

# Marijuana

“Marijuana” refers to parts of or products from the plant Cannabis sativa that contain substantial amounts of tetrahydrocannabinol (THC). THC is the substance that’s primarily responsible for the effects of marijuana on a person’s mental state. Some cannabis plants or parts of cannabis plants contain very little THC. Under U.S. law, these plants are considered “industrial hemp” rather than marijuana.

## Teen Perceptions of Cannabis Use

Legalization of marijuana has skewed perceptions of this drug use.

### False Belief:

Legalization skewed perceptions to believe:

- Reduced potency/strength of products
- Reduced risk of negative effects of marijuana
- Felt safer, similar to coffee and vitamins

### Fact:

Legalization resulted in:

- Higher potency/strength of products
- Increased self-medication (anxiety, sleep, and mood disorders) causing negative effects
- Increased availability due to companies capitalizing on self-medicating

## Teens Top Reasons for Using Marijuana

Teens “Reason” for Use	Alternative Thinking
Psychoactive effects- “I wanna get high”	Health alternatives that provide the release of good feelings (e.g. exercise)
Social Cues- At a party	Enjoying a positive atmosphere free of toxic chemicals and other substances
External Cues- Enjoying a meal	Mindful eating, going for a walk after a meal, and keeping activities substance-free
Co-product use- while drinking alcohol or vaping nicotine	Avoid triggers and consume healthy alternatives
Physical Effects- Can’t sleep	Health alternatives that help aid in falling asleep (e.g. exercise or meditation)

# Tobacco vs Marijuana

Nicotine and Marijuana have effects on the body:

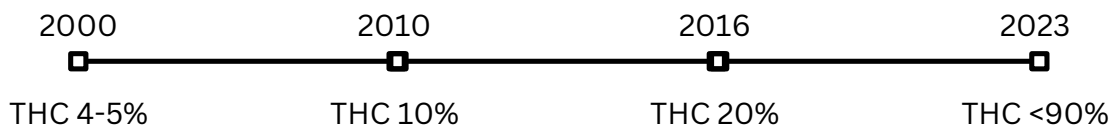
- Nicotine is the addictive chemical in tobacco and vape products.
- Nicotine is classified as a stimulant and depressant.
- Marijuana is classified as a stimulant, depressant, and hallucinogen.
- Cannabis use in many forms was common among students who vaped- vaping, smoking, dabbing, edibles, topical, and juiced.

The amount of nicotine in vapes is unregulated and has stronger amounts than the average pack of cigarettes.

Youth are often mixing both tobacco and marijuana to increase their “high”.

THC potency (or strength of product) has significantly increased over the last 20+ years.

## THC Potency Over Time



## Nicotine Strength by Product



1-2 mg

Nicotine  
Received in  
Single Cigarette



Nicotine  
Received in  
Vape Product



14.4-32.8 mg

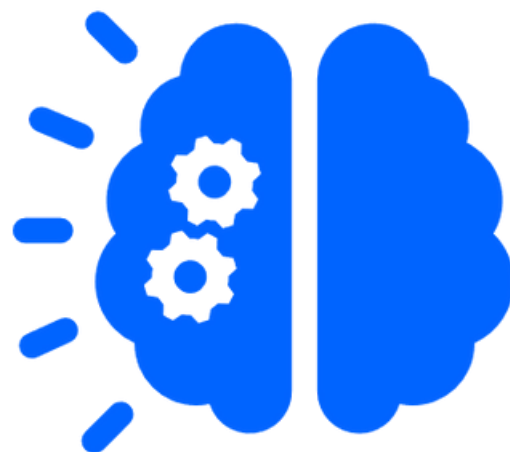
## Note on Medical Use of Cannabis

Research supporting the use of smoked cannabis for medical conditions is limited to less than 10% THC. No legitimate science exists to validate medicinal cannabis greater than 10% THC.

# Cannabis & the Brain

Both nicotine and cannabis affect our mood, behavior, and reasoning. Nicotine stimulates the brain receptors releasing dopamine, happy feel-good chemicals. THC stimulates brain receptors which induce “supreme joy”.

Marijuana use beginning in teen years or younger may affect brain development which may impair thinking, memory, and learning. Cannabis creates difficulty turning short-term memories into long-term memories as well as accessing long-term memories. A 20-year study in New Zealand- showed an IQ decrease by 8 points, with early persistent teen use of cannabis.



## Cannabis & the Lungs

When cannabis liquid, oil, or plant material is heated in a device, an aerosol (a suspension of fine particles in a gas) is released.

Early studies are showing that aerosolizing cannabis can lead to:

- decreased lung development
- increased breathing difficulties
- lowered defenses against bacteria and viruses
- Induced inflammatory reactions

These cases were associated with THC products, nicotine products, and co-use. The inhalation of harmful chemicals found in e-cigarettes can cause irreversible lung damage and lung disease.



Smoke from marijuana combustion has been shown to contain many of the same toxins, irritants, and carcinogens as tobacco smoke. Smoking marijuana damages the human lung. Research shows that smoking marijuana causes chronic bronchitis. In addition to that, marijuana smoke has been shown to injure the cell linings of the large airways, which could explain why smoking marijuana leads to symptoms such as chronic cough, phlegm production, wheezing, and acute bronchitis.

However, it's not possible to establish whether these occur more frequently among marijuana smokers than the general population.

# Health and Social Impact of Marijuana

## Short-term

Physical	<ul style="list-style-type: none"> <li>• Decrease reaction time</li> <li>• Cause drowsiness</li> <li>• Increase appetite</li> <li>• Increase heart rate</li> <li>• Increase blood pressure</li> </ul>
Mental	<ul style="list-style-type: none"> <li>• Create paranoia</li> <li>• Poor concentration</li> <li>• Reduced coordination</li> <li>• Reduced problem solving ability</li> </ul>

## Long-term

Physical	<ul style="list-style-type: none"> <li>• Lung and respiratory issues</li> <li>• Chronic cough</li> <li>• Decreased motivation</li> <li>• Dehydration</li> <li>• Increased risk of stroke and heart disease</li> </ul>
Mental	<ul style="list-style-type: none"> <li>• Anxiety</li> <li>• Depression</li> <li>• Suicidal ideation</li> <li>• Psychotic episodes</li> </ul>

Of particular concern, youth diagnosed with ADHD are (statistically) significantly more likely than their peers to progress toward a substance use disorder (SUD) diagnosis.

## Tobacco & Marijuana

Combining tobacco and marijuana carries several potential risks. One concern is the increased impact of THC by up to 45%. This can significantly intensify the marijuana high, making it feel stronger and last longer. This altered state can be unpredictable and potentially lead to negative experiences, such as anxiety or paranoia.



In addition to altering the intensity and duration, co-use of tobacco and marijuana is associated with more severe marijuana use disorder symptoms. This can manifest as increased use to maintain the desired effect, greater dependence, and harsher withdrawal symptoms when quitting. Since both tobacco and marijuana withdrawal share similar symptoms, using them together can lead to a more intense and difficult withdrawal process. These effects can make it difficult for people to quit using these substances.

# Treatment Strategies

## Effective Strategies for Treatment:

Utilize conversation - not confrontation.

Teach adolescents that use can worsen their mental health symptoms, provide referrals to mental health services

Helpful to kids who quit cannabis in groups talking about how great it feels

Non-judgement, motivational interviewing, psycho-education

## Teens Want To Quit

Youth assessed their contemplation to quit using marijuana a 6 out of 10 which is in-between “I should quit,” but not quite ready and starting to think about how to change marijuana use patterns. Teens need help accessing the correct resources and services to help them quit using marijuana.

Develop strategies to deal with cravings and triggers

Develop a plan to quit successfully

Provide support or support resources through the quit process

Develop healthy coping strategies for stress and anxiety

# Resources

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