SESSION VII

PHASE THREE: PRE-ARREST SCREENING

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

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

CONTENT SEGMENTS

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

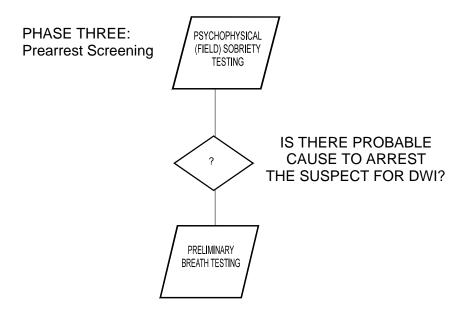
LEARNING ACTIVITIES

- o Instructor-Led Presentations
- o Instructor-Led Demonstrations
- Video Presentation

PRE-ARREST SCREENING

PHASE THREE 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.



Your first task in Phase Three is to administer three scientifically validated psychophysical (field) sobriety tests. 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 driver for DWI. Your second task may then be to administer (or arrange for) a preliminary breath test (PBT) to confirm the chemical basis of the driver's impairment, if your agency uses PBTs. The entire detection process culminates in the arrest/no arrest decision.

PSYCHOPHYSICAL TESTS

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

Psychophysical testing actually begins as soon as you come into face-to-face contact with the suspect and begin the interview. Psychophysical testing continues as the suspect steps from the vehicle and you observe the manner of the exit and walk from the vehicle. The most significant psychophysical tests are the three scientifically validated structured tests that you administer at roadside.

PRELIMINARY BREATH-TEST

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

THE ARREST DECISION

The DWI detection process concludes with the arrest decision. This decision is based on <u>all</u> 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 and interview of the driver.

NYSTAGMUS

"Nystagmus" means an involuntary jerking of the eyes.

HORIZONTAL GAZE NYSTAGMUS

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

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 is the most reliable field sobriety test. Especially when used in combination with the divided attention tests, it will help police officers correctly identify suspects who are impaired.

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

When the HGN test is administered always begin with subject's left eye. Each eye is examined for three specific clues.

- o 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.)
- o when the eye moves as far to the side as possible and is kept at that position for several seconds, does it jerk distinctly? (Distinct and sustained nystagmus at maximum deviation is another clue of impairment.)
- o 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 number of clues that may appear in one eye is three. The maximum total number for any suspect is six. The original research shows that if four or more clues are evident, it is likely that the suspect's blood alcohol concentration is above 0.10. With four-or-more clues present, this test is 77% accurate.

VERTICAL GAZE NYSTAGMUS

Vertical Gaze Nystagmus is an involuntary jerking of the eyes (up and down) which occurs when the eyes gaze upward at maximum elevation. Although this type of nystagmus was not addressed in the original research, field experience has indicated that the presence of Vertical Gaze Nystagmus has proven to be a reliable indicator of high doses of alcohol for that individual or certain other drugs.

DIVIDED ATTENTION TESTS

INTRODUCTION

Many of the most reliable and useful psychophysical tests employ the concept of divided attention: they require the subject to concentrate on two things at once. Driving is a complex divided attention task. In order to operate a vehicle safely, drivers 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 drivers often ignore the less critical tasks of driving in order to focus their impaired attention on the more critical tasks. For example, a driver may ignore a traffic signal and focus instead on speed control.

Even when they are impaired, many people can handle a single, focused attention task fairly well. For example, a driver 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 once.

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 police departments nationwide. The best of these tests exercise the same mental and physical capabilities that a person needs to drive safely:

- o information processing;
- o short-term memory;
- o judgment and decision making;
- o balance;
- o steady, sure reactions;
- o clear vision;
- o 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.

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 perform when sober. Tests that are difficult for a sober subject to perform have little or no evidentiary value.

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. These tests are described briefly below.

Walk-and-Turn

Walk-and-Turn is a test that has been validated through extensive research sponsored by the National Highway Traffic Safety Administration (NHTSA). It is a divided attention test consisting of two stages:

- o Instructions Stage; and,
- o Walking Stage.

In the <u>Instructions Stage</u>, the subject must stand with their feet in heel-to-toe position, keep their arms at their sides, and listen to the instructions. 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 <u>Walking Stage</u> the subject takes nine heel-to-toe steps, turn in a prescribed manner, and take nine heel-to-toe steps back, while counting the steps out loud, while watching their feet. During the turn, the subject keeps their <u>front</u> foot on the line, turn in a prescribed manner, and use 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 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 suspect's performance for <u>eight clues</u>:

- o can't balance during instructions;
- o starts too soon;
- o stops while walking:
- o doesn't touch heel-to-toe;
- o steps off line;
- o uses arms to balance:
- o loses balance on turn or turns incorrectly; and,
- o takes the wrong number of steps.

Inability to complete the Walk-and-Turn test occurs when the suspect:

- o steps off the line three or more times;
- o is in danger of falling;
- o cannot do the test.

Original research shows that if a suspect exhibits <u>two or more</u> of the clues, or cannot complete the test, the suspect's BAC is likely to be above 0.10. This criterion has been shown to be accurate 68 percent of the time.

ONE-LEG STAND

The One-Leg Stand test also has been validated through NHTSA's research program. It is a divided attention test consisting of two stages:

- o Instructions Stage; and,
- o Balance and Counting Stage.

In the <u>Instruction Stage</u>, the subject must stand with feet together, keep arms at sides, and listen to instructions. This divides the subject's attention between a balancing task (maintaining a stance) and an information processing task (listening to and remembering instructions.)

In the <u>Balance and Counting Stage</u>, the subject must raise one leg, either leg, with the foot approximately six inches off the ground, keeping raised foot parallel to the ground. While looking at the elevated foot, count out loud in the following manner: "one thousand and one", "one thousand and two", "one thousand and 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 has shown 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.

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

- o sways while balancing;
- o uses arms to balance;
- o hops:
- o puts foot down.

Inability to complete the One-Leg Stand test occurs when the suspect:

- o puts the foot down three or more times, during the 30-second period;
- o cannot do the test.

The original research shows that, when the suspect produces <u>two or more</u> clues or is unable to complete the test, it is likely that the BAC is above 0.10. This criterion has been shown to be accurate 65 percent of the time.

PRELIMINARY BREATH TESTING

The basic purpose of preliminary breath testing (PBT) is to demonstrate the association of alcohol with the observable evidence of the suspect's impairment. The suspect's impairment is established through sensory evidence: what the officer sees, hears and smells. The PBT provides the evidence that alcohol is the <u>chemical basis</u> of that impairment by yielding an on-the-spot indication of the suspect's blood alcohol concentration (BAC). The PBT provides direct indication of the BAC level. It does <u>not</u> indicate the level of the suspect's impairment. Impairment varies widely among individuals with the same BAC level.

Preliminary breath testing, like psychophysical testing, is a stage in the pre-arrest screening of a DWI suspect. Usually the suspect is not yet under arrest when requested to submit to the preliminary breath test. 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 suspect should be arrested for DWI. It should never be the sole basis for a DWI arrest. The PBT result <u>is</u> an important factor because it provides <u>direct</u> indication of alcohol impairment. All other evidence, from initial observation of the vehicle in operation through formal psychophysical testing, indicates alcohol impairment.

ADVANTAGES OF PBT

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

- o corroborate other evidence by demonstrating that the suspicion of alcohol impairment is consistent with the officer's observations of the suspect's mental and physical impairment.
- o 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.)

- o 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 suspect has ingested a drug other than alcohol or suffers from a medical problem.)
- o 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.)

LIMITATIONS OF PBT

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.

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 high results on a PBT.

o <u>Residual mouth alcohol</u>. After a person takes a drink, some of the alcohol will remain in the mouth tissues. 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 evaporate from the mouth.

The only sure way to eliminate this factor is to make sure the suspect does not take any alcohol for at least 15 to 20 minutes before conducting a breath test. Remember, too, that most mouthwashes, breath sprays, cough syrups, etc., contain alcohol and will produce residual mouth alcohol. Therefore, it is always best not to permit the suspect to put <u>anything</u> in their mouth for at least 15 to 20 minutes prior to testing.

o <u>Breath Contaminants</u>. 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 conceivably could 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, food odors, etc., do not affect accuracy.

There are two common factors that tend to produce <u>low</u> PBT results.

- o <u>Cooling of the breath sample</u>. 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.
- The composition of the breath sample. 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.

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

THE ARREST DECISION

Your arrest/no arrest decision is the culmination of the DWI detection process. Your decision is based on <u>all</u> the evidence you have accumulated during each detection phase.

PHASE ONE:

- o initial observation of vehicle in motion;
- o observation of the stop.

PHASE TWO:

- o face-to-face observation and interview;
- o observation of the exit.

PHASE THREE:

- o SFSTs:
- o 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 DWI has been committed, you should arrest the suspect for DWI. Under no circumstances should you charge the suspect with a lesser offense <u>instead</u> of DWI if there is probable cause to believe that DWI has been committed. Any reduction of DWI to a lesser charge is the responsibility of the prosecutor or judge.

TEST YOUR KNOWLEDGE

STRUCTIONS: Complete the following sentences.
The two major evidence gathering tasks of Phase Three are
The major decision in Phase Three is
The entire DWI detection process culminates in
Divided attention tests require the subject to
Divided attention tests require the subject 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
9.	Two factors that produce <u>high</u> results on a PBT are:
	a.
	b.
10.	Two factors that produce <u>low</u> results on a PBT are:
	a.
	b.