Youth Marijuana Use: Emerging Research & Public Health Challenges

Service Provider Training

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

Joe Eberstein – CCPS, Program Manager, Center for Community Research, San Diego Marijuana Prevention Initiative
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.

Their use has interfered with school, work, family and relationships.
POLITICS OF POT!
AT THE FEDERAL LEVEL
POT REMAINS SCHEDULE (1)

Schedule 1 Drug:

- No medical value
- High propensity for abuse and addiction.

This means Hemp products, CBD oil all of it!

“Sessions recently rescinded the Cole memo thus allowing US Attorneys to intervene in States marijuana laws”.

Jeff Sessions Slams Marijuana Legalization (Again)

“The nation’s top law enforcer is continuing to speak out against marijuana legalization.

“I’ve never felt that we should legalize marijuana,” U.S. Attorney General Jeff Sessions said on Wednesday. “It doesn’t strike me that the country would be better if it’s being sold on every street corner. We do know that legalization results in greater use.”
Figure 107. Current State-Approved Marijuana Status, August 2017.

Source: DEA
CA - EVOLUTION OF POT!

- Medicine – 1996
- Decriminalization – 2010
- Possession Adult (21+) - 2016
- Retail Sales – 2018
Bureau of Marijuana Control – lead agency in developing regulations for medical and adult use and responsible for licensing retailers, distributors, testing labs and micro businesses.

CA Dept. of Public Health – Office of Manufactured Cannabis Safety regulating manufacturers of edibles for both medical and non- medical use.

CalCannabis Cultivation Licensing, a branch of the CA Dept. of Food and Agriculture – develop regulations to license cultivators for both medical and non, track and trace program to record seed to sale through distribution.
Retails sales and licensing of marijuana began in some cities including the City of San Diego January 2018.

CA will be the world’s largest marijuana market.

No public consumption.

Edible products cannot be shaped like a human, animal, insect, or fruit.
Allowable Recreational Use:

- 28.5 grams of marijuana in non concentrated form.
- 8 grams concentrated

Medical:

- Under Prop. 215, patients are entitled to whatever amount of marijuana is necessary for their personal medical use. However, patients can be arrested if they exceed reasonable amounts and they can be cited or fined for exceeding local laws.
Medical marijuana patients would continue to be allowed to cultivate up to 100 square feet of pot plants.

Most violations of the pot laws are an infraction.

*For medical use a minor (under 18 years of age) can apply as a patient or caregiver under certain conditions.
THINGS THAT WILL NOT CHANGE!

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 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
THE HERB IS EVOLVING!
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%)
90% 2\textsuperscript{nd} AND 3\textsuperscript{rd} DEGREE BURNS

Fully Involved Apt/Unit

Victim 90% 2\textsuperscript{nd} & 3\textsuperscript{rd} Burns

BHO Fire Injury
BUTANE GAS

- Butane Gas/Solvent is used for household fuel, refrigeration, and propelling in aerosol cans. They are highly flammable, colorless and easily liquefied gases.

- Butane is a very good solvent for hash oil extraction because it separates herb oils from most other useless plant/bud matter. This type of filtered oil is sometimes nicknamed “Hash or Honey Oil” because the results are like an amber honey.

Butane is colorless, odorless and heavier than air. The vapors can linger near the floor, often failing to dissipate and are easily ignited.
POPULAR BUTANE PRODUCTS
-CONCENTRATES-
- 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!
The pot/cannabis plant has over 400 chemicals. A little over 100 in the cannabinoid family.

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

FDA approved prescriptions for pot derived medicines are available they are Schedule (2,3) medicines you can pick up at a licensed pharmacy and are in pill or spray form.

- Dronabinol
- Marinol
- Nabilone
- Sativex
Many of the beneficial health effects from marijuana are from the chemical - Cannabidiol or CBD not THC.

CBD is not psychoactive. THC is!

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

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

Many of today's strains contain low doses of CBD.

New CBD based FDA approved epilepsy medicine “coming soon”.
Unproven Claims – Combats tumor and cancer cells;”

“CBD makes cancer cells commit ‘suicide’ without killing other cells;”

“CBD … [has] anti-proliferative properties that inhibit cell division in certain types of cancer.

“Non-psychoactive cannabinoids in pot may be effective in treating breast cancer.”
- Only recommendations are given for dispensary marijuana.

- No difference in the product marijuana and medical marijuana.

- Marijuana derived FDA medicines are prescribed and are Schedule (2 or 3) drugs approved by the FDA!

- 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 endocannabinoid system is responsible for healthy development of the brain.”

Endocannabinoids – Produced in the human body.

Phytocannabinoids – Produced from marijuana. (THC, CBD etc.)
The prefrontal cortex modulates and manages other cognitive systems in the brain:

- 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.

PLenty of research


Local Data
Most people do not use drugs!
Steady decreases in the perception of harm for marijuana, prescription drug use and synthetic drug use
Marijuana is addictive!

- Marijuana is the primary drug of choice for youth ages (12-17) in SD 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>Friend, relative or family member</th>
<th>Drug dealer</th>
<th>Someone you just met or didn’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th</td>
<td>15%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>11th</td>
<td>27%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>NT</td>
<td>48%</td>
<td>32%</td>
<td>20%</td>
</tr>
</tbody>
</table>

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).
Pot is associated with a range of side effects:

- Panic attacks
- Seizures
- Hallucinations
- Psychosis
- Sedation
- Dry mouth
- Heart palpitations
- Cognitive impairment and slower reaction times
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).\(^1\) 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).\(^2\) 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>Total ER Discharges</th>
<th>Primary Cannabis-related Diagnoses Only</th>
<th>Primary Cannabis-related Discharge Rate(^*) by Total ER Discharges</th>
<th>Primary Cannabis-related Discharge Rate(^*) by County Population</th>
<th>All Cannabis-related Diagnosis (Primary &amp; Secondary Diagnosis Combined)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>573,858</td>
<td>86</td>
<td>15.0</td>
<td>2.9</td>
<td>1,108</td>
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<tr>
<td>2007</td>
<td>601,102</td>
<td>107</td>
<td>17.8</td>
<td>3.5</td>
<td>1,734</td>
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<tr>
<td>2008</td>
<td>612,310</td>
<td>77</td>
<td>12.6</td>
<td>2.5</td>
<td>1,851</td>
</tr>
<tr>
<td>2009</td>
<td>643,091</td>
<td>111</td>
<td>17.3</td>
<td>3.6</td>
<td>1,151</td>
</tr>
<tr>
<td>2010</td>
<td>635,302</td>
<td>136</td>
<td>21.4</td>
<td>4.4</td>
<td>3,722</td>
</tr>
<tr>
<td>2011</td>
<td>671,815</td>
<td>188</td>
<td>28.0</td>
<td>6.0</td>
<td>4,300</td>
</tr>
<tr>
<td>2012</td>
<td>698,303</td>
<td>205</td>
<td>29.4</td>
<td>6.5</td>
<td>5,311</td>
</tr>
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<td>2013</td>
<td>727,510</td>
<td>171</td>
<td>23.5</td>
<td>5.4</td>
<td>7,254</td>
</tr>
<tr>
<td>2014</td>
<td>781,289</td>
<td>232</td>
<td>29.7</td>
<td>7.2</td>
<td>10,302</td>
</tr>
</tbody>
</table>

\(^*\)Rate per 100,000 people

\(^1\) Source: California Office of Statewide Health Planning and Development, Emergency Department Data. Prepared by the California Department of Public Health, Safe and Active Communities Branch. Reports generated from [http://epicenter.cdph.ca.gov](http://epicenter.cdph.ca.gov) on March 14, 2016.

\(^2\) 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 (CH)
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 or (Scromiting)
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.
New treatment guidelines published here: https://escholarship.org/uc/item/59z5q826

- Treatment should focus on the need for cannabis cessation.

- Capsaicin is a readily available topical preparation that is reasonable to use as first-line treatment.

- Emergency physicians should **avoid opioids** if the diagnosis of CHS is certain and educate patients that cannabis cessation is the only intervention that will provide complete symptom relief.
PROPER STORAGE

- Store in glass jar in cool dark place.
- Be aware of insects (spider mites love marijuana).
- Green or yellow dots may be a sign of bacteria or fungi.
The doctors, who noted that myocarditis is rare in children, said they tried to find causes that contributed to the boy’s heart issues, but they couldn’t find anything.

"The only thing that we found was marijuana. High concentrations of marijuana in his blood.”

They believe the child consumed a lot of cannabis very quickly and the marijuana overdose caused the myocarditis, which ultimately killed him.
EDIBLES

SO TELL ME ABOUT THIS MAGIC COOKIE

YOU ATE FROM A COMPLETE STRANGER

MPI
Marijuana Prevention Initiative
San Diego County
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.
College student ate an entire marijuana cookie that had been purchased from a licensed and legal pot shop in Colorado, despite the clerk having advised that it be split up and consumed in small portions.

Soon after he began to exhibit what witnesses described as erratic behavior, then, the Denver coroner’s report, “The decedent eventually reportedly jumped out of bed, went outside the hotel room and jumped over the balcony railing.”

The coroner acknowledged at the time that marijuana intoxication was a contributing factor.
Marijuana brownies sicken Crawford High students


SAN DIEGO — Five students got sick at Crawford High School Friday after eating marijuana-laced brownies, a school district official said.

All five were taken to Rady Children’s Hospital for treatment. They were reported to be in stable condition.

The students at the school in the El Cerrito neighborhood reported to staff that they had eaten the brownies and then felt ill, said San Diego Unified School District spokeswoman Linda Zintz.

School staff called for paramedics about 12:30 p.m. and school district police began an investigation.

Zintz said she had no information about where the teens got the brownies and whether they were eaten on campus or off-campus.

School Principal Richard Lawrence sent recorded voice messages to parents Friday afternoon, saying five students taken to the hospital as a precaution after ingesting marijuana brownies were in stable condition and expected to be released from the hospital in the evening.

“Please take the time to speak to your son or daughter about ingesting food from other people,” Lawrence’s message said. “Students should not take nor eat food from others regardless of how it may appear. Drugs come in different forms and formats and there’s also concerns about unknown allergens. We must be proactive for our students’ safety.”

One arrested after marijuana gummy bears sicken Chula Vista students

BY: Jessica Chen, Mark Sanders
POSTED: 2:53 PM, Apr 27, 2017
UPDATED: 11:05 AM, Apr 28, 2017

Earn Companion Pass after first purchase with a new Rapid Rewards® Credit Card account.

*Does not include taxes or fees from $5.60 one-way. For California residents only. Offer ends 11/30/17 – 12/11/17.

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Food Safety News

Breaking news for everyone's consumption

Third Death in Colorado Linked to Marijuana Edibles
BY NEWS DESK | MARCH 21, 2013

The third death associated with marijuana edibles could not have come at a worse time for the state's fledgling legal pot industry. Services are being held today in Tulsa, Okla., for Luke Goodman, 23, who reportedly killed himself last Saturday night in a condo at Colorado’s Keystone Ski Area, where he was staying for two weeks with his family.

It will be a few weeks before toxicology reports will be returned, but Goodman’s family and friends suspect that edible marijuana was a factor in the self-inflicted gunshot death. His mother, Kim Goodman, blames her son’s death on “a complete reaction to the drugs.”

Another controversy from a death linked to marijuana edibles was not what the industry needed, especially this week when it was making legislative moves to kill a regulation taking effect on Jan. 1 outlawing all marijuana-infused foods to have a distinct look.

The bill loosens the wording requirement that marijuana-infused cookies or candies be clearly identified as pot-infused did not get a single vote in the committee. The outcome was hailed as a bipartisan agreement that pot-infused food is going to look different than regular food in Colorado since 2014.

It left the conservative Colorado Springs Republican who sponsored the bill to repeal the requirement, state Sen. Owens Hill, charging his colleagues with “micromanagement.”

Edibles account for about 43 percent of Colorado’s newly legal pot market.

Goodman and his cousin, Caleb Fowler, reportedly purchased $58 worth of marijuana products, including edibles, last Saturday afternoon. They began ingesting peach tart candies, each containing the recommended dose of 10 mg of THC, or tetrahydrocannabinol, which is the chemical responsible for most of marijuana’s psychological effects.

Fowler says his cousin ate at least five of the candies and later became jittery and was taking incoherently.

Colorado Teen Jumps To His Death After Eating Marijuana Cookie

By Andrea Swensrud
April 3, 2014

For the first time since Colorado legalized weed for recreational use, a coroner has listed “marijuana intoxication” as a contributor to a death. Wyoming student Levy Thamba was in Denver on spring break with three friends when he jumped to his death from a Holiday Inn balcony after eating a marijuana cookie, reports the Denver Post. His friends told investigators he “exhibited hostile behavior” after eating the cookie, and though initial attempts to calm him down seemed to work, he ended up leaping from the balcony.

Today reports. Read more on Newsver...

Man who ate pot candy must stand trial in wife's killing

By Denver Post Staff
August 22, 2014, 12:10 PM

DENVER - A judge ordered a Denver man on Friday to stand trial in the killing of his wife, who told dispatchers moments before her death that he was paranoid and hallucinating after eating marijuana-infused candy.

Defense attorneys for 48-year-old Richard Kirk suggested during a preliminary hearing that he was so impaired by the pot that he may not have intended to kill his wife.
MENTAL HEALTH
There is no current scientific evidence that marijuana is in any way beneficial for the treatment of any psychiatric disorder.

In contrast, current evidence supports, at minimum, a strong association of cannabis use with the onset of psychiatric disorders.
Marijuana increases risk of psychotic outcomes independently of confounding and transient intoxication effects. There is now sufficient evidence to warn young people that using cannabis could increase their risk of developing a psychotic illness later in life.

Female adolescent chronic users had a higher risk of developing depression and anxiety later in life.

Source: The Lancet - 2007, Cannabis use and risk of psychotic or affective mental health outcomes: a systematic review
Marijuana use and schizophrenia: New evidence suggests link

Written by Yvette Brazier

Published: Monday 26 December 2016

A new study, published in Psychological Medicine, has added to the body of evidence pointing to a link between schizophrenia and the use of cannabis.

Recent research suggests that not only are people who are prone to schizophrenia more likely to try cannabis, but that cannabis may also increase the risk of developing symptoms.

Studies show that cannabis use is more common among people with psychosis than in the general population, and that it may also increase the risk of psychotic symptoms.

Its use has been linked to symptoms of psychosis, such as paranoia and delusional thinking, in up to 40 percent of users.

Earlier this year, scientists warned that young people who use cannabis could be putting themselves at risk of psychotic disorders. People with schizophrenia appear to have a higher chance of experiencing psychosis if they use cannabis.

Previous warnings had voiced concerns regarding the particularly powerful strains of cannabis, such as “skunk,” currently circulating among young people.
CANNABIS USE DISORDER

DSM-5. Diagnostic and Statistical Manual of Mental Disorders (DSM) is the standard classification of mental disorders used in the U.S. by mental health professionals.

Recently added “cannabis withdrawal”.

Marijuana users build up a tolerance to the drug, they either have to increase the amount or switch to harder drugs.
The study looked at evidence from 47,000 veterans dealing with PTSD from 1992 to 2011.

The observational study of veterans found an increase in participants who experienced a heightening of their PTSD symptoms when using marijuana.
PUBLIC HEALTH MESSAGING

- Do not seek medical advice from non-medically trained dispensary staff.

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

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

- Do not use other peoples medication.
PEDIATRIC EXPOSURES
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.

Children exposed to THC can have serious side effects!

Exposure symptoms:

- Vomiting
- Seizures
- Low blood pressure and tachycardia or rapid heart rate
"SECOND HAND" MARIJUANA SMOKE

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.
At what level of exposure do child welfare agencies intercede, what about mandated reporters?

“There is an urgent need for further research using study designs that control for concomitant drug use during pregnancy and lactation, the overall health status of women who use marijuana, and the frequency of its use. Current commercially available marijuana has significantly higher concentrations of THC than those used in previous studies.”

Source: Academic Journal of Pediatrics and Neonatology - 2016
DRUGGED DRIVING CAMPAIGN KICK OFF JUNE 11, 2015
“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).
Cannabis has a definite effect on driving similar to other RX, with swerving effects at the highest levels 3 hours after consumption of fairly low potency.

Key Findings:

- Slower breaking times
- Impaired ability to judge speed and distance
- Poor lane maintenance
- Inability to multi-task

Does not make you a safer driver!
Marijuana plus alcohol is one of the most frequently detected drug combinations in car crashes.

The simultaneous use of alcohol and pot produces significantly higher blood concentrations of pot’s primary active metabolite, Delta 9 THC.

Marijuana use is often over looked when the presence of alcohol is detected in impaired drivers.
States that legalized recreational marijuana between 2012 and 2016 — Alaska, Colorado, Maine, Massachusetts, Nevada, Oregon and Washington — as well as the District of Columbia.

Over the first six months of 2017, pedestrian fatalities rose sharply from a year earlier in states that had legalized recreational marijuana. In the rest of the country, such deaths declined.

Source: Governors Highway Safety Association, 2018
SPICE
The Product

- Spice is a chemical sprayed on plant material.
1. Spice is a “man made” chemical. 100x stronger than weed.

2. The chemical - Spice is sprayed on plant material that resembles marijuana herb.

3. Spice has “no” other use than to get people high.

4. Many first time users of Spice have ended up in emergency rooms with severe hallucinations, paranoia, heart attack, seizures, vomiting, kidney failure and death.
Spice can be vaped in a vaping device.

Drug tests do exist for Spice.

Spice can be infused in food products.
VAPES
FDA has identified about 66 explosions in 2015 and early 2016, after recording a total of 92 explosions from 2009 to 2015.

May 2016 – New Rules were adopted for the e-cig industry which brought federal oversight for the first time.
VAPING DEVICES

- Dry Herb Vape
- Hash Oil (liquid cartridge)
- Dabbing wax
FACTS ABOUT VAPES

- The devices burn so hot creates formaldehyde.

- E-liquid is a neuro toxin (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.”
BE SAFE!
LAWSUITS

Man catches fire after e-cigarette explodes in his pocket at petrol station - video

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 One Lucky Convenience store in the town of Owensboro shows the smoke and sparks start shooting out of his trousers.

E-cigarette explosions prompt three lawsuits in California

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

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 drags 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, busted 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."
JUUL VAPE – DOUBLE THE NICOTENE
Not only does the Juul have a higher nicotine concentration than other comparable devices (a Juul pod is 5% nicotine by volume; a Blu e-cig cartridge is 2.4%), it also uses a slightly different nicotine formula than most vape pens use.

The Juul is also sleek, small, colorful, and fairly affordable, at $35 for the pen and $16 for a four-pack of pre-filled cartridges (or "Juul pods").
FENTANYL AND MARIJUANA

A potent opiate behind surging drug overdose deaths is now being found in marijuana

The potent opiate behind surging drug overdose deaths across the U.S. may be 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.
Do you trust the dark web?

Do you trust the drug dealer?
DO YOU KNOW WHAT YOU ARE TAKING?

- How do you know what is in the product?
- Dosage?
- How will I react?
- Call 911 if you or friend need help!
Wax can be dabbed using paper clips, dental tools, small screw drivers and pens.

Grinders and blunts, bongs.
FALSE CONTAINERS AND ITEMS THAT HAVE OTHER MEANING!
PUBLIC HEALTH AND AWARENESS
PUBLIC HEALTH MESSAGING
JUST FACTS!

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

No gimmicks!
Sample Documents:

- Post Prop. 64 - School District Notification Letter
- Lease Addendum
- “Social Host” Ordinance Language
- Drug Testing Policy
- Data points with Treatment Options
- Know the Facts!
GO “SMOKE FREE”

Model Smoke-Free Lease Addendum

This model lease addendum prohibits smoking of all tobacco products, including e-cigarettes, everywhere on property—both inside and outside—and encourages consideration of an enforcement policy.

It should be modified to fit your property’s needs.
Changes to one part of the policy may require changes to other parts as well.

Created by Live Smoke Free and updated by the Public Health Law Center with funds from the Minnesota Department of Health. This document is provided for educational purposes only and should not be considered legal advice.

November 2016

Tenant and all members of Tenant’s household are parties to a written lease with Landlord (the Lease). This Addendum states the following additional terms, conditions, and rules that are hereby incorporated into the Lease. A breach of this Lease Addendum gives each party all the rights contained herein, as well as the rights in the Lease.

1. Purpose of Smoke-Free Policy. The parties desire to mitigate (i) the irritation and known adverse health effects of secondhand smoke; (ii) the increased maintenance, cleaning, and redecorating costs from smoking; (iii) the increased risk of fire from smoking; and (iv) the higher costs of property insurance for a non-smoke-free building.

2. Definitions:

“Smoke” or “Smoking” means inhaling or exhaling smoke, aerosol, or vapor from any lighted or heated cigar, cigarette, pipe, electronic delivery device, or any other natural or synthetic material, and includes the use of any device designed to deliver nicotine or a similar substance.

Date: __________________ Property Name: __________________ Apartment/Unit Number: ______
Tenant Name(s): __________________
Tenant Address: __________________

Tenant and all members of Tenant’s family or household are parties to a written Lease with Landlord. This Lease Addendum states the following additional terms, conditions, and rules, which are hereby incorporated into the Lease, effective ______ [recommended 60-90 days following date of Lease Addendum]. A breach of this Lease Addendum shall give each party all the rights contained herein, as well as the rights in the Lease.

1. Purpose and application of Smokefree Policy. The parties desire to mitigate (i) the irritation and known adverse health effects of secondhand smoke; (ii) the increased maintenance, cleaning, and redecorating costs from smoking; (iii) the increased risk of fire from smoking; and (iv) the higher costs of fire insurance for a non-smokefree building. Tenant acknowledges that the smokefree policy established by this Lease Addendum is applicable as follows:

___ In all properties owned or managed by Landlord or
___ In this property and the following other properties owned or managed by Landlord:
Add a separate lease addendum prohibiting smoking or cultivation on the property. Specifically address smoking and cultivation, may cause property damage!

“Smoking is Federally prohibited”

Landlords are advised to seek legal advice from a fair housing knowledgeable attorney.
If it is not FDA approved, it should not be on school campus.

**Administration of Marijuana On School Property**

As laws change and access to marijuana products increase, the topic of school staff storing or administering non FDA approved Schedule (1) marijuana to students may be an issue California educators, staff, nurses will have to address. Proposition 64 took effect November 2016, allowing adults 21 and over the ability to possess and grow certain amounts for personal use. No public consumption is allowed. Any recent changes to marijuana policy will have no affect regarding use on campus both medically and recreationally. Here is why!

<table>
<thead>
<tr>
<th>Items to Consider?</th>
<th>Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td>What were the protocols on campus post prop. 215 – 1996 CA Compassionate Use Act?</td>
<td>1- Most Schools are Federal Property and receive Federal funds. Marijuana is classified federally as a Schedule (1) drug meaning “it has no medical value and high propensity for abuse”. Therefore there should be no product stored or dispensed on school property. FDA approved marijuana medicines do exist - see line 3. These may be allowed. Federal law supersedes State law.</td>
</tr>
<tr>
<td>Were you trained to administer marijuana/products in medical school?</td>
<td>2- Non FDA approved dispensary marijuana (wax, oils, edibles, CBD oil) are recommended not prescribed; and are a Schedule (1) drug.</td>
</tr>
<tr>
<td>Where did the products come from and who tested it for safety?</td>
<td>3- Marijuana derived medicines are in pill or spray form and prescribed they are Schedule (3) drugs and are FDA approved (dronabinol, sativex, nabilone, marinol etc.)</td>
</tr>
<tr>
<td>Are they prescribed by a doctor, where is the</td>
<td></td>
</tr>
</tbody>
</table>
DRUG USE & EMPLOYMENT!

- Zero Tolerance
- Safety
- Attendance
- Productivity
- Litigation

NOTICE

THIS IS A DRUG-FREE WORKPLACE
MEMORIALIZING EVERYTHING!
Use Restrictions on your iPhone, iPad, and iPod touch

You can use Restrictions, also known as parental controls, to block or limit specific apps and features on your iPhone, iPad, or iPod touch.

Turn on Restrictions
1. Tap Settings > General > Restrictions.

Adult content - access restricted
Please confirm that you’re over 18 or leave the website

I’m over 18
Exit
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.

“Employers” Drug TEST!
Be open to questions before you judge!

Ask about use or ask your Doctor to ask about use.

Be alert of any changes in grades, **friends**, moods & sleep patterns.

No vape pens or vaping devices.

We need an ongoing drug prevention curriculum in schools starting in middle school.
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
- 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?