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# CANNABIS USE DISORDER

## ARE HIGH POTENCY PRODUCTS A FACTOR IN CUD?

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Illinois Higher Education Center

February 15, 2023

# We are happy to be here!

**Joe Eberstein, CPS**

*Director for Center for Community Research, San Diego County Marijuana Prevention Initiative*

*SAMSHA Region 9 PTTC Advisory Board Member*

**Patrick Foley, CATC**

*Treatment Professional and Life Coach with over 20 years experience working with youth in recovery.*



# Agenda

Marijuana in the News

Terms, Potency and Products

Trends in Use and Poisonings

Public Health Data

CUD and Resources

# The terms



- **Weed**, general term for any plant growing where it is not wanted.
- **Cannabis** – genus of flowering plants, sativa, indica and a sub-species known as ruderalis.
- **Marijuana** – a legal term referring to a portion of the cannabis plant that contains high levels of tetrahydrocannabinol (THC).
- **Hemp** – Industrial use ,very little THC used for rope, clothing, textiles, paper.
- **Hybrid** – mixing of one or two species.





**Hemp**



**Marijuana**

Is this Hemp or  
marijuana?

- May look a little different on outside.
- The chemicals inside make the biggest difference.

# THC or Tetrahydrocannabinol

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- THC is a cannabinoid chemical responsible for the high.
- These chemicals can be modified to enhance potency.
- Cross breeding, genetic modification and extraction methods are used to increase potency.
- Can interact with prescription medications and driving.

**CBD** VS **THC**

CC1=C(C(=C(C=C1)O)OC2=CC=CC=C2C)O

- Cannabidiol
- NON-Psychoactive "NO HIGH"
- Contains 0.3% THC (or less)

CC1=C(C(=C(C=C1)O)OC2=CC=CC=C2C)OC3=CC=CC=C3

- Tetrahydrocannabinol
- Psychoactive "GETS YOU HIGH"
- Contains more than 0.3% THC

The difference between CBD and THC



# CBD or Cannabidiol

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- CBD counteracts the THC high and does not get you high.
- Can have more of a sedative effect.
- Can also be modified and enhanced.
- FDA approved Epidiolex is a CBD medication used to treat a rare sub-set of seizure disorders.



This is for legal and tested products from licensed businesses!

- CA symbol for recreational product.
- The label must list the cannabinoid content in percentages (e.g. THC: 18%; CBD: 1.5%). All products must include the THC and CBD content per package. Edibles and concentrates with designated serving sizes must also list the THC and CBD content per serving.

*For more info -*

<https://www.gaiaca.com/california-cannabis-labeling-requirements/>



HEALTH CARE

## Pot is making people sick. Congress is playing catch-up.

Now that a growing body of evidence says marijuana is bad for you, more regulation is in the offing.



Recently a steady flow of data has emerged on the health impacts of marijuana, including emphysema in smokers and learning delays in adolescents. | Bruce Bennett/Getty Images

By **BEN LEONARD**  
02/06/2023 05:30 AM EST



When [Gallup asked](#) about legalizing weed last year, two-thirds of Americans supported it — up from 12 percent when the pollster first asked in 1969.

Marijuana is  
the news lately

# Number of young children who accidentally ate cannabis edibles jumped 1,375% in five years, study finds

By Jen Christensen and Sandee LaMotte, CNN  
Published 12:02 AM EST, Tue January 3, 2023



Video Ad Feedback

More people use weed than tobacco in the US, new poll reveals

03:29 - Source: CNN

**(CNN)** — In just five years, the number of small children in the US exposed to cannabis after accidentally eating an edible rose 1,375%, a new study says.

There were more than 7,040 exposures to edible cannabis in kids under 6 between 2017 and 2021, according to an analysis of records from the [National Poison Data System](#), a central repository for data from America's Poison Centers.

JAMA Network

JAMA Pediatrics

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## Viewpoint

October 10, 2022

# The Continued Rise of Unintentional Ingestion of Edible Cannabis in Toddlers—A Growing Public Health Concern

Alexandra Van Oyen, DO<sup>1,2</sup>; Elise Perlman, MD<sup>3</sup>; Mark K. Su, MD, MPH<sup>2,4</sup>

» Author Affiliations

*JAMA Pediatr.* 2022;176(11):1068-1069. doi:10.1001/jamapediatrics.2022.3530



A 2-year-old boy presents to the pediatric emergency department (ED) for altered mental status. Prior to arrival, he was with his babysitter in a normal state of health. After questioning, the babysitter mentions rewarding him with a gummy candy for good behavior. The parents admit they have edible cannabis stored in the cupboard that looks exactly like his favorite treats, gummy bears.

Almost a decade after the first states legalized the use of recreational marijuana and cannabis, health care professionals have treated countless cases of children who unintentionally ingested edible cannabis products that were not stored safely. Cannabis is the third most commonly used psychoactive substance worldwide, with use continuously rising in the US adult population.<sup>1</sup> In 2019, 18% of individuals in the US reported having used cannabis products at least once.<sup>1</sup> As use of cannabis continues to be decriminalized and legalized across the US for adults aged 21 years and older, there has been a concurrent increase in unintentional ingestion of cannabis edibles among children, which raises a significant public health concern.<sup>1</sup> The increase in these unintentional in-





NBC San Diego

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## Stoned California Seniors Headed to ERs By the Thousands, UCSD Study Says



Story by Eric S. Page • Yesterday 9:33 AM

53

144

60 Comments



Stoned seniors — and we're not talking high-school kids — are visiting emergency rooms for cannabis-related issues in unprecedented numbers, according to a new study by UC San Diego researchers.



# Older Adults in ER for Marijuana

1,808% relative increase in the rate of cannabis-related trips to the emergency department among California adults ages 65 and older from 2005 to 2019.

## Newsroom

[Home](#) / [Newsroom](#) / [Releases](#) / Cannabis-Related Emergency Department Visits among Older Adults on the Rise

### Press Releases

UC San Diego Health In The News

News Features

Trending Topics +

Podcast

Contacts for Journalists

Coronavirus (COVID-19) Media Statements

## Cannabis-Related Emergency Department Visits among Older Adults on the Rise

*Study shows a high risk for adverse effects of cannabis use for adults ages 65 and older*

January 09, 2023 | Annie Pierce

**A**s a growing number of older adults are experimenting with cannabis to help alleviate chronic symptoms, a new University of California San Diego School of Medicine study has identified a sharp increase in cannabis-related emergency department visits among the elderly.



Cannabis use among older adults can lead to unintended consequences that require emergency care. New UC San Diego School of Medicine study highlights that education with older adults about cannabis use should be included in routine medical care. Credit: Pixabay

The study, published Jan. 9, 2023 in the [Journal of the American Geriatrics Society](#), identified a 1,808% relative increase in the rate of cannabis-related trips to the emergency department among California adults ages 65 and older from 2005 to



# Screen All Patients for Cannabis Use Before Surgery: Guideline

## Screen All Patients for Cannabis Use Before Surgery: Guideline

<https://www.medscape.com/viewarticle/986690>

- All patients who undergo procedures that require regional or [general anesthesia](#) should be asked if, how often, and in what forms they use the drug, according to recommendations from the American Society of [Regional Anesthesia](#) and Pain Medicine (ASRA).
- One reason: Patients who regularly use cannabis may experience worse pain and nausea after surgery and may require more opioid analgesia, the group said.
- Kenneth Finn, MD, president of the American Board of Pain Medicine, welcomed the publication of the new guidelines. Finn, who practices at Springs Rehabilitation in Colorado Springs, Colorado, has edited a textbook about cannabis in medicine and founded the [International Academy on the Science and Impact of Cannabis](#).

*"The vast majority of medical providers really have no idea about cannabis and what its impacts are on the human body," Finn said*

The screenshot shows a Medscape article page. At the top, there is a navigation bar with links for 'NEWS & PERSPECTIVE', 'DRUGS & DISEASES', 'CME & EDUCATION', 'ACADEMY', 'VIDEO', and 'DECISION POINT'. Below this is a promotional banner for 'Medscape Invitations' with a 'Start here >' button. The main article title is 'Screen All Patients for Cannabis Use Before Surgery: Guideline' by Jake Remaly, dated January 09, 2023. The article text begins with 'If you smoke, vape, or ingest cannabis, your anesthesiologist should know before you undergo a surgical procedure, according to new medical guidelines.' Below the text are social media icons for comments (56) and likes (192). At the bottom, there is a prompt to 'Log In' or 'Register for Free' to continue reading. On the right side, there is a 'MEDICAL MINUTE' sidebar with a 'Listen Now >' button.

Cannabis  
Use Disorder



# Why now?

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- More access
- Higher potency
- The media largely ignored the issue for many years.
- Covid
- The medical community is playing catch up!

## High potency weed linked to psychotic episodes, mysterious vomiting illness in young users

“It felt like Edward Scissorhands was trying to grab my intestines and pull them out,” a Colorado man told NBC News.



# More access more dependance

As for Marijuana dependence, referrals to treatment, can be higher in states that legally protect dispensaries for both adults and youth.

The screenshot shows the National Library of Medicine (NIH) National Center for Biotechnology Information (NCBI) PubMed Central interface. At the top, there is a search bar for the PMC Full-Text Archive and a 'Search in PMC' button. Below the search bar, the breadcrumb trail reads 'Journal List > HHS Author Manuscripts > PMC4315233'. A prominent 'HHS Public Access' banner indicates that the author manuscript is peer-reviewed and accepted for publication. The main content area displays the article title 'Assessing the Effects of Medical Marijuana Laws on Marijuana Use: The Devil is in the Details' by Rosalie Liccardo Pacula, David Powell, Paul Heaton, and Eric L. Sevigny. A yellow box highlights that the publisher's final edited version is available free at J Policy Anal Manage. The page also includes a vertical 'Author Manuscript' label on the left and a 'Go to: Abstract' link at the bottom.

NIH National Library of Medicine  
National Center for Biotechnology Information

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[J Policy Anal Manage](#). Author manuscript; available in PMC 2015 Feb 3. PMCID: PMC4315233  
Published in final edited form as: NIHMSID: NIHMS625422  
[J Policy Anal Manage](#). 2015 Winter; 34(1): 7-31. PMID: [25558490](#)  
doi: [10.1002/pam.21804](#)

Author Manuscript

Assessing the Effects of Medical Marijuana Laws on Marijuana Use: The Devil is in the Details

Rosalie Liccardo Pacula, Ph.D., David Powell, Ph.D., Paul Heaton, Ph.D., and Eric L. Sevigny, Ph.D.

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The publisher's final edited version of this article is available free at [J Policy Anal Manage](#)

Abstract Go to: ▶

# More psychoactive

- Bud upwards of 30%THC
- Edibles and Vapes 90% THC
- Many dispensaries do not sell products less than 50% THC

The screenshot shows a news website interface. At the top, there is a navigation bar with links for 'Live Stream', 'News', '#8NN Investigators', 'Weather & Traffic', 'Sports', 'Las Vegas Now', 'Community', and 'More'. A search bar is also present. Below the navigation bar, a weather alert banner reads: 'WEATHER ALERT Winter Storm Warning: Esmeralda and Central Nye County, Sheep Range, Spring Mountains-Red Rock Canyon'. A Westinghouse advertisement for a WGen9500 Generator is displayed, featuring a 4.8 star rating and a 'LEARN MORE' button. The main content area features a 'LOCAL NEWS' section with the headline 'Higher potency in cannabis sending consumers to emergency room' by Brian Loftus, posted on Nov 28, 2022. To the right of the article is a video player for a 'NEWSNATION' segment, which is currently paused and has a 12-second resume timer. The video player includes a 'TO END [NEWSNATION] GO TO NEWSNATIONNOW.COM/JOINUS' button.

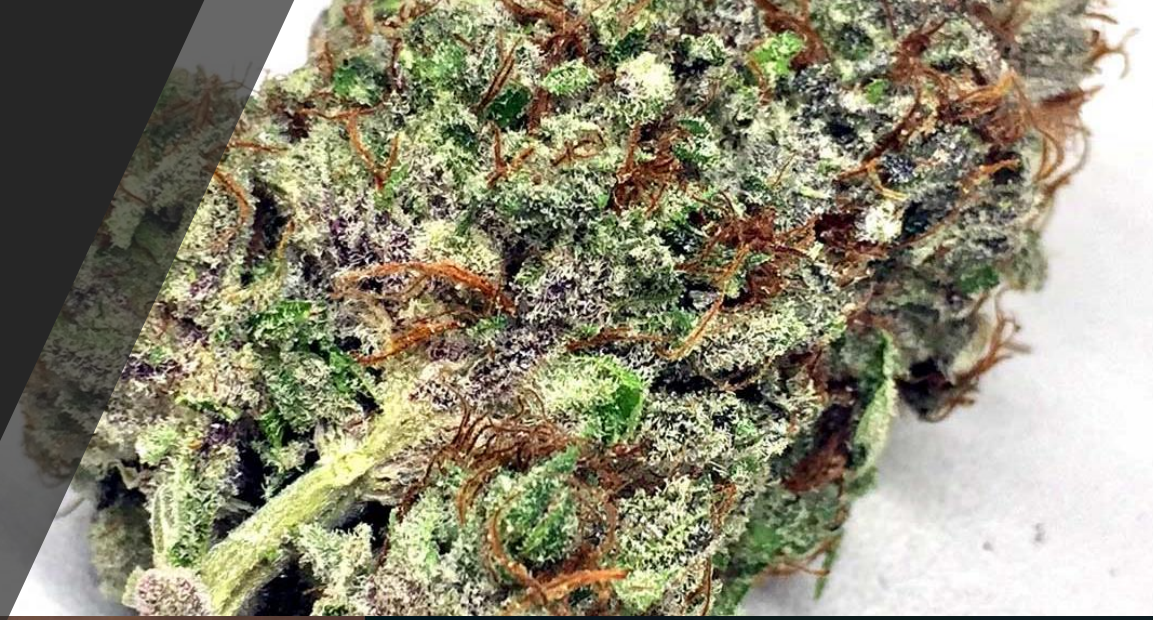


# The plant

Buds are the flowers of the female plant.

The female plant produces resin secreting buds. They contain the chemicals that get you high.

Oils and waxes are made using solvents and equipment to extract the resin.







# Marijuana extraction equipment

## Using Solvent

- Ethanol (one of the most popular forms of extraction)
- CO2 Supercritical
- Hydrocarbon (butane, propane)
- Oils: Olive, coconut, vegetable.
- Combining different methods (e.g. injecting ethanol into CO2)



# Better Gardening Techniques

- Lighting and heating
- Hybridizing
- Water and Hydroponics
- Chemicals and Insecticides





# How high is too high?

- There is absolutely no research that indicates this level of THC is beneficial for any medical condition.
- The purpose of these products is to produce a high, and the increased potency makes them potentially more dangerous and more likely to result in addiction.

The screenshot shows the PubMed Central interface. At the top, the NIH National Library of Medicine logo is visible. Below it is the PubMed Central logo and a search bar. The article title is "Missouri Medicine" with the subtitle "The Journal of the Missouri State Medical Association - Since 1904". The article is from "Mo Med" 2018 Nov-Dec; 115(6): 482-486. The author is Elizabeth Stuyt, MD. The article title is "The Problem with the Current High Potency THC Marijuana from the Perspective of an Addiction Psychiatrist". The abstract text is partially visible, discussing the legalization of medical and retail marijuana and its potential benefits and risks. The page also includes navigation links, a search bar, and social media sharing options.

NIH National Library of Medicine  
National Center for Biotechnology Information

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Mo Med. 2018 Nov-Dec; 115(6): 482-486. PMID: PMC6312155  
PMID: 30643324

**Missouri Medicine**  
The Journal of the Missouri State Medical Association - Since 1904

The Problem with the Current High Potency THC Marijuana from the Perspective of an Addiction Psychiatrist

Elizabeth Stuyt, MD<sup>1</sup>

▶ Author information ▶ Copyright and License information Disclaimer

Advocates for the legalization of medical and retail marijuana are quick to point out all the possible benefits that a community might see from such a venture. These include increased jobs, increased tax revenue, possible medical benefits and they advertise it as “safe” and “healthy” and “organic.” They utilize the words “cannabis” and “marijuana” for everything without differentiating between the different forms of cannabis that can have very different effects on the mind and body.

Many people who have voted for legalization thought they were talking about the marijuana of the 1960s to 1980s when the THC content was less than 3%. However, without any clear guidelines on



Use has changed



## Juul Bought Ads Appearing on Cartoon Network and Other Youth Sites, Suit Claims

The case, brought by Massachusetts after a lengthy investigation, presents some of the strongest evidence the vaping company was marketing to teenagers.

Give this article



Photographer: Silvia F. Ruiz / Bloomberg

## Juul Reaches \$439 Million Settlement Over Marketing to Kids (2)

Sept. 6, 2022, 11:48 AM

Juul Labs Inc. reached an agreement in principle to pay \$438.5 million to 33 states to resolve a two-year bipartisan probe into the e-cigarette manufacturer's marketing and sales practices, particularly claims that it marketed addictive nicotine products to children.

The accord, which also includes Puerto Rico, would force Juul to comply with a series of "strict injunctive terms severely limiting their marketing and sales practices," Connecticut Attorney General William Tong, who led the negotiations with Texas and Oregon, said Tuesday in a statement.

Under the deal, Juul will refrain from all youth marketing, paid product placement, advertising on public transportation, funding education programs, depicting anyone under 35 years old in advertisement or using cartoons in ads, among other marketing activities, according to the statement. Juul also agreed not to advertise on billboards or use paid influencers to promote products.



- Erik Larson**  
Bloomberg News
- Rachel Butt**  
Bloomberg News

### Topics

- vaping
- unfair and deceptive trade practices
- education
- online advertising
- tobacco product safety
- mass transit
- social media

### Companies

- JUUL Labs Inc


Almost 300 School Districts Join Class Action Lawsuit Against Juul

By **Jessy Edwards**  
June 18, 2021

**Citi Rewards+ Card**  
Earn 20,000 Bonus Points after qualifying purchases.

**Join a JUUL Side Effects Class Action!**






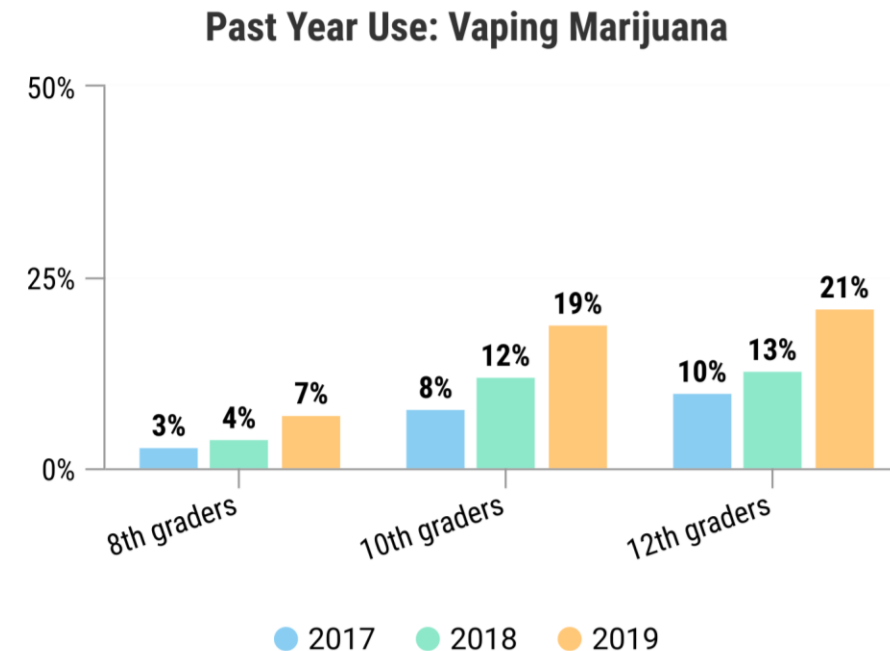
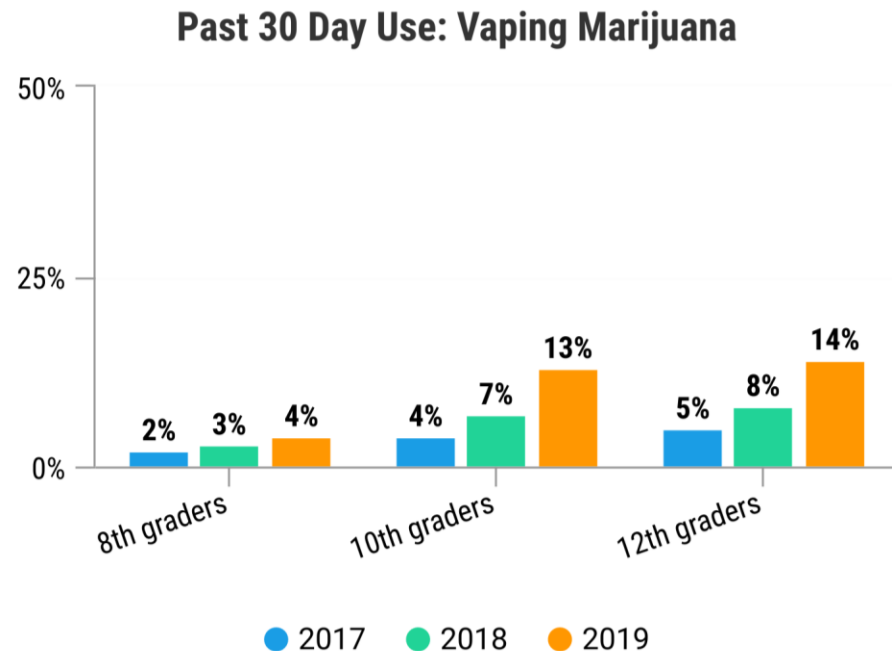
A growing issue  
among youth!

Among youth, e-cigarettes, especially the disposable kind, are more popular than any traditional tobacco product.

According to the [2021 National Youth Tobacco Survey](#), more than 2 million U.S. middle and high school students reported using e-cigarettes in 2021, with more than 8 in 10 of those youth using flavored e-cigarettes.



# Monitoring the Future – National Data



**Increases in adolescent marijuana vaping from 2018 to 2019 ranked among the largest single-year increases ever observed by MTF in the past 45 years among all outcomes ever measured.**

Journal of Addiction Research & Therapy

ISSN: 2155-6105

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Research Article Open Access  
Real-Time Characterization of E-Cigarettes Use: The 1 Million Puffs Study

Bertrand Dautzenberg<sup>1,2\*</sup> and Damien Bricard<sup>3</sup>

<sup>1</sup>Chest Department, University hospital Pitié Salpêtrière – Charles Foix (APHP), Paris, France

<sup>2</sup>University Pierre & Marie Curie (UMPC), Paris, France

<sup>3</sup>Institut National d'Etudes Démographiques (INED), Paris,

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Relevant Topics

- ▶ Addiction Recovery
- ▶ Aflatvive

# Frequency of puffing

The median number of puffs per day was 132

These devices are common among youth.  
Stizzy pens pre-loaded about 65-95%THC  
Cost \$65 - \$95.00

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# Vaping vs Smoking

Vaping marijuana produces a greater psychological and physiological effect compared to traditional smoking methods.

A recent study by John Hopkins found that THC levels in blood samples after vaping are much greater compared to levels found after smoking.







Marijuana can be infused in any food, lotion or drink.

The gummies and other colorful candies are driving the cases of unintentional poisonings locally.

# Adult use of edibles

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- Can take longer to feel the effects.
- Edibles generally contain higher amounts of THC.
- In some cases, users report highs from 8 hours to a day.
- Can interact with driving and prescription meds.







Recreational Use: A retailer may sell up to 1 ounce of marijuana flower, or 8 grams of concentrate, or 800-milligram servings of edible product, or more than 6 seeds in a day to a customer.



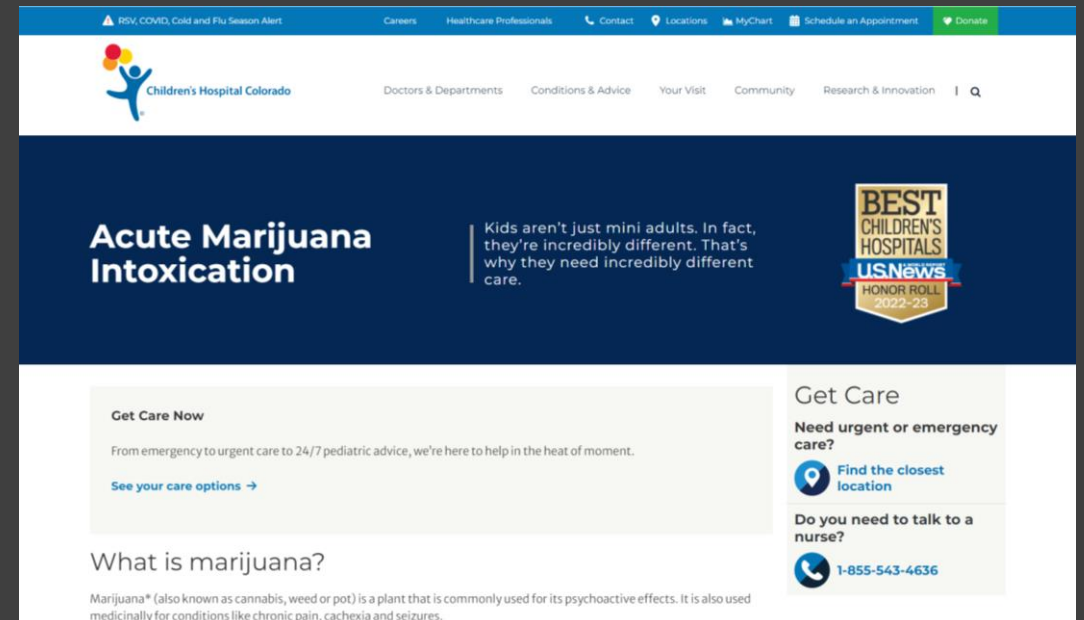
We all saw this  
coming!

# Children's Hospital Colorado

- The most common overdose incidents in children occur when the drug has been combined with food in an "edible" form of marijuana. This is because marijuana ingested in this manner can have a stronger and prolonged effect, especially in children under the age of 12 years old.

In these instances, kids mistake "edible" marijuana (like gummy bears, brownies, lollipops, etc.) for regular food and eat it unknowingly.

- Small children are at higher risk based on their size and weight. Because edible products have very high amounts of marijuana, the symptoms are more severe on a small child. Many young children who consume marijuana edibles require hospital admission due to the severity of their symptoms.



The screenshot shows the website for Children's Hospital Colorado. The top navigation bar includes links for RSV, COVID, Cold and Flu Season Alert, Careers, Healthcare Professionals, Contact, Locations, MyChart, Schedule an Appointment, and Donate. The main header features the hospital logo and navigation links for Doctors & Departments, Conditions & Advice, Your Visit, Community, and Research & Innovation. The main content area is titled "Acute Marijuana Intoxication" and includes a quote: "Kids aren't just mini adults. In fact, they're incredibly different. That's why they need incredibly different care." A badge on the right side of the page reads "BEST CHILDREN'S HOSPITALS US News HONOR ROLL 2022-23". Below the main content, there are two call-to-action boxes. The first, "Get Care Now", states "From emergency to urgent care to 24/7 pediatric advice, we're here to help in the heat of moment." and includes a link "See your care options →". The second, "Get Care", asks "Need urgent or emergency care?" and provides a link "Find the closest location" and a phone number "1-855-543-4636". At the bottom, there is a section titled "What is marijuana?" with a small text block: "Marijuana\* (also known as cannabis, weed or pot) is a plant that is commonly used for its psychoactive effects. It is also used medicinally for conditions like chronic pain, cachexia and seizures."



# Mouthing for babies

- Babies feel things with lips and tongue, texture, taste, shapes
- Relieving pain of teething
- Explore the world
- Self soothing



## Height and Weight

Due to the height and weight of children, edible poisoning may be more severe and require hospitalization.

Children are unable to explain how much of the product they consumed.





## What happens when children eat THC products?

---

- Children are drawn to sweet cookies, candies and baked goods.
- Once out of the package no way of knowing what is inside.

Increasing poison control calls and ER visits, the result of allowing food products to be marketed and sold with harmful unseen chemicals inside.





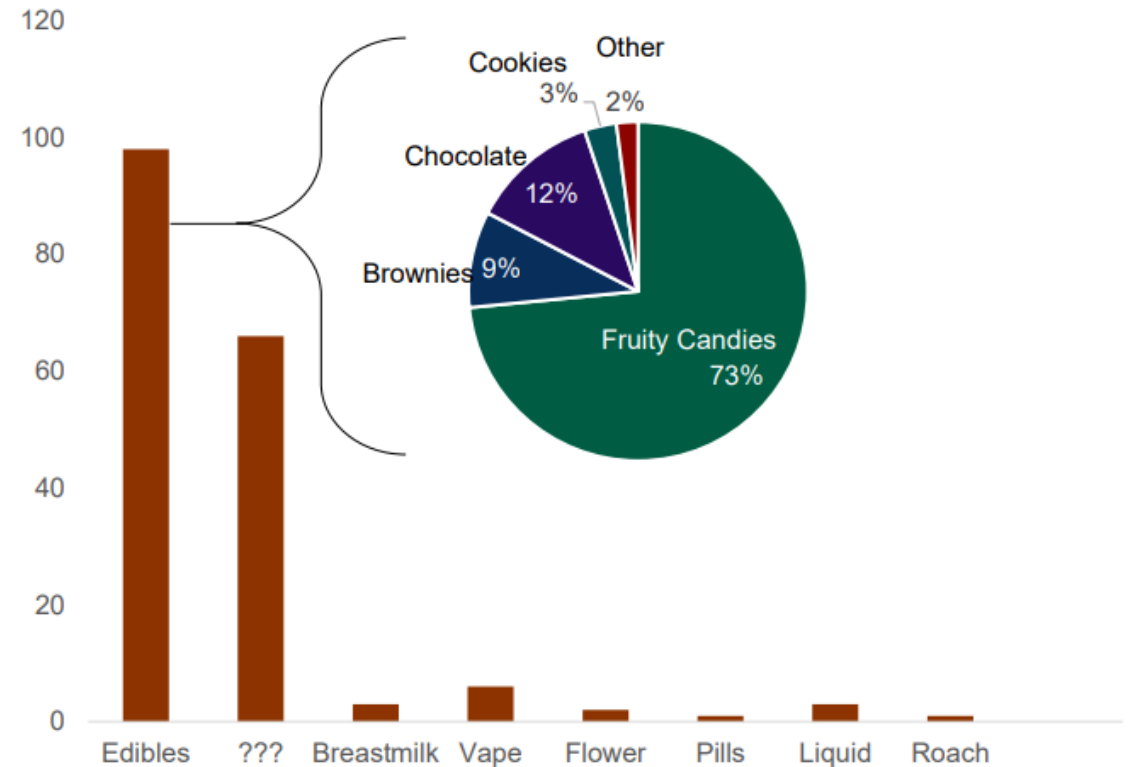
THC poisonings  
have variety of  
symptoms.

- Seizures
- Sleepiness
- Confusion/Panic
- Heart issues
- Upset stomach
- Mistaken for other illicit drugs

# What products are driving the increase?

- Fruit candies
- Chocolates
- Vape/juice

Reported THC Formulation Among THC+ Utox Patients at RCHSD  
(2014 – 2022)



Analysis of THC Positive Urine at RCHSD from 2014-2022  
Preliminary Data and Trends Alexandra Dubinin and Dr.  
Natalie Laub



**Collect Public Health  
Related Marijuana  
Data**





## Cannabis

# Cannabis

### RESOURCES >

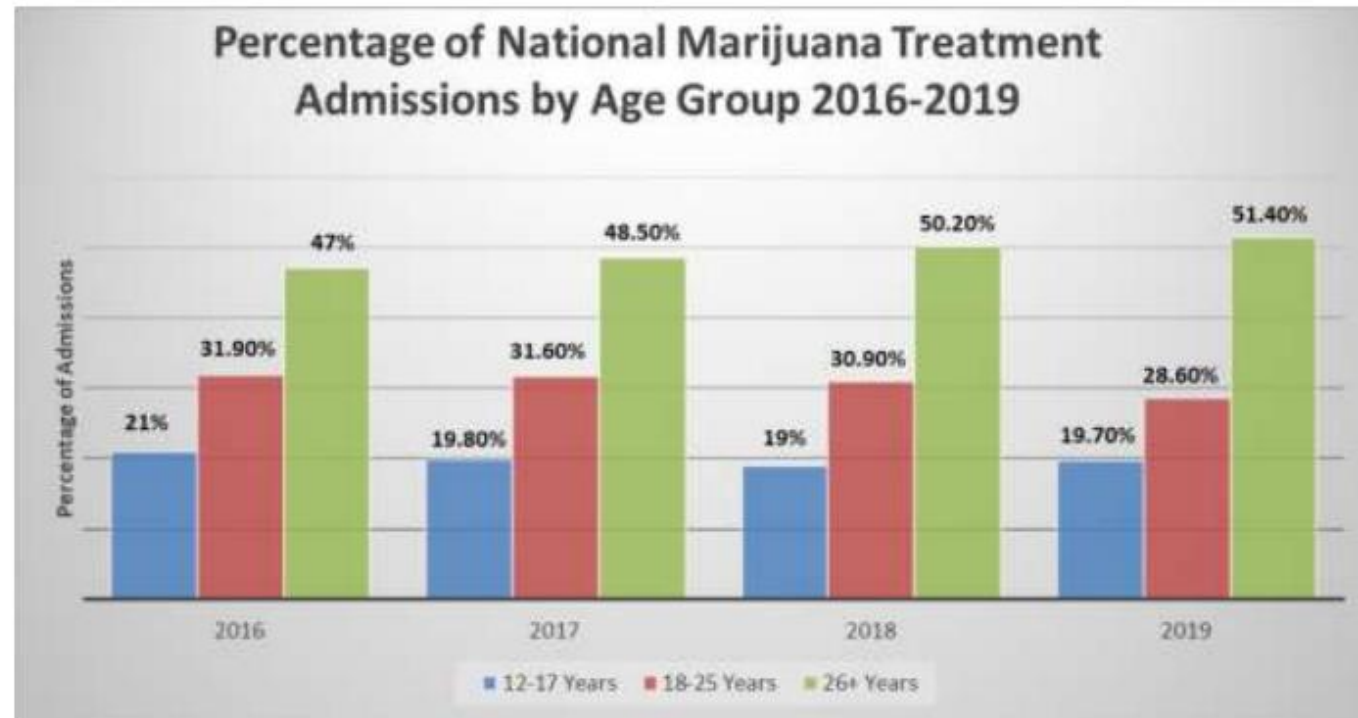
Cannabis, also known as marijuana, pot, weed, ganja, Mary Jane, and a vast number of other names, is the dried leaves, flowers, stems, and seeds from the *Cannabis sativa* or *Cannabis indica* plant. The plant contains tetrahydrocannabinol (THC), a mind-altering chemical.

When a person smokes cannabis, THC passes from the lungs into the bloodstream, which carries the chemical to the brain and other organs throughout the body. The effects are felt more slowly when a person eats (edibles) or drinks cannabis.

THC overactivates certain brain cell receptors, resulting in effects such as:

- Altered senses
- Changes in mood
- Impaired body movement
- Difficulty with thinking and problem-solving

**Treatment Episode Data Set (TEDS):** Compiles client-level data for substance abuse treatment admissions from State Agency data systems. State data systems collect data from facilities about their admissions to treatment and discharges from treatment. TEDS is an admission-based system, but it does not include all admissions.



Source: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration (SAMHSA), Treatment Episode Data Set (TEDS).

Note: Numbers based on administrative data reported by states to TEDS through January 3, 2022.

- ❖ Nationally from 2016 to 2019, the highest percentage of marijuana treatment admissions were amongst those 26 years and older.



## 5 Reasons for local marijuana related hospital visits

- Drug Interactions
- Accidents/Injury
- Cannabis Hyperemesis
- Mental Health
- **Poisonings**



# Local ER visits

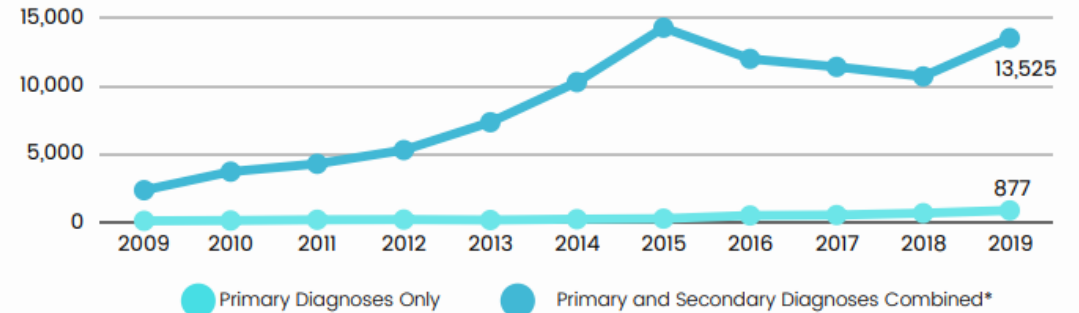


37

ER visits a day in San Diego County hospitals related to marijuana.

## Marijuana-Related Emergency Department Discharges<sup>7</sup>

Number of Emergency Department (ED) Discharges for Marijuana-Related Diagnoses in San Diego County, 2009-2019



**690% increase**

in ED discharges with marijuana listed as a **primary diagnosis**, from 111 in 2009 to 877 in 2019.



**473% increase**

in ED discharges with **marijuana as a primary or secondary diagnosis combined**, from 2,362 in 2009 to 13,525 in 2019.

\*Indicates cases where either the primary or secondary diagnosis upon discharge was marijuana-related. For most secondary cases, individuals came into the ER 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 ER visit

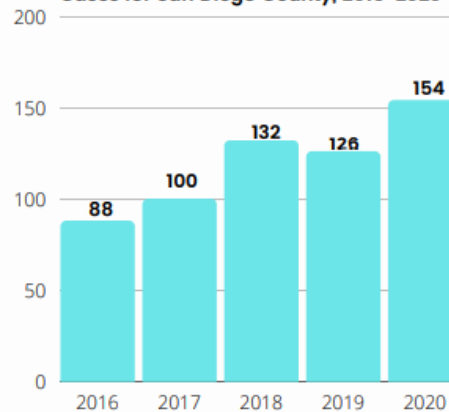
# CA Poison Control

- 75% Increase in marijuana poison control cases in SD County since 2016 (Prop 64).
- 242% increase since 2011.

## San Diego County Poison Control Data<sup>6</sup>

The below graph displays the number of unduplicated cases 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."

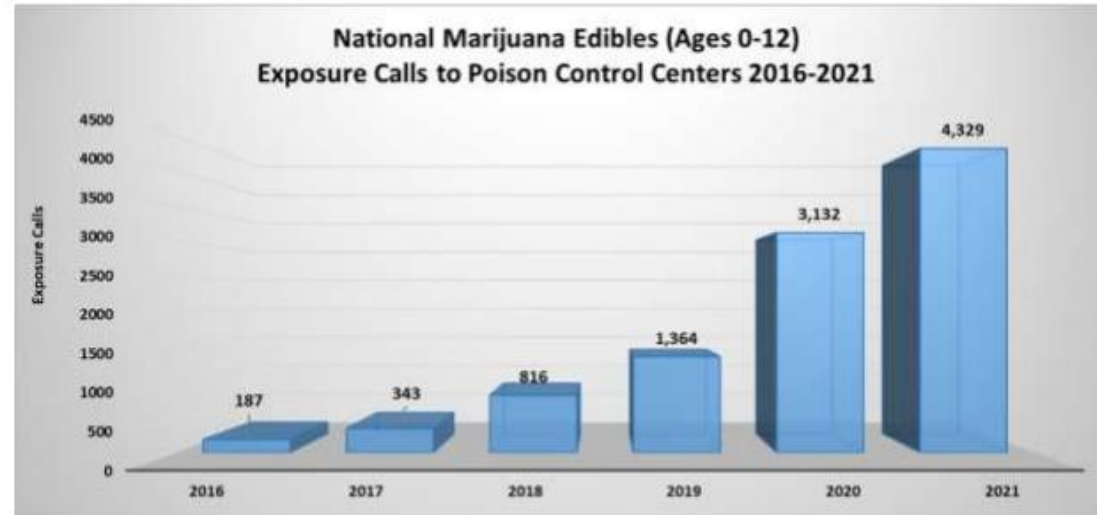
Number of Marijuana Human Exposure Cases for San Diego County, 2016-2020



**75% increase**

in marijuana exposure cases in San Diego County handled by the California Poison Control Center since 2016.





Source: Association of Poison Control Centers

Note: Data collected as of June 6, 2022. Numbers may change as cases are closed or additional information is received.

- ❖ National marijuana edibles exposure calls for ages 0-12 from 2016 (187) to 2021 (4329) has increased by 2215%.

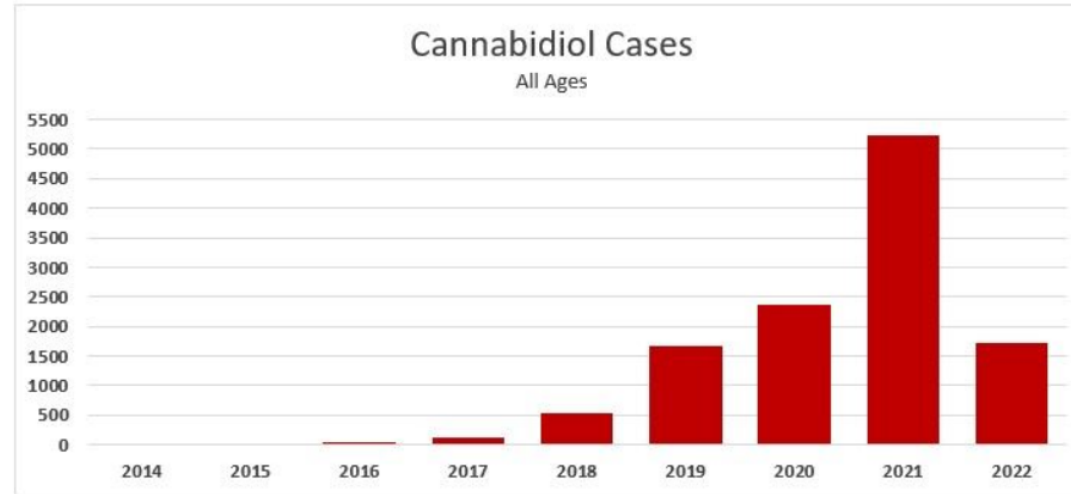
## National Poison Control

- Poisoning calls for marijuana edibles
- Cases increased during Covid lockdown



# National Poison Control Cases CBD

As of March 31, 2022, poison control centers have managed 1,717 cases in 2021 related to cannabidiol.

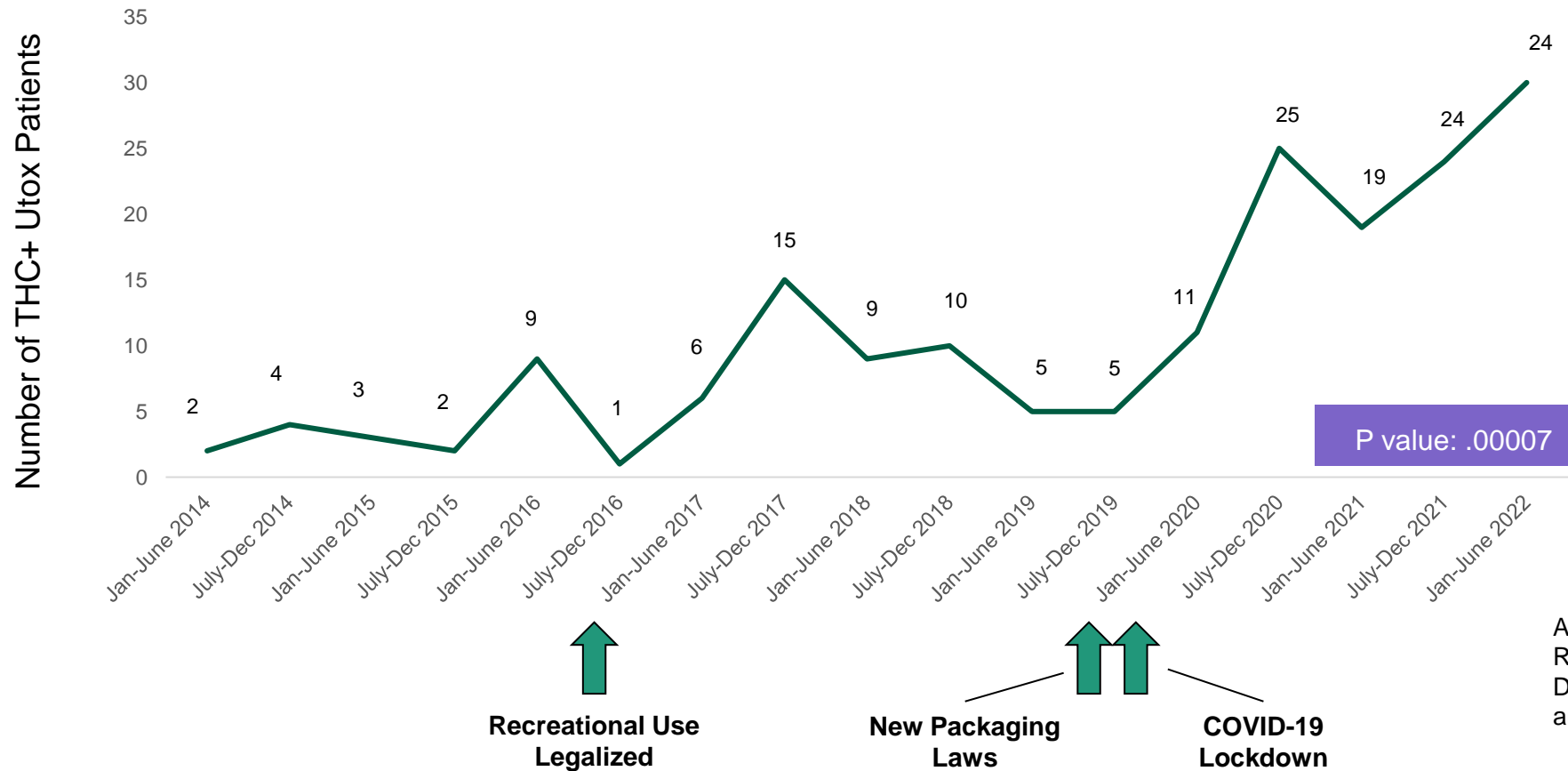


## FOR THE MEDIA:

Please cite this data as “National Poison Data System, American Association of Poison Control Centers.” Any and all print, digital, social, or visual media using this data must include the following: “You can reach your local poison control center by calling the Poison Help hotline: **1-800-222-1222**. To save the number in your mobile phone, text POISON to 797979.” Email [media@aapcc.org](mailto:media@aapcc.org) or call 703-894-1863 for more information, questions, or to submit request data.

# THC Positive Urine Toxicology Encounters at Rady Children's from Jan 2014- June 2022

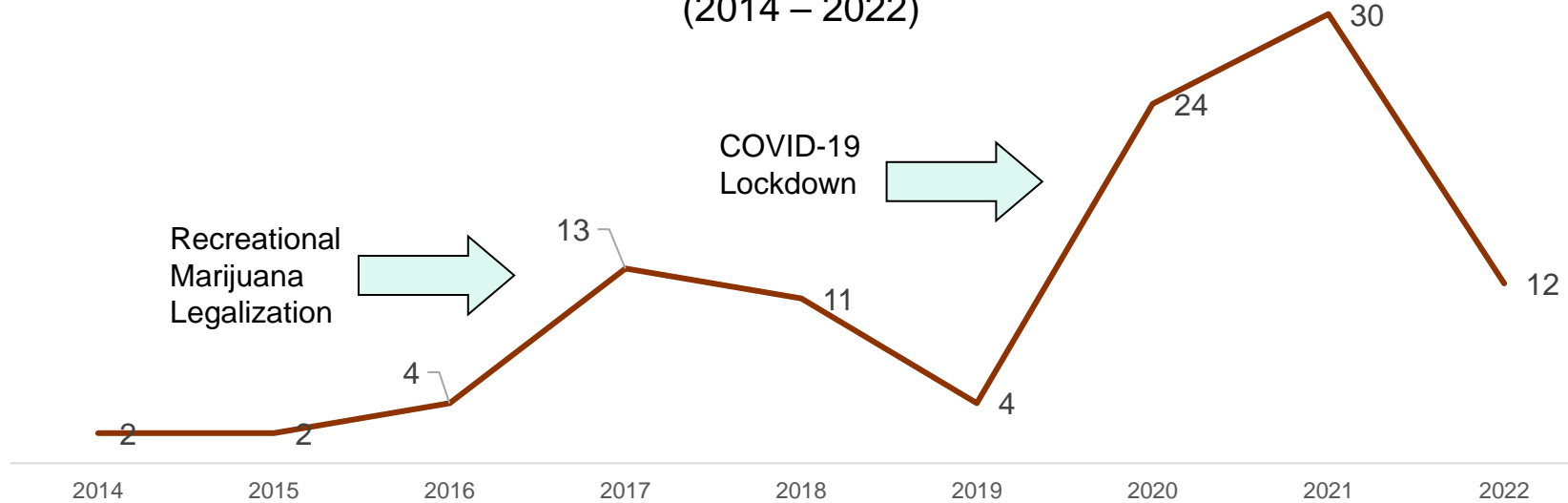
Incidence of THC+ Utox Patients at RCHSD (2014 – 2022)



Analysis of THC Positive Urine at RCHSD from 2014-2022 Preliminary Data and Trends Alexandra Dubinin and Dr. Natalie Laub

## Home exposure summary – Courtesy of Rady’s Children’s

Reports of “Home” Exposures Among THC+ Utox Patients at RCHSD  
(2014 – 2022)



Analysis of THC Positive Urine at RCHSD from 2014-2022 Preliminary Data and Trends Alexandra Dubinin and Dr. Natalie Laub

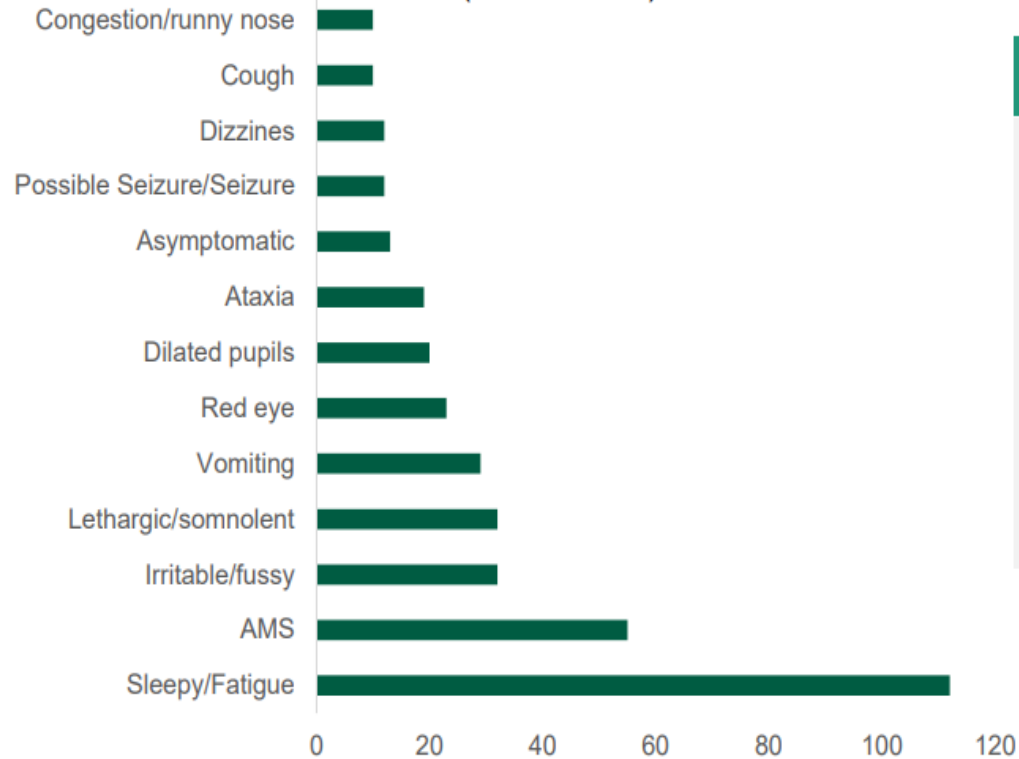
### Summary of cases:

- Whose marijuana – Mom
- What type of marijuana product – Edibles (fruity candies/gummies)
- Where did the exposure occur – Home
- How children present - Heart arrhythmia, altered mental status, fatigue, fussiness, vomiting.
- 10% of the cases were so severe they required stays in the pediatric intensive care unit.



## Symptoms Reported

**Symptoms Reported Among THC+ Utox Patients at RCHSD**  
(2014 – 2022)



### Symptoms

- Overall, the most common symptoms included fatigue, altered mental status, fussiness, lethargy, vomiting, and ocular symptoms
- Symptoms reported in <5% included hypotonia, hallucinations, slurred speech, increased oral intake, nystagmus, difficulty breathing, diaphoresis, headache, clonus, lip cyanosis, abnormal coordination, and joint swelling
- 13 out of 180 children were asymptomatic



## Symptoms Reported

### Chief Concern

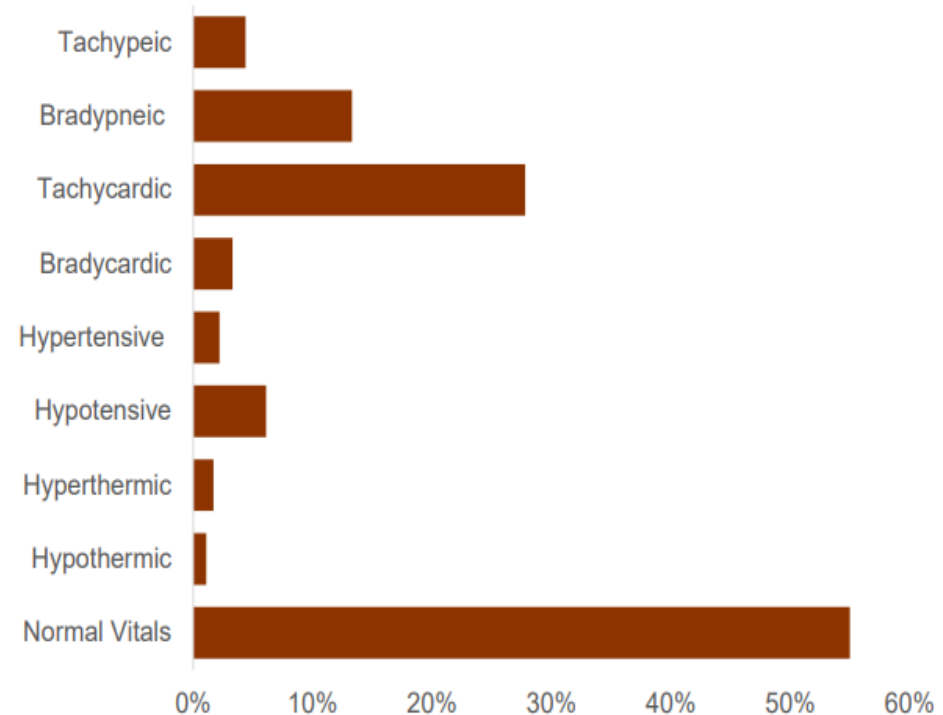
- 45% Ingestion/Drug overdose
- 31% Altered Mental Status
- 11% Fatigue

### Vital Signs

- Overall, >50% of children had normal vitals
- Tachycardia and Bradypnea were the most common irregularities seen



### Vital Signs of THC+ Utox Patients at RCHSD



What is Delta 8  
THC?



## Emergency Preparedness and Response

[Resources for Emergency Health Professionals](#) > [Health Alert Network \(HAN\)](#) > [HAN Archive](#) > 2021



### [Home](#) Health Alert Network (HAN)

[HAN Jurisdictions](#)

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2021

[HAN00453](#)

[HAN00452](#)

**[HAN00451](#)**

[HAN00450](#)

[HAN00449](#)

[HAN00448](#)

# Increases in Availability of Cannabis Products Containing Delta-8 THC and Reported Cases of Adverse Events



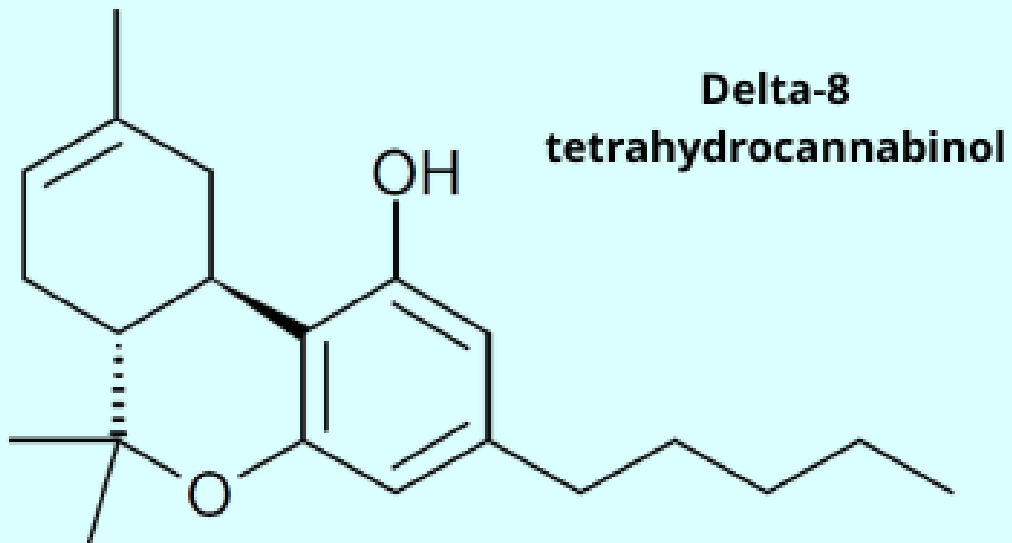
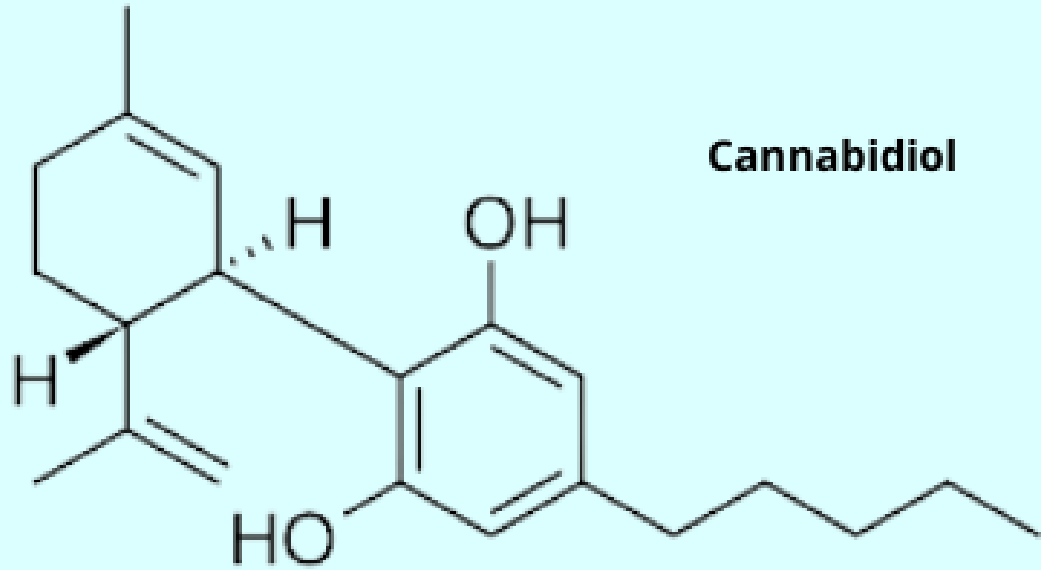
Distributed via the CDC Health Alert Network  
September 14, 2021, 10:00 AM ET  
CDCHAN-00451

### Summary

The purpose of this Health Alert Network (HAN) Health Advisory is to alert public health departments, healthcare professionals, first responders, poison control centers, laboratories, and the public to the increased availability of cannabis products containing delta-8 tetrahydrocannabinol (THC) and the potential for adverse events due to insufficient labeling of products containing THC and cannabidiol (CBD).

### Background

Marijuana, which can also be called weed, pot, or dope, refers to all parts of the plant *Cannabis sativa L.*, including flower,



# Delta 8 THC

- Delta 8 is made from CBD from the Hemp plant which is converted by using a solvent into Delta 8.
- The conversion of CBD to delta-8-THC involves refluxing CBD in an organic solvent, such as toluene or heptane, with acid that serves as a catalyst. The reaction is typically run for 60–90 min.



# FDA Warning Delta 8

**FDA** U.S. FOOD & DRUG ADMINISTRATION Search Menu

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FDA NEWS RELEASE

## FDA Issues Warning Letters to Companies Illegally Selling CBD and Delta-8 THC Products

*Violations Include Marketing Unapproved New Drugs, Misbranding, Adding Delta-8 THC to Food Products*

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**For Immediate Release:** May 04, 2022

[Español](#)

Today, the U.S. Food and Drug Administration issued warning letters to five companies for selling products labeled as containing delta-8 tetrahydrocannabinol (delta-8 THC) in ways that violate the Federal Food, Drug, and Cosmetic Act (FD&C Act). This action is the first time the FDA has issued warning letters for products containing delta-8 THC. Delta-8 THC has psychoactive and intoxicating effects and may be dangerous to consumers. The FDA has received reports of adverse events experienced by patients who have consumed these products.

There are no FDA-approved drugs containing delta-8 THC. Any delta-8 THC product claiming to diagnose, cure, mitigate, treat, or prevent diseases is considered an

Content current as of:  
05/04/2022

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- Delta-8 THC is one of over 100 cannabinoids produced in the *Cannabis sativa* L. plant but is not found naturally in significant amounts.
- Concentrated amounts of delta-8 THC are typically manufactured from hemp-derived cannabidiol (CBD) and have psychoactive and intoxicating effects.



## FDA reports

The FDA received 104 reports of adverse events in patients who consumed delta-8 THC products between December 1, 2020, and February 28, 2022. Of these 104 adverse event reports:

- 77% involved adults, 8% involved pediatric patients less than 18 years of age, and 15% did not report age.
- 66% described adverse events after ingestion of delta-8 THC-containing food products (e.g., brownies, gummies).

Adverse events included, but were not limited to: hallucinations, vomiting, tremor, anxiety, dizziness, confusion, and loss of consciousness.

# Delta 8 Exposure Cases – National Poison Control

National poison control centers received 2,362 exposure cases of delta-8 THC products between January 1, 2021 (i.e., date that delta-8 THC product code was added to database), and February 28, 2022.

Of the 2,362 exposure cases:

- 58% involved adults, 41% involved pediatric patients less than 18 years of age, and 1% did not report age.

- 40% involved unintentional exposure to delta-8 THC and 82% of these unintentional exposures affected pediatric patients.

- 70% required health care facility evaluation, of which 8% resulted in admission to a critical care unit; 45% of patients requiring health care facility evaluation were pediatric patients.

- One pediatric case was coded with a medical outcome of *death*.



# FDA Warning Letters

FDA NEWS RELEASE

## FDA Issues Warning Letters to Companies Illegally Selling CBD and Delta-8 THC Products

*Violations Include Marketing Unapproved New Drugs, Misbranding, Adding Delta-8 THC to Food Products*



[More Press Announcements](#)

**For Immediate Release:** May 04, 2022

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There are no FDA-approved drugs containing delta-8 THC. Any delta-8 THC product claiming to diagnose, cure, mitigate, treat, or prevent diseases is considered an unapproved new drug. The FDA has not evaluated whether these unapproved drug

**Content current as of:**  
05/04/2022

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# FDA Letters

- An uptick in adverse event reports to the FDA and the nation's poison control centers.
- Marketing, including online marketing of products, that is appealing to children.
- Concerns regarding contamination due to methods of manufacturing that may in some cases be used to produce marketed delta-8 THC products.

# Vape juice poisoning

Liquid nicotine is the liquid inside an e-cigarette or vaping device and is also called “vape juice” or “e-liquid.”

The product is dangerous to swallow and can even be absorbed if spilled on the skin. As little as one teaspoon could be harmful.

Nicotine poisoning often causes nausea, vomiting, dizziness, tremors (shakiness), and sweating, and can make the heartbeat much faster than normal. Severe poisoning can cause seizures. It can even cause death. Seizures can begin only 20-30 minutes after swallowing products containing nicotine.

**POISON CONTROL**  
National Capital Poison Center

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[Poison Prevention Adults](#) | [Poison Prevention Seniors](#) | [Poison Prevention, Teens](#) | [Nicotine and cigarettes](#)

## E-Cigs and Toddlers: Beware



### The Bottom Line

Electronic cigarettes (e-Cigs) are devices made to look like real cigarettes. They contain a battery, a heater, and liquid nicotine. When heated, the nicotine liquid becomes a vapor, which users inhale. Liquid nicotine products contain flavorings and something to help the product vaporize. Liquid nicotine products are very poisonous if swallowed.



### The Full Story

Tobacco and cigarette smoking in the United States have been declining over the last few years. A growing new trend is electronic cigarettes (often referred to as “e-Cigs” or “vapor cigarettes”).

Electronic cigarettes are used by people who don’t want to smoke but do want to use nicotine: adults, teens, and even younger children. About 20 percent of U.S. adult smokers have used electronic cigarettes. Middle-school students are using e-Cigs at double the rate of a few years ago. About 10 percent of high school students admit to smoking electronic cigarettes.

**Poisoned?**  
Call **1-800-222-1222** or  
[HELP ME online](#)

# Other chemicals in vape cartridge

- **THC, CBD, Nicotine**
- **Terpenes:** Vape cartridges may contain both cannabis and non cannabis derived terpenes.
- **Hydrosols:** Floral or aromatic waters (i.e., essential oils) and contain only small percentages of actual terpenes.
- **Artificial flavors:** The artificial flavors found in cannabis cartridges are sourced from the e-cigarette industry. There are thousands of flavors, but their safety is in question (e.g., diacetyl causing “popcorn lung”).
- **Vitamin E acetate:** is an oily chemical commonly added to THC vaping liquids to dilute or thicken the mixture.
- **Propylene glycol, vegetable glycerin, glycerol:** responsible for the mist/vapor.

Black Market products

Does the label match the contents?





CALIFORNIA

## California's legal weed industry can't compete with illicit market

Local government opposition, high taxes and competition from unlicensed businesses are complicating the state's push to build a thriving legal market.



California's cannabis law lets local officials decide whether to open the door to cannabis or slam it shut. So far, most are opting for the latter. | Justin Sullivan/Getty Images

By **ALEXANDER NIEVES**  
10/23/2021 07:00 AM EDT



The illegal market that never goes away!



# RESOURCES

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Anyone, 6 months or older, is eligible to receive the COVID-19 vaccine. Find your nearest vaccination location at [vaccines.gov](https://vaccines.gov).

## Crisis/Emergency: Mental Health Partners/Providers

The Illinois Department of Human Services/Division of Mental Health is expanding the crisis services continuum to support the [SAMHSA Crisis Services: Meeting Needs, Saving Lives initiative](#). This effort aims to establish a continuum of crisis services available for anyone, anywhere, and at any time. Program 590 is a specific DMH grant that supports infrastructure and capacity of a community crisis care continuum.

The following list of providers have received funding to develop this capacity.

CITY	PROVIDER INFO	PHONE
Anna	Arrowleaf <a href="https://myarrowleaf.org">https://myarrowleaf.org</a> 204 South St. 62906	618-658-2611
Arlington Heights	Alexian Brothers Center for Mental Health <a href="http://www.amitahealth.org/centerformentalhealth">www.amitahealth.org/centerformentalhealth</a> 3436 N. Kennicott Ave. 60004	708-681-4357
Aurora	Association for Individual Development <a href="https://www.aidcares.org/">https://www.aidcares.org/</a> 1230 N. Highland Ave. 60506	630-966-9393
Berwyn	Pillars Community Services <a href="https://pillarscommunityhealth.org/">https://pillarscommunityhealth.org/</a> 6918 Windsor Ave. 60402	708-745-5277

### Online Tools

[Apply for Cash, SNAP & Medical Assistance](#)

[Change of Address, Income or Assets](#)

[Manage My Illinois Link Account](#)

[Rehabilitation Services: Apply Online](#)

[Child Care Eligibility Calculator](#)

[SNAP Eligibility Calculator](#)

[Office Locator](#)

# San Diego County Office of Education Safe Handling of Vape Pen Guidelines



San Diego County Office of Education Main Campus  
6401 Linda Vista Road, San Diego, CA 92111  
858-292-3500 | www.sdcoe.net

## E-Cigarette Recommended Guidelines

### Confiscation and Handling

- Students caught with vaping devices should be referred to designated staff (Administrator, Nurse, or SRO) to confiscate. Once confiscation is complete, the student should be referred to an intervention program for violating the tobacco free policy. (see tiered intervention recommendations.)
- Gloves and plastic bags should be available at the location the device is confiscated, as liquid nicotine is acute hazardous waste and can be absorbed through skin.
- Gloves should be worn anytime a vaping device is being handled.
- The device should be put into a plastic bag and sealed.

### Handling & Storage

- Devices should be stored in individual, sealed plastic bags then put in a closed, non-reactive container. Recommended containers include plastic or lined metal containers.
- Devices can be stored together in a container if they are individually bagged.
- One central location for individually bagged devices to be kept (Security office, AP office, etc.)
- Devices with removeable batteries or cartridges should be separated. Batteries and device should be bagged separately.
- Devices not meant to come apart (disposables) should not be taken apart.

### For Disposal

- District registers as a hazardous waste receiver with County HazMat or contract with local agencies such as [Clean Harbors](#) to collect waste.
- County HazMat is \$504/year + \$81/item/year for permit. Clean Harbor and other agencies charge on a case-by-case basis depending on volume, waste stream, and frequency of pick-ups.
- District office facilitates hazardous waste pick up from schools.
- District should either empty school container into larger container for transport or swap out full container with an empty container at the school site.
- Store all waste at the district office until it is necessary to take to County HazMat or picked up by contracted agency.
- An alternative would be to notify parents to pick up the individually sealed devices. If parents pick up devices, they should be given information on the hazardous waste implications of vaping devices, as well as information on the addictive nature and potential harm associated with vaping devices.



# Proper handling and disposal of E-cigarettes and other vaping devices

## Step 1

Always wear new nitrile gloves when handling e-cigarettes and vaping devices



## Step 2

Place all confiscated parts into a sealed container or bag for storage. This includes:

- Devices and batteries
- E-liquids and bottles
- Tanks, cartridges, and pods



## Step 3

Transport to a hazardous waste disposal site. To find the nearest location, visit: <https://www.calrecycle.ca.gov/HomeHazWaste/Directory/>



## Don't



Handle e-cigarettes with bare hands

Rinse or throw e-liquids in the sink or toilet

Throw any component in the trash or recycling bin



Did you know?

## Marijuana may cause drug interactions with your medications

Chemicals found in marijuana such as Tetrahydrocannabinol (THC) and Cannabidiol (CBD) may interact with medications.

Common drugs that cause interactions include:

- Sedatives
- Anti-Anxiety medications
- Anti-Depressant medications
- Pain medications
- Seizure medications
- Blood Thinners

It is always recommended to inform your Doctor or health care provider of any substances you may be taking.



## Drug Interactions

Use the site  
Drugs.com to  
check for  
interactions.

Visit [drugs.com](https://www.drugs.com)

# Be in the know!

**Marijuana may cause drug interactions  
with your medications**

Chemicals found in marijuana such as Tetrahydrocannabinol (THC) and Cannabidiol (CBD) may interact with medications.

**Common drugs that have interactions include:**

- Sedatives
- Anti-Anxiety medications
- Anti-Depressant medications
- Pain medications
- Seizure medications
- Blood Thinners

It is always recommended to inform your Doctor or health care provider of any substances you may be taking to avoid harmful drug interactions.





# Ask A Doctor!

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- If you have questions about marijuana, ask a Doctor, nurse practitioner or physician assistant.
- Remember there may be unknown ingredients and chemicals in products that do not appear on the label.







## Items to discuss with Administration!

- Do you document the incident
- Does the school have a Protocol, take pictures of product, document packaging, symptoms, notify parent and staff.
- Interventions

Teachable moment!

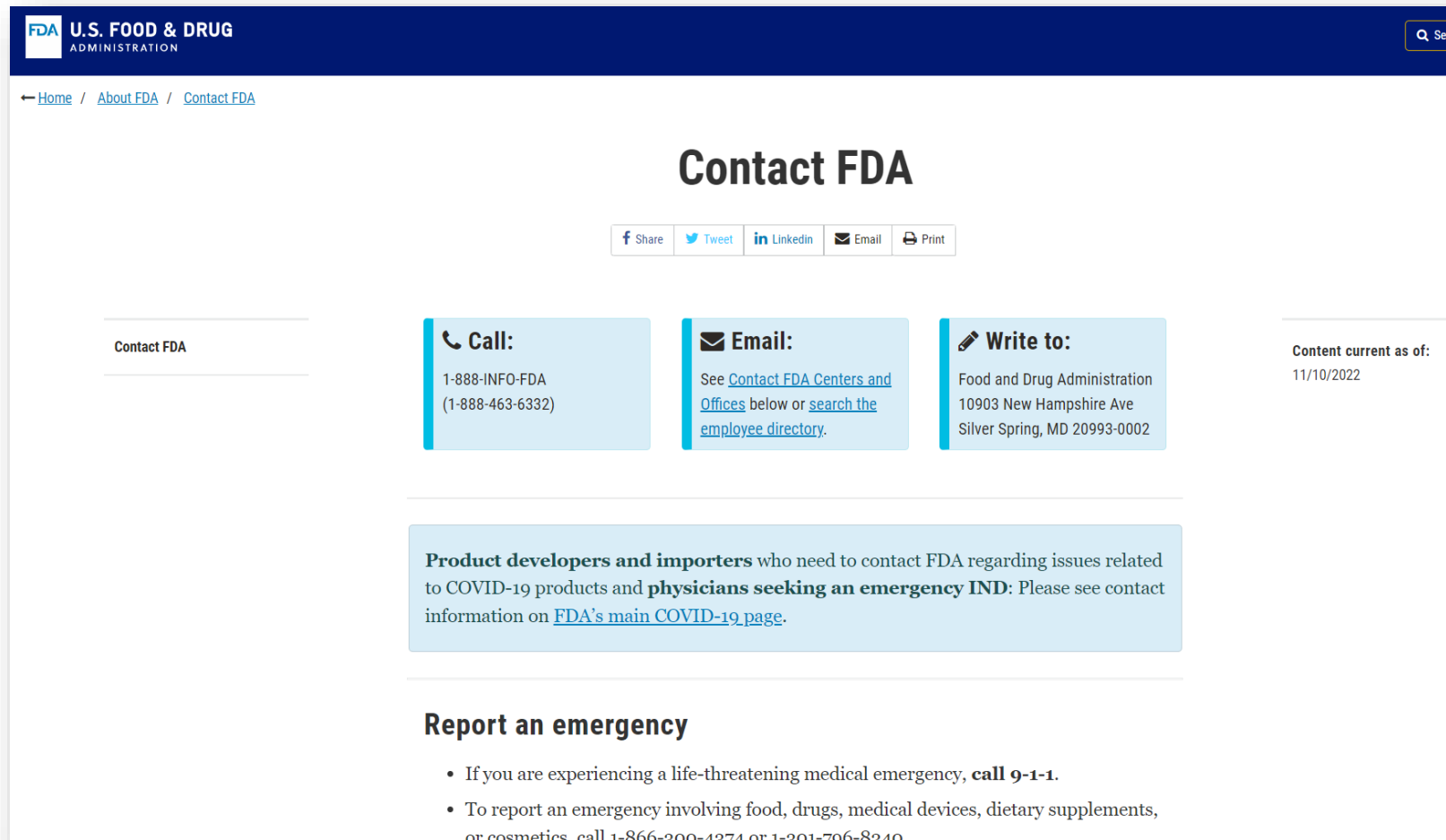


## Advocate for child proof packaging

- Do not use in front of children.
- Store away from children.
- Do not leave individual candies or products outside the wrapper.
- Speak with your older children about the effects.

# FDA complaint system

About untested products claiming to have medical value!



The screenshot shows the FDA's 'Contact FDA' page. At the top left is the FDA logo and 'U.S. FOOD & DRUG ADMINISTRATION'. A search bar is on the top right. Below the header is a breadcrumb trail: 'Home / About FDA / Contact FDA'. The main heading is 'Contact FDA'. Below this are social media sharing options: 'Share', 'Tweet', 'LinkedIn', 'Email', and 'Print'. The page is divided into three columns. The left column has a 'Contact FDA' link. The middle column contains three contact methods: 'Call' (1-888-INFO-FDA), 'Email' (with links to centers/offices and employee directory), and 'Write to' (with the address: 10903 New Hampshire Ave, Silver Spring, MD 20993-0002). The right column shows 'Content current as of: 11/10/2022'. A light blue box contains a note for product developers and physicians regarding COVID-19. At the bottom, there is a 'Report an emergency' section with a bulleted list of instructions.

**U.S. FOOD & DRUG ADMINISTRATION**

← Home / About FDA / Contact FDA

## Contact FDA

Share Tweet LinkedIn Email Print

**Contact FDA**

**Call:**  
1-888-INFO-FDA  
(1-888-463-6332)

**Email:**  
See [Contact FDA Centers and Offices](#) below or [search the employee directory](#).

**Write to:**  
Food and Drug Administration  
10903 New Hampshire Ave  
Silver Spring, MD 20993-0002

Content current as of:  
11/10/2022

**Product developers and importers** who need to contact FDA regarding issues related to COVID-19 products and **physicians seeking an emergency IND**: Please see contact information on [FDA's main COVID-19 page](#).

### Report an emergency

- If you are experiencing a life-threatening medical emergency, **call 9-1-1**.
- To report an emergency involving food, drugs, medical devices, dietary supplements, or cosmetics, call 1-866-300-4374 or 1-301-796-8240.

# Know how to file a complaint - CA



Official website of the State of California

Select Language 



Department of  
Cannabis Control  
CALIFORNIA

Search



[Applicants](#) 

[Licensees](#) 

[Consumers](#) 

[Resources](#) 

[About us](#) 

[CA.GOV](#) / [Department of Cannabis Control](#) / [Resources](#) / [File a complaint](#)

## File a complaint

You can file an anonymous complaint against licensed or unlicensed cannabis businesses. Provide as much detail as you can.

[File a complaint](#)



# IASIC

- Doctors advocating for public health in marijuana policy.
- Pushing back on the marijuana industry.

Join their email list  
[IASIC1.org](http://IASIC1.org)

PAID ADVERTISEMENT *Doctors Warn*

## Cannabis Can Cause Serious Health Hazards

IASIC, the International Academy on the Science and Impact of Cannabis, is a medical organization of doctors who educate on the impacts of cannabis, based on the scientific and medical literature. IASIC is a non-partisan and non-political group created to facilitate informed decisions when considering health and cannabis policy.

Thousands of peer-reviewed medical articles have been published on the harms of cannabis and marijuana: Emergency Department (ED) Visits, Psychosis, Suicide, Brain Development, Neonatal Exposure, Opioid Use, Traffic Fatalities, High Potency Use, Problematic Use and Cannabis Hyperemesis Syndrome.

While we support FDA-approved cannabis-based products that have met the rigor of scientific study, it is our conclusion, based on review of the scientific evidence, that the negative impacts of cannabis strain our health care and addiction treatment resources to an extent that far surpasses the perceived benefits.

Calling attention to the growing science on the risks of cannabis, we see an urgent need for smart public health policies that follow the science, prevent addiction, and decrease mental illness, including psychosis, depression, and suicide.

IASIC, The International Association on Science and Impact of Cannabis wants the public and our leaders to be informed decision makers.

Scan to read the full article with citations or visit [www.iasic1.org/doctors-warn-cannabis-can-cause-serious-health-hazards/](http://www.iasic1.org/doctors-warn-cannabis-can-cause-serious-health-hazards/)  
**www.iasic1.org**

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Created by IASIC

# IASIC

# Data Resources

- ABCD study – <https://abcdstudy.org/>
- CDC Cannabis Strategy – <https://www.cdc.gov/marijuana/index.htm>
- National Poison Control Data - <https://www.poison.org/>
- HIDTA CA Marijuana Impact Report <https://www.ccrconsulting.org/media/attachments/2023/02/07/california-marijuana-impact-report-2022-final.pdf>
- Tools for Schools - <https://www.livewellsd.org/content/livewell/home/toolsforschools/tools-for-schools.html>
- Getting it Right from the Start <https://gettingitrightfromthestart.org/>
- NIDA - <https://nida.nih.gov/research-topics/cannabis-marijuana>

# Focused MPI Trainings - 2023

Trainings for staff on how to refer kids to early intervention and treatment programs.

Parent nights where extra credit is given to youth that bring adults.



# MPI Resources

---

MPI reducing underage use of marijuana.

## Resources:

- IASIC link
- Vision Zero DUI
- **NEW-MPI 2021 Report**

Visit our MPI website, YouTube or twitter:  
<http://www.ccrconsulting.org/mpi>





# Transition to Patrick Foley