Youth Marijuana Use & Vaping Know the Facts!

State PTA Conference

May 16, 2020

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







Very Happy to be here!

Joe Eberstein

Program Manager for Center for Community Research, San Diego County Marijuana Prevention Initiative

Prop. 64 Advisory Board Member

SAMSHA Region 9 PTTC Advisory Board Member







Stay Informed & Open-Minded

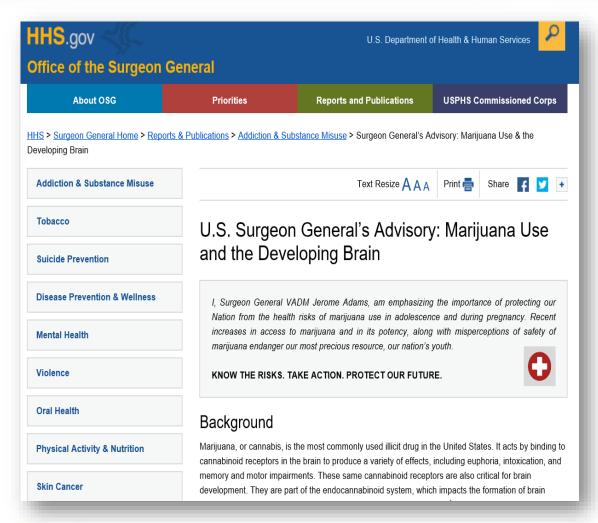
Confirmation bias – in this world of mass media we undervalue evidence that contradicts our beliefs and overvalue evidence that confirms them. We filter out inconvenient truths and arguments on the opposing side.

As a result, our opinions solidify, and it becomes increasingly harder to disrupt established patterns of thinking.





Surgeon General Statement- August 2019

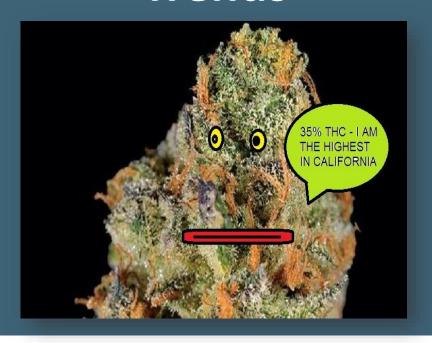


"No amount of marijuana use during pregnancy or adolescence is known to be safe."

Until and unless more is known about the long-term impact, the safest choice for pregnant women and adolescents is not to use marijuana.



Trends







Unknown Impacts?

d testing

O TESTING

- THC, CBD and vaping devices have never been fully researched to determine health impacts. Particularly high potency THC!
- From a national level the FDA does not test marijuana products (THC, CBD) for human consumption because it remains a Schedule 1 substance (i.e., no medical value)
- CBD is often classified as a supplement therefore FDA does not have jurisdiction.

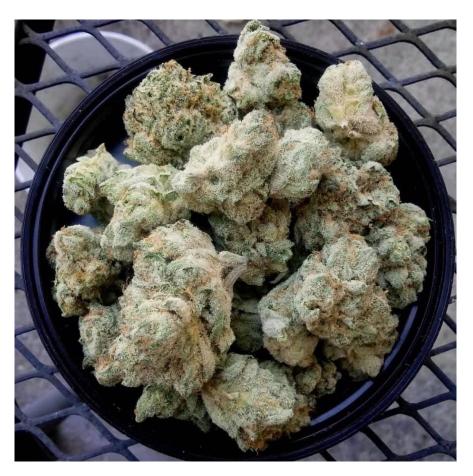




Highest potency in history



According to High Times, White Fire OG – Test data shows THC potential of this hybrid, with average levels falling between 22-30%.





Change in methods of ingestion

In the 1980's marijuana's THC content on average was 5-10%. Mostly herb or plant form **smoked in blunt or bong.**





Today's marijuana potency in herb can be upwards of 25-30% THC and oils and waxes 30 - 99% THC. Eating, vaping, drops/tinctures





Extraction Process





Post Prop 64 Trends in Oil

Crude Oil – Upwards of 80% THC, cartels are using their clippings to make the crude oil and flooding the market. This product is cheap and potent and mostly sold through social media, costing \$50 a cartridge.







Concentrates - Wax, Hash Oil, Edibles

(bud containing – 26% THC, concentrates can contain 30-99%)











Public Health Data





We are learning more about the risks

- > 30 years ago we knew little about the effects of marijuana.
- People were always saying we don't have enough research.
- Marijuana use associated with stomach issues, mental health, testosterone levels, memory, brain development, pregnancy, respiratory issues.
- > The data is there we just need know what we are looking for.

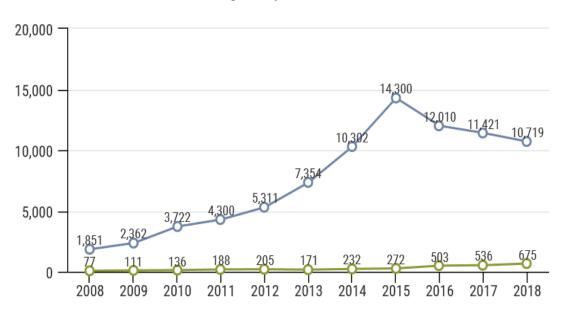


ER Discharge Data

Emergency Department Discharge Data⁷

Local emergency department discharge data also points to an increased trend in marijuana related harms. The most recent available data show a 170% increase in the number of people who were discharged from emergency departments with cannabis listed as the primary diagnosis.

Number of Emergency Department Discharges for Cannabis-related Diagnoses in San Diego County, 2006-2018



Primary Diagnosis Only
 Primary and Secondary Diagnosis Combined

Between 2008 and 2018, the number of persons discharged from Emergency Departments in San Diego County with cannabis listed as a primary diagnosis increased 776%, from 77 in 2008 to 675 in 2018. The number of persons discharged from San Diego **County Emergency** Departments with cannabis as a primary or secondary diagnosis combined increased 479%, from 1,851 in 2008 to 10,719 in 2018.



Marijuana's Effects

Pot is associated with a range of side effects:

- > Panic attacks
- Seizures
- > Hallucinations
- > Psychosis
- Sedation
- > CH syndrome
- > Dry mouth
- Heart palpitations
- Cognitive impairment and slower reaction times





Shining a Light on Marijuana's Effects





New Cannabis Hyperemesis Treatment Guidelines

- 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 prescribing opioids if the diagnosis of Cannabis Hyperemesis Syndrome (CHS) is certain and educate patients that cannabis cessation is the only intervention that will provide complete symptom relief.
- New treatment guidelines published here: https://escholarship.org/uc/item/59z5q826



Poison Control Cases

Marijuana Human Exposure Cases for San Diego County 6

The below graph displays the number of cases (unique individuals) handled by the California Poison Control Center for calls related to marijuana exposure from persons living in San Diego County. Each year displayed includes all persons (of any age) and dispositions/outcomes for the cases, including cases "resolved on-site" (i.e., from the location of the call), "treated/released from health care facility," and "admitted to health care facility." **There has been a 43% increase since the implementation of Prop 64 in 2016 (from 88 in 2016 to 126 in 2019).**

180%

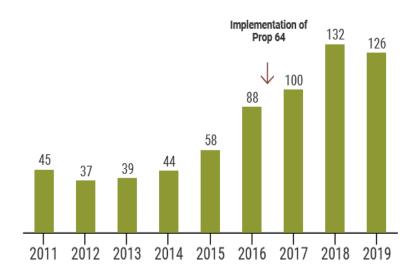
increase in <u>marijuana</u>

<u>exposure cases</u> in San

Diego County handled by
the California Poison

Control Center <u>since 2011</u>.

Number of Marijuana Human Exposure Cases for San Diego County, 2011-2019





SD County Treatment - 2019

- Marijuana is the primary drug of choice for youth ages (12-17) in San Diego County drug treatment.
- Marijuana is the primary drug for our juvenile involved youth. (SANDAG)

Treatment providers observing higher level THC ratios in

urine drug tests.





Cannabis Use Disorder

- Increased among teens and adults aged 26 and older.
- Signs of problematic use include increased tolerance, repeated attempts to control use or quit, spending a lot of time using, social problems due to use, and ignoring other activities in order to use.

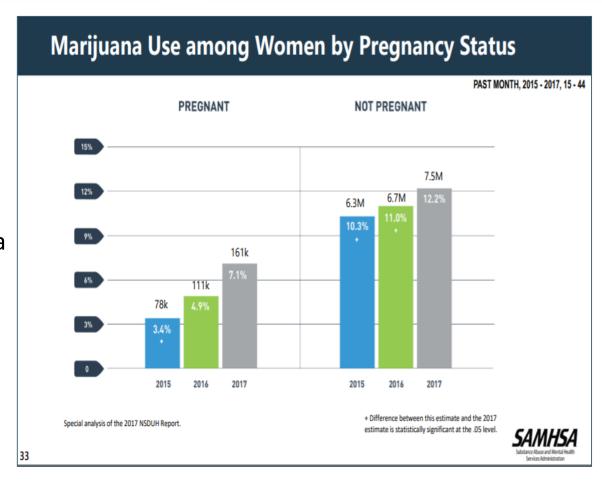




Marijuana Use Is Increasing Among Pregnant Women

Among pregnant women, marijuana is the most used illicit drug.

Risks of maternal marijuana use: health issues in infancy; behavioral and cognitive issues through adolescence and early adulthood.





Prenatal Exposure to Marijuana



- Birth weight NEONATE Birth weight Dopamine D2 receptor levels in brain
- ★ Hyperactivity * Anxiety Synapse formation Glutamate signaling in prefrontal cortex Dopamine D2 receptor levels in brain EARLY DEVELOPMENT



 Aggression (females) Anxiety and depression

Impulsivity and inattention

* Hyperactivity

* Anxiety Memory consolidation Socialization **ADOLESCENCE** Depressive symptoms Abstract reasoning



Socialization * Anxiety * Opioid-seeking Short-term memory Synaptic plasticity ▲ Gene expression ▲ Opioid receptor abundance in prefrontal cortex ▲ Neuroendocrine signals in the hypothalamus **ADULTHOOD** Visuo-spatial memory * Drug-seeking



Source: WEB | PDF

© Laurie o'keefe

CBD Information







CBD on the Market



CBD-infused products are being sold everywhere in California — but are they legal?

By Laura Newberry Los Angeles Times (TNS) 11 hrs ago



LOS ANGELES — Greg and Gary Avetisyan make no secret of it: They proudly sell all manner of products infused with CBD, from essential oils to bath bombs to fruity tealike beverages that promise calming relief in a frantic world.

CBD, short for cannabidiol, is a molecule derived from cannabis. But unlike its chemical cousin THC, it won't get you high. What it might do, according to some research, is alleviate anxiety, seizures, chronic pain and dozens of other ailments.

The Avetisyan brothers' belief in the alleged benefits of the extract is so steadfast that they opened California's first CBD-only store, Topikal, in Tarzana last year and opened a second along the Venice Beach boardwalk in April.



In the eyes of California, however, the Avetisyans' products are being sold illegally, even though they are non-psychoactive.



Trending



The cutting-edge technology that will change the future of farming

Tim Romars-I as bicks off a





What is CBD?

- > CBD stands for cannabidiol. It is a cannabinoid in the same chemical family as THC.
- ➤ It is the **second** most prevalent chemical of the active ingredients of marijuana.
- ➤ CBD is a component of marijuana (one of hundreds), by itself it does not cause a "high." CBS counteracts the high from THC.

Source: Dr. Peter Grinspoon Harvard Health » Cannabidiol (CBD) — what we know and what we don't - Harvard Health Blog



More about CBD...

- ➤ CBD has been touted for a wide variety of health issues, but the strongest scientific evidence is for its effectiveness in treating childhood epilepsy syndromes, such as Dravet syndrome and Lennox-Gastaut syndrome (LGS).
- Recently the FDA approved the <u>first ever cannabis-derived medicine</u> for these conditions, Epidiolex, which contains CBD.

Source: Dr. Peter Grinspoon Harvard Health » Cannabidiol (CBD) — what we know and what we don't - Harvard Health Blog



New FDA Approved CBD-Based Medicine

- ➤ The drug, Epidiolex, is derived from cannabidiol (CBD), and contains less than 0.1 percent of tetrahydrocannabinol (THC).
- ➤ The drug's approval permits its use in patients aged two years and older with **Dravet Syndrome (DS) and Lennox-Gastaut Syndrome (LGS)**, both rare childhood-onset forms of epilepsy that are among the most resistant to treatment.





CBD side effects

➤ Side effects of CBD include nausea, fatigue, irritability and can increase the level in your blood of the **blood thinner** coumadin.

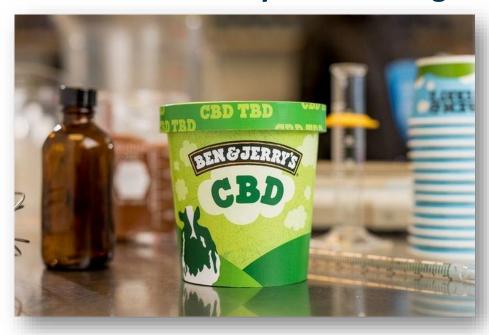
- A significant safety concern with CBD is that it is primarily marketed and sold as a supplement, not a medication.
- Currently, the FDA does not regulate the safety and purity of dietary supplements. So you cannot know for sure that the product you buy has active ingredients at the dose listed on the label.

Source: Dr. Peter Grinspoon Harvard Health » Cannabidiol (CBD) — what we know and what we don't - Harvard Health Blog



The bottom line with CBD we need more research!

Without sufficient high-quality evidence in human studies we can't pinpoint effective doses. Given that most CBD is currently available as an unregulated supplement, it's difficult to know exactly what you are getting. If you decide to try CBD, talk with your doctor — if for no other reason than to make sure it won't affect other medications you are taking.





Remember!

- There is no uniform testing of CBD products to ensure consumer safety and dosage.
- Can you trust the label?
- > THC is often present in products claiming to be pure CBD.

> In some products labeled CBD, no amounts of CBD were

present.





Marijuana & Mental Health





Edible Effects

- After ingestion of an edible there may be no effect 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.
- Edibles can be very potent!







THC and Mental Health

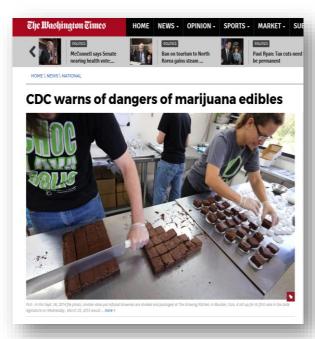
- > Studies have shown that THC can awaken pre-existing mental health issues in people with a genetic history of mental health disorders.
- Specifically, psychosis related to schizophrenia.
- Paranoia, anxiety, panic, hallucinations and delusions are some possible side effects.





CDC Warning-Psychotic Episode Risk

- 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.





A Break from Reality

- Several studies have found that more frequent use of pot is associated with a higher risk of psychosis or losing touch with reality.
- Consuming pot daily and especially using high-potency products increases the odds of having a psychotic episode.



Cannabis-Induced Psychosis: A Review





Schizophrenia

Marijuana use and schizophrenia: New evidence suggests link

Written by Yvette Brazier

Published: Monday 26 December 2016









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 <u>warned</u> 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.



New research finds that people with schizophrenia are more likely to smoke cannabis.

Previous warnings had voiced concerns regarding the particularly powerful strains of cannabis, such as "skunk," currently circulating among young people.



VA Website

➤ Controlled studies have not been conducted to evaluate the safety or effectiveness of medical marijuana for PTSD. Thus, there is no evidence currently that marijuana is an effective treatment for PTSD.

In fact, research suggests that marijuana can be harmful to individuals with PTSD.





Prevention Efforts





Elementary & Middle School Prevention

You have the right to be Drug Free and Healthy!





Early Intervention

- Healthy Choices Campaign!
- Geared toward middle school and TAY youth.
- Before you start using consider the consequences and alternatives.

Focus on positives!











Data- MPI Report 2020



San Diego County Marijuana Prevention Initiative

2020 REPORT





Prepared by the Center for Community Research for the County of San Diego, Health and Human Services Agency, Behavioral Health Services

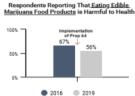


Local Data: Community Survey

The San Diego County Community Survey was developed by the Center for Community Research (CCR) in close collaboration with members of the San Diego County Prevention System to systematically collect and assess alcohol and other drug-related (A0D) perceptions and opinions. The findings from the Community Surveys have allowed the Prevention System to monitor trends and track changes in community A0D-related perceptions and opinions over time and to identify emerging issues of concern.

Perception of Harm. Overall, perceptions related to the harmfulness of using marijuana have decreased since the first survey administration in 2011 for all marijuana-related items, except for use of marijuana under the age of 21.

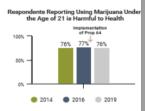
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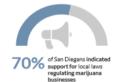






Support for Policy. Overall, support for local laws regulating marijuana businesses has remained high since the first survey administration in 2011 and support for local bans on marijuana businesses has decreased significantly following implementation of Prop 64 in 2016.

Respondents Indicating Support for Local Laws Regulating Marijuana Businesses



*2019 Community Survey

10% decrease in support of a <u>local ban</u> on marijuana businesses among San Diegans Respondents Indicating Support for a Local Ban on Marijuana Businesses



10



Youth use at parties - Social HostOrdinances

- Social Host Ordinances hold adult party hosts accountable for underage alcohol use.
- Amended versions of the ordinance include marijuana and controlled substances.
- ➤ Most of San Diego County's cities have adopted the new language.





Billboards and Advertising



City Heights Activists Call For More Regulation Of Billboards Advertising Marijuana

Tuesday, June 18, 2019

By Priya Sridhar

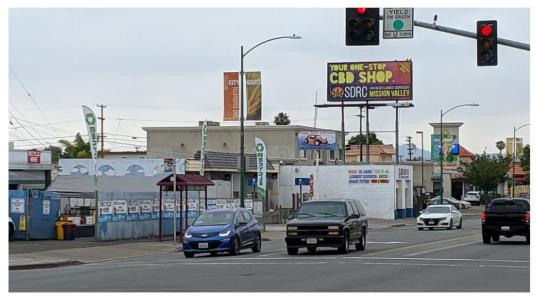


PHOTO BY NICHOLAS MCVICKER

Above: Cars in City Heights drive by a marijuana billboard advertisement on June 18, 2019 in San Diego.



State law prohibits billboards within 1,000 feet of schools, playgrounds or daycares.

"We are not taking away the right to advertisement. We are trying to restrict the right to advertise where our children and communities live, work and play," said Central Region Prevention Coalition.



Youth Drugged Driving Campaign



North Inland Community Prevention

November 28, 2018 at 6:10 PM · @ · §

Drugged Driving Awareness Month December 2018

WHEREAS, the City of Excendido recognites the importance of keeping our community's neighborhoods and streets, and Highways 15 and 78 safe; and

WHEREAS, the California Vehicle Code states that it is lilegal to operate a motor vehicle under the influence of any substance, langitly possessed or not, if the substance used course physical or mental impairment that makes a person mobile to drive safely; and

WHEREAS, alcohol, marijuma, and other drugs affect driver's exordination, reactive time, judgment, tracking ability, intractional awareness, perception, attention and/or ability to fecto.

WHEREAS, the Mental Health Systems North Inhard Community Prevention Program, its Youth Advectory Coalition, and the County of San Diego Marijuana Prevention Initiative program manages organized three: "Put Drugged Driving on Your Radae" madia esems and neven Drugged Driving Amazuness and Prevention railing to Escondado and the North Island Region of San Diego County, and

WHEREAS, the Mental Health Systems North Inland Community Prevention program and its Youth Advocacy Confining continue to bases can communities, more assurement about "Drugged Driving", and influence policies and ordinances to keep our communities sufe; and

NOW, THEREFORE, I, SAM ABED, Mayor of the City of Escondide, on behalf of the City Cosneil hereby proclaim December 2018 on "DRUGGED DRIVING AWARENESS MONTH" and urge all Escondido residents and visuoes to Put Drugged Driving or Your Rodar," refrain from driving a vehicle souter the tofluence of alcohol, marijuana and cannabis products or other performance impuring drugs and medications, and call 9-1/1 to report areyone suspected of "Discoved Driving."

NEWS

North County teens rally against drugged driving

San Diego County teens rallied on some North County streets Friday, alerting drivers about the dangers of "drugged driving" ahead of California's new recreational marijuana laws.

Author: Abbie Alford (Reporter)

Published: 4:42 PM PST December 29, 2017 Updated: 4:42 PM PST December 29, 2017

SAN DIEGO (NEWS 8) - San Diego County teens rallied on some North County streets Friday, alerting drivers about the dangers of "drugged driving" ahead of California's new recreational marijuana laws.

Brandon Bazan, a San Marcos Mission Hills High School sophomore, said he didn't think about the dangers until he had family and friends die from drugged driving.





E-cigarette or vaping product useassociated lung injury (EVALI)





Is vaping a good alternative to smoking?

Based on projected models, it is estimated that for every 1 adult who quits cigarettes using e-cigarettes, 80 adolescents who never smoked will eventually become daily cigarette smokers through e-cigarette use.

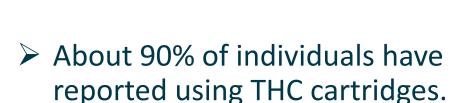


Source: Sonjeli. Qualifying population level health benefits and harms of e-cigarette use in the US. PLOS.



EVALI – E-Cig Vaping Associated Lung Injury

- > 47 deaths as of February 2020
- ➤ Nationally over 2785 hospitalized with 46 in San Diego.



> Average age of patients is 23.



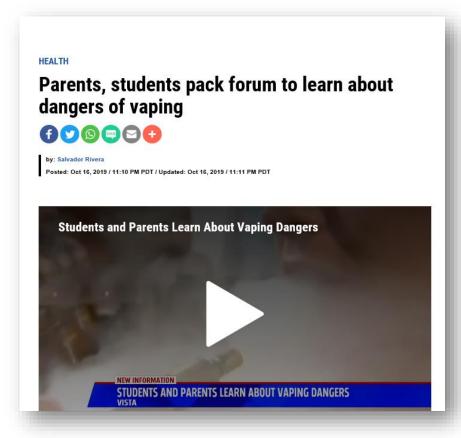




EVALI – Lung Injury

- The increased attention around the lung injury has put a spotlight on prevention.
- Community members are listening. This is a teachable moment!

Increase in attendance at public health events and forums.





Double Lung Transplant

HEALTH

The New York Times

Facing 'Certain Death,' Teenager With Vaping Injury Gets Double Lung Transplant

The surgery on the 17-year-old was the first transplant reported in the recent nationwide outbreak of vaping-related lung injuries.





For every action there is a reaction!

- > Efforts to stem the tide of teen vaping seem to be a step behind the market.
- Many teens have already moved on to an array of newer, disposable vape products. Puff Bars!
- > Taking advantage of loophole in the law.
- One bar has about 300 puffs and can contain about as much nicotine as two or three packs of cigarettes.



WARNING: THIS PRODUCT CONTAINS NICOTINE NICOTINE IS AN ADDICTIVE CHEMICAL.





Test Swab Vape Device

The marijuana test kit is so small and simple and it detects pot right away.

The kit uses test strips and a pre-treated swab that detect THC, the active ingredient in marijuana.



https://www.s2detect.com/marijuana-test-kit-mtk



Watch the **MTK** in action - Detect Marijuan in Edibles



Dank Brand

Many of the lung injuries have been traced back to the Dank Brand!







DEA Vape Take Back – Just remove the batteries!





PUBLIC HEALTH

Want To Get Rid Of Your Vaping Device? The DEA Will Take It

October 25, 2019 - 5:01 AM ET

RACHEL TREISMAN



This year the Drug Entercensor Administration is accepting electronic septing divisions (provided any litheum ion betwies an renovoid during its encusal histories interception Drug. Sales Back Day evers.

Lieu Tursen's Back Day (see 1998)

Updated Nov. 5, 1:55 p.m. ET

In the wake of vaping-related deaths and illnesses, the Drug Enforcement Administration is expanding "National Prescription Drug Take Back Day," and this year allowing people to drop off electronic vaping devices and cartridges.

The annual event lets people anonymously dispose of expired, unused, and unwanted prescription medications at collection sites across the U.S. The DEA launched the semi-annual initiative in 2010 in the hopes of preventing pill abuse, misuse and theft. As concern grows about the heafth risks of vaping and electronic eigarettes, the agency announced this week it will also accept electronic vaping devices and cartridges, provided any lithium ion batteries are removed.

"In an effort to support a healthy lifestyle and energetic population, especially amongst America's youth, DEA is committed to doing all it can to belp safely dispose of vaping devices and substances," agency officials stated in a press release. Saturday's Take Back event will take place from 10 a.m. to 2 p.m. at collection sites across the nation.



A simpler way to dispose of the device

- Attempting to make the process easier to dispose of the device.
- > Establish protocol for schools.







Moving Forward!





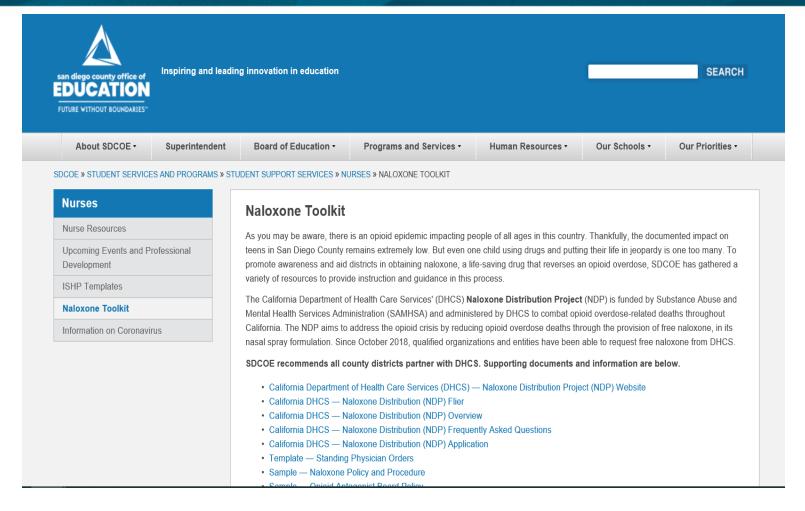
GOOD SAMARITAN LAWS Protect You and Friends

- Never let your friends just sleep it off!!!!
- Do not fear calling 911 if you or friend overdose and need help!
- Good Samaritan policies protect the caller and overdose victim from arrest for possession or use.





Naloxone Toolkit for San Diego Schools





https://www.sdcoe.net/student-services/student-support/Nurses/Pages/Naloxone-Toolkit.aspx

When In Doubt – 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.







The Public is Listening!

Engage with youth about alcohol and drug use:

- Start the conversation early.
- Ask a Doctor to speak with your children during an exam.
- Join the PTA, school board go to city council meetings.
- Get educated enough to support your position.
- > Have resources available for treatment.



MPI Resources Available

CCR Center for Community Research

MPI provides these discussions for all youth.

Examples:

- Information and data for download.
- Drugged Driving Campaign
- MPI Prevention TOOLKIT.

Visit our MPI website & YouTube page:

http://www.ccrconsulting.org/mpi









Questions?



