

CANNABIS IMPAIRMENT DETECTION IN THE WORKPLACE



PRESENTED BY EXTRACT-ED

WHAT'S THE MAIN CONCERN?

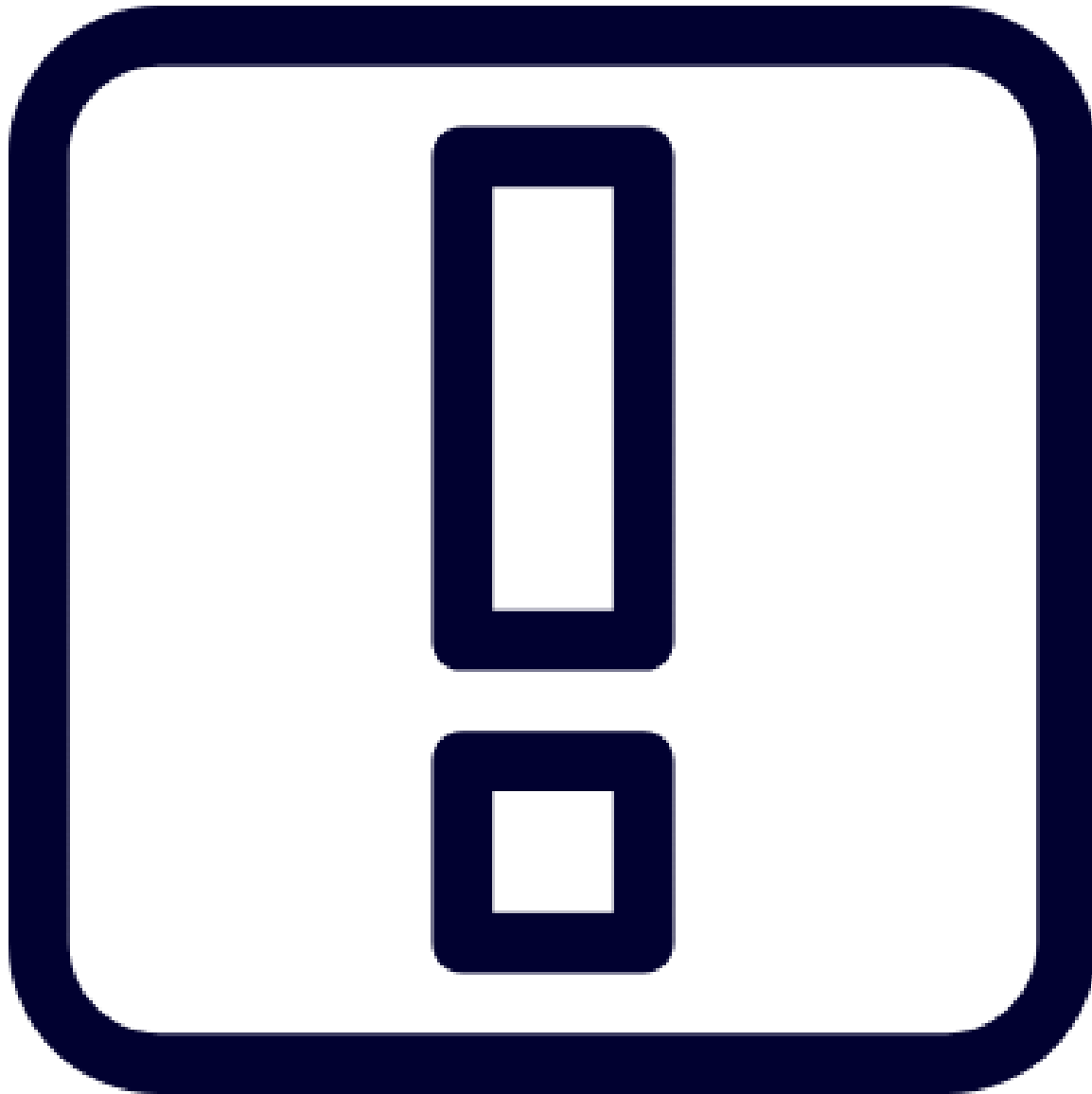
- Cannabis use can create an unsafe workplace for your workers, and cannabis legalization is creating new challenges for employers to overcome.
- In recent surveys by [drugabuse.com](https://www.drugabuse.com), more than one in five respondents said they use marijuana recreationally at work during work hours; nearly 5% admitted to daily use, and more than 13% use it more than once a month





WHAT IS MARIJUANA?

- Marijuana is the dried flowers and leaves of the cannabis plant. It contains mind-altering (e.g., psychoactive) compounds like tetrahydrocannabinol, or THC, as well as other active compounds like cannabidiol, or CBD, that are not mind-altering



***IT IS IMPORTANT TO KNOW
THAT ALL MARIJUANA "HIGHS"
DO NOT LOOK THE SAME.***

- Sativa Cannabis is known for causing an energetic and emotional uplifted high
 - Often referred to as a “cerebral high.”
- Indica Cannabis is better known for having a “body high”
 - Reported to cause deep relaxation often leading to a term called “couch-lock”
- Hybrids are a combination of the two types

POSSIBLE MEDICAL APPLICATIONS

- Lowers intraocular pressure
- Suppresses nausea
- Inhibits seizures
- Appetite enhancer
- Muscle relaxant
- Tumor growth retardant





POPULAR METHODS OF INGESTION

- Combustion (Smoking)
- Bong or water pipe
- Edibles



ONSET AND DURATION OF COMBUSTION

Within minutes – User begins to feel and exhibit effects

10-30 minutes – Peak effects are reached

2-3 hours – User continues to feel and exhibit effects

3-5 hours – User feels “normal”

EDIBLES

- When cannabis is consumed orally, absorption of THC into the blood is much slower and less predictable.
- Behavioral effects set in with a delay of 30-90 minutes and typically reach maximum effects in 3 hours.
- When consumed orally, maximum THC concentrations will be lower than if the cannabis was smoked.
- The THC, however, will persist much longer after oral intake than combustion.



POSSIBLE EFFECTS OF CANNABIS

- Interferes with divided attention
- Short attention span
- Failing to operate vehicles safely
- Difficulty with depth perception



POSSIBLE EFFECTS

- Relaxation
- Euphoria
- Relaxed inhibitions
- Disoriented
- Altered time and distance perception
- Lack of concentration
- Impaired memory
- Alterations in thought process
- Drowsiness
- Sedation
- Mood changes



WHY IS THIS A PROBLEM IN THE WORKPLACE?



CANNABIS HAS SHOWN TO AFFECT THE USERS

Attention

Concentration

Decision-making

Impulsivity

Inhibition

Reaction Time

Risk Taking

Verbal Fluency

Working Memory



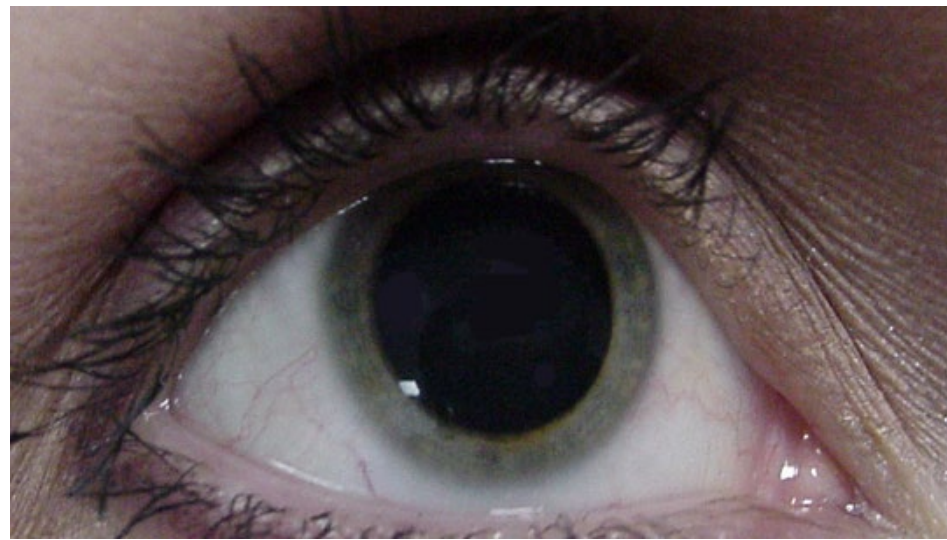
CANNABIS EFFECTS

Vital Signs:

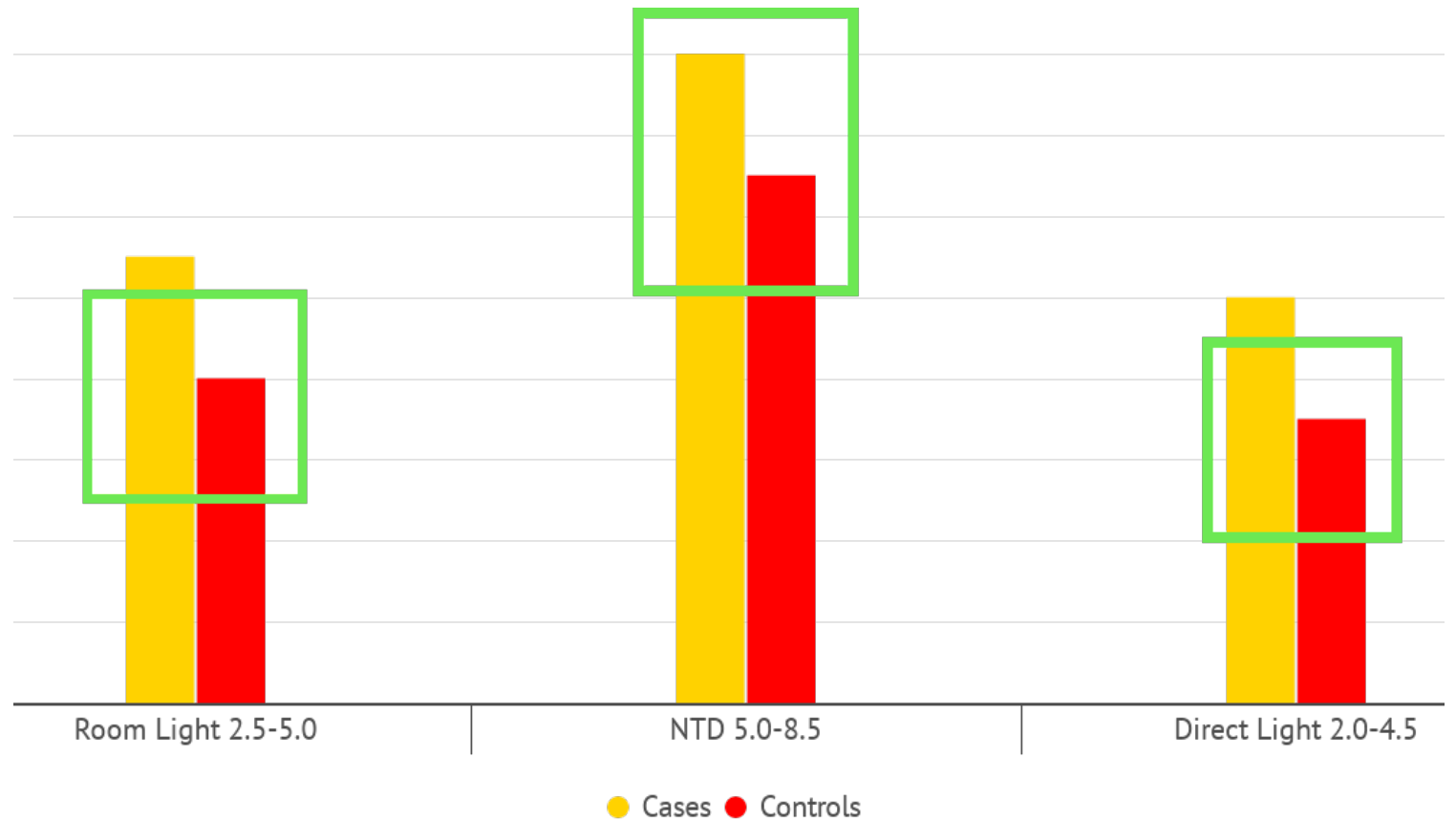
- Pulse – Up
- Blood pressure – Up
- Body temperature – Normal

Muscle tone – Normal





DILATED PUPILS (302 STUDY)

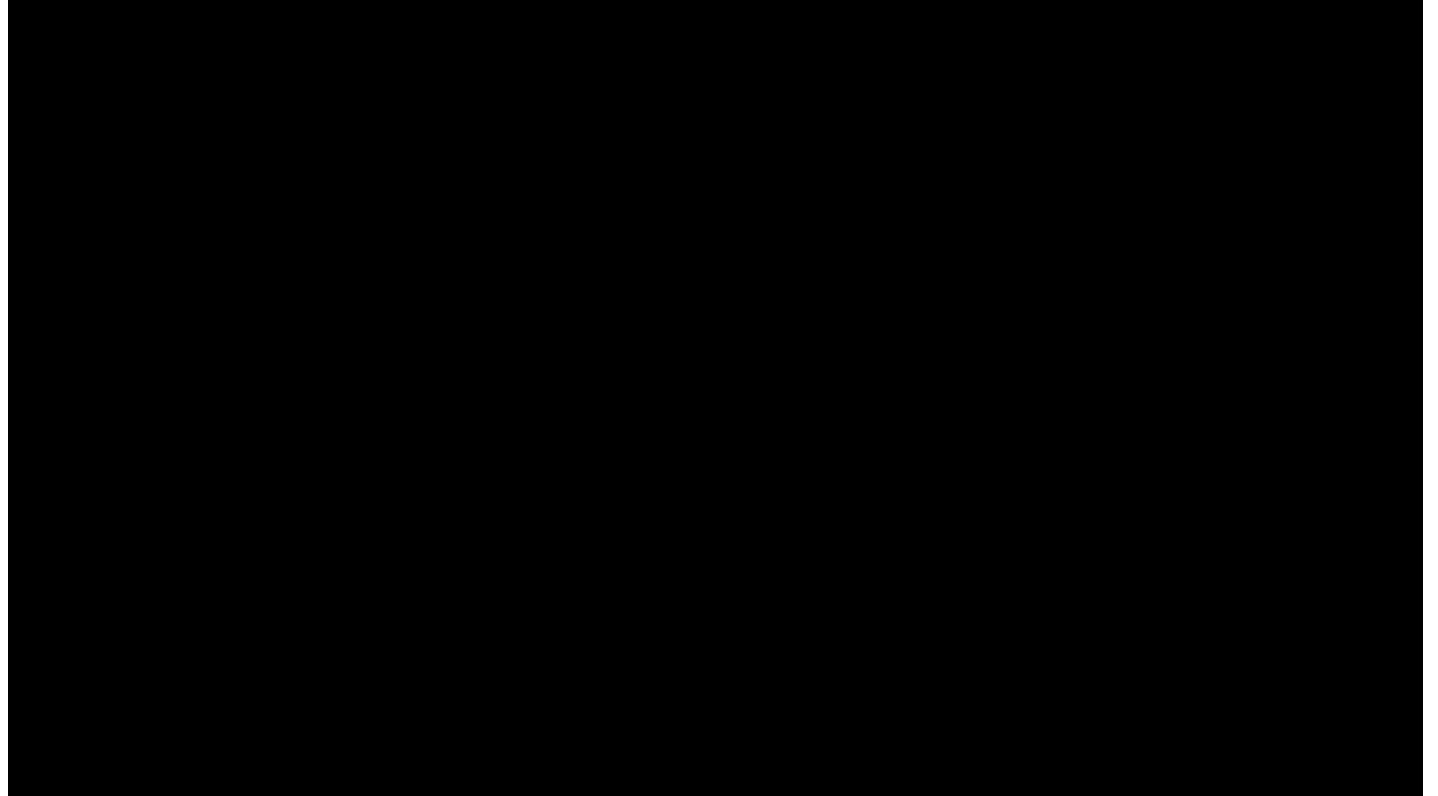


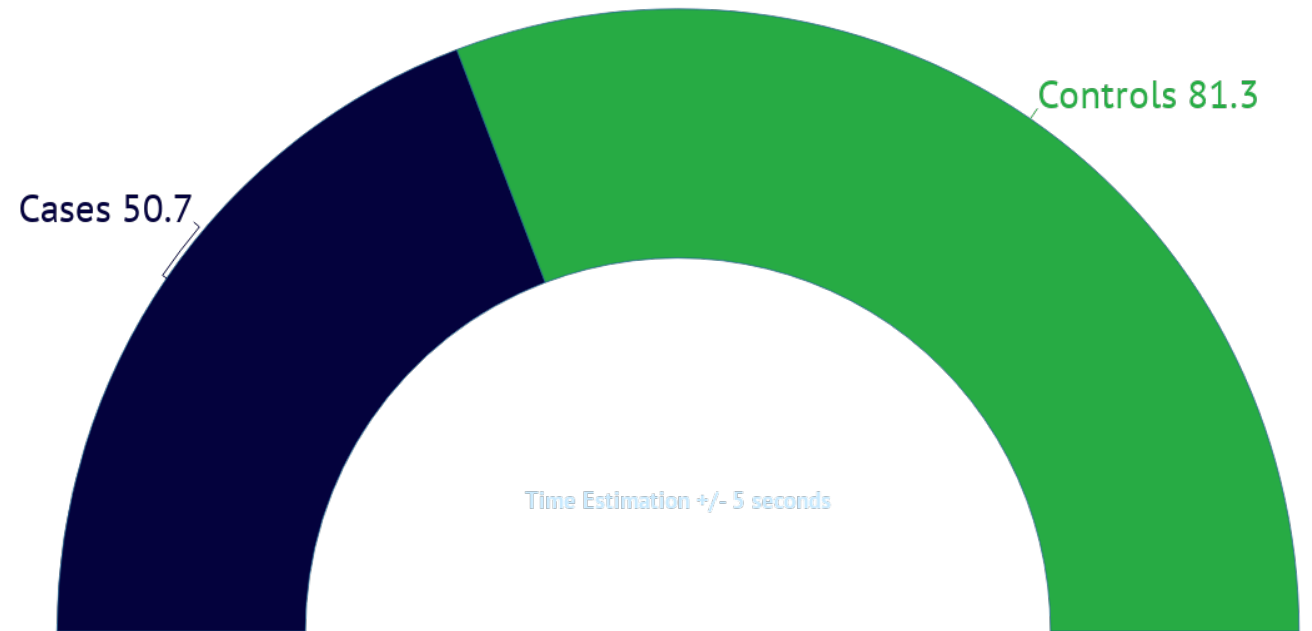
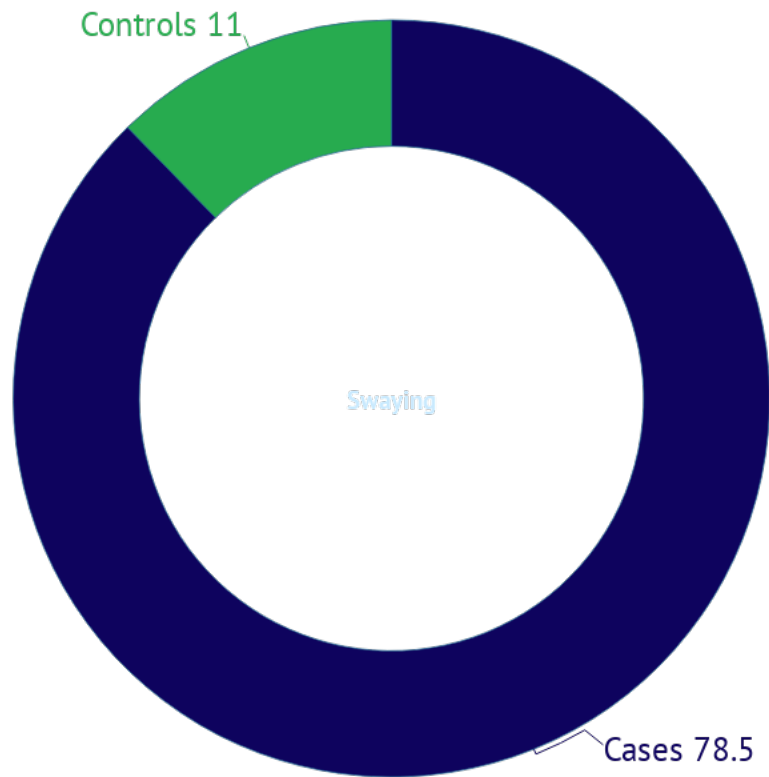
WHAT ARE SOME TESTS FOR IMPAIRMENT?



MODIFIED ROMBERG BALANCE TEST

- Stand with their feet together and hands to their sides.
- Tilt their head back slightly with their eyes closed.
- Remain in this position until they think 30 seconds has passed.
- Open their eyes and say "Stop".
- After they believe 30 seconds have passed.





MODIFIED ROMBERG BALANCE TEST

(RESULTS OF CANNABIS IMPAIRED PERSONS)

OTHER NOTEWORTHY CHARACTERISTICS OF CANNABIS USE

- Odor of Marijuana
- Red, bloodshot eyes
- Body tremors (Shaking of extremities)
- Eyelid tremors
- Possible green coating on tongue

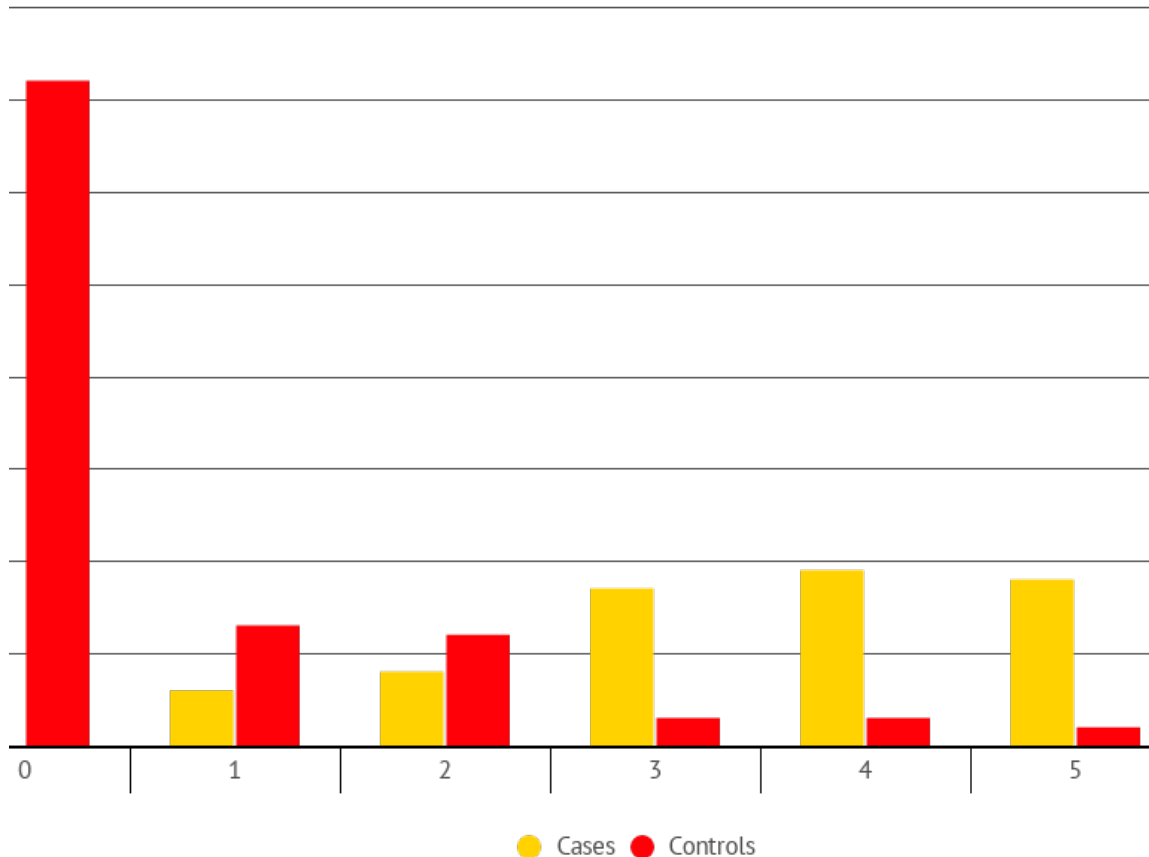


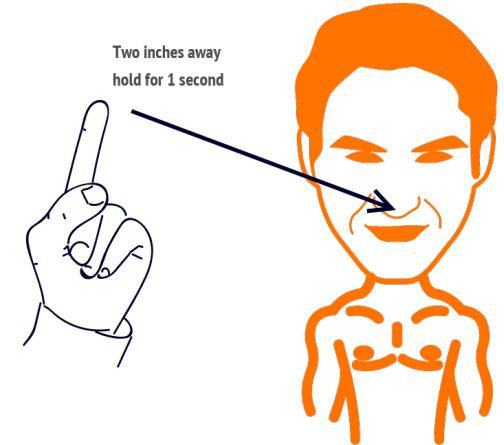
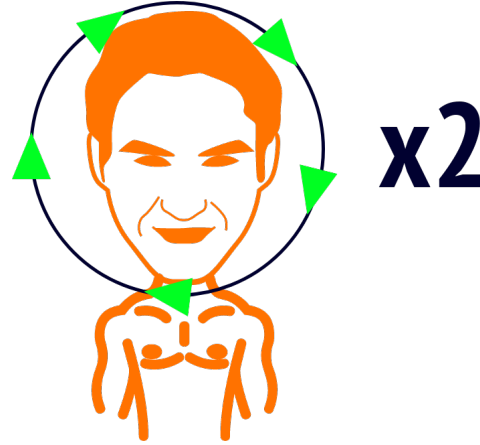
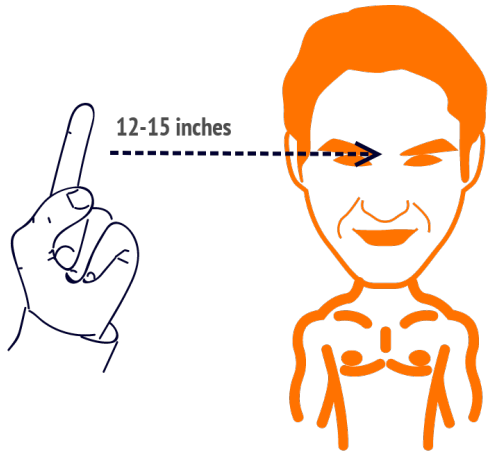
FINGER TO NOSE TEST (FTN)

- Tell subject to stand with their feet together and hands to their sides.
- Extend index fingers and rotate palms out. (Demonstrate)
- Have them remain in that position until told to begin.
- Will have them tilt their head back and close their eyes. (Demonstrate, with eyes open)
- You will give them commands, left, right, left etc.
- When the command is given, they will touch the tip of that index finger (where skin meets the nail) to the tip of their nose (dime-sized portion on the nose). (Demonstrate)

FINGER TO NOSE TEST (RESULTS OF CANNABIS IMPAIRED PERSONS)

- 94.4% ≥ 2 had 2 or more Misses
- Misses
 - Unsuccessful attempts, including missing the tip of the nose and using the pad, rather than the tip of the finger.

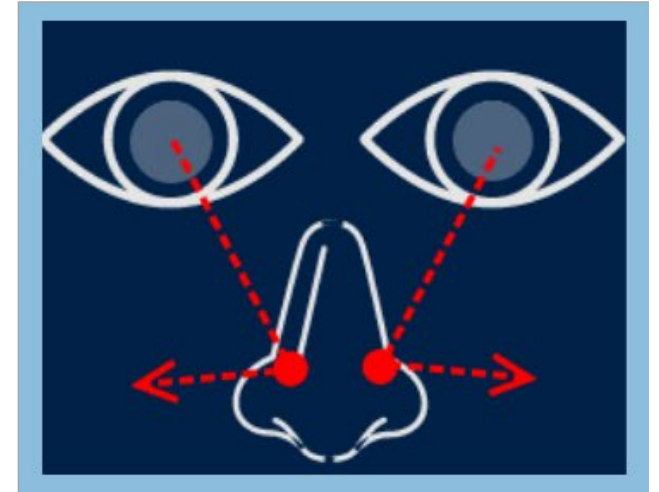
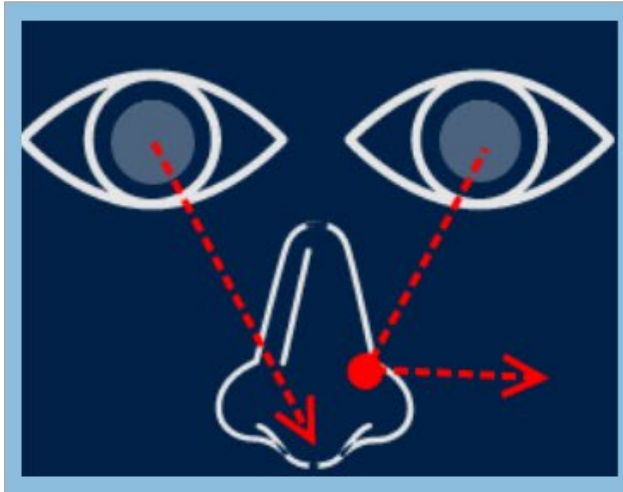
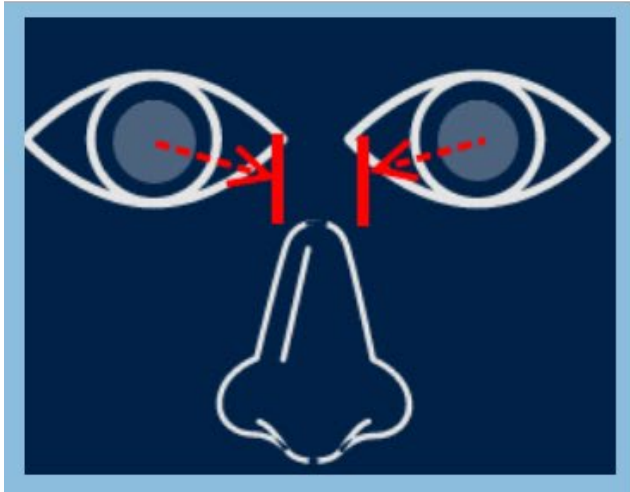




LACK OF CONVERGENCE TEST (LOC)

- 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.

What you may observe.



LACK OF CONVERGENCE



**EXAMPLE OF
LACK OF
CONVERGENCE**

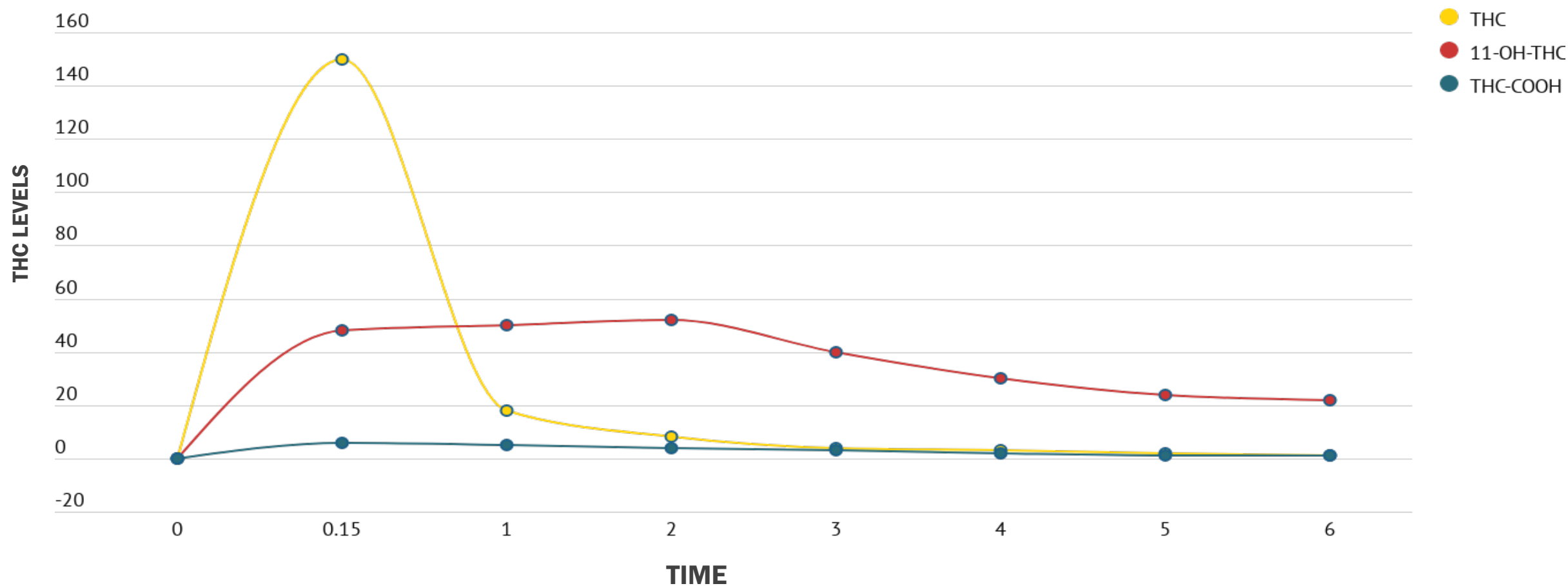
CHEMICAL TESTING



- Employers typically test for cannabis use through urine tests.
- Though THC, or its metabolites may be present, the mere presence does not equal impairment.
- Most urine tests will test for the not only THC but also its metabolites
 - 11-OH-Delta-9-THC (Hydroxy)
 - 11-nor-9-carboxy-THC (Carboxy)
- Studies have shown Carboxy THC may stay in a user's urine up to 77 days.

CANNABIS AND ITS METABOLITES POST COMBUSTION

ITS NOT THAT SIMPLE



Recognizing Drug Impairment in the Workplace

- Online and in-person course available
- This training educates employers in identifying drug impairment caused by:
 - Prescription medication
 - Cocaine
 - Methamphetamine
 - Heroin
 - Inhalants
 - Marijuana and more.





COURSE REVIEW

- Open camera on cell phone
- Focus QR code in camera (No need to take a picture.
- Click on popup
- Course name

Cannabis Impairment Detection in the Workplace



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