







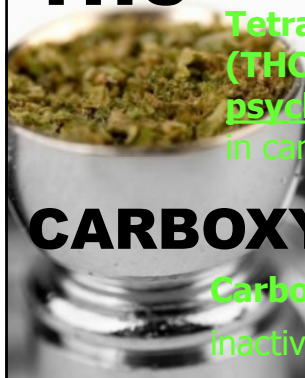
Based on the experience of Colorado & Washington we can expect more of the same.....much more.

- ✓ Most popular recreational drug in the US after alcohol and tobacco.
- ✓ #1 Drug in the DUI Drug Arrests
- ✓ 12.6% of drivers on Friday and Saturday evening test positive for use. (2015 NHTSA)
- ✓ 1 in 9 drivers involved in fatal crashes tests positive for marijuana. (Columbia University)
- ✓ Currently marijuana is the main drug involved in 12% of all fatal crashes.



THC

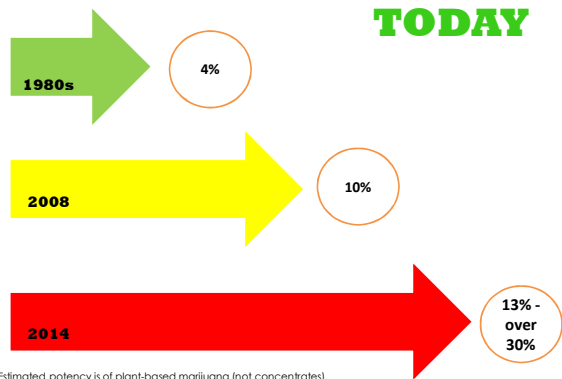
Delta-9 Tetrahydrocannabinol (THC) is the primary **psychoactive** ingredient in cannabis.



CARBOXY-THC

Carboxy-THC is the **inactive metabolite**.

THC POTENCY 1980s to TODAY



**Estimated potency is of plant-based marijuana (not concentrates)

HOW DOES MARIJUANA WORK IN THE BODY?



Marijuana is ingested



Impairment peaks quickly and then seems to level out

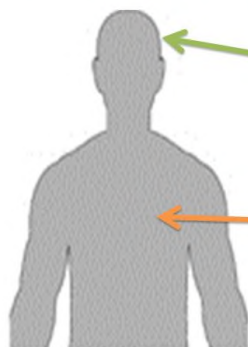


THC binds to the fat receptors in the body/brain



THC crosses the "blood/brain barrier" quickly

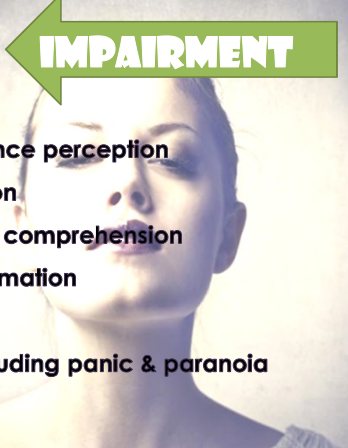
Mental v. Physical Impairment



MARIJUANA tends to stay in the brain (mental impairment is primary)

ALCOHOL AND OTHER DRUGS (generally) include more obvious physical impairment

- Euphoria
- Relaxed Inhibitions
- Disorientation
- Altered time & distance perception
- Lack of concentration
- Impaired memory & comprehension
- Jumbled thought formation
- Drowsiness
- Mood changes, including panic & paranoia
- Heightened senses





IMPAIRMENT

- **BODY TREMORS**
 - Especially quads, glutes and abs
- **EYELID TREMORS**
 - Modified Romberg Balance or anytime eyes are closed
- **REDDENED CONJUNCTIVA**
 - Whites of the eyes turn a pinkish color
- **GVM in teeth or green/white coating on tongue**
- **DILATED PUPILS**

Cannabis – Additive Effect



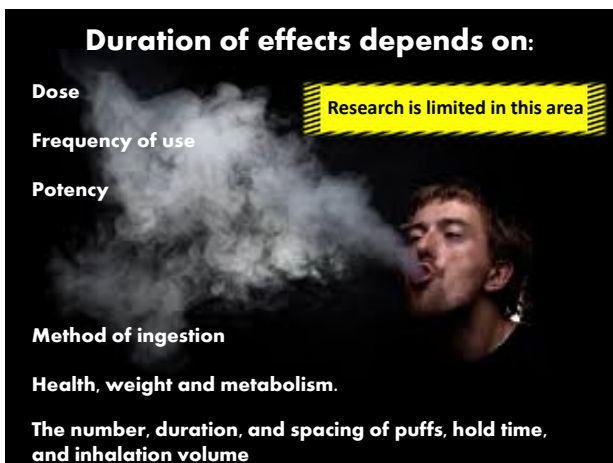
A little plus a little = a lot!

- **Studies support that even chronic users will not build tolerance**

Duration of effects depends on:

- Dose
- Frequency of use
- Potency
- Method of ingestion
- Health, weight and metabolism.
- The number, duration, and spacing of puffs, hold time, and inhalation volume

Research is limited in this area



General Duration of Effects - SMOKED:

Peak: 0-30 minutes

High experience: 1-3 hours

Effects return to baseline: 3-6 hours

Residual effects: Up to 24 hours

Marijuana Food Products

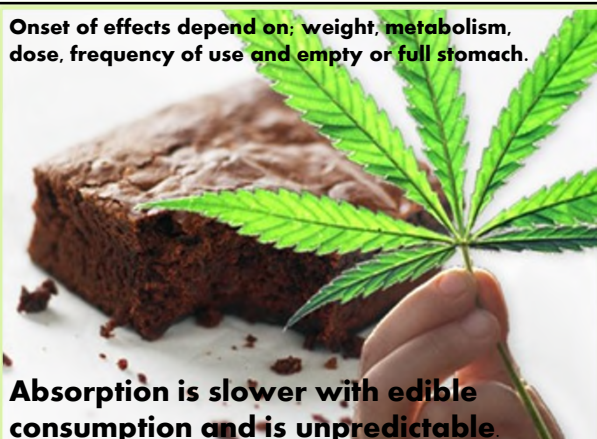


6.5 Servings

65mg Active THC

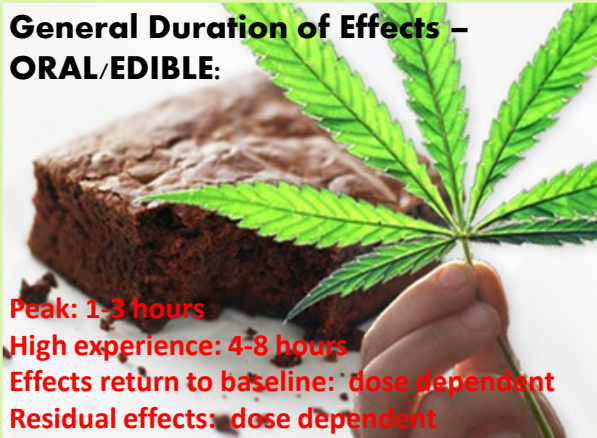


Onset of effects depend on: weight, metabolism, dose, frequency of use and empty or full stomach.



Absorption is slower with edible consumption and is unpredictable.

General Duration of Effects – ORAL/EDIBLE:



Peak: 1-3 hours
High experience: 4-8 hours
Effects return to baseline: dose dependent
Residual effects: dose dependent

SFST and MARIJUANA

- SFST apply to all drugs
- All officers are trained to detect drug impaired drivers
- Drug Recognition Experts are excellent but NOT REQUIRED



TOXICOLOGY – PERKS and PROBLEMS



Impairment versus Per Se Levels

- M91 did not adopt a per se level
- Per Se Level in WA is 5 nanograms THC
 - 2ng cut off level
- Based on very limited European research
 - Whole blood versus serum blood
- NOT tied to impairment
 - Unlike the .08 for alcohol
- Dissipates quickly
 - Creates a problem with evidence collection



So if the THC is out of or low in the blood, the driver isn't impaired, right??

Users experience the height of the drug's effects AFTER the active compound (THC) has faded from the blood.

The THC is present in the user's brain causing mental impairment for hours after it has lowered below the 5 ng in the blood. (The only compound potentially lasting for "days" is the inactive metabolite...carboxy-THC)

SPICE/K2/SYNTHETIC



DABBING

Weed Oil or "Honey"



- Major resurgence due to tolerance & need for a "better high"
- Butane method most popular
Solvent with heat extracts the THC -30% and higher
- Recipes & cook books on web. (YOU-TUBE)
- Duration of high 6 hours and maybe longer
- Intensity of high greater due to high THC
- Can also be smoked, eaten, vaporized.



VAPORIZERS

Every Imaginable size, shape, color & concealment.



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