.



Notes:_____

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.



Notes:_____

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 "0" in that box.

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 happens.

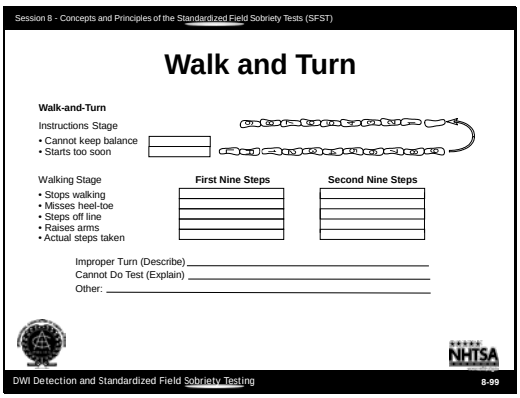
Example: subject raised arms from sides three times

Place three (√) check marks in the box.

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

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

- Example: turned incorrectly
- Example: stumbled, to left
- Example: wrong direction
- Example: no small steps
- If the turn is correct, note: N/A



Notes:

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

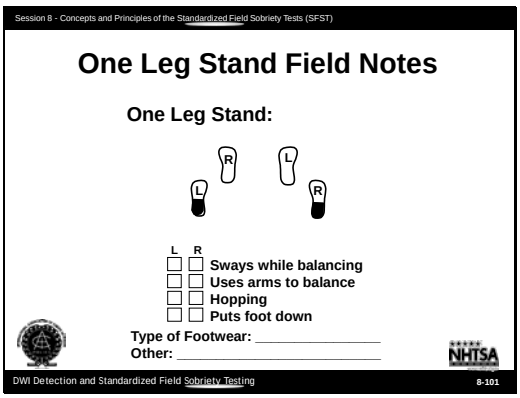
At end of the test, examine each factor and determine the total number of clues recorded.

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

Examples of additional evidence of impairment emerging during Walk and Turn test.

Examples of conditions that may interfere with subject's performance of the Walk and Turn test:

- Wind/Weather conditions
- Subject's age
- Subject's footwear



Notes:_____

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Type of Footwear _____

Record the subject's performance separately.

For each clue, record how often it appears with a (√) check mark.

If subject sways, indicate how often with a (√) check mark.

Indicate above the feet the number they were counting when they put their foot down.

Check marks should be made to indicate the number of times the subject swayed, used arms, hopped or put foot down.

Place (√) check marks in or near the small boxes to indicate how many times you observed each of the clues.

In addition, if the subject puts the foot down during the test, record when it happened.

For example, suppose that, when standing on the left leg, the subject lowered the right foot at a count of "one thousand thirteen," and again at "one thousand twenty."

If subject uses arms to balance, indicate how often arms were raised.

If subject hops, indicate how many hops were taken.

If subject puts foot down, indicate how many times the foot came down.

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

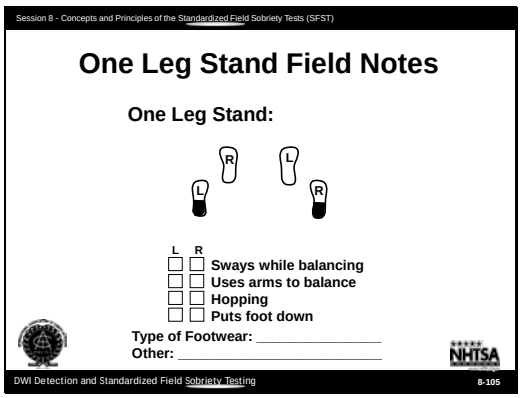
At end of the test, examine each clue and determine how many clues have been recorded.

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

Examples of additional evidence of impairment emerging during One leg Stand test:

Subject verbally miscounts 30 seconds

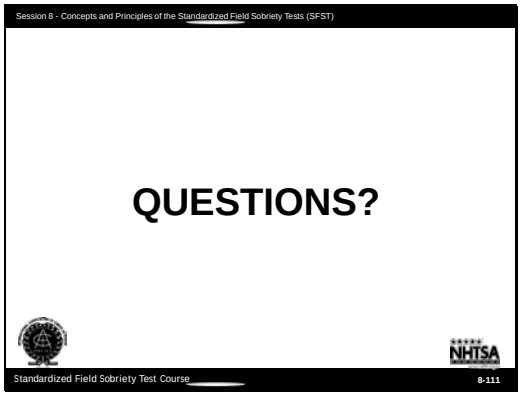
Subject utters incriminating statements.



Notes:_____

At end of the test, examine each factor and determine how many clues have been recorded. Remember, each clue may appear several times, but still only constitutes one clue.

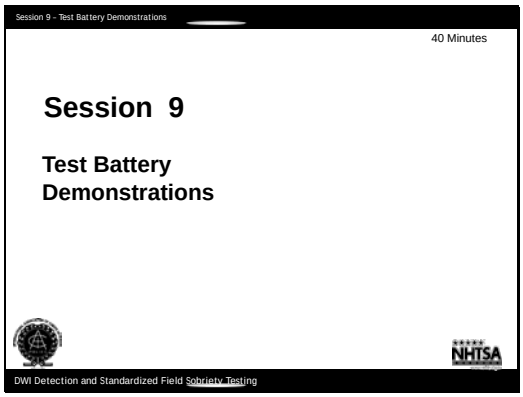
Officers who are video recording the Standardized Field Sobriety Tests may choose to document any observed clues by voicing them into the recording as the clues are observed.



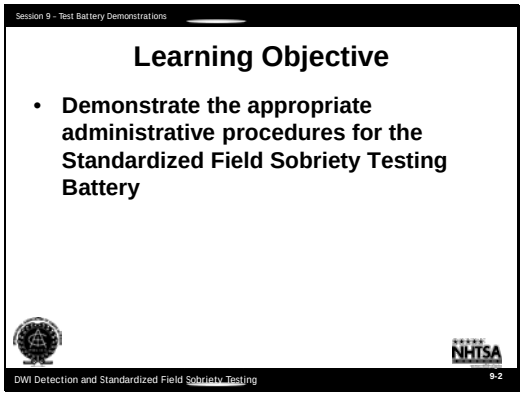
Notes:_____

Test Your Knowledge

1. Walk and Turn is an example of _____ field sobriety test.
2. The Walk and Turn requires a real or imaginary line and _____.
3. During the _____ stage of the Walk and Turn, the suspect is required to count out loud.
4. Based upon the San Diego study, the Walk and Turn test can determine whether a subject's BAC is above or below 0.08, _____ % of the time
5. In the Walk and Turn test, a subject who steps off the line during the first 9 steps and once again during the second 9 steps and who raises arms for balance twice during the second 9 steps has produced _____ distinct clue(s).
6. The Walk and Turn test has _____ possible clues.
7. During the _____ stage of the One Leg Stand test the subject must maintain balance while standing on one foot.
8. The One Leg Stand test requires that the subject keep the foot raised for _____ seconds.
9. Based upon the San Diego study, the One Leg Stand test can determine whether a subject's BAC is above or below 0.08, _____ % of the time
10. In the One Leg Stand test, a subject who sways has produced _____ clue(s)
11. In the One Leg Stand test, a subject who raises arms, hops, and puts foot down has produced _____ clue(s).
12. The maximum number of clues for Horizontal Gaze Nystagmus that can appear in one eye is_____.
13. Based upon the San Diego study, the HGN test can determine whether a subject's BAC is above 0.08, _____ % of the time.
14. The third clue of HGN is an onset of nystagmus prior to _____ degrees



Notes:_____

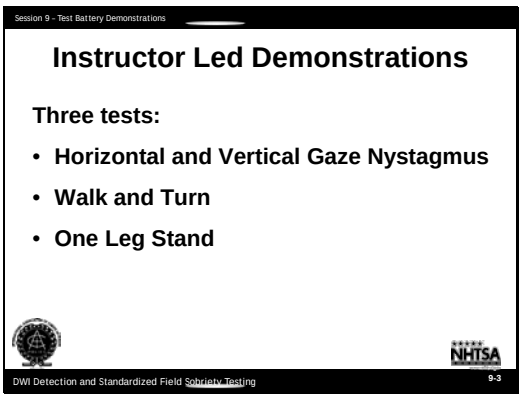


Notes:_____

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

- Demonstrate the appropriate administrative procedures for the Standardized Field Sobriety Testing Battery.

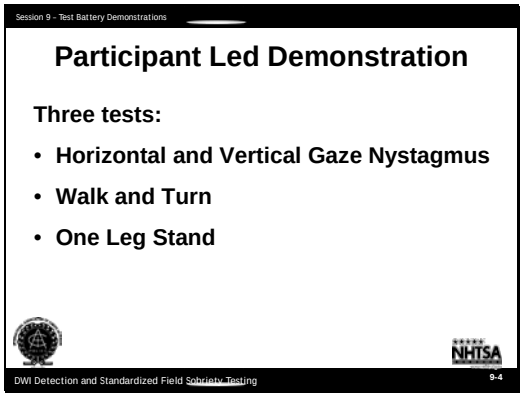
CONTENT SEGMENTS	LEARNING ACTIVITIES
A. Live Classroom Demonstrations	Instructor Led Presentation Participant Demonstration



Notes:_____

A. Live Classroom Demonstrations

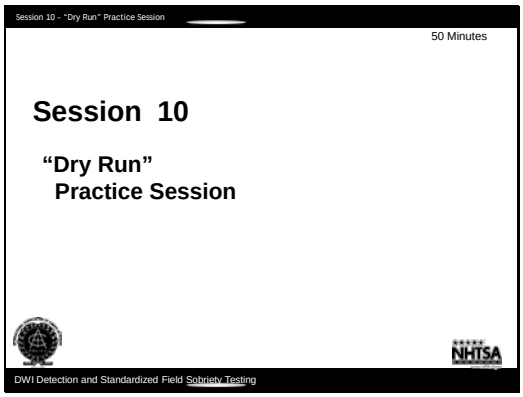
Participant Led Demonstrations



Notes:_____

Participant Led Demonstration

Notes:_____



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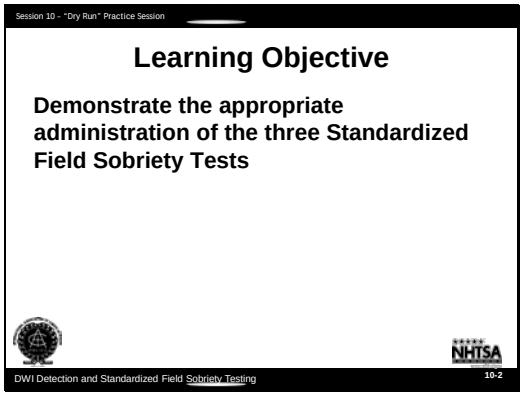
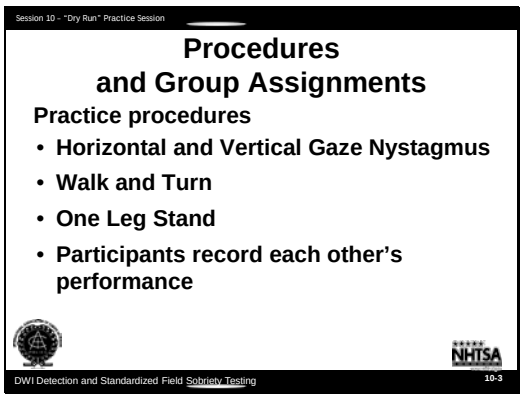


Notes:_____

Upon successfully completing this session the Participant will be able to:

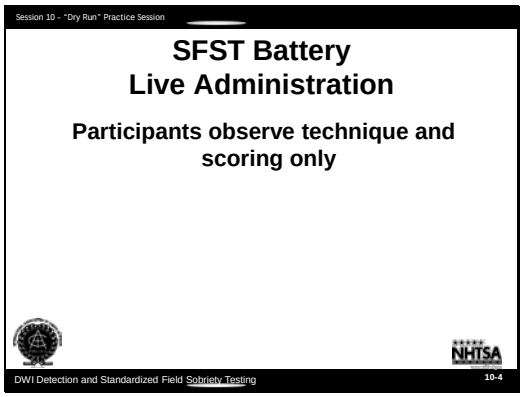
- Demonstrate the proper administration of the three Standardized Field Sobriety Tests.

CONTENT SEGMENTS	LEARNING ACTIVITIES
A. Procedures and Group Assignments	Instructor Led Presentation
B. Live Administration of SFST Battery	Participant Practice Session
C. Hands on Practice	Instructor Led Presentation



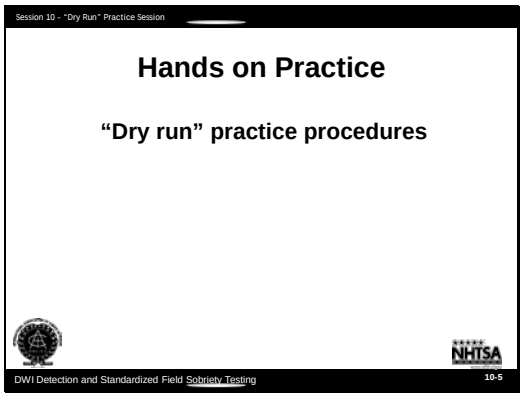
Notes:_____

A. Procedures and Group Assignments



Notes:_____

B. Live Administration of SFST Battery



Notes:_____

C. Hands on Practice

Session 10 - "Dry Run" Practice Session
QUESTIONS?
NHTSA
DWI Detection and Standardized Field Sobriety Testing
10-6

Notes:_____

PARTICIPANT PROFICIENCY EXAMINATION
STANDARDIZED FIELD SOBRIETY TEST BATTERY

Participant Name: _____ Date: _____

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.

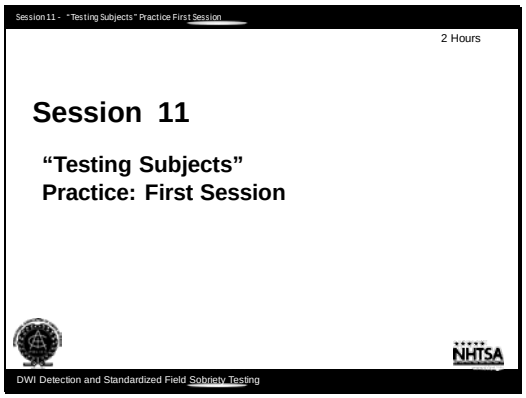
5.) _____ Tells subject to keep both legs straight and to look at elevated foot.

6.) *_____ Tells subject to count out loud in the following manner: one thousand one, one thousand two, one thousand three, until told to stop, and gives demonstration.

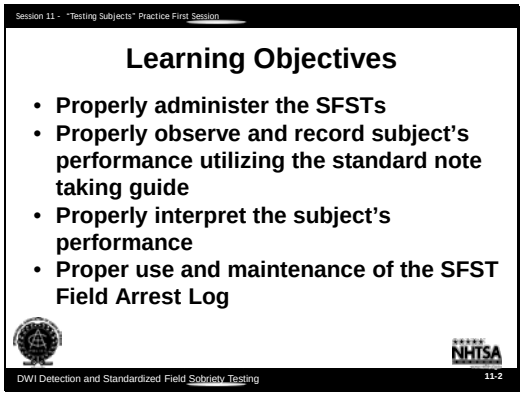
7.) _____ Checks actual time subject holds leg up. (Time for 30 seconds.)

Instructor: _____

Note: In order to pass the proficiency examination, the student must explain and cannot omit the numbers marked with an asterisk (*).



Notes:_____

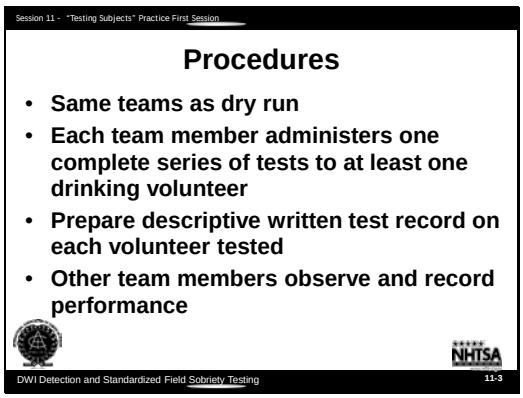


Notes:_____

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

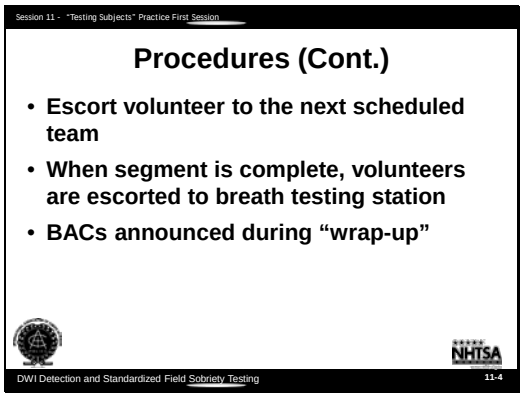
- Properly administer the SFSTs
- Properly observe and record subject’s performance utilizing the standard note taking guide
- Properly interpret the subject’s performance
- Properly use and maintain the SFST Field Arrest Log

CONTENT SEGMENTS	LEARNING ACTIVITIES
A. Procedures	Instructor Led Presentations
B. Hands on Practice	Participant Practice Session
C. Use and Maintenance of SFST Field Arrest Log	Instructor Led Presentation
D. Session Wrap Up	Instructor Led Discussion



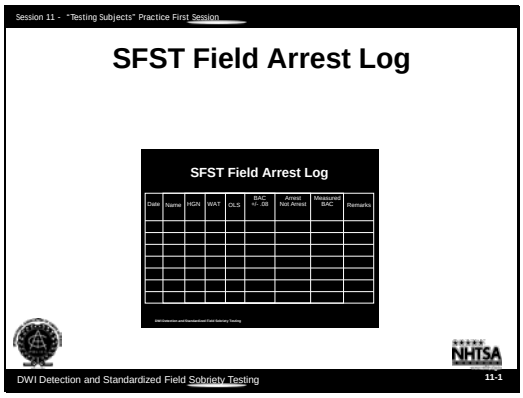
Notes:_____

A. Procedures



Notes:_____

B. Hands on Practice

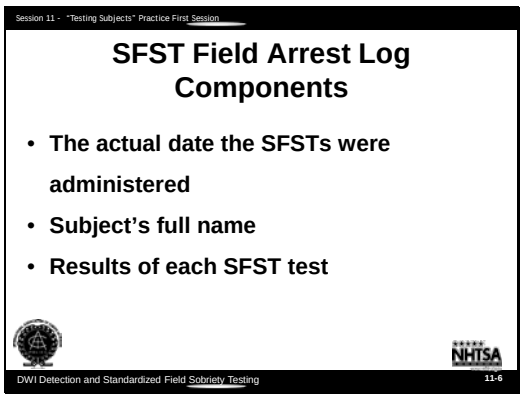


Notes:_____

C. Use and Maintenance of SFST Field Arrest Log (IACP strongly recommends the use of this log)

The SFST Field Arrest Log is used to record the results of the SFSTs performed on suspected impaired subjects.

This log is important in documenting an officer's experience and proficiency in performing and interpreting SFSTs.

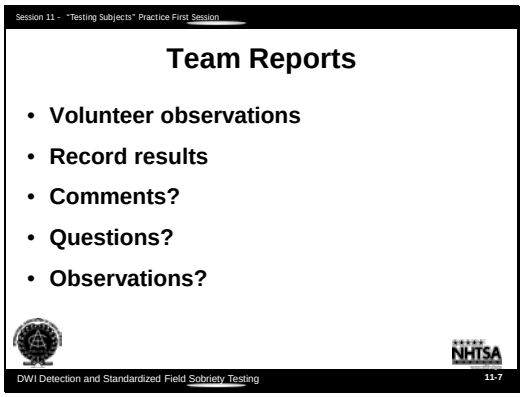


Notes:_____

This log has the following components:

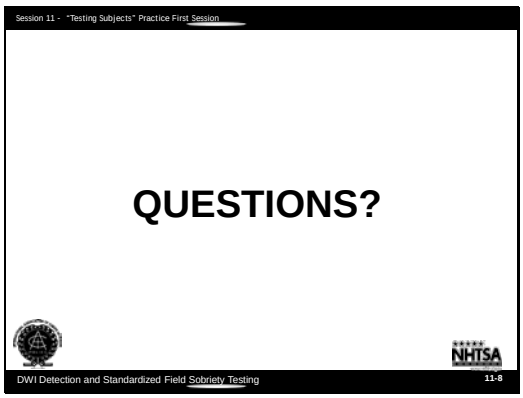
- The actual date the SFSTs were administered
- Subject's full name
- Results of each SFST test
- Classification of BAC as above or below 0.08 BAC
- Arrest/Not Arrest
- Subject's measured BAC (if available)
- Remarks

Utilization of Log



Notes:_____

D. Session Wrap Up


Session 11 - "Testing Subjects" Practice First Session
QUESTIONS?
NHTSA
DWI Detection and Standardized Field Sobriety Testing
11-8

Notes:_____

SAMPLE DRY ERASE BOARD ARRAY FOR TABULATING RESULTS

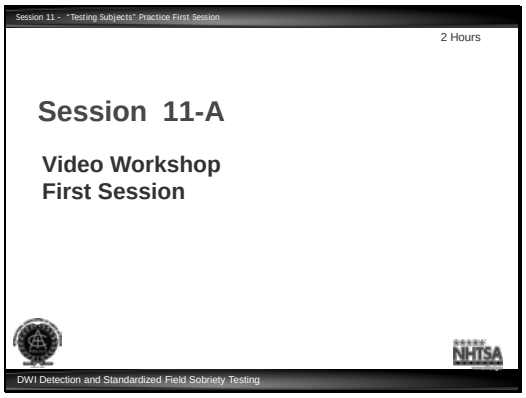
"Designated Subjects"	Horizontal Gaze Nystagmus	Walk and Turn	One Leg Stand	Arrest ?
"A"				
"B"				
"C"				
"D"				
"E"				
"F"				
"G"				

“H”				
“I”				
“J”				

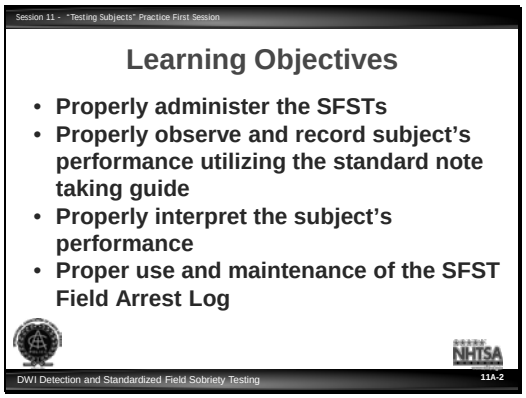
SFST FIELD ARREST LOG

Date	Name	HGN	WAT	OLS	BAC +/-.08	Arrest Not Arrest	Measured BAC	Remarks

SFST Session 11-A – Video Workshop: First Session



Notes:_____

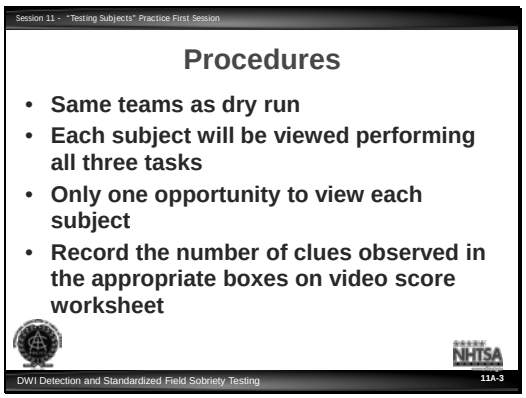


Notes:_____

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

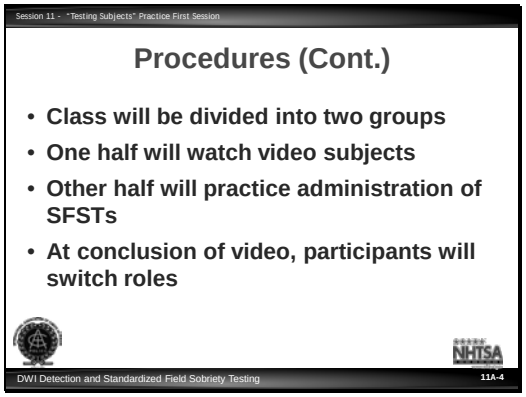
- Properly administer the SFST's
- Properly observe and record subject's performance utilizing the standard note taking guide
- Properly interpret the subject's performance
- Properly use and maintain the SFST Field Arrest Log

CONTENT SEGMENTS	LEARNING ACTIVITIES
A. Procedures	Instructor Led Presentations
B. Hands on Practice	Participant Practice Session
C. Use and Maintenance of SFST Field Arrest Log	Instructor Led Presentation
D. Session Wrap Up	Instructor Led Discussion



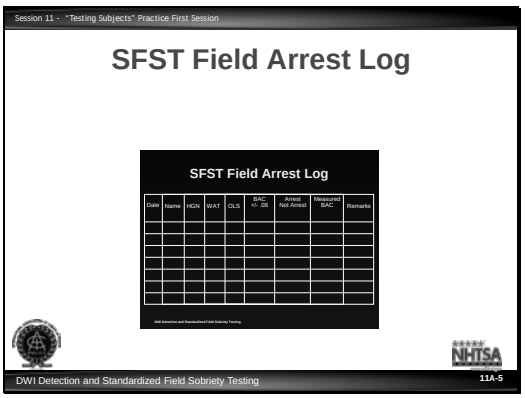
Notes:_____

A. Procedures



Notes:_____

B. Hands on Practice



Notes:_____

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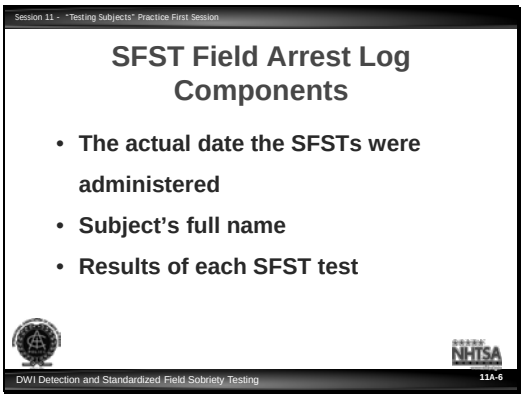

Notes:_____

This log has the following components:

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- Subject's full name
- Results of each SFST test

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- Arrest/Not Arrest
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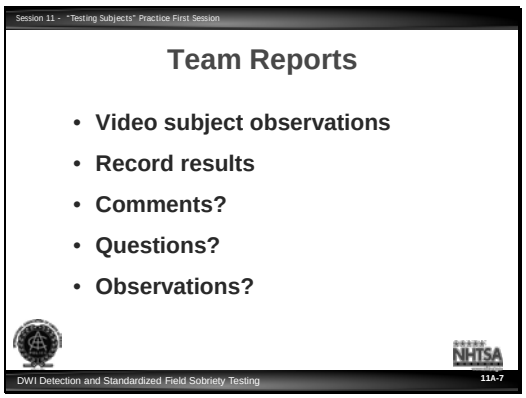
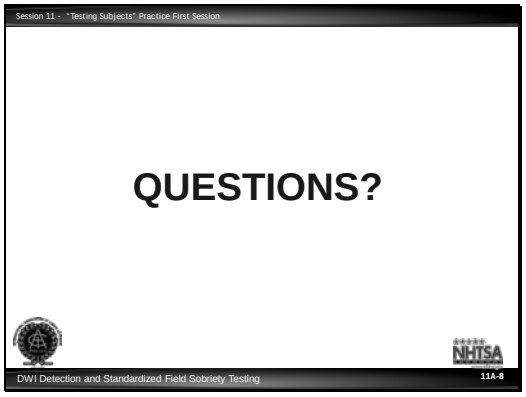
- Remarks

Utilization of Log



Notes:_____

D. Session Wrap Up



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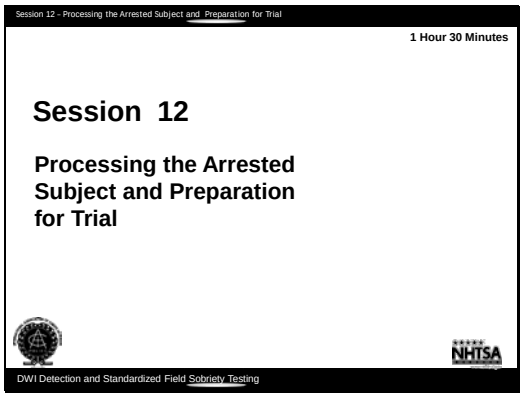

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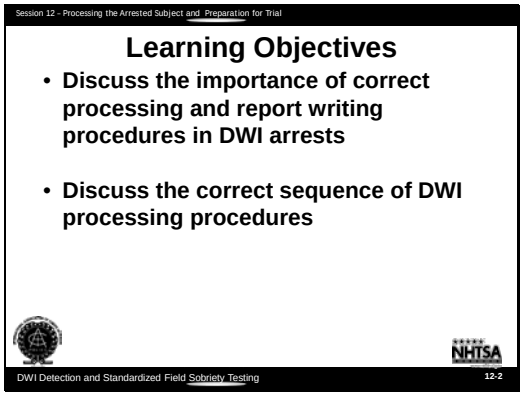


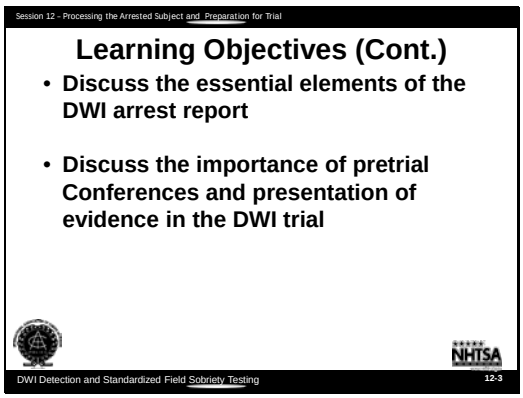
Notes:_____

At the conclusion of this session, participants will be able to:

- Discuss the importance of correct processing and report writing procedures in DWI arrests
- Discuss the correct sequence of DWI processing procedures

CONTENT SEGMENTS	LEARNING ACTIVITIES
A. The Processing Phase Video Presentation	Instructor Led Presentations
B. Narrative DWI Arrest Report	
C. Case Preparation and Pretrial Conference	Interactive Discussion Instructor Led Demonstrations
D. Guidelines for Direct Testimony	Participant Presentations

The foundation for preparation and successful testimony 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 for successful prosecution.

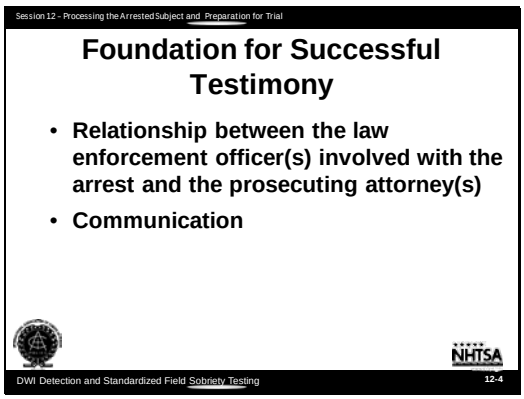


Notes:_____

- Discuss the essential elements of the DWI arrest report
- Discuss the importance of pretrial conferences and presentation of evidence in the DWI trial

You, as the state's primary witness, play an important part in illustrating to the judge/jury the impairment of the defendant. In addition to verbal testimony, visual aids are often helpful in painting the picture of the entire DWI detection process.

Visual aids engage the judge/jury and increase the retention of information. In addition, it is important that you do not use legal, law enforcement or medical terms unless absolutely necessary. The use of plain English assists the judge, jury and others involved in the case to understand the specifics of all the testimony.

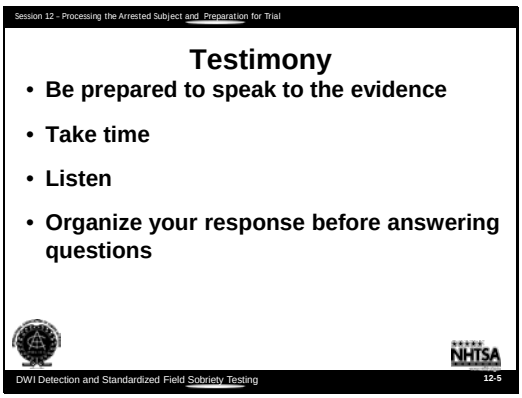


Notes:_____

A. The Processing Phase

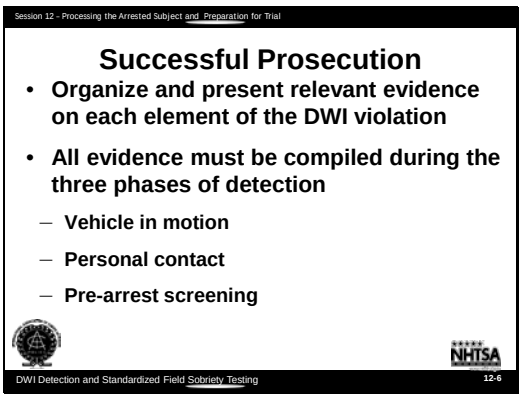
The foundation for preparation and successful testimony is the relationship between the law enforcement officer(s) involved with the arrest and the prosecuting attorney(s) associated with the case. Effective communication and a clear understanding of each group's objectives and expectations is essential for successful prosecution.

You, as the state's primary witness, play an important part in illustrating to the judge/jury the impairment of the defendant. In addition to verbal testimony, visual aids are often helpful in painting the picture of the entire DWI detection process. Visual aids engage the judge/jury and increase the retention of information. In addition, it is important that you do not use legal, law enforcement or medical terms unless absolutely necessary. The use of plain English assists the judge, jury and others involved in the case to understand the specifics of all the testimony.



Notes:_____

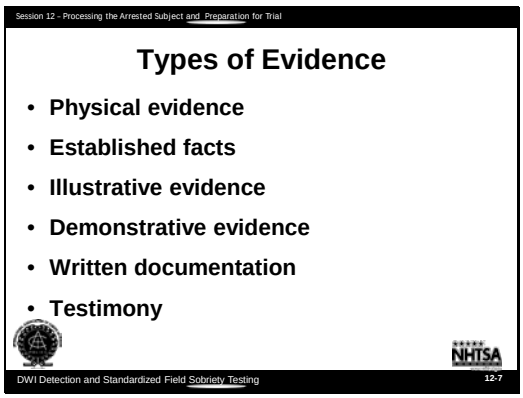
Since testimony constitutes the majority of time spent in trial, it is imperative that in addition to effective communication techniques, the witness be well prepared to speak to the evidence related to the case. Direct examination is your opportunity to tell the story. It should be an exchange between the prosecutor and the law enforcement officer. Take the time to think and make sure that you completely understand the question and organize your response before you answer. NEVER answer a question that you do not fully understand. Cross examination is NOT the time to showboat. Always, listen carefully to the question and again make sure you completely understand the question before you answer. If you do not understand the question, ask for clarification. If you are not able to fully understand the question during direct or cross examination, it is acceptable to say “I do not know,” “I cannot answer that question” or “I cannot answer that question without further explanation.” Always make sure you listen closely to the question and don’t answer a question you don’t understand.



Notes:_____

The successful prosecution of a DWI case often depends upon the officer's ability to organize and present all relevant evidence of each element of the DWI violation. Keep in mind that virtually all of this evidence must be compiled during the three phases of detection -- vehicle in motion, personal contact, and pre-arrest screening. The officer must be able to establish the level of impairment at the time that the violation occurred, therefore, observations are critical. Subsequent evidence of impairment, such as chemical test result(s) and/or the evidence gathered during a drug evaluation will be admissible only when a proper arrest has been made. The efforts expended in detecting, apprehending, investigating and testing/evaluating the DWI offender will be of little value if there is not sufficient evidence to prove every element of the violation.

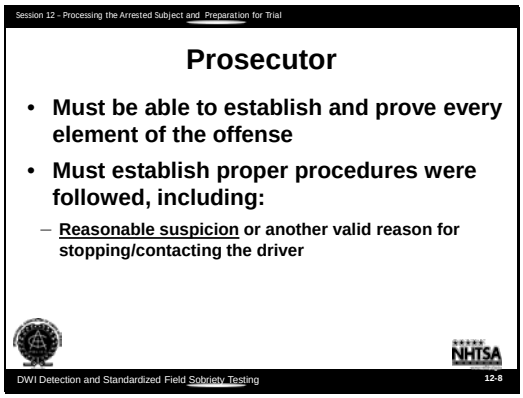
No matter how much evidence you collect, if it is not presented clearly, completely, and convincingly in court, the case may be lost. Therefore, it is essential that officers develop the ability to write a clear, complete, and concise report describing their observations and results. Additionally, the officer must be able to articulate that information to the judge/jury.



Notes:_____

Evidence of a DWI violation may be of various types:

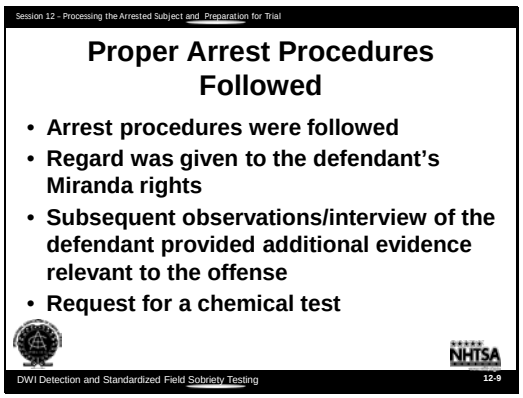
- Physical (or real) evidence: something tangible, visible, audible (e.g. a blood sample or a partially empty can of beer).
- Well established facts (e.g. judicial notice of accuracy of the breath test device when proper procedures are followed).
- Illustrative evidence: visual aids (e.g., photo of the crash scene, defendant, or diagram of the roadway).
- Demonstrative evidence: demonstrations performed in courtroom (e.g., SFSTs or other field sobriety tests).
- Written documentation (e.g. the citation, the alcohol influence report, the drug evaluation report, evidential chemical test results, etc.).
- Testimony (the officer's verbal description of what was seen, heard, smelled, etc.).



Notes:_____

The prosecutor must be able to establish and prove every element of the offense. The prosecutor also must establish that the proper procedures were followed, including:

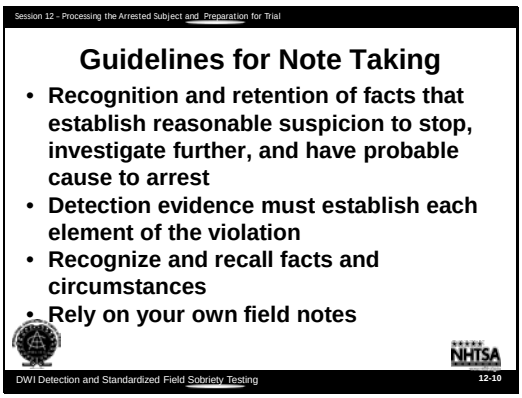
There was a reasonable suspicion or another valid reason for stopping/contacting the driver.



Notes:_____

The prosecutor's case will largely be based upon the thoroughness of the officer's investigation and the clarity of his/her testimony. While it is true that many items which are critical to the prosecution are documented on special forms, the officer must keep in mind that the prosecutor may not have the time to search out relevant facts. The decision may be made to amend, reduce, or even dismiss the case on the basis of the arrest report alone.

It is essential that the report clearly, completely, and accurately describe the total sequence of events from the point the driver was first observed, through the arrest, the chemical test, and subsequent release or incarceration.



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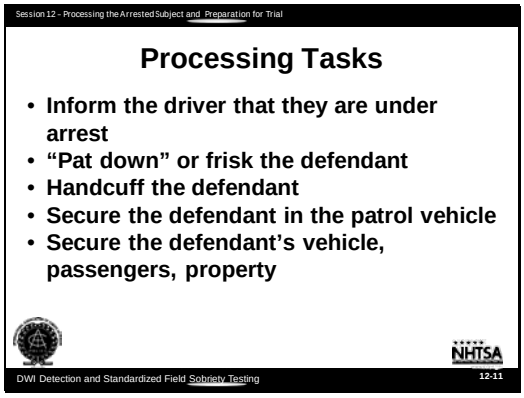
Guidelines for Note Taking

One of the critical tasks in the DWI enforcement process is the recognition and retention of facts that establish reasonable suspicion to stop the driver, investigate further, and the probable cause to arrest persons for DWI. The evidence gathered during the detection process must establish each element of the violation and must be documented to support successful prosecution of the defendant. This evidence is largely sensory (see, smell, hear) in nature and therefore is extremely short lived.

Law enforcement officers must be able to recognize and act on facts and circumstances with which they are confronted. But the officer must also be able to recall those observations, and describe them clearly and convincingly, to secure a conviction. The officer is inundated with evidence of DWI (sights, sounds, smells, etc.) recognizes it, and bases the decision to stop, investigate and arrest on their observations.

Since evidence of a DWI violation is short lived, police officers need a system and tools for recording field notes at scenes of DWI investigations. Technological advances have made it possible to use audio, video, and digital recorders in the field. They provide an excellent means of documenting this short lived evidence. However, the vast majority of officers must rely on their own field notes.

One way of improving the effectiveness of field notes is to use a structured note taking guide. This type of form makes it very easy to record brief notes on each step of the detection process and ensures that vital evidence is documented. Field notes provide the information necessary for completion of required DWI report forms and assist the officer in preparing a written narrative of the investigation. Since they can be used to refresh the officer's memory, field notes could be useful if the officer is required to provide oral testimony.



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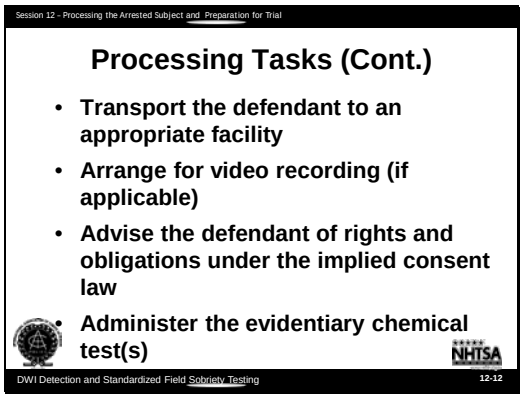
The Processing Phase of a DWI Enforcement incident is the bridge between arrest and conviction of a DWI offender. Processing involves the proper assembly and organization of all of the evidence obtained during the detection phase. This ensures that the evidence will be available and admissible in court. Processing also involves obtaining additional evidence, such as a chemical test or tests of the subject's breath, blood, etc.

Typically, the processing phase may involve the following tasks:

- Inform the driver that they are under arrest.
- "Pat down" or frisk the defendant.
- Handcuff the defendant.
- Secure the defendant in the patrol vehicle.
- Secure the defendant's vehicle, passengers, property.



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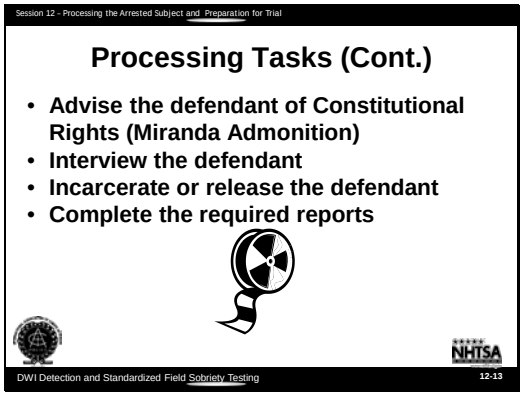
- Transport the defendant to an appropriate facility.
- Arrange for video recording (if applicable).
- Advise the defendant of rights and obligations under the implied consent law.
- Administer the evidentiary chemical test(s).



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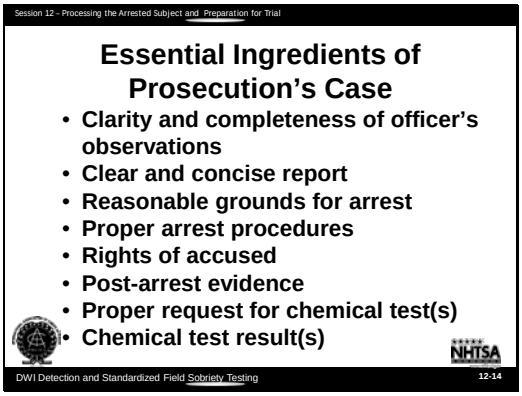
- Advise the defendant of Constitutional Rights (Miranda Admonition).
- Interview the defendant.
- Incarcerate or release the defendant.
- Complete the required reports.



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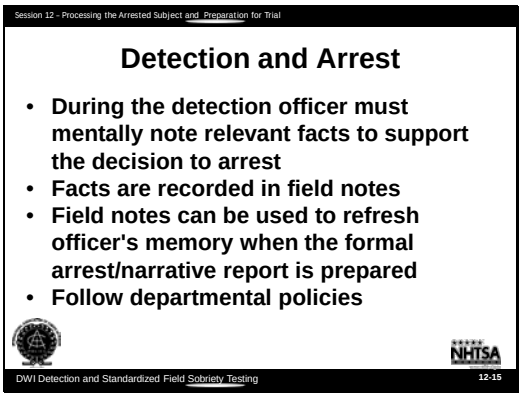
B. Narrative DWI Arrest Report

Report writing is an essential skill for a police officer. Good report writing becomes second nature with practice. While there is no one best way to write an arrest report, it is critical that the report be detailed regarding every phase of the detection and arrest process. It is helpful to follow a simple format. Departmental policies and/or special instructions or requirements of the prosecutor provide some guidance.

It is important for officers to understand the essential ingredients of the prosecution's case. Clarity and completeness of an officer's observations and relaying this information in a clear and concise report is critical. Additionally, an officer must be able to establish that he/she had reasonable grounds for the arrest and followed proper arrest procedures. Proper arrest procedures include advising the defendant of their constitutional rights and gathering additional post arrest evidence. The admissibility of chemical test evidence requires a proper request in accordance with your state's guidelines.



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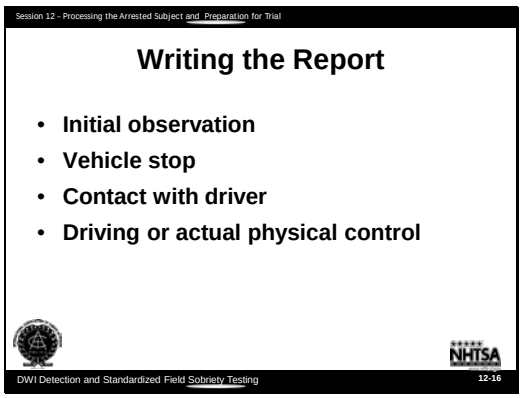
Detection and Arrest

During the detection phase of the DWI arrest process, the arresting officer must mentally note relevant facts to support the decision to arrest.

These facts are then recorded in the form of field notes and can be used to refresh officer's memory when the formal arrest/narrative report is prepared.



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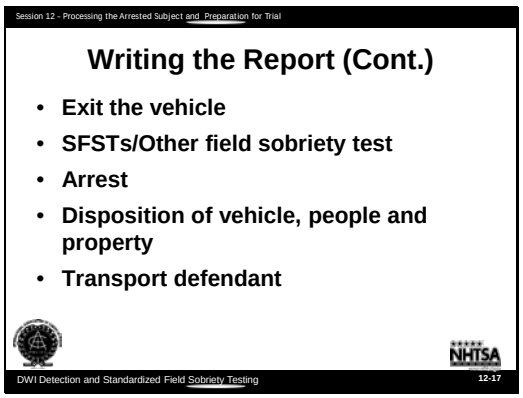
The following block outline format identifies some of the important components in a DWI arrest/narrative report:

Initial Observations - Describe your first observations of the driver's actions. What drew your attention to the vehicle/driver? Your first observations are important because they help establish your reasonable suspicion to stop. This should include details about the driving before you initiated the traffic stop. Be sure to record the time and location of the first event.

Vehicle Stop - Record any unusual actions taken by the driver. How did the driver react to the emergency light and/or siren? How far did the driver travel after emergency equipment was activated? How did the driver pull over? Was it a normal stop? Be detailed and specific.

Contact With Driver - Record your observations of the driver's personal appearance, condition of the eyes, speech, odors, inappropriate or inconsistent responses to questions, etc. Record the name and condition of passengers in the vehicle and where they were located. Describe any unusual actions taken by the driver or passengers.

Driving or Actual Physical Control - In some cases, you may not use the driving behavior as the basis for the contact. Your first contact could result from a crash investigation or a motorist assistance type of contact. Your observations and documentation must establish that the driver was operating or in actual physical control of the vehicle. You can use circumstantial evidence, such as seat belt marks, ownership of the vehicle, location of the keys, admissions, witness statements, etc. to establish this element.



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Exit From Vehicle - Record your observations of the driver's exit from the vehicle and include any unusual actions taken by the driver. Be specific about how the driver exits the vehicle. For example: climbs out of the vehicle, uses the vehicle for support, leans on the vehicle, walks slowly and/or deliberately, stumbles, etc.

Standardized Field Sobriety Tests - This should include specific details about the validated clues noted during the test. It should also include all other observations made during the SFSTs such as: did not follow directions, how quickly or slowly the driver performed the test, etc.

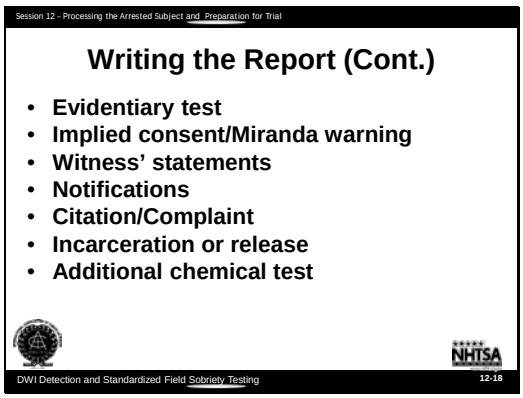
Field Sobriety Tests - Describe the driver's actions when you administered other field sobriety tests. Be specific.

Arrest - Document the arrest decision and ensure that all elements of the violation have been accurately described.

Disposition/Location of Vehicle and Keys - Indicate where the vehicle was secured or towed and the location of the keys. If the vehicle was released to another party or was driven by a backup officer, record that fact.

Disposition of Passenger and/or Property - Ensure that passengers and property are properly cared for.

Transport of Defendant - Describe where the defendant was transported for evidential testing. Document time of departure and arrival. (This information can be obtained from the radio log). Note any spontaneous or voluntary comments made by the defendant.



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Evidentiary Test - Document which test(s) were administered and by whom. Be sure to include the evidential test(s).

Implied Consent/Miranda Warning - Document that the admonishments were given at the appropriate point in the investigation.

Witness' Statements - List all witnesses (including other officers), contact information, and attach copies of their statements (if any). Additionally, make notes of any verbal statements made by witnesses.

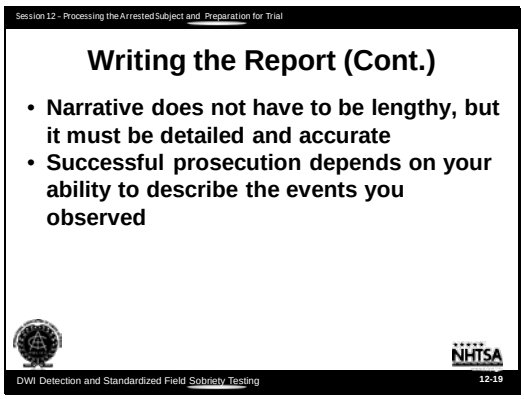
Notification of Defendant's Attorney or Other Party - Document the time and result of defendant's telephone call to an attorney or other party.

Citation/Complaint - Document that the traffic citation/complaint was issued at the appropriate time, if applicable.

Incarceration or Release - Document the time and place of incarceration or the name and address of the responsible party to whom the defendant was released. Be sure to record the time.

Additional Chemical Test - If the defendant is authorized to request additional chemical tests and does so, record the type of test, time administered, location, and party administering the test.

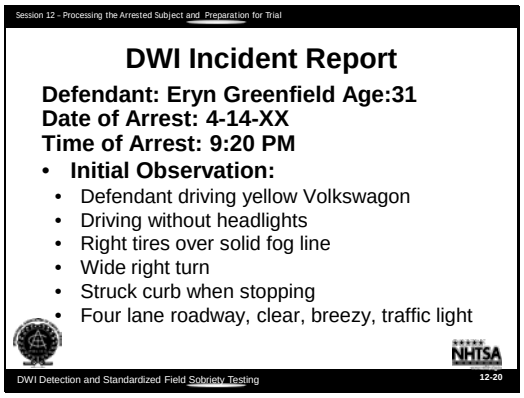
The foregoing list is not intended to be all inclusive. In many cases, several points may not be applicable and additional information not listed may apply.



Notes:_____

The narrative does not necessarily have to be lengthy, but it must be detailed and accurate. Remember, successful prosecution depends on your ability to describe the events you observed. Often a trial can be avoided (i.e., a defendant may plead guilty) when you do a thorough job in preparing your arrest report.

A sample report providing an example of the block outline format is at the end of this session.



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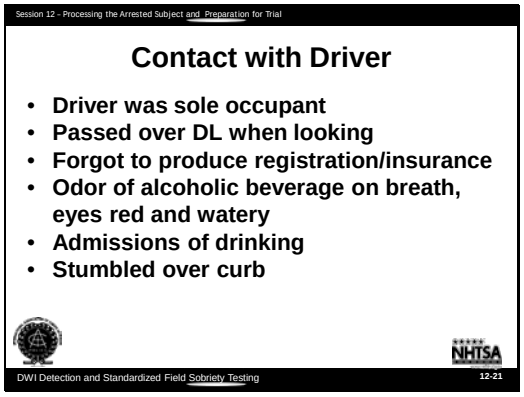


Notes:_____

Field Sobriety Tests

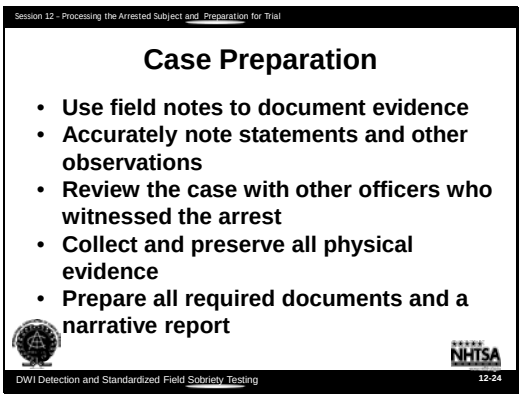
- **HGN – Lack of smooth pursuit, distinct nystagmus at maximum deviation, angle of onset prior to 45 degrees in both eyes**
- **Walk and Turn – Lost balance , raised arms for balance (2x), missed heel to toe, 10 steps, and improper turn**
- **One Leg Stand – Raised left leg, put foot down on 1006 and 1009, skipped 1017, raised right arm for balance, reached 1019 in 30 seconds**

Notes:_____

Field Sobriety Tests (Cont.)

Based on observations of the defendant's driving, physical appearance, and performance of standardized field sobriety tests, she was placed under arrest for DWI.

Notes:_____



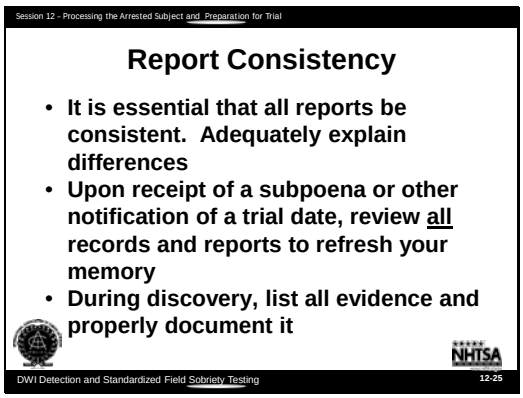
Notes:_____

C. Case Preparation and Pretrial Conference

As was discussed earlier in Session 4, case preparation begins with your first observation and contact with the driver. It is essential that all relevant facts and evidence are mentally noted and later documented in field notes, narrative report, or other official forms.

Guidelines for Case Preparation

- Use field notes to document evidence.
- Accurately note statements and other observations.
- Review the case with other officers who witnessed the arrest or otherwise assisted you and write down relevant facts.
- Collect and preserve all physical evidence.
- Prepare all required documents and a narrative report.



Notes:_____

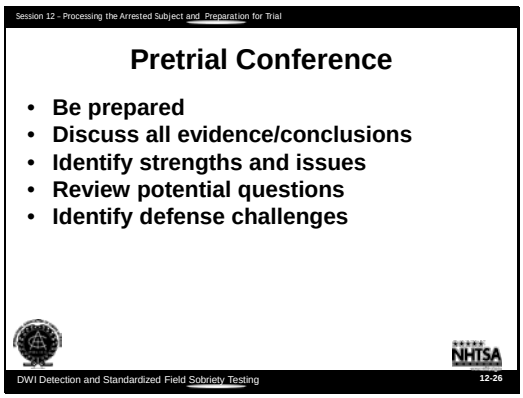
Remember, it is essential that all reports be consistent. If differences occur, be sure to adequately explain them. The defense will try to impeach your testimony by pointing out seemingly minor inconsistencies.

Preparation for Trial

Upon receipt of a subpoena or other notification of a trial date, review all records and reports to refresh your memory. If appropriate, revisit the scene of the arrest. Compare notes with assisting officers to ensure that all facts are clear.

During discovery, list all evidence and properly document it. Remember, evidence may be excluded if proper procedures are not followed.

Attention to detail is very important.

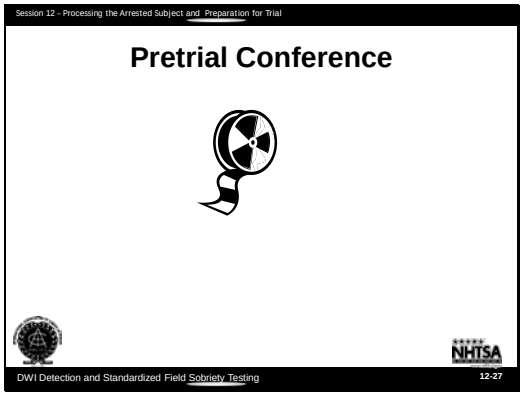


Notes:_____

Successful prosecution is dependent upon the prosecutor's ability to present a clear and convincing case based on your testimony, physical evidence, and supporting evidence/testimony from other witnesses and/or experts.

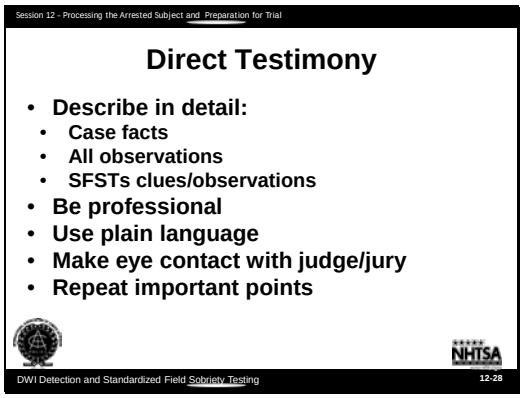
If at all possible, arrange a pretrial conference with the prosecutor. In preparation for the pretrial conference, you should review the entire case file. During the conference, discuss with the prosecutor all evidence and all basis for your conclusions. If there are strengths or issues in your case, bring them to the prosecutor's attention. Ask the prosecutor to review the questions that will be asked on the witness stand. Point out when you do not know the answer to a question. Ask the prosecutor to review questions and challenges the defense attorney may use. Make sure your Curriculum Vitae is current. Review your credentials and qualifications with the prosecutor.

If you cannot have a pretrial conference, try to identify the main points and weaknesses about the case, and be sure to discuss these with the prosecutor during the few minutes you will have just before the trial.



Notes:_____

Video segment "Pretrial Conference"



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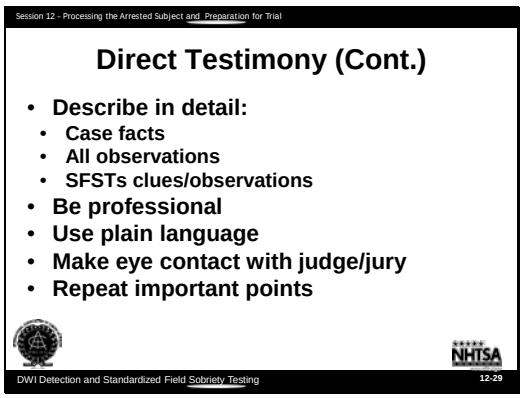
D. Guidelines for Direct Testimony

Your basic task is to establish the facts of the case:

That the subject was driving or in actual physical control of a vehicle on a highway or other specified location within the court's jurisdiction and was impaired by alcohol and/or other drugs.

In other words, to present evidence to establish reasonable suspicion for the stop, probable cause for the arrest, and conclusive evidence regarding every element of the offense.

Describe in a clear, detailed, and convincing manner all relevant observations during the three detection phases and those subsequent to the arrest. Describe clearly how the defendant performed (e.g., "stepped off the line twice on steps 2 and 4, raised the arms on steps 5 and 7 going out and step 3 coming back, etc."). By presenting your observations clearly and convincingly, you will allow the fact of the defendant's impairment to speak for itself. Direct testimony should include all relevant information about this incident.



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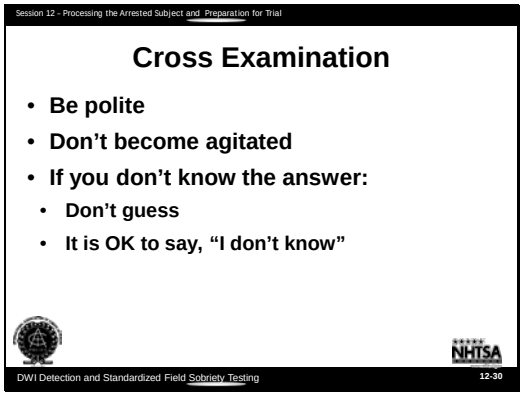
Always keep in mind that juries typically focus on an officer's demeanor as much or more than on the content of the testimony. Strive to maintain your professionalism and impartiality. Be clear in your testimony; explain technical terms in layman's language; don't use jargon, abbreviations, acronyms, etc. Make eye contact with the judge/jury; they are the people you are trying to convince. Repeat important points and continued observations about the defendant.



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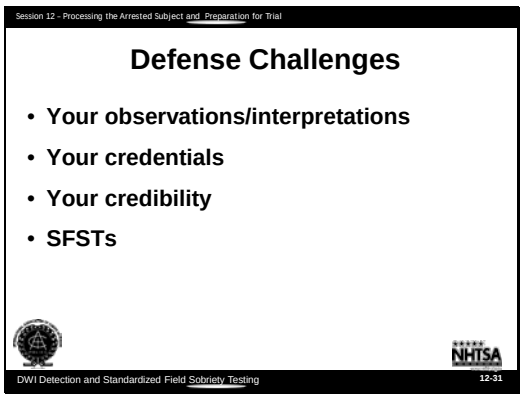
Cross Examination/Defense Challenges

In many cases, you will be the key witness for the prosecution. Therefore, the defense will try very hard to cast doubt on your testimony.

Be polite and courteous. Do not become agitated in response to questions by the defense. Above all, if you don't know the answer to a question, say so. Don't guess at answers, or compromise your honesty in any way. Be professional and present evidence in a fair and impartial manner.



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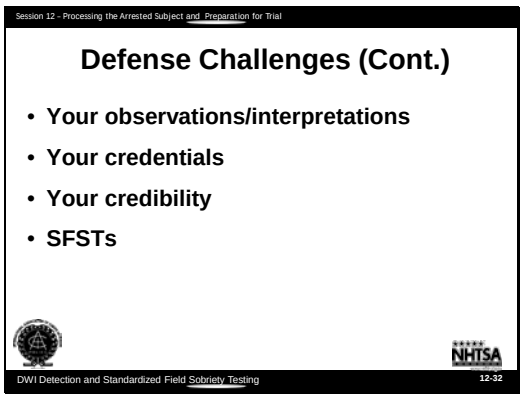
The defense will ask questions to challenge your observations and interpretations. For example, you may be asked whether the signs, symptoms and behaviors you observed of the defendant couldn't have been caused by an injury or illness, or by something other than the alcohol/drugs. You will be asked questions to create doubt about your observations. Answer these questions honestly, but carefully. If your observations are not consistent with an illness or injury, explain why not. Clearly testify that your opinion is based on everything that was observed during the DWI investigation.

The defense will attempt to challenge your credentials by asking questions to cast doubt on your formal training. They will ask questions to "trip you up" on technical or scientific issues. Answer all questions about your training and experience completely and accurately, but don't embellish. Answer scientific or technical questions only if you have been trained in that area.



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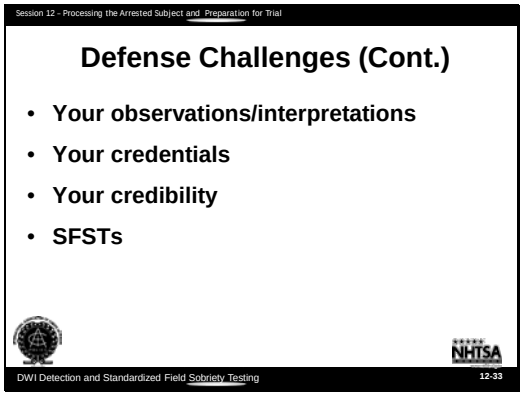
The defense will ask questions to challenge your credibility. You may be asked several very similar questions in the hope that your answers will be inconsistent.

You may be asked questions designed to imply you had already formed your opinion before the defendant completed the field sobriety tests. Listen to the questions carefully and emphasize your arrest decision was made at the completion of your DWI investigation and based on ALL available evidence.

You may be asked questions that suggest you deviated from your training. These questions may suggest you eliminated portions of the tests or gave incomplete or confusing instructions. One way you can refute these defense challenges is by administering the Standardized Field Sobriety Tests as you were trained. If deviations to the protocol occur, it is important to explain why. Standardization ensures both consistency and credibility.



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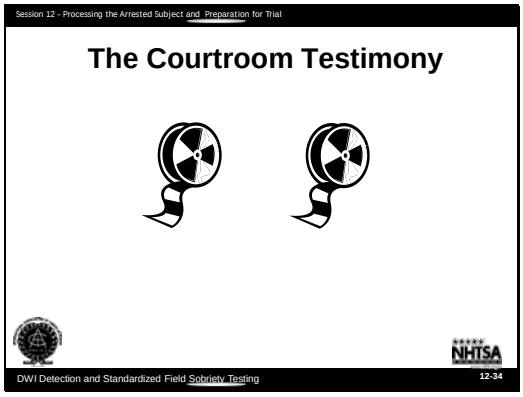
You may be asked questions that suggest the Standardized Field Sobriety Tests are not relevant. These questions will suggest that SFSTs have no relationship to driving. For example, a defense attorney may suggest that standing on one leg does not correlate with the ability to drive safely. The divided attention tests assess the same mental and physical capabilities that a person needs to drive safely. These include:

- Information processing
- Short term memory
- Judgment and decision making
- Balance
- Steady, sure reactions
- Clear vision
- Small muscle control
- Coordination of limbs



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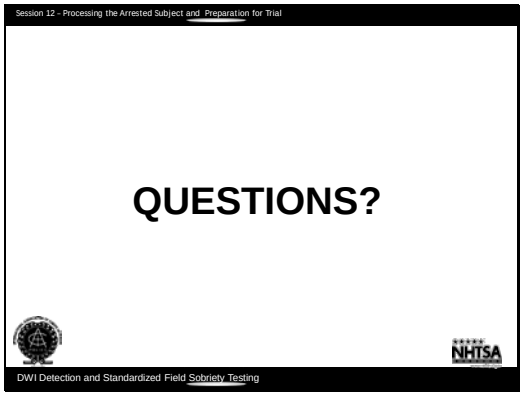
Video segment "The Courtroom Testimony"


Session 12 - Processing the Arrested Subject and Preparation for Trial
QUESTIONS?
NHTSA
DWI Detection and Standardized Field Sobriety Testing

Notes:_____

TRIAL TIPS AND TECHNIQUES

Courtroom Decorum

1. TELL THE TRUTH. Honesty is the best policy. Telling the truth requires a witness testify accurately as to what he knows. If you tell the truth and are accurate, you have nothing to fear on cross examination.

2. Provide your professional Curriculum Vitae to the prosecutor and, if requested, bring it to court with you.

3. READ YOUR INCIDENT REPORT prior to arrival at court. Go over the details and refresh your memory of the events of the arrest. If you cannot locate a copy of your report, ask the prosecutor prior to the court date.

4. Dress neatly and professionally; leave sunglasses, gloves, flashlight and other cumbersome equipment in your car before coming into the courtroom, unless needed for a demonstration.

5. Do not guess the answer to any question asked. It is OKAY to say “I don’t know” or “I can’t remember” in response to questions. Do not give the impression that you are guessing the answer by prefacing your response with “I think” or “I believe.” If you do not know the answer, it is okay to look at your report and refresh your memory. Always give definitive, positive, sure answers.

6. Listen carefully to the question asked. Do not begin your answer until the attorney has finished asking the question. Be sure you understand the question before you attempt to give an answer. It is appropriate if you don’t understand the question to say “I don’t understand your question.” If necessary, ask that the question be repeated or rephrased.

7. Take your time. Do not feel pressured to give a quick answer. Take time after the question is asked to think before you answer. After a question is asked, there may be an objection. When you hear the word, “objection,” stop testifying.

8. Answer the question that is asked, then stop. Do not volunteer information not asked. Explain an answer if you feel your answer appears ambiguous or incomplete. You are always permitted to explain your answer. Tell the prosecutor prior to your testimony if there is anything you feel they do not know about the case.

9. Always be professional in the courthouse. Jurors could be anywhere at any time.

10. Speak loud and clear so that you can be easily heard.

11. Look at the judge/jury when testifying. Always make eye contact with who you are trying to convince. During a bench trial, look at the judge. During a jury trial, look at the jury. This applies even when the attorney asking the question is not standing near the judge or jury box. Always talk to the judge or jury and maintain eye contact with them, even if it feels unnatural.

12. Always be courteous, even when the defense attorney is not. Control your emotions, and never allow yourself to be drawn into an argument. Remember, the best way to make a good impression with the judge/jury is to be courteous and professional. You were just doing your job during the arrest, and presenting the facts in court as they occurred.

13. Testify in plain language. Do not say, “The perpetrator exited the vehicle” when in reality “the defendant got out of his car.” The person on trial is never a “lady” or “gentlemen,” but is always “the defendant.” Do not use military times without clarifying the time in laymen’s terms. Do not use call signals. It makes more sense to the jury when you speak the same language they do.

14. It is the best practice to discuss the case with the prosecutor before trial. A defense attorney may ask if you’ve had a pretrial conference with the prosecutor. Tell the truth. Preparation for court is acceptable. Be straight forward in answering all questions.

15. Always tell the truth. No case is worth sacrificing your credibility.

Specific DWI Trial Recommendations

1. Never give the numerical PBT reading of the defendant when asked by the prosecutor. However, if the defense attorney asks you for the NUMERICAL reading, give it to him/her. The prohibition of PBT results of a defendant do not apply to witnesses, such as passengers in the car.

2. Discuss with the prosecutor, pre-trial, whether or not to demonstrate how you conducted field sobriety tests. Be certain that you can do in court all the tests you asked the defendant to perform at the time of the arrest. If you cannot do them, the jury will not expect that the defendant could have done them properly.

3. Know the reasons for giving field sobriety tests:
   - They are **divided attention tests**, designed to detect when a person is impaired by alcohol and/or drugs.
   - They provide evidence of impairment in cases where the defendant refuses to take a chemical test under implied consent.
   - They prevent an arbitrary decision to arrest, and allow an officer to articulate the reasons for concluding that a driver was DWI.

4. If you testify to the accuracy of the field sobriety tests, make sure you know the studies, percentages, and their significance. Considered independently, the Nystagmus test was 88% accurate, the Walk and Turn, 79% accurate, and the One Leg Stand, 83% accurate in identifying subjects whose BAC were .08 or more.

5. Remember, you should not testify that the defendant passed or failed the SFSTs. The tests are not scored “pass” or “fail.” You should testify if the defendant completed the tests as instructed. These tests simply identify impairment.

SAMPLE DWI INCIDENT REPORT

Defendant:	Eryn Greenfield
Age:	31Years
Date of Birth:	10/03/XX
Date of Arrest:	XX-XX-XX
Time of Arrest:	9:20 pm
CA - D.L. #:	CA 1234567

First Observations:

On XX-XX-XX at approximately 9:00 p.m., I was patrolling westbound on Reed Avenue at the intersection with Interstate 80 (fully marked CHP patrol vehicle #904534). I was stopped at the intersection preparing to make a left turn onto eastbound I-80. I observed a yellow Volkswagon (S/V) traveling down the eastbound I 80 exit ramp approaching the intersection with Reed Avenue. I noticed the S/V traveling with no headlights. I also noticed that the front right parking light was not working correctly. Furthermore, I noticed the right tires of the S/V travel over the solid white fog line on the exit ramp by approximately 2 feet. The S/V made a brief stop at the intersection, then made a right turn onto eastbound Reed Avenue without using a turn signal. I made a U turn and followed the S/V. The S/V then made a wide right turn from Reed Avenue onto southbound Riverpoint Drive without using a turn signal. An enforcement stop was initiated at which point the S/V began to pull to the right. At the point the right front tire of the S/V rubbed up onto the raised concrete curb that paralleled the roadway.

Observations After The Stop:

I approached the S/V on the passenger side and made contact with the driver (convertible top down). I immediately noticed that the driver had red, bloodshot, watery eyes. I advised her of the reason for the stop and asked if her vehicle had any mechanical problems. She stated, “no.” I requested her driver’s license, registration, and insurance. The driver removed a stack of cards from her wallet, which was located in her purse on right front passenger seat. She began sifting through the stack of cards. I observed her clearly pass by her license and continue searching through the cards. Unable to locate her license on the first attempt, she started over at the top and located the license on the second attempt. She was identified as Eryn Greenfield by California driver’s license (#CA1234567). After handing me the license, she did not make an attempt to retrieve the other documents I had requested. I asked her again for the registration and insurance cards. She then retrieved them out of the glove compartment. I asked her how much alcohol she had consumed and she stated “a couple of beers about an hour ago.” I asked her what size and type of beer and she replied with 12oz. bottles of Heineken. I asked her if she felt the effects of the drinks and she stated, “No, I feel fine.” As she spoke, I noticed that her speech was slurred. I

asked her to exit the vehicle and step to the side walk so I could administer several field sobriety tests to her (see field sobriety test section). As she exited the vehicle, she stepped around the front as instructed, then stumbled on the raised curb. I asked her several pre-field sobriety test questions of which she answered accordingly (see page 2 of face page). As I communicated with her, I smelled an odor of alcoholic beverage emitting from her breath.

Field Sobriety Tests:

This evaluation was performed on Riverpoint Drive, just south of Reed Avenue. The evaluation surface was smooth concrete. Lighting conditions consisted of patrol vehicle headlights, spotlights, overhead lights, streetlight, and my flashlight. No surface defects were noted or claimed. It was noticeably windy.

Horizontal Gaze Nystagmus (explained):

I observed lack of smooth pursuit, distinct and sustained nystagmus at maximum deviation, and an onset of nystagmus prior to 45 degrees in both of Greenfield's eyes. Greenfield was swaying forward and backward significantly during the test. At least 3 inches in both directions.

Walk and Turn (explained and demonstrated):

Instruction Stage: Lost balance (feet broke apart)

Walking Stage (1st Nine): Walked 10 steps (counted 10).
Raised left arm over 6 inches away from body to assist with balance on one occasion (at steps 4 - 5).

Walking Stage (2nd Nine): Walked 10 steps (counted 9).
Raised left arm over 6 inches away from body to assist with balance on tow occasions (at steps 6 - 7).

Turn: Lost balance during turn and did not turn as instructed. Greenfield only took one step during the turn instead of several small steps as instructed.

One Leg Stand (explained and demonstrated):

While explaining the test, Greenfield started before being told to begin. Greenfield raised her left leg and began counting. She put her foot down on counts 1006 and 1009. As she was counting, she skipped 1017 (counting from 1016 to 1018). Used right arm for balance (6+ inches from body) and was swaying while balancing. She counted to 1019 after 30 seconds.

Arrest:

Based on the following information, I formed the opinion that Greenfield was driving under the influence:

- Driving at night with no headlights.
- Driving to the right of the solid white fog line on exit ramp.
- Making wide right turn from eastbound Reed Avenue to southbound Riverpoint Drive without using a turn signal.
- Right tire rubbing against raised concrete curb after stop was initiated.
- I observed divided attention problems while retrieving her license/registration and insurance.
- Her red, bloodshot, watery eyes and slurred speech.
- Her admissions to consuming alcoholic beverages.
- Stumbling over curb after exiting the vehicle.
- Odor of alcoholic beverage emitting from her breath.
- I observed signs of impairment as she performed the standardized field sobriety tests.

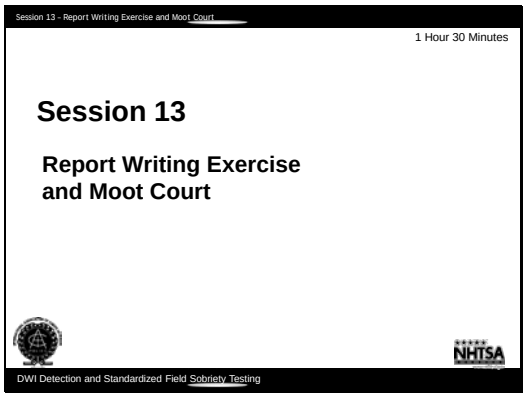
I arrested Greenfield for driving under the influence of an alcoholic beverage at 9:20 p.m. Greenfield was given the proper chemical testing advisement. She chose a breath test and was transported to the breath testing facility. She provided two breath samples of 0.08 and 0.08 at 9:50 p.m. and 9:52 p.m. She was then booked along with her property.

Recommendations:

I recommend a copy of this report be forwarded to the district attorney's office for review and prosecution of Greenfield for driving under the influence and driving with a blood alcohol concentration at or above the legal state limit.

Vehicle Disposition:

Greenfield's vehicle was stored by Reliable Towing.



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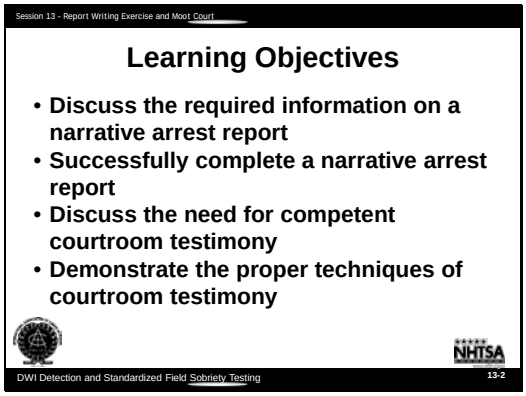


Notes:_____

At the conclusion of this session, participants will be able to:

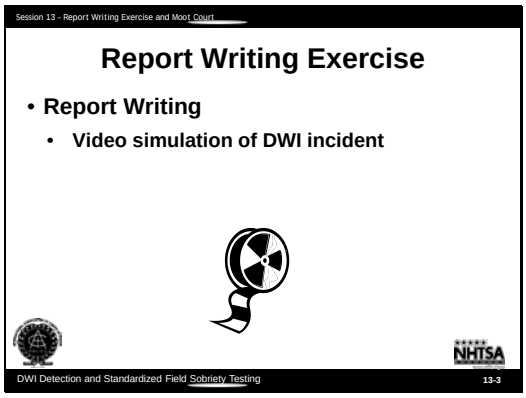
- Discuss the required information on a narrative arrest report
- Successfully complete a narrative arrest report
- Discuss the need for competent courtroom testimony
- Demonstrate the proper techniques of courtroom testimony

CONTENT SEGMENTS

A. Procedures
B. Report Writing Exercise
C. Moot Court Exercise

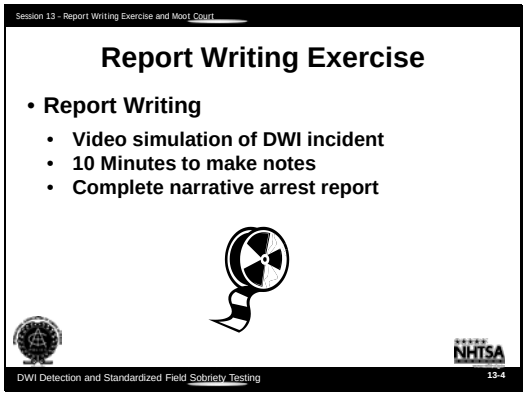
LEARNING ACTIVITIES

Instructor Led Presentations
Video Presentation
Writing Skills Exercise
Participant's Courtroom Testimony Exercise
Instructor Led Discussion



Notes:_____

A. Procedures



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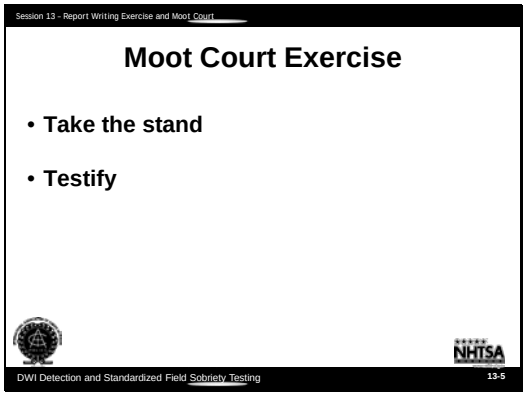
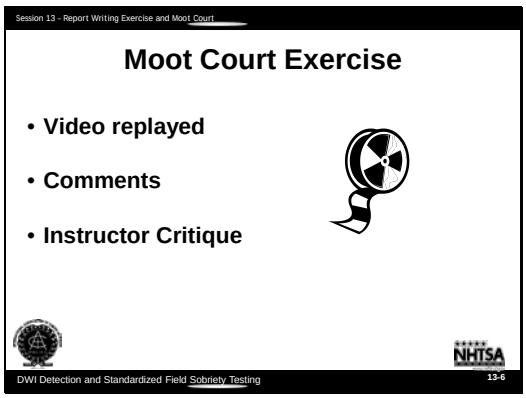


Notes:_____

The Moot Court Exercise



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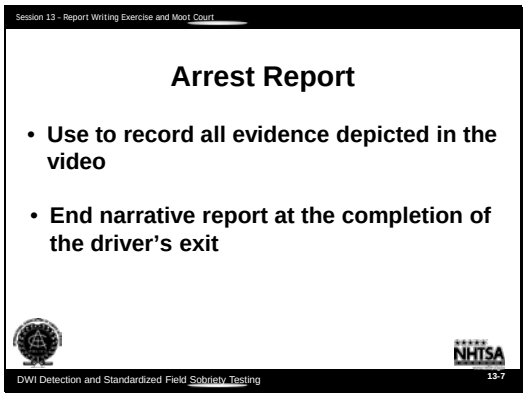
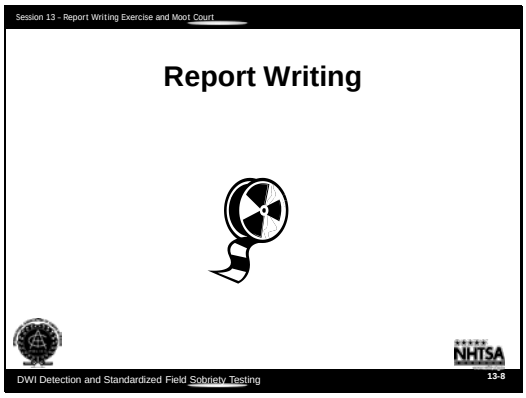


Notes:_____

Distribution of Standardized Note Taking Guide/Narrative Arrest Report Forms

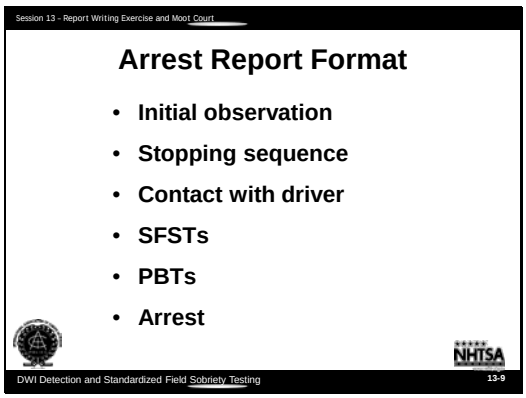


Notes:_____

B. Report Writing Exercise

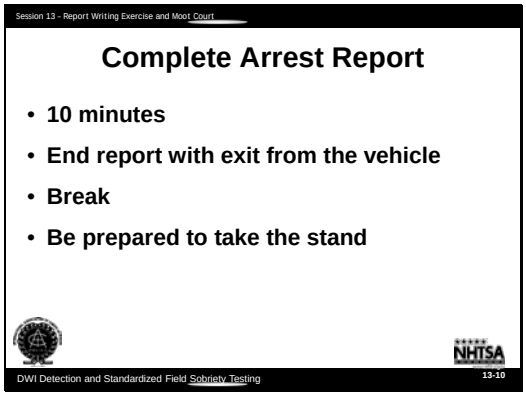
"Report Writing" video.

Notes:_____



The arrest report should contain the following elements:

- Initial observations of vehicle in operation
- Observations of the stop
- Observation and interview of driver
- Observations of the driver's exit
- SFSTs
- Arrest



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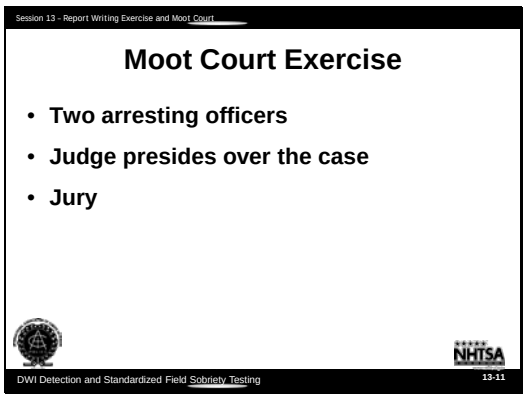
Completion of Narrative Arrest Reports



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C. Moot Court Exercise

Notes:_____
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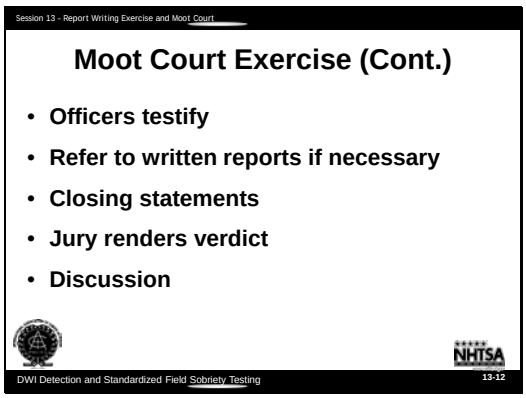
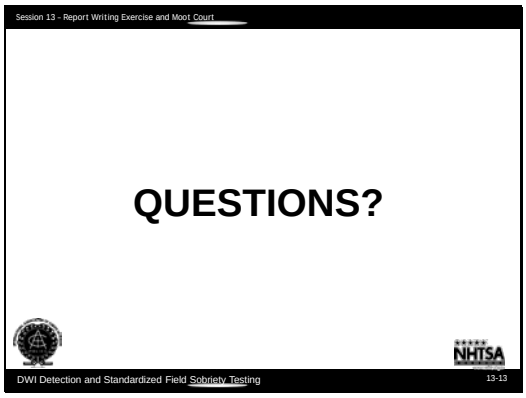
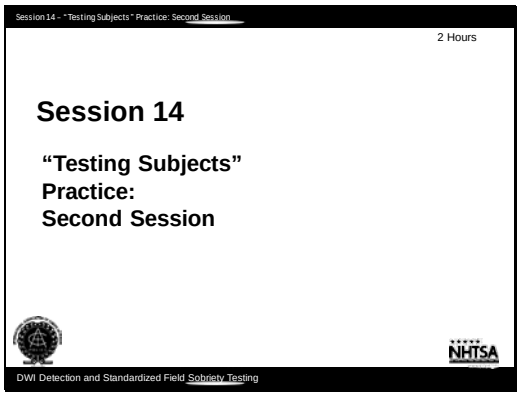

Session 13 - Report Writing Exercise and Moot Court
Moot Court Exercise (Cont.)
• Officers testify
• Refer to written reports if necessary
• Closing statements
• Jury renders verdict
• Discussion
NHTSA
DWI Detection and Standardized Field Sobriety Testing
13-12


Session 13 - Report Writing Exercise and Moot Court
QUESTIONS?
NHTSA
DWI Detection and Standardized Field Sobriety Testing
13-13

Notes:_____



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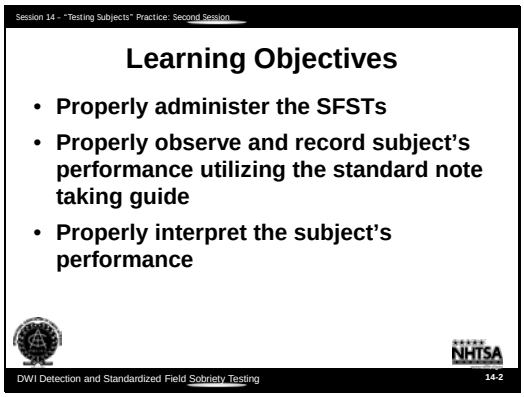


Notes:_____

At the conclusion of this session, participants will be able to:

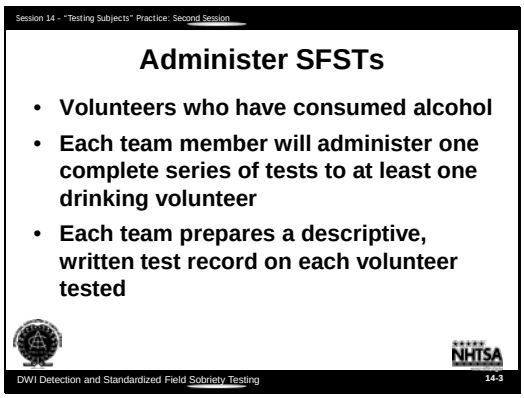
- Properly administer the SFSTs
- Properly observe and record subject’s performance utilizing the standard note taking guide
- Properly interpret the subject’s performance

CONTENT SEGMENTS

A. Procedures
B. Hands on Practice
C. Session Wrap Up

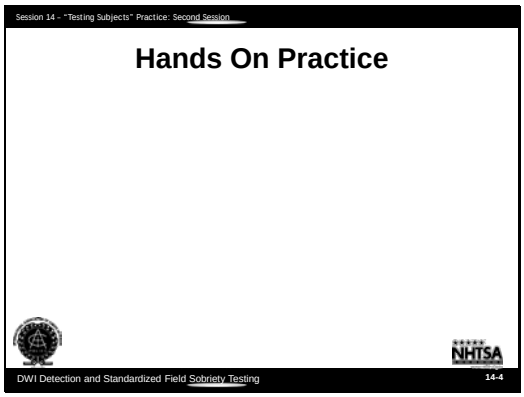
LEARNING ACTIVITIES

Instructor Led Presentations
Participant Practice Session
Instructor Led Discussion



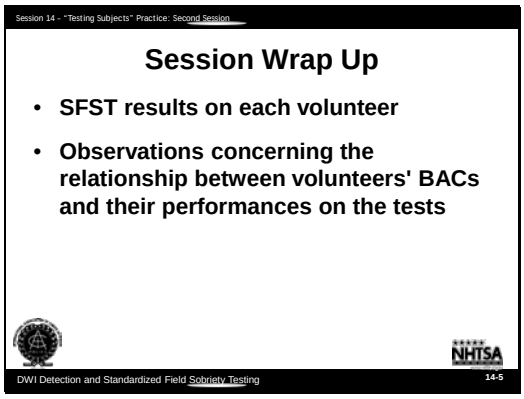
Notes:_____

A. Procedures



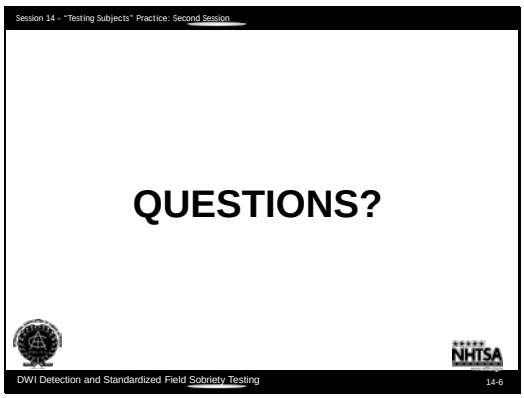
Notes:_____

B. Hands on Practice



Notes:_____

C. Session Wrap Up



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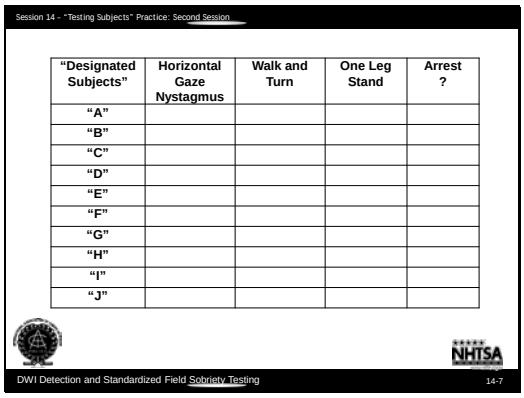
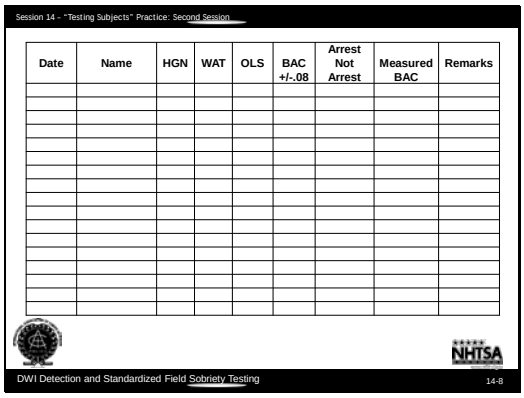


Notes:_____

SAMPLE DRY ERASE BOARD ARRAY FOR TABULATING RESULTS



Notes:_____

SAMPLE DRY ERASE BOARD ARRAY FOR TABULATING RESULTS

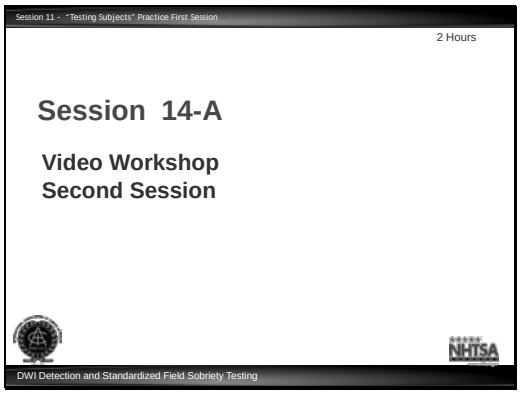
SAMPLE DRY ERASE BOARD ARRAY FOR TABULATING RESULTS

"Designated Subjects"	Horizontal Gaze Nystagmus	Walk and Turn	One Leg Stand	Arrest?
"A"				
"B"				
"C"				
"D"				
"E"				
"F"				
"G"				
"H"				
"I"				
"J"				

SFST FIELD ARREST LOG

Date	Name	HGN	WAT	OLS	BAC +/-.08	Arrest Not Arrest	Measured BAC	Remarks

SFST Session 11-A – Video Workshop: Second Session



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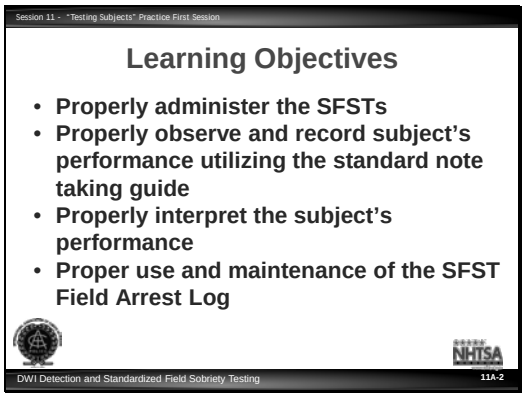
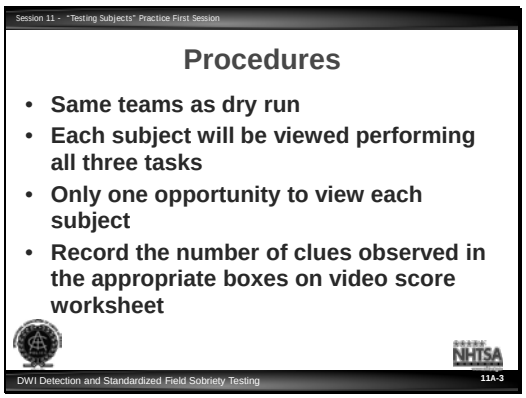


Notes:_____

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

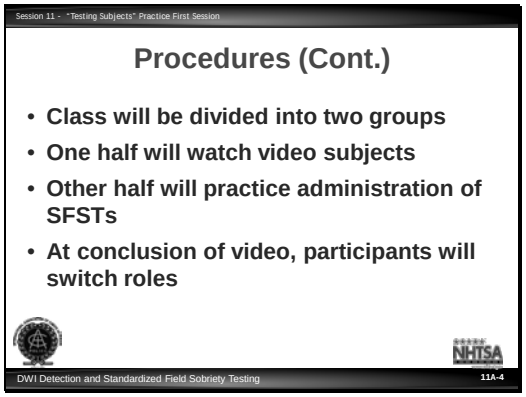
- Properly administer the SFST's
- Properly observe and record subject's performance utilizing the standard note taking guide
- Properly interpret the subject's performance
- Properly use and maintain the SFST Field Arrest Log

CONTENT SEGMENTS	LEARNING ACTIVITIES
A. Procedures	Instructor Led Presentations
B. Hands on Practice	Participant Practice Session
C. Use and Maintenance of SFST Field Arrest Log	Instructor Led Presentation
D. Session Wrap Up	Instructor Led Discussion



Notes:_____

A. Procedures



Notes:_____

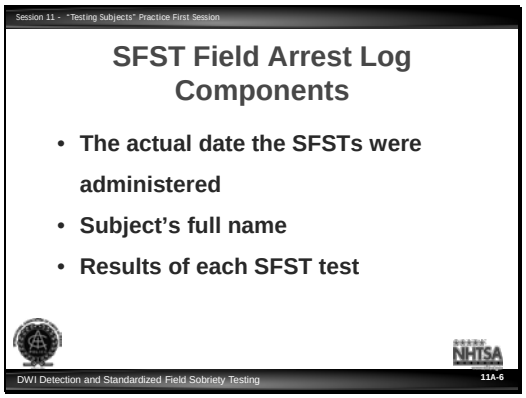
B. Hands on Practice

Notes:_____

C. Use and Maintenance of SFST Field Arrest Log (IACP strongly recommends the use of this log)

The SFST Field Arrest Log is used to record the results of the SFSTs performed on suspected impaired subjects.

This log is important in documenting an officer's experience and proficiency in performing and interpreting SFSTs.



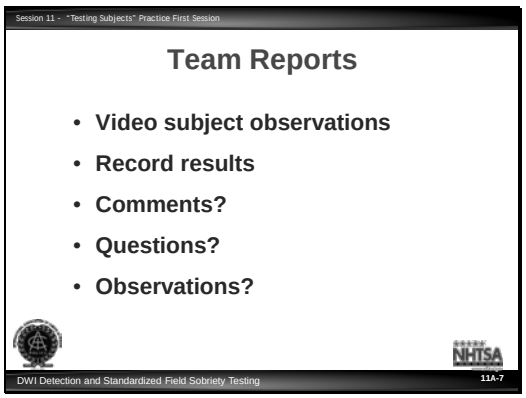
Notes:_____

This log has the following components:

- The actual date the SFSTs were administered
- Subject's full name
- Results of each SFST test

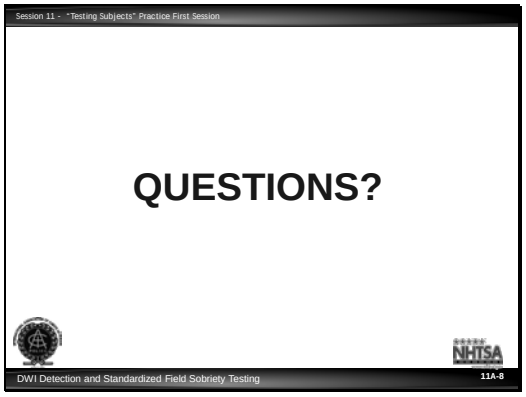
- Classification of BAC as above or below 0.08 BAC
- Arrest/Not Arrest
- Subject's measured BAC (if available)
- Remarks

Utilization of Log



Notes:_____

D. Session Wrap Up



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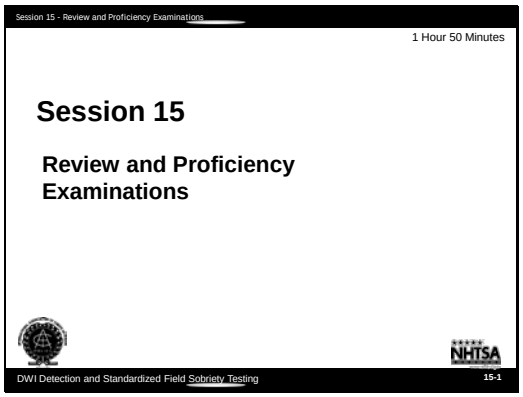

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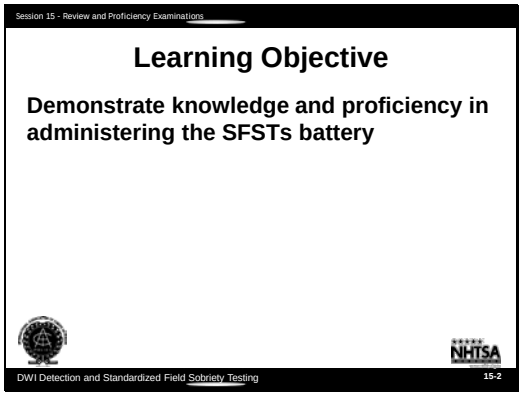
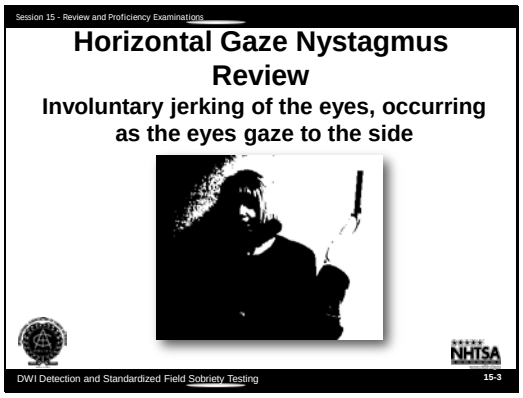


Notes:_____

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

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

CONTENT SEGMENTS	LEARNING ACTIVITIES
A. Review of Horizontal Gaze Nystagmus	Instructor Led Presentations
B. Review of Walk and Turn Demonstrations	Instructor and Participant Led
C. Review of One Leg Stand	
D. Video Demonstrations	Video Demonstration (Second Showing) IF TIME PERMITS
E. Proficiency Exam	Participant Proficiency Examination



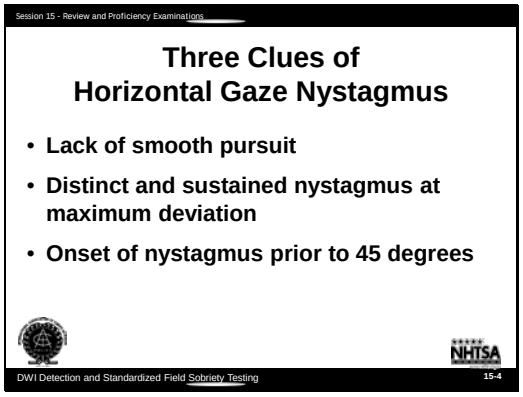
Notes:_____

A. Review of Horizontal Gaze Nystagmus

Involuntary jerking of the eyes, occurring as the eyes gaze to the side.

The subject is generally unaware of the nystagmus.

Nystagmus is caused by alcohol and/or other drugs and some medical conditions.

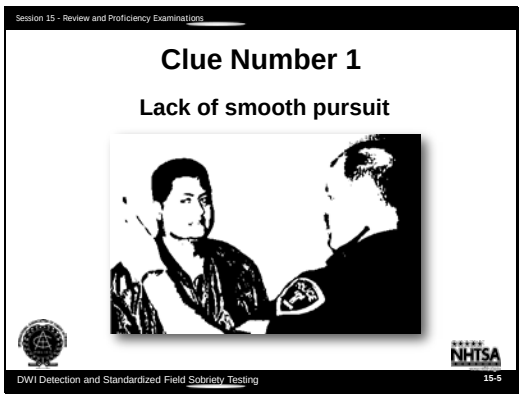


Notes:_____

Three specific clues of Horizontal Gaze Nystagmus.

Look for these clues in each eye:

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



Notes:_____

Clue No. 1: Lack of Smooth Pursuit

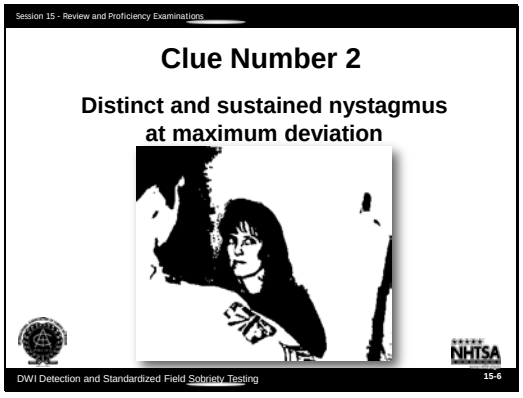
Position stimulus approximately 12 - 15 inches (30 - 38 cm) in front of subject's nose, slightly above eye level.

Start with the left eye.

Move the stimulus smoothly all the way to the right side (checking subject's left eye) then all the way to the left side (across subject's nose) to the left side (checking subject's right eye).

Make at least two complete passes.

Observe eyes for signs of nystagmus as they move side to side.



Notes:_____

Clue No. 2: Distinct and Sustained Nystagmus at Maximum Deviation

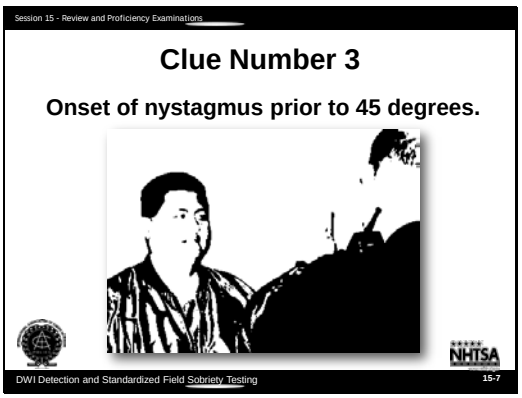
Move the stimulus to the right until the subject's left eye reaches maximum deviation.

Verify that no white is showing in the corner of the eye.

Hold the stimulus steady for a minimum of four seconds, and watch for distinct and sustained nystagmus.

Repeat for right eye.

Check each eye twice for each clue.



Notes:_____

Clue No. 3: Onset of Nystagmus prior to 45 Degrees

Position stimulus approximately 12 - 15 inches (30 - 38 cm) in front of subject's nose, slightly above eye level.

Begin to make a slow pass in front of the left eye.

When you see nystagmus, stop the stimulus.

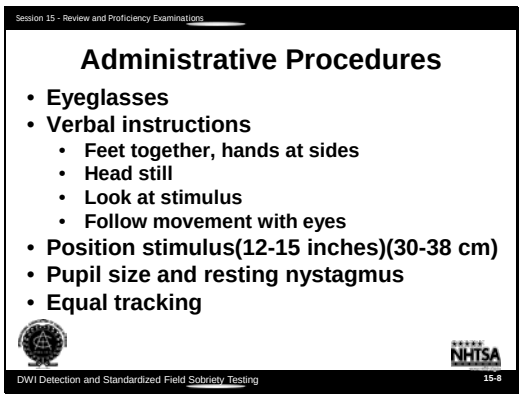
Hold the stimulus steady and verify that the nystagmus continues.

Verify that there is still some white showing in the corner of the eye.

Check the alignment of the object with the subject's shoulder.

Repeat for right eye

Check each eye twice for each clue.



Notes:_____

Nystagmus Administrative Procedures

Step 1: Check for Eyeglasses.

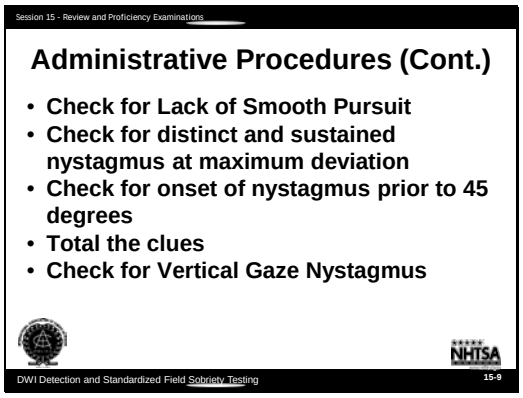
Step 2: Verbal Instructions.

- Feet together, hands at sides
- Head still
- Look at stimulus
- Follow movement with eyes

Step 3: Positioning the Stimulus.

Step 4: Pupil Size and Resting Nystagmus.

Step 5: Check for Equal Tracking.



Notes:_____

Step 6: Check for Lack of Smooth Pursuit.

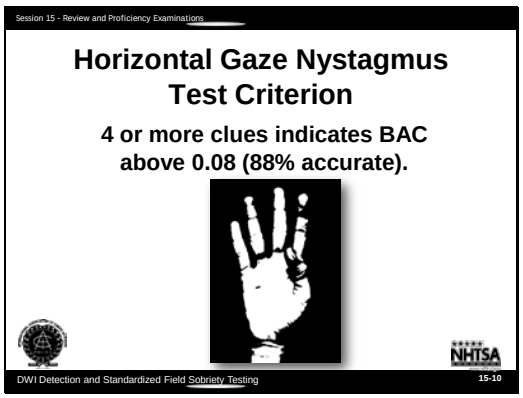
Step 7: Check for Distinct and Sustained Nystagmus at Maximum Deviation.

Step 8: Check for Onset of Nystagmus Prior to 45 Degrees.

Step 9: Total the clues.

Step 10: Check for Vertical Gaze Nystagmus.

Check each eye independently beginning with the subject's left and compare.



Notes:_____

Test Interpretation

Maximum possible number of clues is 6.

Test criterion is 4 or more.

Test is 88% accurate.

Based on the San Diego validation study.

Participant Led Demonstration

Test Administration

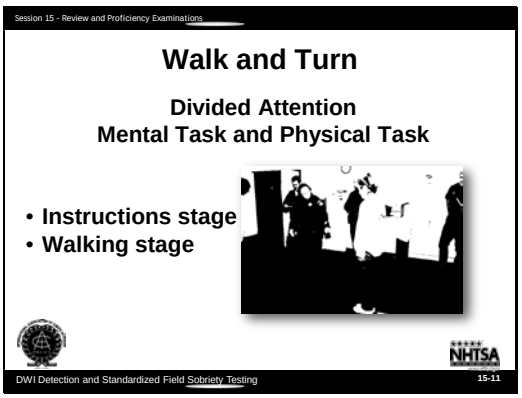
Verbal Instructions

Initial positioning of stimulus.

Check for each clue.

Estimate a 45 degree angle.

Critique



Notes:_____

B. Review Walk and Turn

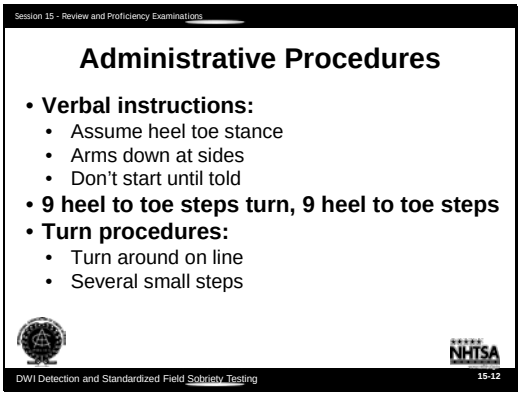
Two Stage Test

- Instructions stage.
- Walking stage.

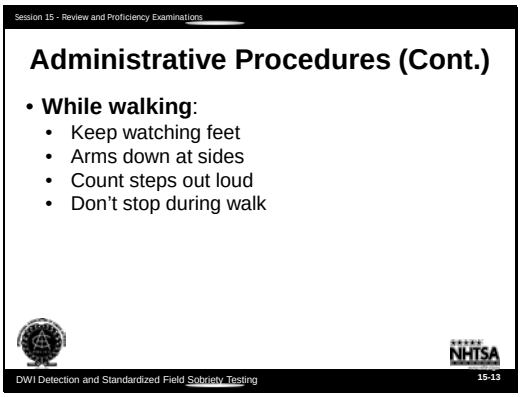
Instructions Stage Positioning

Place your right foot on the line ahead of the left foot, with the heel of your right foot against the toe of the left foot, keeping the arms at the sides.

Maintain this position until I have completed the instructions. Do not start to walk until told to do so.



Notes:_____



Notes:_____

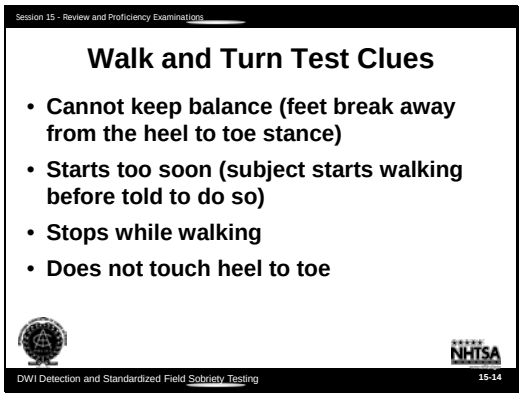
Walk and Turn Administrative Procedures

Initial verbal instructions (instructions stage).

Basic test requirements (nine steps, turn, nine steps).

Specific turn procedures (front foot on line, series of small steps with other foot).

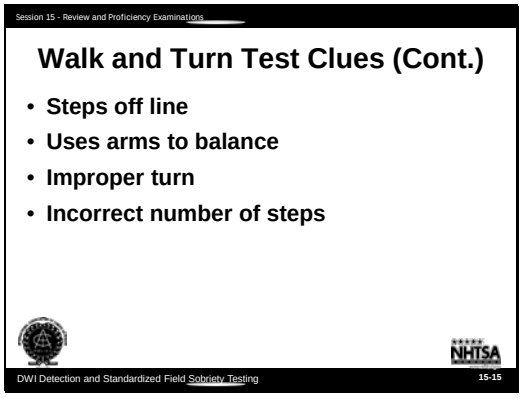
Final verbal instructions.



Notes:_____

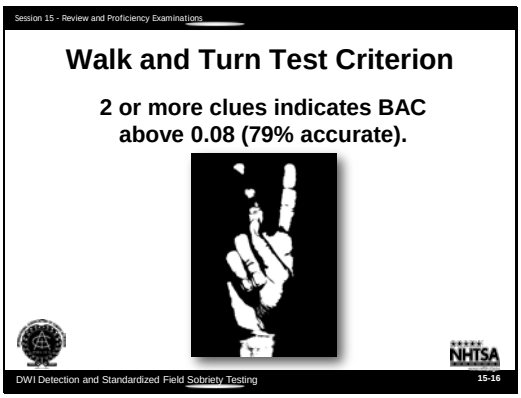
There are eight possible clues for the Walk and Turn test:

- Cannot keep balance
- Starts too soon
- Stops while walking
- Does not touch heel to toe



Notes:_____

- Steps off line
- Uses arms to balance
- Improper turn
- Incorrect number of steps



Notes:_____

Test Interpretation

Eight specific clues of impairment.

Test criterion is 2 or more.

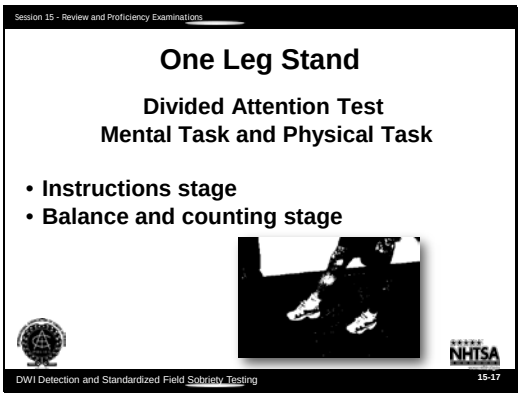
Test is 79% accurate.

Based on the San Diego validation study.

Participant Led Demonstration

Test Administration

Critique



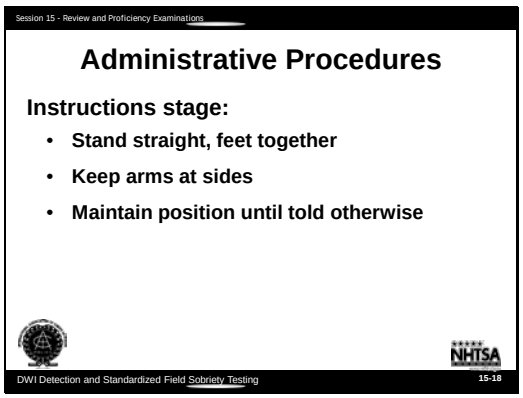
Notes:_____

C. Review of One Leg Stand

Two Stage Test

Instructions stage.

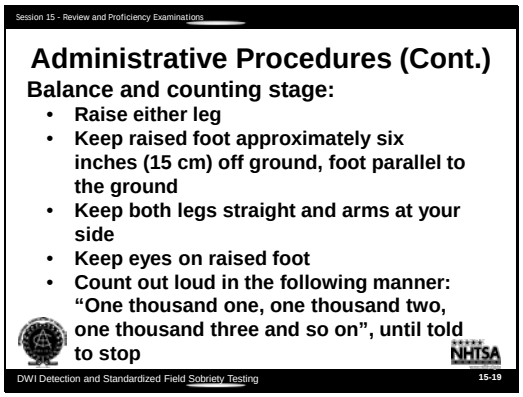
Balance and Counting stage.



Notes:_____

Stand with your feet together with your arms down at your sides.

Hold position until told to begin.



Notes:_____

Simple verbal instructions:

When I tell you to start, raise either leg with the foot approximately six inches off the ground, keeping your raised foot parallel to the ground.

Keep both legs straight and your arms at your side.

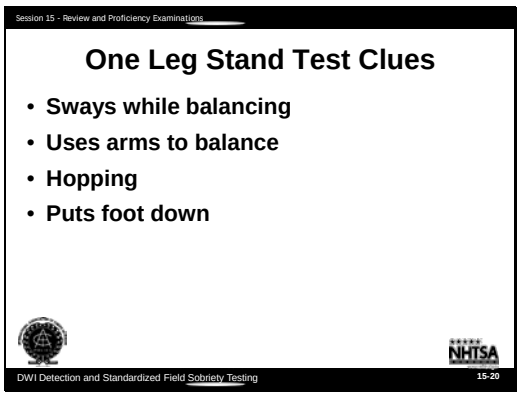
Keep both legs straight and to look at elevated foot.

Count out loud in the following manner: "one thousand one, one thousand two, one thousand three," and so on until told to stop.

Simple physical demonstrations:

Demonstrate One Leg Stand.

Demonstrate counting.

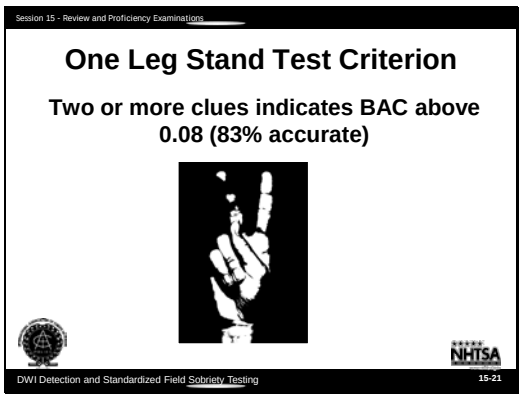


Notes:_____

Test Interpretation

There are four specific clues of impairment for the One Leg Stand test

- Sways while balancing
- Uses arms to balance
- Hopping
- Puts foot down



Notes:_____

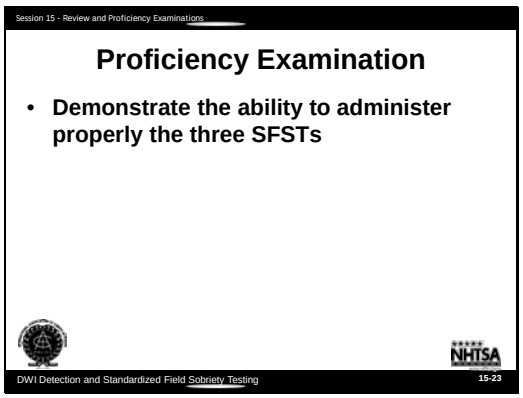
- Test criterion is 2 or more.
- Test is 83% accurate.
- Based on the San Diego validation study

Participant Led Demonstration

Test Administration

Critique

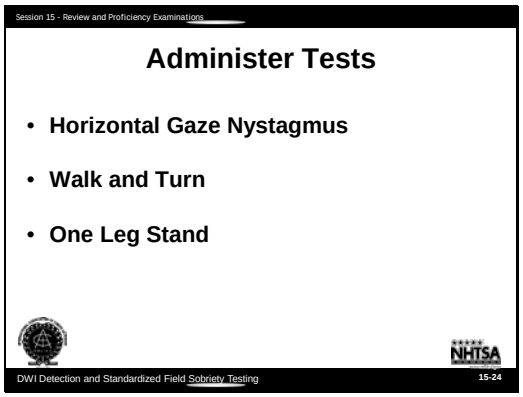
D. <u>Video Demonstrations (Second Showing) IF TIME PERMITS</u>



Notes:_____

E. Proficiency Examination

Procedures



Notes:_____

Horizontal Gaze Nystagmus

Demonstrate ability to give proper verbal instructions.

Demonstrate ability to carry out the mechanics of testing for each clue.

Demonstrate ability to estimate a 45 degree angle.

Walk and Turn

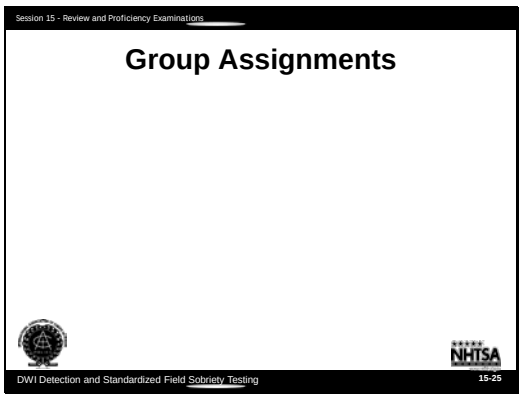
Demonstrate ability to give proper verbal instructions.

Demonstrate ability to carry out appropriate physical demonstrations to support the verbal instructions.

One Leg Stand

Demonstrate ability to give proper verbal instructions.

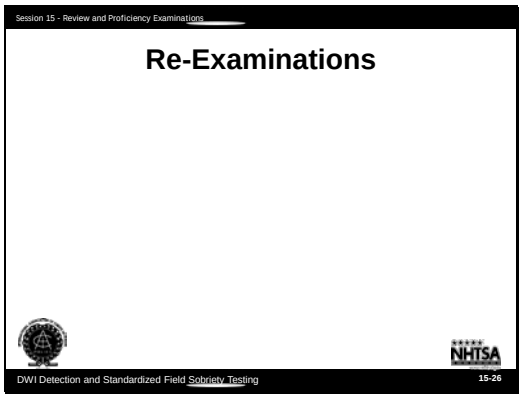
Demonstrate ability to carry out appropriate physical demonstrations to support the verbal instructions.



Notes:_____

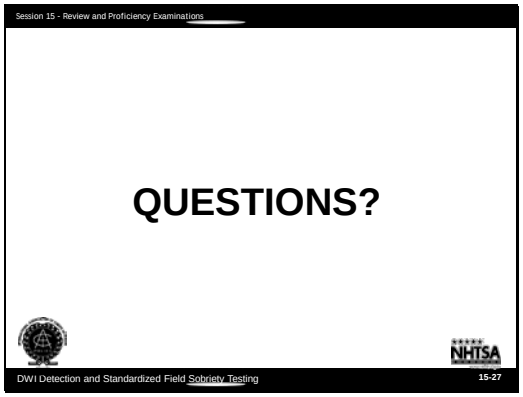
Group Assignments

Conduct Examinations



Notes:_____

Re-examinations (as necessary)



Notes:_____

PARTICIPANT PROFICIENCY EXAMINATION
STANDARDIZED FIELD SOBRIETY TEST BATTERY

Participant Name:_____ Date:_____

I. HORIZONTAL GAZE NYSTAGMUS

_____1. Remove eyeglasses.

_____2. Stimulus held in proper position (approximately 12”-15” from nose, just above eye level).

_____3. Check for equal pupil size and look for resting nystagmus.

_____4. Check equal tracking.

_____5. Smooth movement from center of nose to maximum deviation in approximately 2 seconds and then back across the subject’s face to maximum deviation in right and then back to center so that each movement takes approximately 2 seconds to bring the eye from center to side. 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 degree angle. Check left eye, then right eye. (Repeat)

_____8. Check for Vertical Gaze Nystagmus. Eyes held at maximum elevation for at least 4 seconds. Check both eyes at the same time. (Repeat)

II. WALK AND TURN

_____1. Instructions given from a safe position.

_____2. Tells subject to place left foot on a line, then right foot in front of left foot touching heel to toe with arms at sides and gives demonstration.

_____3. Tells subject not to begin walking 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 *walking until the test is completed*.

_____ 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 asks if subject understands.

_____ 4. Tells subject to raise one leg, either leg, with the foot approximately 6" off the ground, keeping raised foot parallel to the ground, and gives demonstration.

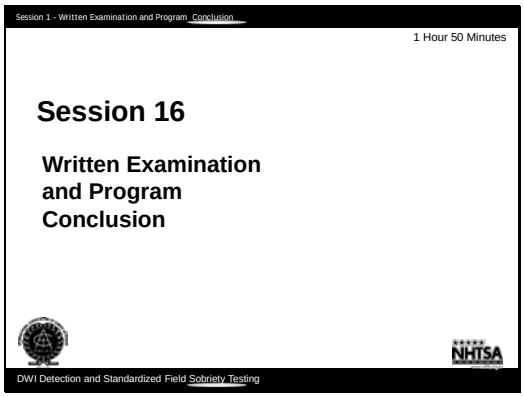
_____ 5. Tells subject to keep both legs straight and arms at sides and to look at elevated foot.

_____ 6. Tells subject to count in the following manner: "one thousand one, one thousand two, one thousand three" until told to stop, and gives demonstration.

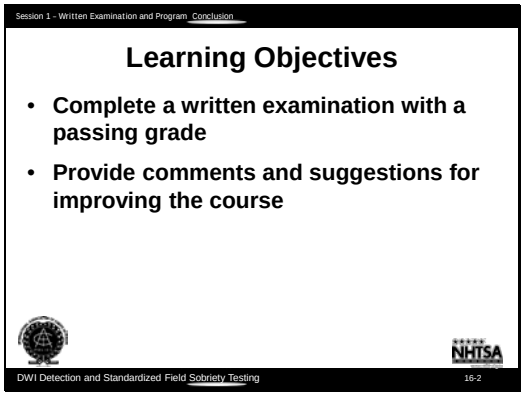
_____ 7. Asks subject if all instructions are understood.

_____ 8. Checks actual time subject holds leg up. (Time for 30 seconds).

Instructor: _____



Notes:_____



Notes:_____

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

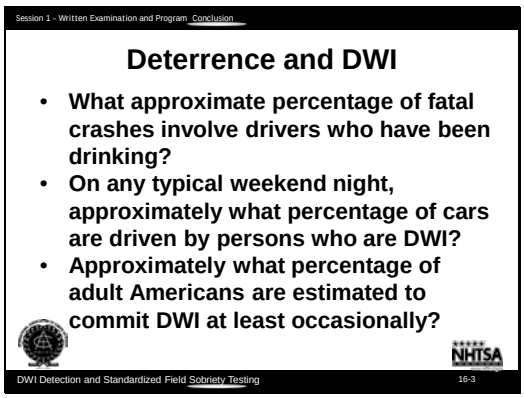
- Complete a written examination with a passing grade.
- Provide comments and suggestions for improving the course.

CONTENT SEGMENTS

A. Post Test
B. Critique
C. Review of Post Test
D. Concluding Remarks
E. Certificates and Dismissal

LEARNING ACTIVITIES

Written Participant Examination
Written Participant Critique
Instructor Led Presentation

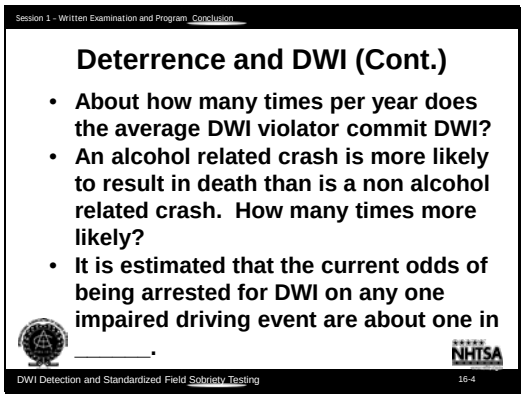


Notes:_____

Suggested topics for review to prepare for the test.

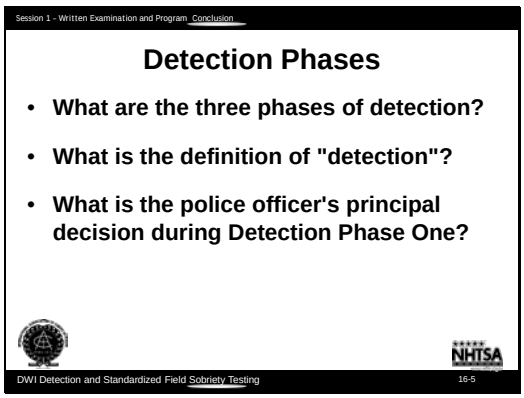
Deterrence and DWI

- Approximately what percentage of fatal crashes involve drivers who have been drinking?
- On any typical weekend night, approximately what percentage of cars are driven by persons who are DWI?
- Approximately what percentage of adult Americans are estimated to commit DWI at least occasionally?



Notes:_____

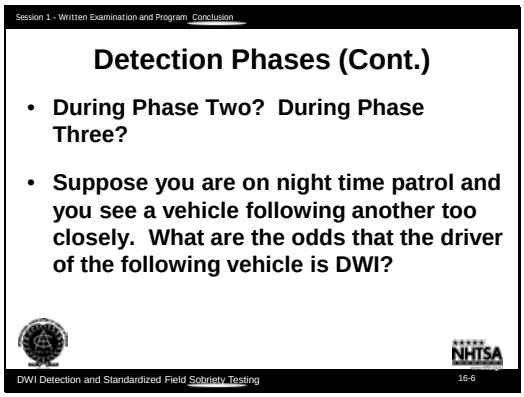
- About how many times per year does the average DWI violator commit DWI?
- An alcohol related crash is more likely to result in death than is a non-alcohol related crash. How many times more likely?
- It is estimated that the current odds of being arrested for DWI on any one impaired driving event are about one in _____.



Notes:_____

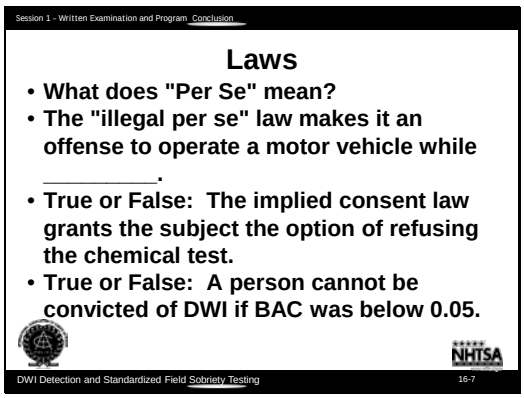
Detection Phases

- What are the three phases of detection?
- What is the definition of "detection"?
- What is the police officer's principal decision during Detection Phase One?



Notes:_____

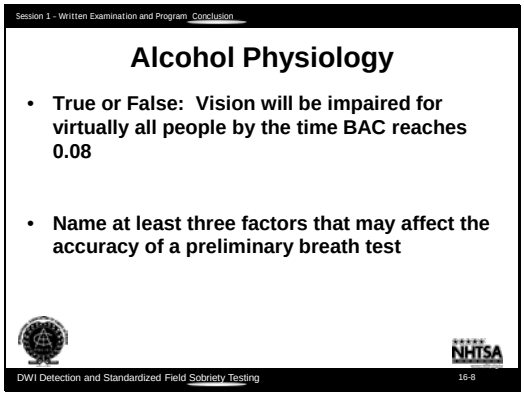
- During Phase Two? During Phase Three?
- Suppose you are on night time patrol and you see a vehicle following another too closely. What are the odds that the driver of the following vehicle is DWI?



Notes:_____

Laws

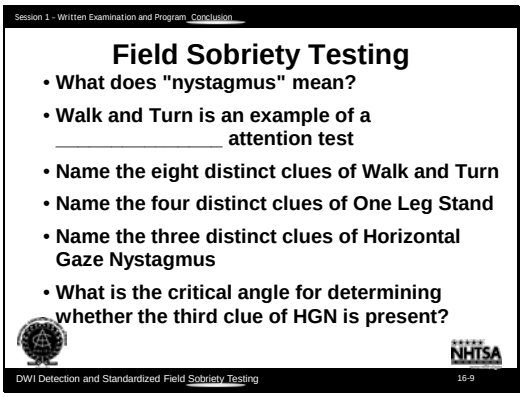
- What does "Per Se" mean?
- The "illegal per se" law makes it an offense to operate a motor vehicle while_____.
- True or False: The implied consent law grants the subject the option of refusing the chemical test.
- True or False: A person cannot be convicted of DWI if BAC was below 0.05.



Notes:_____

Alcohol Physiology

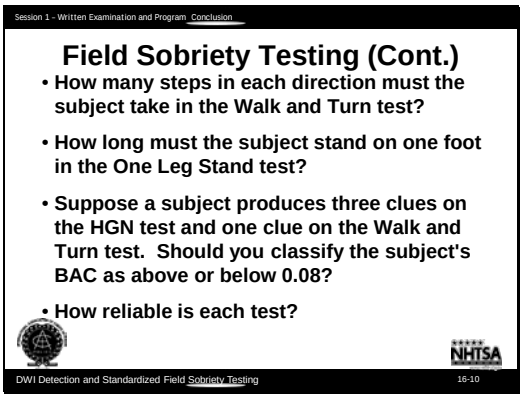
- True or False: Vision will be impaired for virtually all people by the time BAC reaches 0.08.
- Name at least three factors that may affect the accuracy of a preliminary breath test.



Notes:_____

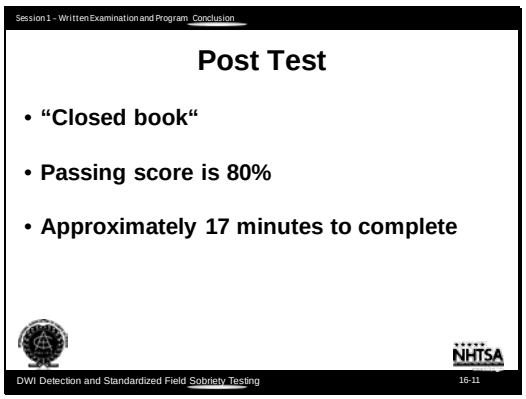
Field Sobriety Testing

- What does "nystagmus" mean?
- Walk and Turn is an example of a _____ attention test.
- Name the eight distinct clues of Walk and Turn.
- Name the four distinct clues of One Leg Stand.
- Name the three distinct clues of Horizontal Gaze Nystagmus.
- What is the critical angle for determining whether the third clue of HGN is present?



Notes:_____

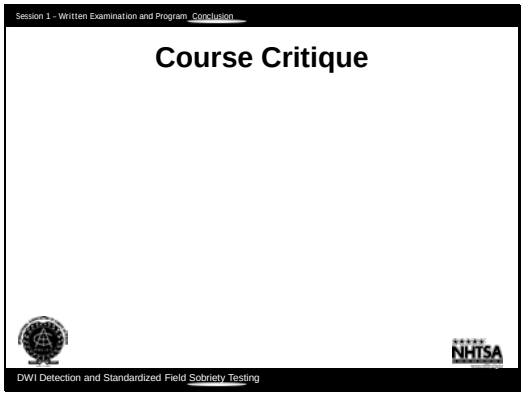
- How many steps in each direction must the subject take in the Walk and Turn test?
- How long must the subject stand on one foot in the One Leg Stand test?
- Suppose a subject produces three clues on the HGN test and one clue on the Walk and Turn test. Should you classify the subject's BAC as above or below 0.08?
- How reliable is each test?



Notes:_____

A. Post Test

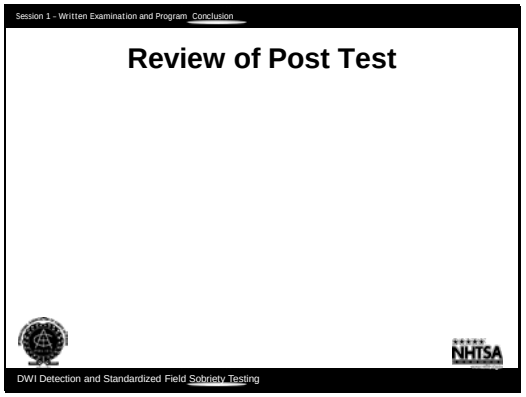
Purpose of Post Test: to compare with pretest, and determine extent of knowledge gained by participants.



Notes:_____

B. Course Critique

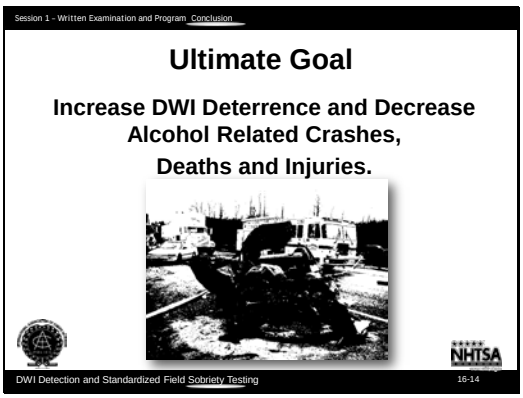
Purpose of the critique form: To identify possible improvements that can and should be made to this program.



Notes:_____

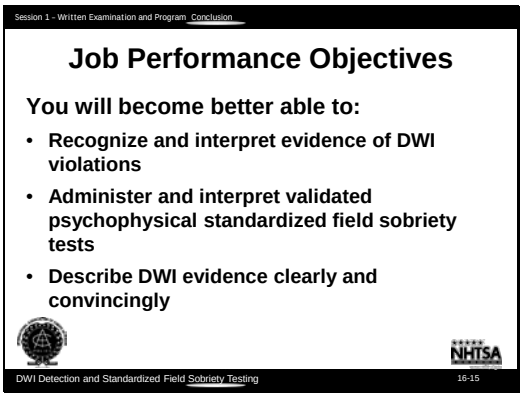
C. Review of Post Test

If passing score is not achieved, participant(s) will be allowed to take "make up" exam.



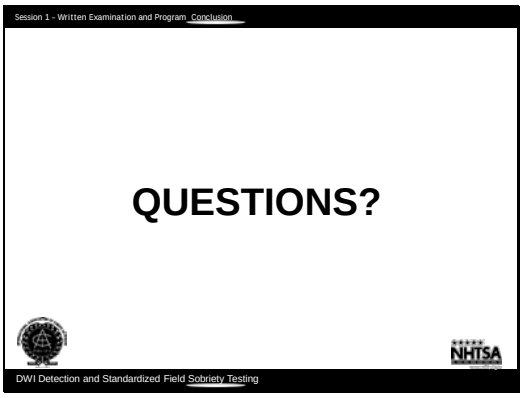
Notes:_____

D. Concluding Remarks



Notes:_____

E. Certificates and Dismissal



Notes:_____