Youth Marijuana Use: What You Need to Know!

Prevention Leadership Conference!

Funded by the County of San Diego, Health and Human Services Agency, Behavioral Health Services
YOUTH LEADERSHIP!

- “Know the Facts”
- Learn a new skill – public speaking, data collection, media advocacy.
- Build your resume!
- Create the world you want your children to live in!
EVERYONE REACTS DIFFERENTLY

- Metabolism - Your Body
- Family History! Genetics
- Environment
Teens who use between 10 – 20 times a day.

They will openly admit they need it.

They have a schedule of use.

They will use when nervous, anxious or can’t sleep.

There use has interfered with school, work, family and relationships.
POT LAWS
AT THE FEDERAL LEVEL
POT REMAINS SCHEDULE (1)
No marijuana use either medical or non-medical allowed on school property. (including the bus!)

Employers can still drug test and terminate an employee that fails a mandatory drug screen.

No public consumption allowed!

No consumption allowed while driving or in vehicles.
Drug Free Work Place:

Prop. 64 also states that employers remain free to test workers for marijuana use before hiring them, or at any point during their careers. And if workers test positive, the law says companies can choose to let them go – even if there’s no indication they were actually high on the job.

The majority of states with medical marijuana laws, however, do not specifically address the employment context. In these states, employees typically are not protected from being terminated for legal medical marijuana use. Courts in California, Colorado, Oregon, and Washington have upheld an employer’s right to terminate a current employee who tests positive for marijuana, even when the employee had a valid prescription and only used marijuana while off duty. In arriving at this decision, many state courts relied on the fact that marijuana is still illegal under federal law.
Evolving Product
POT TODAY IS MUCH MORE POTENT!

- Cross breeding
- Improved gardening techniques
- Genetic modification
- Extraction methods
- Consumption methods (edibles, vaping)
CONCENTRATES - WAX, BUTANE HASH OIL, EDIBLES
(BUD CONTAINING – 26% THC, CONCENTRATES MAY CONTAIN 30 - 99%)
EXTRACTION PROCESS
POT “FACTS” & “MEDICAL USE”
The pot/cannabis plant has over 400 chemicals. A little over 100 in the cannabinoid family. (Including THC and CBD)

Tetrahydrocannabinol or THC is the chemical responsible for marijuana's high. (psychoactive effect)

Cannabidiol or CBD is not psychoactive.

You can get a legit prescriptions for pot derived medicines! Available at a licensed pharmacy. They are in pill or spray form.

- Dronabinol
- Marinol
- Nabilone
- Sativex
**MARIJUANA SPECIES**

- Indica strains - generally contain higher CBD levels.

- Sativa strains - known for higher THC and “psychoactive” effect.

- Ruderalis strains – little THC content.
THC is the plant's chemical defense mechanism against consumption by herbivores. (Self-defense for the plant to keep from being consumed)

Individuals may build up a tolerance to weed, the same amount that used to get you “high” may no longer be enough.

THC can stay in your system and be detected in a drug test longer than most other drugs.
IF YOU NEED MEDICAL ADVICE GO TO YOUR PRIMARY CARE PHYSICIAN!
Many of the beneficial health effects from marijuana are from the chemical - Cannabidiol or CBD not THC.

CBD interferes with the “high” caused from the THC.

CBD is non-psychoactive because it does not act on the same pathways or (receptors) as THC.

Many of today's strains contain low doses of CBD.
Only recommendations are given for dispensary or “pot shop” marijuana.

No difference in the product marijuana and “medical” marijuana.

There are “no” consistent protocols or standards for marijuana products/edibles/resins from pot shop to pot shop.

Use at your own risk!
Youth:

“Age Related Risk”
Critical growth phases take place at the following times in our life:

- In Utero
- 0-5 years
- Adolescence (12-25) – The pre frontal Cortex is established.
The body’s own cannabinoid system" is responsible for connections and pathways being made to developing parts of the brain.

**Endocannabinoids**  – Produced in the human body.

**Phytocannabinoids**  – Produced from marijuana. THC, CBD etc.

Introducing foreign cannabinoids causes the human body to limit the production of endocannabinoids.

Limiting the pathways and connections from forming properly.
WHAT IS THE PREFRONTAL CORTEX?

Executive function describes the activity of a system that manages other cognitive systems:

- Reason
- Logic
- Problem solving
- Planning
- Memory

The prefrontal cortex plays a significant part in directing attention, developing and pursuing goals, and inhibiting counterproductive impulses.
Heavy Marijuana use appears to have a significant effect on adolescents’ brain structure and development.

Use is associated with:

- Attention & Motivation
- Memory
- Planning
- Slower brain-processing power

Increased use may interfere with sleep patterns, increase anxiety/paranoia and depression.


Collect Local Data
Marijuana is addictive!

- Marijuana is the primary drug of choice for youth ages (12-17) in County funded drug treatment.

- Higher use rate than alcohol for this age group.

- Treatment providers observing higher level THC ratios in drug tests.
### IF YOU EVER USED MARIJUANA, WHERE DID YOU GET IT FROM?

#### Top 3 mentions, by grade:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Source</th>
<th>9th</th>
<th>11th</th>
<th>NT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Friend, relative or family member</td>
<td>15%</td>
<td>27%</td>
<td>48%</td>
</tr>
<tr>
<td></td>
<td>Drug dealer</td>
<td>6%</td>
<td>11%</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>Someone you just met or didn’t know</td>
<td>4%</td>
<td>7%</td>
<td>20%</td>
</tr>
</tbody>
</table>

- **9th Grade**: 15% Friend, relative or family member, 6% Drug dealer, 4% Someone you just met or didn’t know
- **11th Grade**: 27% Friend, relative or family member, 11% Drug dealer, 7% Someone you just met or didn’t know
- **NT**: 48% Friend, relative or family member, 32% Drug dealer, 20% Medical marijuana dispensary/Pot Shop
Increase in the number of marijuana exposure cases from 2011 - 2015

*Timeframe for 2011-2014 is from January-December; timeframe for 2015 is from January-November. Source: California Poison Control Center, personal communication (March 2015).
EMERGENCY DEPT. DISCHARGE DATA

Marijuana-Related Emergency Department Discharge Data
San Diego County 2006-2014

This fact sheet summarizes data obtained from the Office of Statewide Health Planning and Development, Emergency Department Discharge Database on County of San Diego Emergency Department visits related to cannabis use over a nine-year time frame (i.e., 2006-2014). Table 1 provides data on discharges in which cannabis use was (1) the primary diagnosis or (2) either the primary or secondary diagnosis upon discharge (i.e., all diagnoses that included coding for cannabis). For most secondary cases, individuals came into the Emergency Department for something else (e.g., broken arm, injury, flu, etc.) and cannabis use was added as a secondary diagnosis. In these cases, the drug use may or may not have contributed to the reason for the Emergency Department visit.

Table 1. Cannabis-related San Diego County Emergency Department Discharges by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ER Discharges</td>
<td>573,858</td>
<td>601,102</td>
<td>612,310</td>
<td>643,091</td>
<td>635,302</td>
<td>671,815</td>
<td>608,303</td>
<td>727,510</td>
<td>781,289</td>
</tr>
</tbody>
</table>

Primary Cannabis-related Diagnosis Only

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Cannabis-related Discharges</td>
<td>86</td>
<td>107</td>
<td>77</td>
<td>111</td>
<td>136</td>
<td>188</td>
<td>205</td>
<td>171</td>
<td>232</td>
</tr>
<tr>
<td>Primary Cannabis-related Discharge Rate* by Total ER Discharges</td>
<td>15.0</td>
<td>17.8</td>
<td>12.6</td>
<td>17.3</td>
<td>21.4</td>
<td>28.0</td>
<td>29.4</td>
<td>23.5</td>
<td>29.7</td>
</tr>
<tr>
<td>Primary Cannabis-related Discharge Rate* by County Population</td>
<td>2.9</td>
<td>3.5</td>
<td>2.5</td>
<td>3.6</td>
<td>4.4</td>
<td>6.0</td>
<td>6.5</td>
<td>5.4</td>
<td>7.2</td>
</tr>
</tbody>
</table>

All Cannabis-related Diagnosis (Primary & Secondary Diagnosis Combined)

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Cannabis-related Discharges</td>
<td>1,116</td>
<td>1,734</td>
<td>1,851</td>
<td>2,362</td>
<td>3,722</td>
<td>4,300</td>
<td>5,311</td>
<td>7,254</td>
<td>10,302</td>
</tr>
<tr>
<td>Cannabis-related Discharge Rate* by Total ER Discharges</td>
<td>193.0</td>
<td>288.5</td>
<td>302.3</td>
<td>367.3</td>
<td>585.9</td>
<td>640.0</td>
<td>760.6</td>
<td>1011.4</td>
<td>1318.6</td>
</tr>
<tr>
<td>Cannabis-related Discharge Rate* by County Population</td>
<td>37.1</td>
<td>57.5</td>
<td>60.7</td>
<td>76.7</td>
<td>119.6</td>
<td>137.2</td>
<td>168.0</td>
<td>231.0</td>
<td>320.5</td>
</tr>
</tbody>
</table>

*Rate per 100,000 people

2 A primary or secondary cannabis-related diagnosis is assigned an ICD-9 code of 304.3 or 305.3 following a positive blood test for the presence of THC or the patient’s self-disclosure of use.

Funded by the San Diego County Health and Human Services Agency, Behavioral Health Services
The most common reasons of seeing marijuana poisoning in the ER:

1. Cannabinoid Hyperemesis
2. Psychosis
3. Chest pain
Cannabinoid hyperemesis should be considered in younger patients with long-term cannabis use and symptoms such as:

1) Recurrent nausea
2) Vomiting
3) Abdominal pain
4) Desire to take “Hot” showers

Lack of awareness of the disease may lead to invasive and costly diagnostic tests, as well as patient and physician frustration.”
EDIBLES
Oil can be whipped into a *budder* and cooked into products like brownies, cookies, etc.

- Sprayed onto generic candies
- Vaped in vape pens
- Made into drops known as tinctures
EDIBLE EFFECTS

- May not feel anything for **30 to 60 minutes** (on a full stomach may take nearly two hours to feel full effects).

- The high can last **4 to 8 hours** while the effects from smoking can wear off in an hour or less.
A cookie or candy may be meant for multiple doses.
Edible doses are processed by the liver before entering the bloodstream, THC consumed as edibles produce high levels of 11-OH-THC (active metabolite), while smoked cannabis, which goes directly from the lungs to the brain via the bloodstream and does not enter the liver, produces lower levels.
Children exposed to THC can have serious side effects!

Exposure symptoms:
- Vomiting
- Seizures
- Low blood pressure and rapid heart rate

New study finds children in Colorado are increasingly being exposed to marijuana

Accidental exposure to marijuana in Colorado jumps 150 percent over last two years

In Colorado, where marijuana has been legal since 2012, the rate of children being accidentally exposed to marijuana has skyrocketed, a new study says.

The study, published in JAMA Pediatrics, reported that the rate of young children exposed to marijuana has increased 150 percent in the last two years in Colorado, usually via marijuana-infused baked goods and sweets children consume believing they are regular candy or treats.

Young children who consume the sweets can lose balance, vomit or become sluggish; the researchers found only a handful of cases with more severe reactions.

Researchers said the study was neither for or against legalization, but did note that packaging and dosage of edible marijuana products should be evaluated and regulated further to prevent children from accidental consumption or getting sick. Almost half of U.S. states have legalized medical marijuana usage, and a handful of others also passed laws legalizing or decriminalizing recreational use.
Nationally almost 4 percent of mothers-to-be said they had used marijuana in the past month in 2014, compared with 2.4 percent in 2002.

Research suggests: THC can potentially harm brain development, cognition and birth weight. THC can also be present in breast milk.

In Colorado, THC were found in one in six infants and toddlers admitted to Children’s Hospital (CHC) for coughing, wheezing, and other symptoms of bronchiolitis.

As with secondhand tobacco smoke, children can be exposed to the chemicals in marijuana when it is smoked by someone nearby.
Put Drugged Driving “On Your Radar”

SD DRUGGED DRIVING CAMPAIGN
“No one should be driving under the influence of any substance that can impair your driving ability.”

California’s drugged driving law is found at Sec. 23152 of the California Vehicle Code: It states that:

(c) It is unlawful for a person who is addicted to the use of any drug to drive a vehicle. This subdivision shall not apply to a person who is participating in an approved narcotic treatment program.

(e) It is unlawful for a person who is under the influence of any drug to drive a vehicle.

(f) It is unlawful for a person who is under the combined influence of any alcoholic beverage and drug to drive a vehicle.

In California it’s a crime to drive while impaired from drug use. No blood testing standard is established in California – that is, there is no fixed amount of drugs within the blood system that determines conviction. Whether a driver is impaired is determined on a case-by-case basis and at the discretion of the prosecutor.

California also prohibits driving by someone who “is addicted to the use of any drug” unless the person qualifies as participating in an approved recovery program. “Addicted” refers to emotional and physical dependence on a drug so that it is taken compulsively.

See People v. O’Neil, 62 Cal.2d 748 (1965)
Marijuana has a definite effect on driving, with swerving effects at the highest levels 3 hours after consumption of fairly low pot dose.

Key Findings:

- Slower breaking times
- Impaired ability to judge speed and distance
- Poor lane maintenance
- Lack of multi-tasking skills
VAPING
VAPING DEVICES

- Dry Herb Vape
- Hash Oil & Wax Vape
- Wax Vape - Dabbing
DANGERS POSED

- The devices burn so hot they create formaldehyde.
- E-liquid is a neurotoxin (risk from ingestions of small amounts).
- You can vape, dab, a variety of substances with virtually no odor.
- Hard to test the device for verification of substance.
- Explosion risks! (lithium-ion battery)
Vaper Severely Injured When His E-Cigarette Blows Up In His Face, Creating A New Hole In His Mouth

BY BRANDON WENERD - 09.10.15

There’s a lot of fuss about whether or not vaping is safer than smoking. We’ve posted like four articles on the subject in the past year here at BroBible (here, here, here, and here). It’s a contentious subject with no clear answers. The only conclusion is that both have their inherent risks that all users should be aware of.

The story of 23-year-old James Lauria is an awful one, however. According to Fox 5 DC, he was casually vaping when his e-cigarette device exploded in his face.

“It’s just a normal day,” explained James. “I’m at work and things quieted down and I stepped away for a second like I always do. Next thing I know, it exploded and I was on my way to a hospital in an ambulance, and that is the last thing I remember.”
The U.S. Food and Drug Administration, started regulating e-cigarettes in May 2016.

FDA has identified about 66 explosions in 2015 and early 2016, after recording a total of 92 explosions from 2009 to September 2015.
A man has suffered second-degree burns after his faulty e-cigarette set his trousers on fire at a petrol station in the US state of Kentucky. CCTV footage from the Quality Oils store shows the blaze and sparks start shooting out of his trousers.

**Vicente Garza**

**October 16, 2015**

- Severe injuries to his mouth, tongue, and left index finger
- 7 day hospitalization
- Two surgeries on his tongue
- Two surgeries on his left index finger, including amputation at the knuckle
- Ongoing treatment at the Grossman Burn Center

**E-cigarette explosions prompt three lawsuits in California**

A 16-Year-Old Teen Suffered Second Degree Burns When an E-Cigarette Exploded in His Face

E-cigarettes are all the rage these days, as the grim fates of chain smokers make traditional drugs increasingly unpopular. But as researchers continue to look into whether the e-cigarette presents the same risks as its predecessor, it would seem there’s another horrifying hazard e-cigs pose that cigarettes never did: explosions.

Such was the fate of 16-year-old Ty Greer, a teen in Alberta, Canada, who suffered second-degree burns and broken teeth after his e-cigarette spontaneously exploded just inches from his mouth while he was using it in his car.

"It lit my kid’s face on fire, bashed two teeth out," Perry Greer, Ty’s father, told the Canadian Press. "It burned the back of his throat, burned his tongue very badly. If he wasn’t wearing glasses, he possibly could have lost his eyes. ... He wanted to die. That is how much pain he was in."
TRENDS
The potent opiate behind surging drug overdose deaths across the U.S. is now cropping up in the marijuana supply, according to officials in Ohio.

Pain medication with a rapid onset and short duration of action.

Often cut into other drugs.

Fentanyl is 50 to 100 times more potent than morphine.
WHAT IS SPICE?

- A chemical sprayed on plant material.
1. Spice is “not” pot, spice is a chemical sprayed on a plant material that may resemble marijuana herb.

2. Spice is “not” plant-based; there are no naturally occurring spice plants. Many Spice chemicals are produced in labs and smuggled in from countries like China.

3. Spice has “no” other use other than to get people high. There are no benefits to using Spice, not even accidental ones.

4. Many first time users of Spice have ended up in emergency rooms with severe hallucinations, excited delirium, paranoia, heart attack, seizures, vomiting, kidney failure and death.
POPULAR BUTANE PRODUCTS
PUBLIC HEALTH AND AWARENESS
PUBLIC HEALTH MESSAGING

- No one should be seeking medical advice from non-medically trained staff at a pot business.

- If you have a pre-existing mental health issue consult a licensed physician/psychiatrist before using anything.

- Do not take yourself off Doctor prescribed medication and substitute with pot.

- Do not use other peoples medication.
BE CAREFUL WHAT YOU POST!
Most young people are not regular users of drugs!

- Exercise, sleep and maintain a healthy schedule!

- If you need help for anything talk to a parent, counselor or youth advocate.

- Treatment is available.

- Everyone reacts differently to different drugs, know your body!
Employers may drug test.

If your child is obtaining a driving permit, drug test.

There are over the counter drug tests available.

Synthetic drug testing is more expensive but available.

THC can stay in the body 30-40 days.
NEED FOR FACT BASED PUBLIC HEALTH MESSAGING!

- Youth exposure risk and 2\textsuperscript{nd} hand exposure.
- Edible Protocols and guidelines.
- Safe driving windows after use?
- Warnings! regarding pre-existing mental health issues & pregnancy.
- Addiction/Treatment risks.

No gimmicks!
NEED MORE RESEARCH!

- Studies using higher potency pot products.
- Studies on how pot products affect the body and mind. (vaping pot)
- Studies on how marijuana affects pregnant woman, newborns and fertility.
- Studies on driving and coordination.

NIDA caps the amount of THC allowed in studies at 12%. Pot shops are currently advertising THC products ranging from 30% - 90%.
MPI RESOURCES AVAILABLE

MPI develops and disseminates data documents and educational materials

Examples:

- Informational Postcards, data, fact sheets on marijuana
- Materials available in English and Spanish
- Trainings available for youth, parents, everyone!
- Check out our “NEW” - MPI Prevention TOOLKIT.

Materials can be downloaded from MPI website:

http://www.mpisdcounty.net/
QUESTIONS?