



Partnership to End Addiction

Marijuana Resource Center

<https://drugfree.org/marijuana-resource-center/>

Partnership to End Addiction



- National non-profit
- Support for families anywhere along the substance use continuum
- Effective treatment
- Advocacy
- Change culture

Some Fun Facts




- Native to Central Asia, spread by nomadic people
- Used as anesthesia during the Han Dynasty in China
- Applied topically for inflammation in Egypt
- Helped with birthing during the 4th century
- Included in US publication of medicines in 1850
- Federal review of cannabis @ the Civil War
- The war on drugs – placed on Schedule 1



Marijuana Resource Center



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Basics

There is a constant stream of new, more potent cannabis products in kid-friendly flavors and packaging designed to attract teens and young adults. Learn more about the ever-changing landscape.

[What You Need to Know to Help Protect Children, Teens and Young Adults](#)

Prevention

Are you worried about your child trying cannabis or perhaps they are already using it? Learn what to say and do when it comes to preventing experimentation or keeping it from progressing.

[Cannabis Use in Your Home: Your Rules and Actions Matter](#)

[Fact Check](#)

Risks of use

Despite the marketing hype around cannabis use, it can pose health risks including addiction. Learn more about health problems linked to use and the signs of a cannabis use disorder, the clinical term for addiction.

[Is This Substance Addictive?](#)

[My Loved One is Having Trouble](#)

[Donate](#)



Treatment

You may feel your loved one needs treatment and wonder what are research-based approaches to address Cannabis Use Disorder. Or, if your loved one does not want to quit using are there ways to reduce the risks? Learn more about ways to help.

Need Treatment? Here are effective treatment options



Protecting and advocating for youth

Learn about the specific steps and actions parents, other caregivers and community members can take to ensure legal and regulatory protections are in place to prevent underage use.

Underage use and



Additional resources

Learn more about topics related to cannabis use.

The risks of use when pregnant or nursing



Why you should abstain from use before surgery



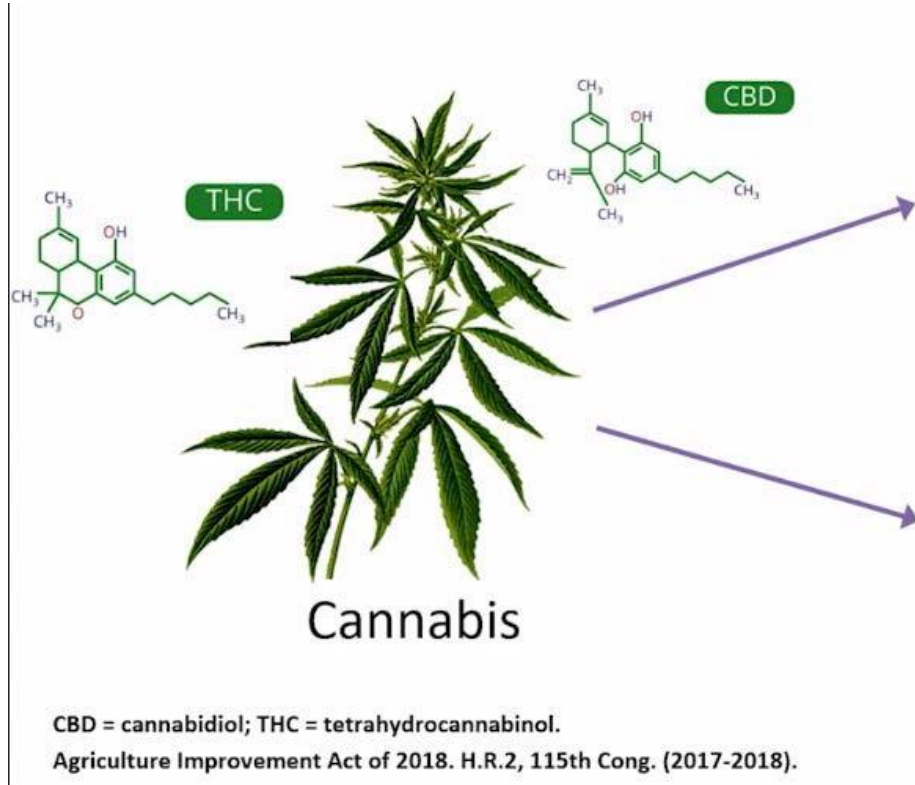
Donate





50 Shades of Marijuana

The Cannabis plant



- Marijuana
 - High delta-9 THC (>.3%)
 - Low CBD
 - Schedule 1
- Hemp
 - Low delta-9 THC (</= .3%)
 - High CBD
 - Not controlled substance

Newer hemp-derived products offering a “high”



CBD

Acid, Solvent, Heat

- Delta 8 THC
- Delta 10 THC
- THO acetate
- HHC

- Hemp legal ($\leq 0.3\%$ THC)

Smoking

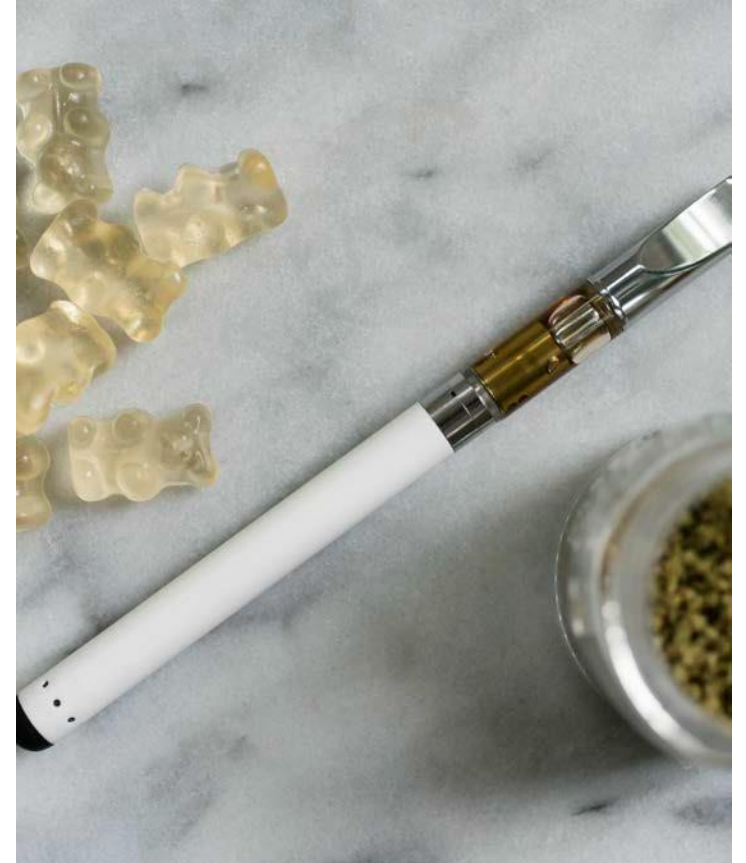
- Marijuana smoke is inhaled via a joint (marijuana rolled in paper), a blunt (marijuana rolled into a cigar casing), a bong (a system of glass pipes), a bubbler (a mini bong) or a hookah pipe



Clockwise: Cappi Thompson/Moment via Getty Images; Richard T. Novik/The Image Bank via Getty Images; Shanecotee/iStock via Getty Images; Utkarsh Sharma/iStock / Getty Images Plus via Getty Images

Vaping

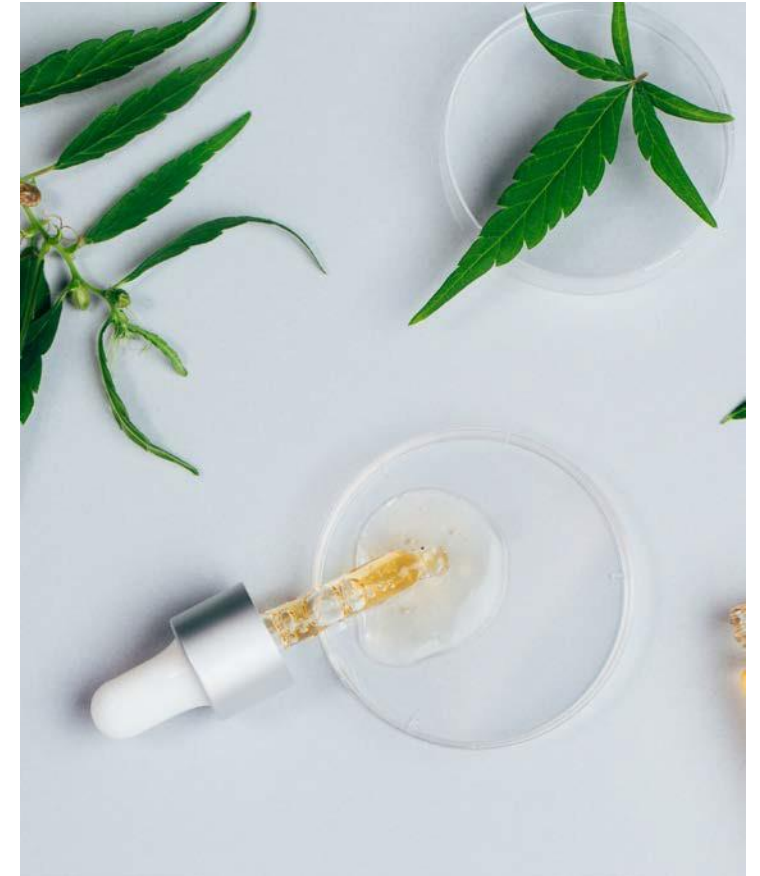
- Increasingly people are using vaping devices with liquids or cartridges that contain THC (the psychoactive ingredient in marijuana)
- Vaping products tend to have a much higher concentration of THC than smoked marijuana, so their effects can be much stronger
- The aerosol produced when the vaping liquid is inhaled contains other chemicals and ingredients, including flavorings, that are known to be highly toxic



Jamie Grill/Tetra Images via Getty Images

Dabbing

- Waxy concentrate of marijuana, known as hash oil, is placed on a glass pipe or bong that has been heated on a blowtorch, which creates a vapor that is inhaled
- Hash oil is more concentrated and typically more potent than smoked marijuana
- Dabs can have as much as 90% THC concentration



Anna Efetova/Moment via Getty Images

Edibles and oils

- Dried cannabis or oil concentrates can be baked or infused into many types of food, including snacks and candy products
- Oils can be ingested orally on their own
- The packaging and listed ingredients and doses in edibles are not well regulated, even when purchased through legal means, and can be misleading or inaccurate
- The effects of marijuana are often stronger when consumed through edibles than when smoked



LauriPatterson/E+ via Getty Images

Tinctures

- Tinctures are liquids extracted from the cannabis plant using alcohol
- Used by placing drops under the tongue for fast absorption
- Highly potent, highly concentrated form of marijuana known for producing a fast-acting, intense high
- Many tinctures are intended for medical use but are sometimes taken recreationally



Lauren King/EyeEm via Getty Images

Capsules

- Marijuana pills, known as “cannabis caps” or weed pills, are made by filling medication capsules with marijuana oil, wax or other extracts
- Ingested by swallowing



Ilya Sereda/EyeEm via Getty Images

Sprays

- Liquids, infused with either THC or cannabidiol (CBD), are sprayed under the tongue for fast absorption
- Usually discreet and intended for medical use
- Sprays come in different flavors and can be used on rolling papers, joints, blunts and pipes



© Designkida via Adobe Stock

Synthetic cannabinoids

- Synthetic “marijuana,” also known as:
 - Spice
 - K2
 - “fake weed”
 - Kronic
- Herbs sprayed with chemicals so they look like real cannabis
- Can be 2-100 times more potent than THC
- Use of synthetics can lead to unpredictable and severe effects, including extreme anxiety, paranoia, vivid hallucinations, rapid heart rate, vomiting, violent behavior and suicidal thoughts



Busliq via Shutterstock

Pharmaceutical cannabinoids

- FDA-approved
 - Dronabinol: low appetite and nausea
 - Epidiolex: specific types of seizures
 - Nabilone: nausea and vomiting



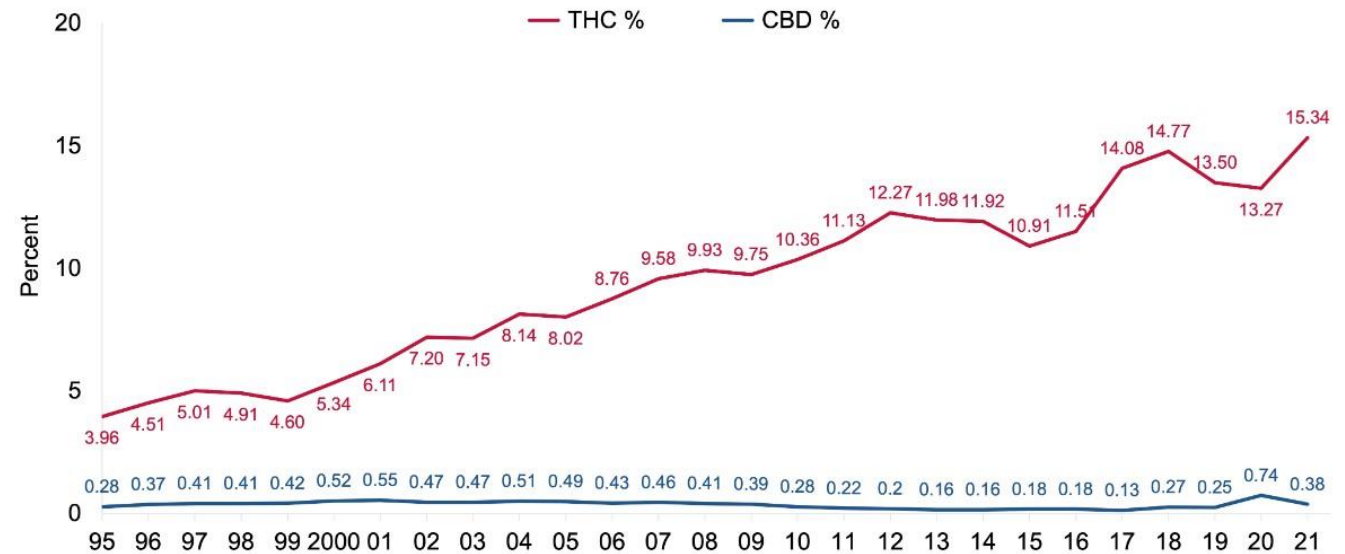


Potency

Increased potency of THC

- The strength or potency of marijuana has increased steadily over the past 25 years, nearly quadrupling

Percentage of THC and CBD in Cannabis Samples Seized by the DEA, 1995-2021



SOURCE: U.S. Misuse Potency Monitoring Project

Marketed products are higher still

S'mores Milk Chocolate

Punch Edibles

A milk chocolate base complete with graham cracker crumbs and marshmallow extract, allowing you to bring the campfire with you wherever you go, and leave you wanting s'more. Punch brings you an award-winning edible that tastes great and comes in a sensible size. Each serving will leave you feeling both euphoric and relaxed, a great way to start your day off or wind down after work. 10 servings per pack. Each serving contains 10mg of THC. Ingredients: milk chocolate wafers, marshmallow extract, graham cracker crumbs, cannabis extract, 1-2% dried milk. Dietary information: made from a non-GMO chocolate with no hydrogenated oils, manufactured in a facility that also processes tree nuts. (License No. CDPH-10003615)

Hybrid 

Chocolate

100mg
THC *

*Amounts are averages, individual items may vary.



ADD TO CART

\$12

Trending now



Cartridge

White Runtz | Cartridge

by The Botanist

THC 80.26%

Best seller



miles away
Somerset

add to bag

Hybrid flower

Runtz

by Top Crop

THC 41.21485% CBD 0.04631%

1/8 ounce

\$55.00

Pickup 19.2 miles away
from Bloc - Somerset (MED)

add to bag

paussem@toendaddiction.org - Outlook

More THC – more problems

- Increased anxiety
- More suicidal thoughts
- Psychosis (g., seeing or hearing things that aren't there, fearful of someone watching you) including schizophrenia
- Increased ER visits and calls to poison control for cannabis intoxication.
- Cannabis Use Disorder





Medical issues

Health benefits

- Conclusive to substantial evidence that cannabis or cannabinoids are effective for:
 - Chronic pain in adults, mostly focused on neuropathy
 - Chemotherapy-induced nausea and vomiting
 - Spasticity symptoms related to multiple sclerosis
- Moderate evidence supports its use for:
 - Improving short-term sleep for those with sleep apnea, fibromyalgia, chronic pain and multiple sclerosis

National Academy of Sciences 2017

Vomiting caused by marijuana?

- Cannabis Hyperemesis Syndrome
- Relentless vomiting and nausea
- Temporary relief with hot showers
- One cure



Surgery? Tell your provider...

- Need more anesthesia to fall and stay asleep
- Experience more pain
- May have more complications



Can it help with sleep?

- More than 46 million Americans report sleeplessness that affects their ability to function
- Short-term: may help people fall asleep more quickly and stay asleep longer
- Long-term: 78% slept less and took longer to fall asleep

“Individuals seeing cannabis-derived sleep aids should be skeptical of manufacturer’s claims of sleep-promoting effects.”

Mayo Clinic 2022 review

What about anxiety?

- 1 in 5 people experience an anxiety disorder every year according to the National Institute of Mental Health

“A 2020 review of past research found that cannabis has been shown to either reduce or increase anxiety depending on the type of study and the size of the dose.”

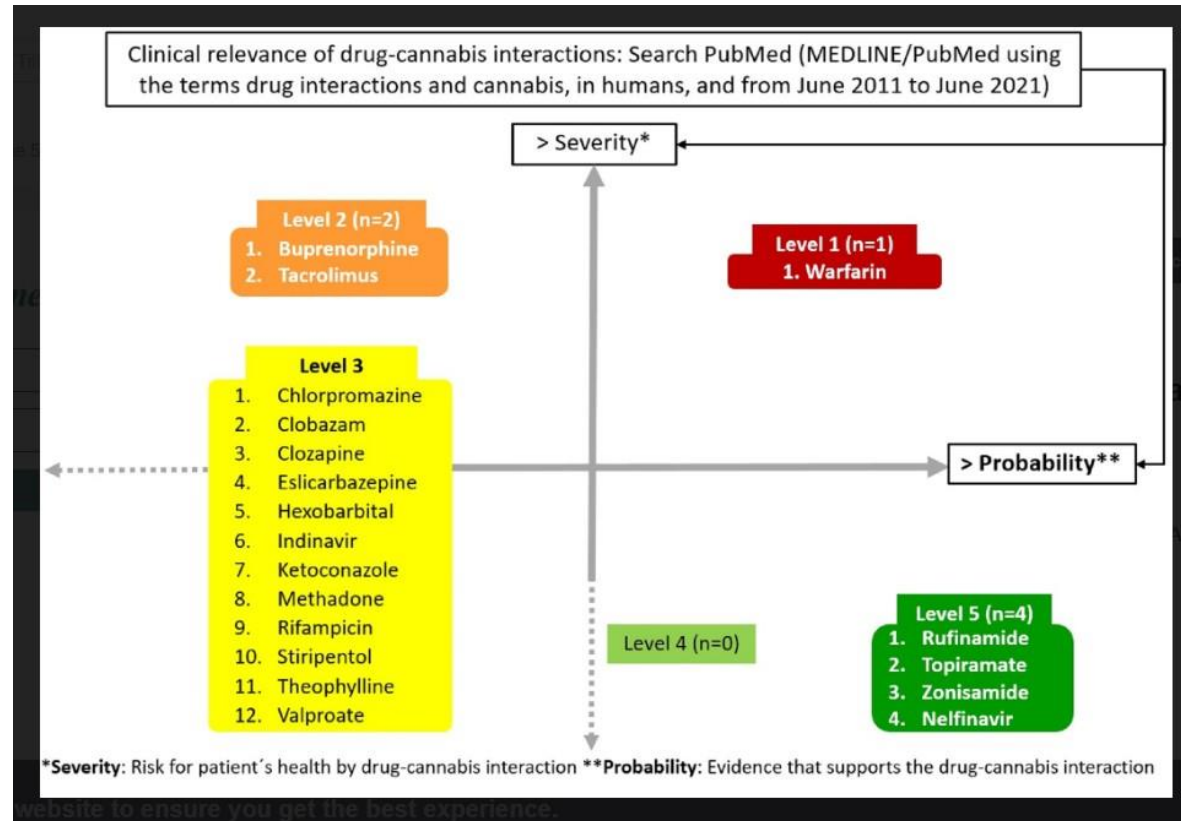
- Many people find THC alone increases paranoia or panic.
- CBD has shown mixed results in reducing anxiety. Yale researchers found CBD reduced social anxiety while Johns Hopkins researchers found mixed results.

Other medical concerns

- Substantial evidence of an association between cannabis and:
 - Thinking problems – memory, learning and decision-making
 - Respiratory problems – especially co-use with tobacco
 - Development of schizophrenia or other psychoses
- Moderate evidence
 - Cardiovascular stress
 - Increased symptoms of mania and hypomania
 - Small increased risk for depression
 - Increased incidence of suicidal ideation, attempts and completions

National Academies Press 2017

Medication interactions



Lopera, V., Rodríguez, A., & Amariles, P. (2022). Clinical Relevance of Drug Interactions with Cannabis: A Systematic Review. *Journal of Clinical Medicine*, 11(5), 1154. <https://doi.org/10.3390/jcm11051154>



Marijuana and pregnancy

Increased concerns in pregnancy

- Reproductive problems
- 2.3x the risk of stillbirth
- Increased chance of preterm birth
- Physical changes to the brain of the fetus that leads to poorer outcomes at 12 months
- Lower birth weight
- Smaller head circumference
- Cognitive development issues affecting memory, learning and behavior
- Greater chance of developing ADHD later in life
- [Needing the newborn to be admitted to the NICU for stabilization](#)
- [Increased rates of autism](#)





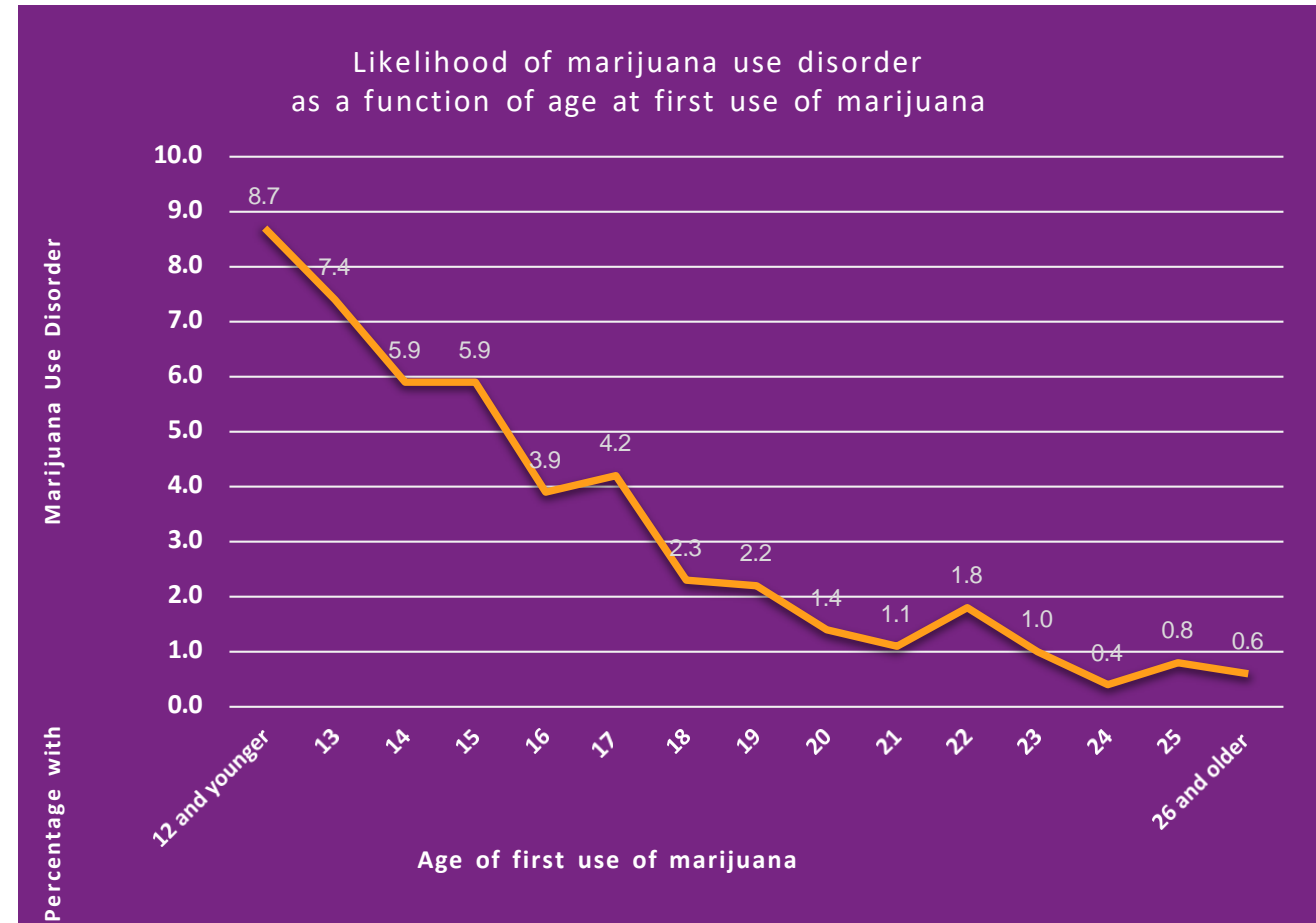
Addiction and withdrawal symptoms

Is it really addictive?



Early use increases the risk of addiction

- Individuals in late adolescence and early adulthood who use marijuana are at the highest risk of developing a marijuana use disorder, or addiction
- People who begin use before age 18 are 4-7 times more likely to develop a marijuana use disorder than those who begin using in adulthood



Withdrawals symptoms

- Sweating
- Nervousness or anxiety
- Depressed mood
- Irritability or anger
- Loss of appetite, stomach pain or nausea
- Restlessness
- Problems sleeping including vivid or strange dreams
- Headaches

Course of symptoms

- Onset 1-2 days
- Peak 2-6 days
- Subsides 3



Treatment

Treatment for adults

- **Cognitive Behavioral Therapy:** CBT helps people understand the connections between their thoughts, emotions, and behaviors.
- **Motivational Enhancement Therapy:** (MET) helps people build and sustain their desire to change. This form of therapy includes exploring a person's mixed feelings about their substance use.
- **Contingency Management:** (CM) is often practiced alongside other therapy approaches. It provides real rewards that are meaningful to the client for certain accomplishments.

Treatment for youth

- Cognitive Behavioral Therapy (CBT) is effective.
- Another approach is ecological Family Therapy. This approach focuses on identifying how a client's environment affects their well-being and development.
- The four main components of family therapy are:
 - Family engagement
 - Relational reframing (shifting focus from substance use)
 - Family behavior change
 - Family restructuring
- It is very important to seek treatment that takes into your loved one's specific needs.

Medications

- No FDA-approved medications for cannabis use
- Promising for maintenance
 - Oral THC
 - Cannabinoid agonist (drug to suppress cravings and withdrawal symptoms)
 - N-Acetylcysteine for adolescents
- Promising management of withdrawal symptoms
 - Dronabinol, gabapentin, oral THC, quetiapine, metoclopramide
- Not useful: SSRI antidepressants, lofexadine, bupropion, zolpidem

Connor, J.P., et.al. Addiction (2022), Levin FR
DAD (2011)



Driving

It's complicated...impaired or have marijuana in the body



Signs of impairment

- Slowed reaction time
- Drowsiness
- Altered time and distance perception
- In lane weaving
- Difficulty with divided attention
- Problems with route planning, decision making, and risk taking, or a combination of all

Drivers' perception of impairment



- 191 regular consumers
 - Placebo, 5.9% or 13.4% Delta 9 THC
 - THC group > placebo
 - No difference in impairment after 4.5 hours
- BUT
- Most THC drivers felt unimpaired after 1.5 hours

Source: Marcotte TD, Umlauf A, Grelotti DJ, et al. Driving Performance and Cannabis Users' Perception of Safety: A Randomized Clinical Trial. *JAMA Psychiatry*. 2022;79(3):201-209. doi:10.1001/jamapsychiatry.2021.4037

How long should you wait before driving?

Smoking:



Wait at least six hours after smoking up to 35 mg of THC before driving or biking. If you've smoked more than 35 mg, wait longer.

Eating or drinking:

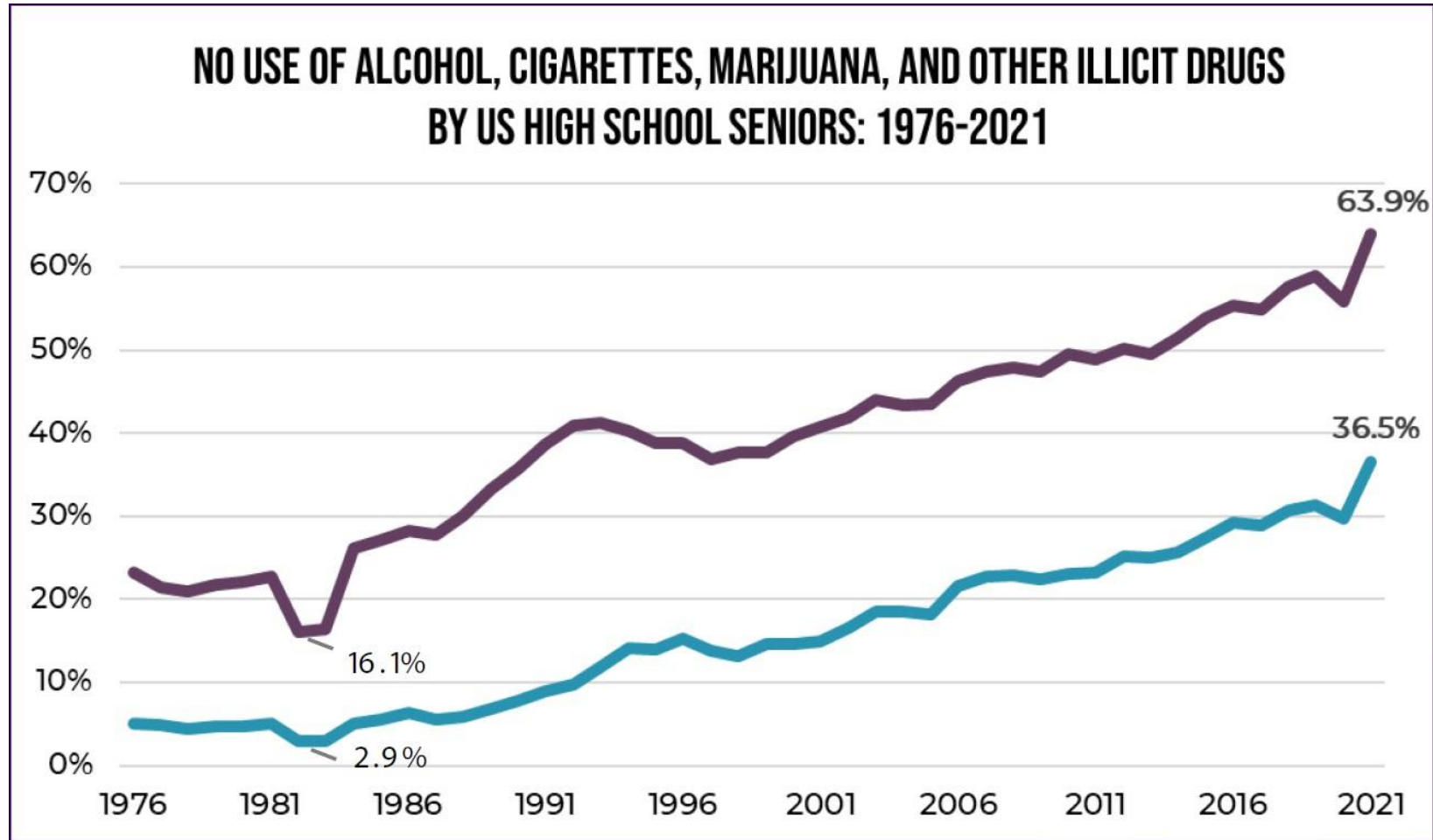


Wait at least eight hours after eating or drinking up to 18 mg of THC before driving or biking. If you've consumed more than 18 mg, wait longer.



Young people's use of marijuana

Overall no substance use trendline is up



Rates of use

- Marijuana is the most widely used drug among teens and young adults
- Rates of use among youth are generally low, but recent data show an increase, especially in daily use and in marijuana vaping
- In 2019, among 8th, 10th and 12th graders combined, 30.6% reported use in their lifetime, 25.2% in the past year, 15.6% in the past month, 4.1% daily
 - 10.1% vaped marijuana in the past month – a significant increase from 5.7% just one year earlier
- In 2019, among young adults aged 19-28, 40.1% reported use in the past year, 26.7% in the past month, 9.4% daily
 - Thirteen percent vaped marijuana in the past month – a significant increase from 9.3% just one year earlier

Peer influence

- Many young people use marijuana because their friends do so, making it seem like a fun and acceptable thing to do
- Having drug-using peers is one of the strongest predictors of a young person's likelihood of trying a drug
- Our national survey of teens found that 86.1% of those with one friend who uses drugs said they have multiple friends who use drugs



Flashpop/DigitalVision via Getty Images

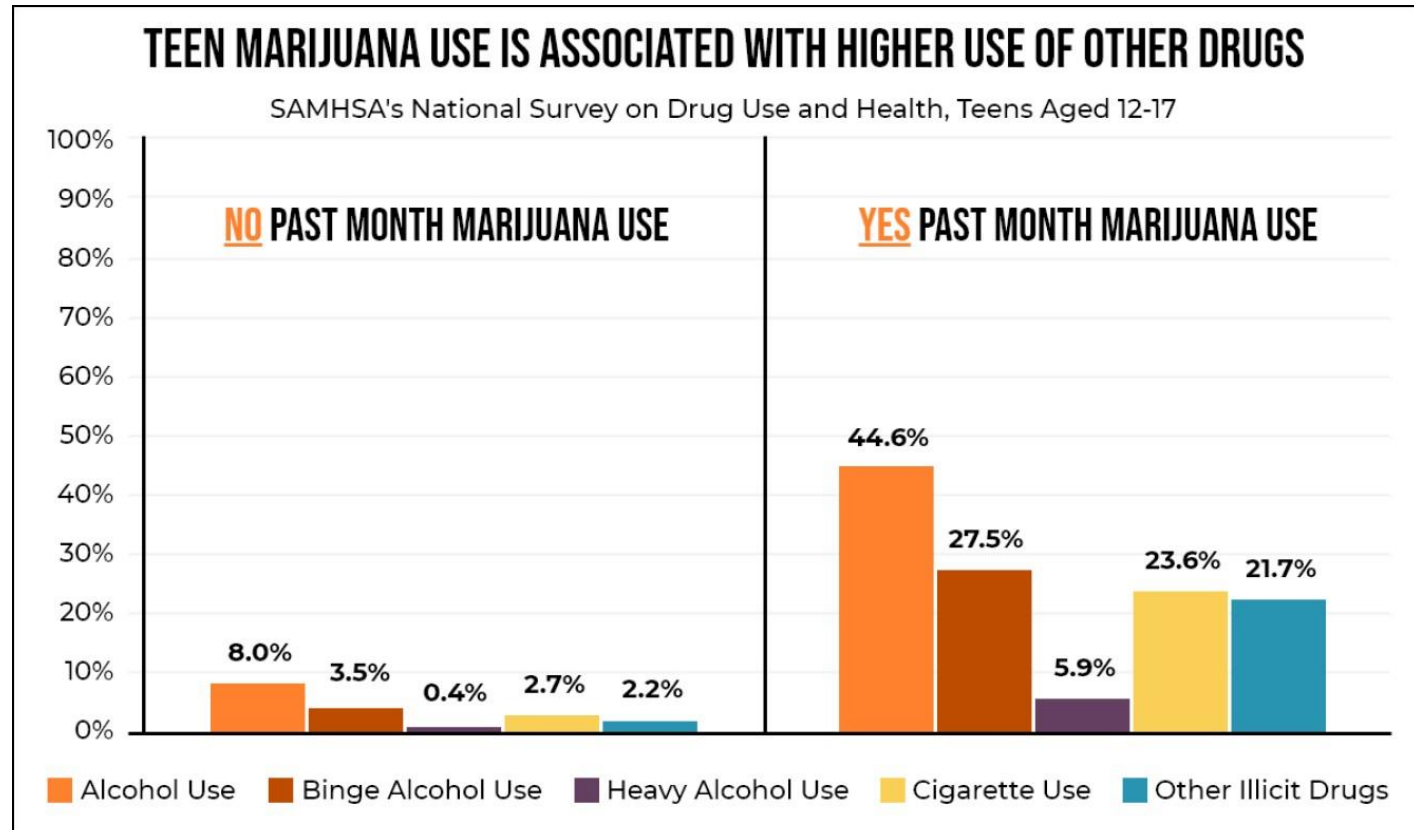
Misinformation

- Movies, TV shows, music and social media tend to glorify marijuana use and downplay its harms
- According to our recent national survey of teens, 33% reported that their main source of information about drugs is social media, other teenagers or the internet
- The availability of medical marijuana and efforts to legalize recreational marijuana contribute to the perception that marijuana is harmless
- Over the past decade, since the legalization movement began, fewer youth have perceived marijuana as risky or harmful

Harms brain development

- Adolescents and young adults are the most vulnerable to the effects of marijuana because it directly interferes with brain development, especially the parts of the brain responsible for decision making, reward seeking and impulse control.
- The use of any addictive substance during this time significantly increases the lifetime risk of other substance use and of addiction
- Marijuana affects the brain's reward system in the same way as other substances – and the likelihood of addiction increases considerably for those who start young

Use of other substances



Monitoring the Future data; Levy, S., Campbell, M. C., Shea, C. L., DuPont, C. M., & DuPont, R. L. (2020). Trends in substance nonuse by high school seniors: 1975–2018. *Pediatrics*, e2020007187. Doi: 10.1542/peds.2020-007187

Getting “crossed”

- A term often used among teens to describe using marijuana while drinking alcohol at the same time.
- **When marijuana is used with alcohol, THC levels in the bloodstream nearly double.**
- The use of alcohol and marijuana either at the same time or on the same occasion can lead to poor judgment, memory, and confusion.



Parents' attitudes and behaviors

Young people are more likely to use marijuana if parents:

- Are lenient about youth substance use
- Model unhealthy drug-related behaviors
- Allow them to use with them or in the home
- Do not communicate openly and honestly about the risks of youth marijuana use and their expectations that children should not use

Convey your expectations

- Calmly explain why you don't want your child to use marijuana
- It's important they know that you'll always be there to help if they feel they're in an unsafe situation – they need to know their wellbeing is of utmost importance to you
- If you choose to set consequences for their marijuana use, make sure they are not overly harsh, punitive or long lasting and be sure to follow through
- Try to encourage healthier choices and reward your child for taking advantage of other means of having fun and alleviating stress



What to do if your child is using marijuana

What to do if you discover your child is using marijuana

- Find a calm, quiet time to discuss it rather than in the heat of the moment
- Try to understand why your child is using and how those motivations can be addressed through healthier means
- Clearly reinforce your expectations and enforce previously determined consequences
- If it is affecting your child's health, relationships, academics, work or daily functioning, or if it is becoming routine, seek professional help
- If you're not sure where to turn or what kind of treatment might be needed, ask your child's doctor or search a reliable treatment locator, such as www.findtreatment.gov

What not to do if you discover your child is using

- Do not dismiss it as typical youth behavior – most young people do not use
- Do not assume it's a phase that your child will grow out of – 90% of people who become addicted began use during adolescence
- Try not to admonish or punish your child – marijuana use is a health problem for youth and it should be addressed as you would any other risk to your child's health or safety
- Try not to let the discussion dissolve into a useless standoff – choose the right time to talk, when everyone is calm and the conversation can be productive
- Try not to make your child feel that they're bad – understanding the 'why' is essential to helping your child stop using



Harm reduction measures

Ways to reduce the risks of cannabis use

- Use lower-strength products
- Read the label
- Don't combine it with other substances
- Use a medical dispensary or authorized store
- Grow your own
- Don't drive or ride a bike/board high
- Inform healthcare providers
- Use edibles over vaping and smoking
- Consider moderation management
- Keep it secure
- Avoid synthetic products





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Behavioral Health Awareness Series

If you are an Evernorth or Cigna customer and have questions about Substance Use treatment or about your benefits and how to use them, please contact:

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Jordan Nielsen – 800.274.7603 x382620