

SESSION III

**EYE EXAMINATIONS:
DETECTING SIGNS OF DRUG INFLUENCE**

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

- o Overview the major eye indicators of impairment

CONTENT SEGMENTS

- A. Detecting Signs of Drug Influence

LEARNING ACTIVITIES

- o Instructor-Led Presentation

A. Detecting Signs of Drug Influence

A suspect's eyes often disclose some very important, indicators of drug influence or medical impairment. Four eye examinations are especially helpful:

- o Tracking Ability
- o Pupil Size
- o Horizontal Gaze Nystagmus
- o Vertical Nystagmus

Tracking ability refers to the ability of the eyes to track together when the subject attempts to follow an object moving side-to-side. The test for tracking ability is conducted in the same fashion as the check for "lack of smooth pursuit" in the horizontal gaze nystagmus test. If the two eyes do not track together, i.e., if one moves smoothly but the other moves only slightly, or in a very jerky fashion, or not at all, the possibility of a medical condition or injury exists.

Pupil size is an important indicator of certain categories of drugs. Of course, the size of a person's pupils changes naturally, in response to changing light conditions. Usually, the diameter of the pupils constricts in bright light, and dilates in dark conditions.

If the two pupils are noticeably different in size, the suspect may have a glass eye, or be suffering from an injury or medical condition. This condition may be pre-existing, or a medical emergency requiring immediate medical treatment or may be an old injury and not a medical emergency.

Subjects under the influence of CNS stimulants or hallucinogens usually have dilated pupils. Cannabis usually causes a dilation of the pupils, but not necessarily in all cases. Most CNS depressants, Dissociative Anesthetics, and inhalants usually do not affect pupil size. Subjects under the influence of narcotic analgesics usually have constricted pupils. It is not necessary that a precise estimate of pupil size be obtained. It is enough to estimate whether the pupils are of equal size, and whether they look noticeably small, about normal, or noticeably large.

Horizontal Gaze Nystagmus usually occurs with subjects under the influence of three categories of drugs:

- o CNS depressants (including alcohol)
- o Dissociative Anesthetics
- o Inhalants

When PCP is involved, the onset of jerking usually occurs almost immediately, i.e., very soon after the eyes start to move to the side.

Vertical Nystagmus is another easy-to-administer test. Position the stimulus horizontally, approximately 12 to 15 inches in front of the subject's nose. Instruct the subject to hold the head steady and follow the object with the eyes only. Then, slowly and steadily move the stimulus upward until the eyes are elevated as far as possible and hold in that position for approximately four (4) seconds. If the eyes can be observed to jerk noticeably, vertical nystagmus is present.

Vertical nystagmus usually occurs with Dissociative Anesthetics, and may occur with relatively high doses, for that individual, of CNS depressants or inhalants.