“Up in Smoke” – Marijuana Impaired Driving

Nick Place – DRE, SFST, DITEP Instructor
Officer Nick Place

- Manitowoc PD, nights
- SFST/DRE/DITEP Instructor
- Work (920)686-6500
- nplace@manitowoc.org
- www.route961training.com
Cannabis Impairment

- In the legalization era, recognizing cannabis impairment will still be important for criminal interdiction and all investigations
- Train officers in ARIDE/DRE
- 3 Phases of Detection
- Methods of Ingestion
- Cannabis and SFST’s and alternate FST and data to support tests
- CALL A DRE!
- The Holy Grail – finding a PBT (breath/saliva?) for Cannabis???
- “Baby Luke law”, SS # 346.63 (1)(am)
THC in blood

The only thing you really need to know is get it quick!

• 90% of THC is out of the blood in 1.4 hours
• No correlation between amount of THC in blood and impairment

Huestis et al
J Anal Toxicol 1992
“Don’t Reinvent the Wheel”

- “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.”

“The detection process ends with:

- An arrest
- Release decision

That decision should ideally be based on the totality of the evidence collected throughout each of the three phases.”

Cannabis Impairment

• People under the influence of Cannabis have difficulty paying attention, with brief attention spans. In particular, they do not divide their attention very successfully. **Clarification: They have a difficult time dealing with more than one or two tasks at once.** This can make them very unsafe drivers since driving requires the ability to divide attention among many simultaneous tasks. Short attention span would be indicated by varying speeds, failing to maintain a single lane, and difficulty with depth perception. Because Cannabis impairs attention, the Standardized Field Sobriety Tests (SFSTs) like Walk and Turn (WAT), One Leg Stand (OLS), and Finger to Nose (FTN) are excellent tools for recognizing people under the influence of Cannabis.

• **Point out, with subjects under the influence of Cannabis, poor performance on these tests usually will result principally from their inability to divide attention, and less so from impaired coordination or balance.**

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Baby Luke Law

WI SS# 346.63(d): “In an action under par. (am) that is based on the defendant allegedly having a detectable amount of methamphetamine, gamma-hydroxybutyric acid, or delta-9-tetrahydrocannabinol in his or her blood, the defendant has a defense if he or she proves by a preponderance of the evidence that at the time of the incident or occurrence he or she had a valid prescription for methamphetamine or one of its metabolic precursors, gamma-hydroxybutyric acid, or delta-9-tetrahydrocannabinol.”
Cannabis Impairment

Looking beyond finding dope/DUID

Riponite Phelps is found guilty of sexual assault and child abuse

A Ripon man accused of sexually assaulting children was found guilty last week Friday, and has been sentenced to decades in prison.

Terry L. Phelps, 58, of Ripon was facing 43 counts:
- Five counts of repeated sexual assault of a child (class C felony)
- Six counts of physical abuse of a child-repeated acts causing bodily harm (class E felony)
- Nine counts of exposing intimate parts (class D felony)
- Seven counts of child enticement (class D felony)
- One count of causing a child younger than 13 to view/listen to sexual activity (class F felony)
- One count of exposing genitals (class I felony)
- Five counts of manufacture/deliver marijuana (class I felony), with an enhancer for allegedly distributing it to a child at least three years younger than him
- Five counts of contributing to the delinquency of a child (misdemeanor)
- One count of felony intimidation of a victim (class G felony)
- Two counts of misdemeanor intimidation of a victim
- One count of first-degree child sexual assault-sexual contact with a child under age 13 (class B felony)
What Happens when an Officer Comes in Contact with an Impaired Driver?
Nothing – Smile and Wave! : (
Uncertainty
Drug Arrest Only
DUID Arrest (and vehicle SIA!)
Marijuana and Visual Impairment

- Marijuana affects visual acuity and safe driving tasks – observation and recognition of signs/signals, roadway hazards, changing roadway conditions, slowing and stopping vehicles and pedestrians

![Image of a night scene with vehicles and streetlights]
“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.”

Source: SFST Student Manual, Session 8, Page 70

Marijuana’s Effects on the Brain

HYPOTHALAMUS
Control appetite, hormonal levels and sexual behavior

NEOCORTEX
Responsible for higher cognitive functions and the integration of sensory information

BASAL GANGLIA
Involved in motor control and planning, as well as the initiation and termination of action

HIPPOCAMPUS
Important for memory and the learning of facts, sequences and places

VENTRAL STRIATUM
Involved in the prediction and feeling of reward

CEREBELLUM
Center for motor control and coordination

AMYGDALA
Responsible for anxiety, emotion and fear

BRAIN STEM AND SPINAL CORD
Important in the vomiting reflex and the sensation of pain

When marijuana is smoked, its active ingredient, THC, travels throughout the body, including the brain, to produce its many effects. THC attaches to sites called cannabinoid receptors on nerve cells in the brain, affecting the way those cells work. Cannabinoid receptors are abundant in parts of the brain that regulate movement, coordination, learning and memory, higher cognitive functions such as judgment, and pleasure.

Source: National Institute on Drug Abuse
Phase 1 – Vehicle in Motion

Contrary to Social Media...Cannabis drivers drive just as bad as ETOH Drivers

• #1 driving cue so far is speeding
• Weaving/lane change
• Signal/Sign Violations
• Crashes
• Reckless Driving Complaints
• Non-moving violations
General Cannabis Indicators

• Marked reddening of the conjunctiva (94%)
• Odor of marijuana (82.4%)
• Droopy Eyelids (85.6%)
• Marijuana debris in the mouth
• Coating on Tongue (96.2%)
• Body tremors
• Increased appetite
• Disoriented
• Eyelid tremors
General Cannabis Indicators

- Elevated Pulse (92.8%)
- Dilated Pupils - Normal in 73.7%
- Heat Bumps on back of tongue
- Giggling/Relaxed Inhibitions
- Paranoia
- Impaired perception of time and distance
- Dry Mouth***
- Fumbling for documents, forgetting simple requests
Phase 3 – SFST and psychophysical tests

- **Recommended Best Practice Roadside:** SFST’s along with LOC, Romberg, FTN
  - *Always follow D.A. or agency P&P, SFST by themselves reliable ID’ing Cannabis impairment*

- HGN: Possible LSP, 2 or more Head Movement Jerk (HMJ) “clues” (Papafotiou et al found SFST better predictor of cannabis impairment with HMJ in scoring procedure)

- WAT: 2+ clues, improper turn, arms, MHT, Stopping...tremors

- OLS: 2+ clues, swaying...tremors

- Romberg: eyelid tremors, internal clock varied

- LOC: studies indicate if present likely D9 present

- FTN: 3 or more misses

- Pulse, Pupil Size
Three Parts of Modified Romberg Balance Test

• Estimate the passage of 30 seconds
• Observation of tremors
• Observation of sway
Lack of Convergence

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

- If no HGN observed, but you see LOC, you might suspect presence of Cannabis.
Lack of Convergence – Why is it important?

From the DRE Manual:
• “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 the nose.”

Why is LOC important to driving -
• Slow, smooth movements changing the angle between the two viewing tasks
• Used for changing gaze from near to far, vice versa
• Can take up to one second
• Focusing on a single object or stimulus
• Safe driving requires focusing on street signs, dash instruments, other vehicles, changing roadway conditions, vehicles
What makes dilated pupils hazardous to driving -

- Affects peripheral vision
- Blurry Vision
- Decreased Contrast Sensitivity – too much light during day/starbursts from lights at night
Finger to Nose
DRE examination characteristics of cannabis impairment (2016)

- Conclusions:
- Overall the best single impairment indicators were...
  - Elevated pulse, dilated pupils, LOC, rebound dilation
  - 3 or more Finger to Nose misses
  - Eyelid tremors during Romberg
  - 2 or more clues during OLS
  - 2 or more clues during WAT
  - 2 of 4 psychophysical combined with eye observations: 96% correct
THC in Oral Fluid and Breath
Gauging Mental Impairment
Mental FST apps
Questions?

Me: it's not about how many times you fall, it's about how many times you get back up

Cop: that's not how field sobriety tests work