

Participant Manual

DWI Detection and Standardized Field Sobriety Testing (SFST) Refresher



Revised: 10/2015



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Preface

The Standardized Field Sobriety Testing (SFST) training curriculum collectively prepares police officers and other qualified persons to conduct the SFST's for use in DWI investigations. This training, developed under the auspices and direction of the National Highway Traffic Safety Administration (NHTSA), and the International Association of Chiefs of Police (IACP), has experienced remarkable success since its inception in the early 1980s.

As in any educational training program, an instruction manual or guide is considered a "living document" that is subject to updates and changes based on advances in technology and science. A thorough review is made of information by the IACP Technical Advisory Panel (TAP) 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 curriculum. The reorganized manuals are then prepared and disseminated, both domestically and internationally, to the states. Changes will normally take effect 90 days after approval by the TAP, unless otherwise specified or when so designated.

The procedures outlined in this manual describe how the Standardized Field Sobriety Tests (SFSTs) are to be administered under ideal conditions. We recognize that the SFST's will not always be administered under ideal conditions in the field, because such conditions do not always exist. Even when administered under less than ideal conditions, they will generally serve as valid and useful indicators of impairment. Slight variations from the ideal, i.e., the inability to find a perfectly smooth surface at roadside, may have some effect on the evidentiary weight given to the results. However, this does not necessarily make the SFSTs invalid.

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Participant Manual

DWI Detection and SFST Refresher

Session 1 – Introduction and Overview

1 Hour

Session 1

Introduction and Overview



Standardized Field Sobriety Testing Refresher

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SESSION I: INTRODUCTION AND OVERVIEW

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

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

CONTENT SEGMENTS

- A. Welcoming Remarks and Objectives
 - B. Administrative Details
 - C. Driving Under the Influence
 - D. Impaired Driving Enforcement System
 - E. DWI Detection and Standardized Field Sobriety Testing Program
 - F. Drugs and Highway Safety
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Session 1 – Introduction and Overview

Overview of the DWI Problem

- In 2013, 10,076 people were killed in alcohol-impaired crashes
- These fatalities accounted for 31 percent of the total motor vehicle traffic fatalities in the United States
- The 10,076 fatalities represent an average of one alcohol-impaired-driving fatality every 51 minutes



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Overview of the DWI Problem

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- These fatalities accounted for 31 percent of the total motor vehicle traffic fatalities in the United States.
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Driving Under the Influence

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

The National Survey on Drug Use and Health report provides a thorough overview of drug and alcohol use in the general population. The survey tells us:

- Males are twice as likely as females to drive under the influence of alcohol.
- Overall, 10.9% or more than 29 million people reported that they had driven at least once in the last year under the influence of alcohol.
- That further translated into approximately 10.8% of people 18-20 years of age and 19.7% of those between the ages of 21 and 25 years.
- In 2013, 9.9 million people reported that they drove under the influence of illicit drugs during the last year.

Source: 2013 National Survey of Drug Use and Health (NSDUH)

Session 1 – Introduction and Overview

Impaired Drivers Kill or Injure a Person Every Minute!



65 deaths and injuries each hour!

Standardized Field Sobriety Testing Refresher

NHTSA

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Session 1 – Introduction and Overview

NHTSA and IACP Support

- Training
- Enforcement
- Prosecution
- Adjudication

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NHTSA

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65 deaths and injuries each hour!

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

Impaired Driving Enforcement System

NHTSA and IACP support:

- Training
- Enforcement
- Prosecution
- Adjudication

What NHTSA/IACP Supports:

Selective Traffic Enforcement Program (STEP) Grants, Crackdown support, Traffic Safety Resource Prosecutors (TSRP), Saturation Patrols, Sobriety Checkpoints, and Judicial Education.

One of the most critical support activities NHTSA/IACP provides is TRAINING.

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

- Standardized Field Sobriety Testing
- Advanced Roadside Impaired Driving Enforcement (ARIDE)
- Drug Evaluation and Classification (DEC) Program
- Drug Impairment Training for Education Professionals (DITEP)
- Prosecuting the Drugged Driver
- Lethal Weapon
- Protecting Lives, Saving Futures

Session 1 – Introduction and Overview

ARIDE Goal Law Enforcement

- **Observe, identify, and articulate the signs of impairment related to drugs, alcohol or a combination of both in order to reduce the number of impaired driving incidents, serious injury, and fatal crashes.**



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The desired outcome of the training is:

- The participant will better understand the role of the DRE and will be able to use their expertise more effectively.
- For those law enforcement agencies with no DREs or limited access to their services, this course will help officers make informed decisions related to testing, documentation, and reporting drugged driving arrests.

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

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

Often times officers come in contact with the drug impaired driver.

There are many things that could be happening:

- The officer is unfamiliar with the indicators of drug impairment, therefore does nothing with the subject.
- Recognizes there is something wrong with the driver, but does not know how to address the issue.
- Allows subject to continue on their way.
- Drives the subject home or allows the subject to ride home with another individual.
- Not familiar with the resources available to them.

Session 1 – Introduction and Overview

DRE Training

- 72 hours of classroom training
- Field certifications
- Comprehensive final knowledge examination
- Participate in continuing education courses



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Drug Evaluation and Classification Program

The ultimate goal of the DEC Program is to train officers to be Drug Recognition Experts (DREs) to help prevent crashes and avoid deaths and injuries by improving enforcement of drug impaired driving investigations.

The DRE officer is trained to conduct a detailed evaluation, consisting of twelve steps (12), and obtain other evidence that can be articulated as an opinion.

An officer who successfully completes all phases of the DEC Program is known as a DRE.

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

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

The progression between each of the impaired driving enforcement programs is:

- The foundation is SFST
- The intermediate level is ARIDE
- The final stage is the DEC Program

Session 1 – Introduction and Overview

Roles and Responsibilities of a DRE

- Complete a recertification training course every two years
- Maintain a log of all evaluations completed in training and as part of any enforcement activities
- Meet other administrative requirements as established in the IACP




Standardized Field Sobriety Testing Refresher 1-18

Roles and Responsibilities of a Drug Recognition Expert

To obtain a DRE Certification the law enforcement officer must complete:

- 72 hours of classroom training
- Field certifications
- Comprehensive final knowledge examination

In order to retain their certification, the DRE must:

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

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

DWI DETECTION AND STANDARDIZED FIELD SOBRIETY TESTING (SFST) REFRESHER TRAINING

GLOSSARY OF TERMS

ADDICTION

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

ALVEOLAR BREATH

Breath from the deepest part of the lung.

BLOOD ALCOHOL CONCENTRATION (BAC)

The percentage of alcohol in a person's blood.

BREATH ALCOHOL CONCENTRATION (BrAC)

The percentage of alcohol in a person's breath, as measured by a breath testing device.

CLUE

Something that leads to the solution of a problem.

CUE

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

DIVIDED ATTENTION

Concentrating on more than one thing at a time.

DIVIDED ATTENTION TEST

A test which requires the subject to concentrate on both mental and physical tasks at the same time. The two psychophysical tests Walk and Turn (WAT) and One Leg Stand (OLS) require the suspect to their divide attention.

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 suspect should be arrested for a DWI violation. The DWI detection process has three phases:

Phase One – Vehicle In Motion

Phase Two – Personal Contact

Phase Three – Pre -arrest Screening

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:

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

EXPERT WITNESS

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

FIELD SOBRIETY TEST

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

GAIT ATAXIA

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

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.

NYSTAGMUS

An involuntary jerking of the eyes.

ONE LEG STAND (OLS)

A divided attention field sobriety test. One of the tests administered in the SFST battery.

PER SE

Used to describe a law which makes it illegal to drive while having a certain percentage of alcohol in the blood or breath.

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.

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. Depending on agency policy, the officer may administer or could arrange to have a preliminary breath test conducted.

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.

PSYCHOPHYSICAL

"Mind/Body." Used to describe field sobriety tests that measure a person's ability to perform both mental and physical tasks.

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.

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.

RESTING NYSTAGMUS

Jerking of the eyes as they look straight ahead.

STANDARDIZED FIELD SOBRIETY TEST BATTERY

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

TIDAL BREATH

Breath from the upper part of the lungs and mouth.

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, contact your Highway Safety Office).

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 when the eyes gaze upward at maximum elevation. The jerking should be distinct and sustained.

WALK AND TURN (WAT)

A divided attention field sobriety test. One of the tests administered in SFST battery.

Participant Manual

DWI Detection and SFST Refresher

Session 2 – Vehicle in Motion and Personal Contact

1 Hour

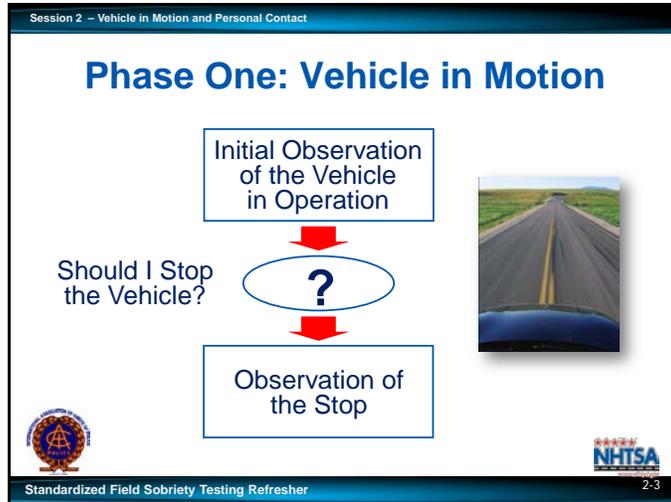
Session 2

Vehicle in Motion and Personal Contact



Standardized Field Sobriety Testing Refresher

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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 should rather 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.

Session 2 – Vehicle in Motion and Personal Contact

Speed and Braking Problems

- Stopping problems
- Unnecessary acceleration or deceleration
- Varying speed
- 10 mph or more under the speed limit



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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

Session 2 – Vehicle in Motion and Personal Contact

Judgment Problems

- Following too closely
- 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
- Appearing to be impaired



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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

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. For example, 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.

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

Session 2 – Vehicle in Motion and Personal Contact

Motorcycle DUI Detection Guide

Excellent Cues (50% or Greater Probability)

- Drifting during turn or curve
- Trouble with dismount
- Trouble with balance at a stop
- Turning problems
- Inattentive to surroundings
- Inappropriate or unusual behavior
- Weaving



Standardized Field Sobriety Testing Refresher 2-10

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

The National Highway Traffic Safety Administration (NHTSA) estimated that in 2012, about 27 percent of motorcycle operators involved in fatal crashes had a BAC of 0.08 or higher.

In 2012, NHTSA also estimated that 34 percent of the motorcycle operators involved in crashes had a BAC of .01 or higher.

Source: The Detection of DWI Motorcyclists, DOT HS 807 856, July, 2007 and Fatal Accident Reporting System (FARS).

NHTSA sponsored research to develop a set of behavioral cues to be used by law enforcement personnel to detect motorcyclists who are operating their vehicles while impaired. These cues can be used both day and night.

These cues have been labeled as:

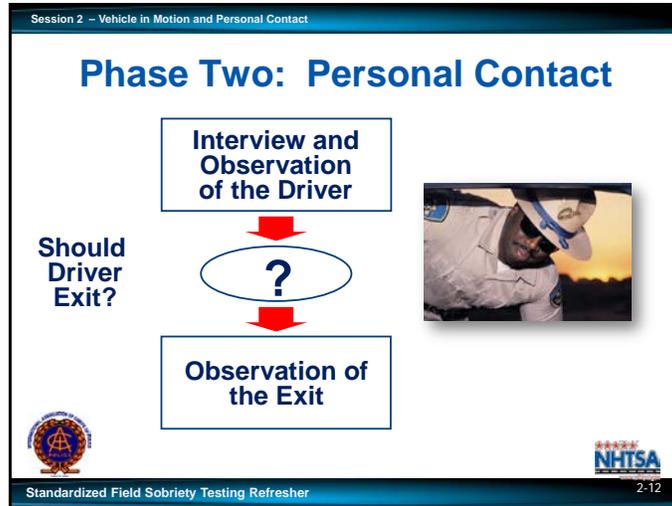
- Excellent Predictors
- Good Predictors

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

Excellent cues (50% or greater probability).

- Drifting During Turn or Curve
 - The most common cause of single vehicle, fatal motorcycle crashes is “Failure to Negotiate Curves”.
 - This type of collision is usually caused by impaired balance and coordination.
 - If you see a motorcycle drifting during a turn or curve, do the rider a favor and pull him or her over.

- Trouble with Dismount
 - Parking and dismounting a motorcycle can be a useful field sobriety test.
 - The operator must decide on a safe place to stop the motorcycle.
 - The operator must then balance their weight on one foot while swinging their other foot over the seat to dismount.
 - Operators having problems dismounting are impaired 50 percent of the time.
- Trouble with Balance at Stop
 - Riders whose balance has been impaired by alcohol and/or drugs often can not maintain control of the motorcycle while stopped.
 - Riders may be observed noticeably shifting their weight from side to side while stopped at a red light or stop sign for any length of time.
- Turning Problems
 - Unsteady during turn of curve
 - As a result of impairment an officer might observe a motorcycle's front wheel or handle bars wobbling as the rider attempts to maintain balance at slow speeds.
 - Late Braking During Turn- An impaired motorcyclist might misjudge the speed or distance to the corner or curve, requiring an application of brakes during the maneuver.
 - Improper Lean Angle During Turn- When a rider's balance or speed decision making is impaired, the rider frequently attempts to sit upright through the maneuver.
 - Erratic Movement During Turn- Unsteady during a turn or curve, brake late, assumes an improper lean angle, or makes erratic movements during a turn or curve
- Inattentive to surroundings
 - Inappropriate or unusual behavior (e.g., carrying or dropping object, urinating at roadside, disorderly conduct, etc.)
 - Weaving



B. Personal Contact

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.

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.

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.

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

Session 2 – Vehicle in Motion and Personal Contact

Interview/Questioning Techniques

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



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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. Be alert for the driver who:

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Participant Manual

DWI Detection and SFST Refresher

Session 3 - Standardized Field Sobriety Testing Review

2 Hours

Session 3

Standardized Field Sobriety Testing Review



Standardized Field Sobriety Testing Refresher

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Session 3 - Standardized Field Sobriety Testing Review

Colorado Field Validation Study of SFST

- **First full field validation study using SFST experienced law enforcement personnel**
- **86% correct arrest/release decision based on three test battery (HGN, WAT, OLS)**
- **93% of those arrested had a BAC of 0.05 or higher**




Standardized Field Sobriety Testing Refresher 3-6

Session 3 - Standardized Field Sobriety Testing Review

Florida Field Validation Study of SFST

- **95% correct arrest decision based on three test battery (HGN, WAT, OLS)**
- **Validated SFSTs at 0.08 BAC and above**




Standardized Field Sobriety Testing Refresher 3-7

“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.

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.

Session 3 - Standardized Field Sobriety Testing Review

San Diego Field Validation Study of SFST

- 91% correct arrest decision for 0.08 BAC and above using three test battery (HGN, WAT, OLS)
- HGN is still most reliable of three-test battery and supports arrest decisions at 0.08 BAC




Standardized Field Sobriety Testing Refresher 3-8

Session 3 - Standardized Field Sobriety Testing Review

San Diego Field Validation Study of SFST

Based on this study:

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




Standardized Field Sobriety Testing Refresher 3-9

“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.

This is the most current research used to describe the accuracy of the SFSTs.

This is the study that should be referenced in court whenever possible.

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

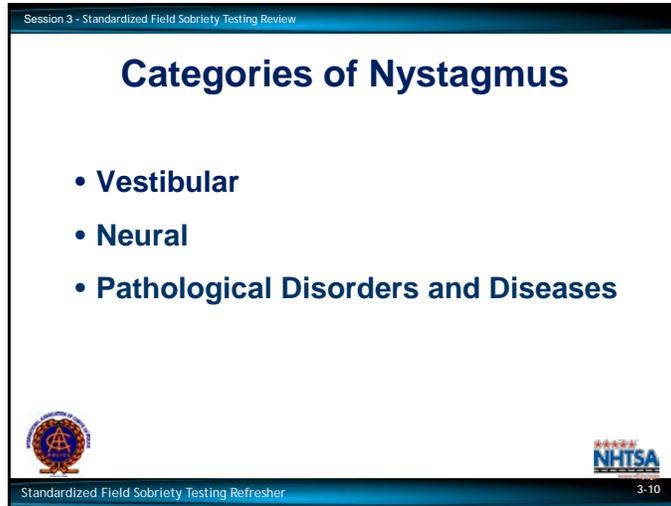
The results of this study provide clear evidence of the validity of the three test battery to support arrest decisions at above or below 0.08. It strongly suggests that the SFSTs also identify BACs at 0.04 and above.

Results: Three SFST 1990’s Field Studies % Correct

Colorado 86% Arrest / Release Decisions

Florida 95% Arrest Decisions

California 91% Arrest Decisions



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

Vestibular Nystagmus

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

Neural Nystagmus

Caused by some disturbance to the neural system. In this course we will only be concerned with gaze-evoked neural nystagmus.

Alcohol and/or specific types of drugs can cause the following three types of nystagmus. These examples of gaze-evoked neural nystagmus can be visible to the officer during the proper administration of the HGN and VGN tests.

Pathological Nystagmus

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

Session 3 - Standardized Field Sobriety Testing Review

Horizontal Gaze Nystagmus

- Involuntary jerking of the eyes, occurring as the eyes gaze toward the side
- Observation of the eyes for Horizontal Gaze Nystagmus provides the first and most accurate test in the SFST Battery
- Its presence may indicate use of certain other drugs




Standardized Field Sobriety Testing Refresher 3-12

Session 3 - Standardized Field Sobriety Testing Review

Vertical Gaze Nystagmus

- Involuntary jerking of the eyes (up and down)
- Occurs when the eyes gaze upward at maximum elevation
- Associated with high doses of alcohol and certain other drugs
- Drugs that cause VGN also cause HGN




Standardized Field Sobriety Testing Refresher 3-13

Horizontal Gaze Nystagmus is an involuntary jerking of the eyes, as they gaze toward 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 useful in determining alcohol influence, its presence may also indicate use of Dissociative Anesthetics, Inhalants, and other CNS Depressants (DID Drugs).

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.

Session 3 - Standardized Field Sobriety Testing Review

HGN Medical Impairment Assessment Procedures

- Check eyes for:
 - Equal pupil size
 - Resting nystagmus
 - Equal tracking
- If eyes do not track together, or pupils are noticeably unequal in size, medical disorders or injuries may be present




Standardized Field Sobriety Testing Refresher 3-14

Session 3 - Standardized Field Sobriety Testing Review

HGN Testing: Three Clues

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




Standardized Field Sobriety Testing Refresher 3-15

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.

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., 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.

Officers are reminded to ask questions about the subject's eye and general health conditions prior to administering the HGN test. If a subject responds or volunteers information that he or she is blind in one eye or has an artificial eye, the officer should make note of that and may proceed with the HGN test. If there are any abnormal findings on the pre-test checks, the officer may choose not to continue with the testing. If HGN testing is continued, officers are reminded that this does not follow the standardized protocol and should acknowledge such in any report.

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
- 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

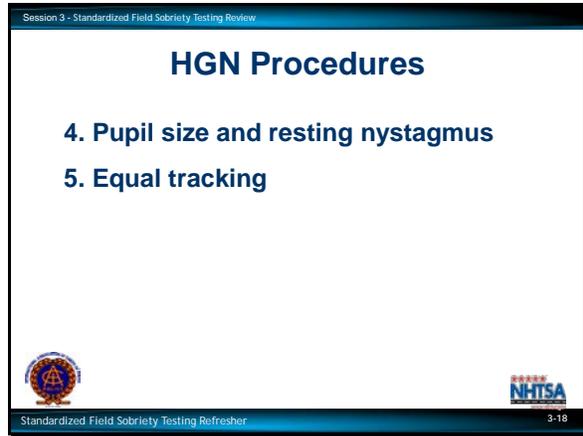
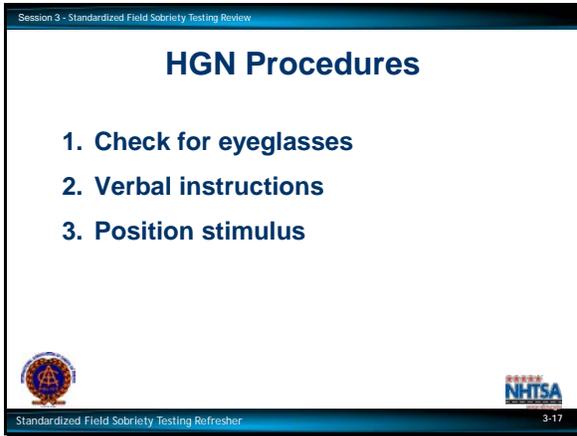


Horizontal and Vertical Gaze Nystagmus can be observed directly and does not require special equipment. You will need a contrasting stimulus for the subject to follow with their eyes. This can be a penlight or pen. The stimulus used should be held slightly above eye level, so that the eyes are wide open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

OFFICER SAFETY IS THE NUMBER ONE PRIORITY ON ANY TRAFFIC STOP.

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
 - 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
-
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Administrative Procedures for Horizontal Gaze Nystagmus

It is important to administer the HGN test systematically using the following steps to ensure that nothing is overlooked.

There are 10 steps in the systematic administration of the HGN test.

Step 1: Check for Eyeglasses.

Begin by instructing the subject to remove eyeglasses, if worn. (Note if subject wears contacts, especially colored contacts because some colored contacts may affect the ability to compare pupil size.)

It does not matter whether the subject can see the stimulus with perfect clarity. They just need to be able to see and follow it.

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
-
-

Session 3 - Standardized Field Sobriety Testing Review

HGN Procedures

6. Check for lack of smooth pursuit
7. Check for distinct and sustained nystagmus at maximum deviation
8. Check for onset of nystagmus prior to 45 degrees




Standardized Field Sobriety Testing Refresher 3-19

Session 3 - Standardized Field Sobriety Testing Review

HGN Procedures

9. Total the clues
10. Check for Vertical Gaze Nystagmus




Standardized Field Sobriety Testing Refresher 3-20

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.

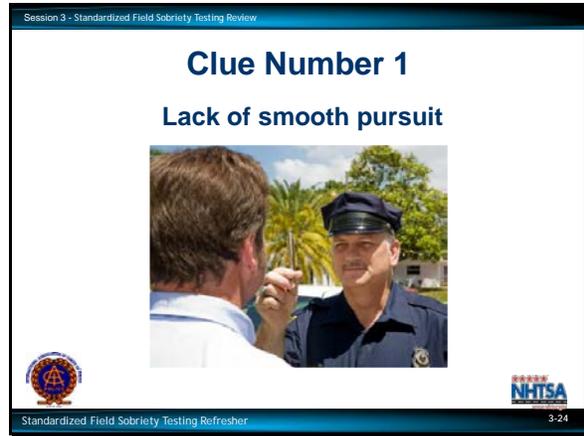
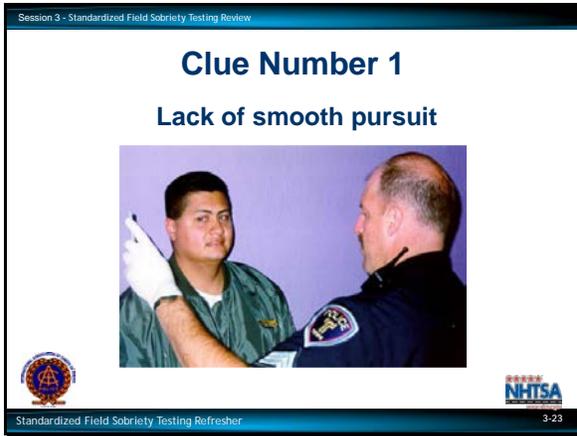
Step 8: Onset of Nystagmus Prior to 45 Degrees. Check the left eye for the "onset of nystagmus prior to 45 degrees" clue. If the jerking begins prior to 45 degrees, that is one clue.

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

Step 9: Total the clues

Maximum number of clues possible for each eye: 3

Total maximum number of clues possible for both eyes: 6



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.

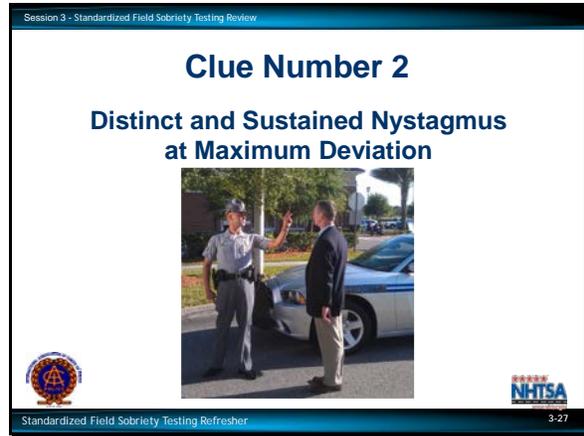
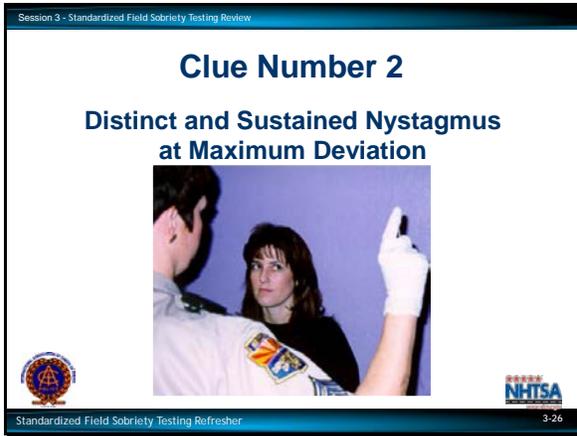
Begin by holding the stimulus vertically approximately 12 - 15 inches (30 - 38 cm) in front of the subject's nose, and slightly above eye level.

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 an impaired person and windshield wipers moving across a dry windshield.



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.

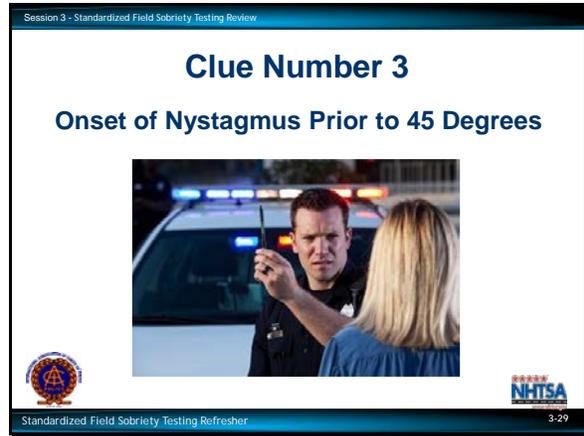
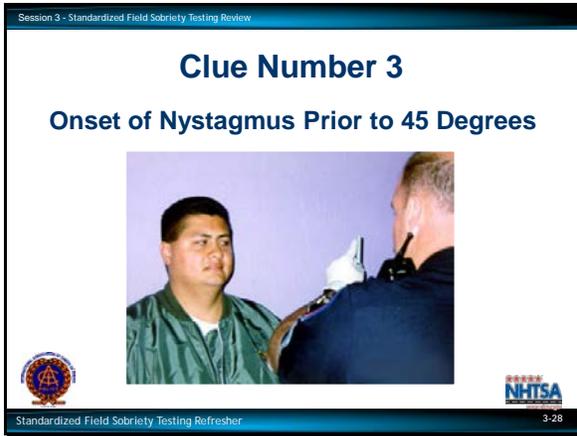
Move the stimulus off to the right side (checking subject's left eye) until the eye has gone as far as possible.

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).

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.



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.

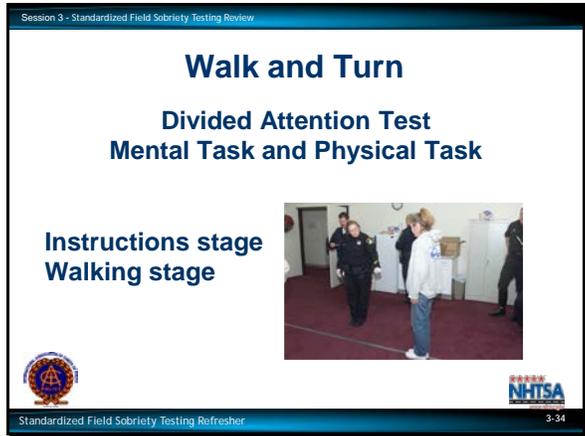
Generally speaking, the higher the BAC, the sooner the jerking will start as the eye moves toward the side.

If the jerking begins prior to 45 degrees, that person's BAC could be 0.08 or above.

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).



Psychophysical Field Sobriety Tests

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.

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.

Walk and Turn Test Clues

- Starts too soon
- Stops while walking
- Does not touch heel-to-toe



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.

Walk and Turn Test Clues

- Steps off line
- Uses arms to balance
- Improper turn
- Incorrect number of steps



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 instructed, 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.

Session 3 - Standardized Field Sobriety Testing Review

One Leg Stand Test Clues

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



Standardized Field Sobriety Testing Refresher 3-43

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.

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.

Participant Manual

DWI Detection and SFST Refresher

Session 1 - Written Examination and Program Conclusion

1 Hour 50 Minutes

Session 4

Written Examination and Program Conclusion



DWI Detection and Standardized Field Sobriety Testing Refresher

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