

# Effects of Cannabis Use on Mental Health:

# Introduction:

Cannabis, commonly known as marijuana, is derived from the Cannabis sativa plant. Its use has grown in popularity, and it is consumed in various forms, including smoking, vaping, edibles (like gummies), oils, and newer derivatives such as Delta-8 THC. While many claim benefits from its use, there are several potential negative impacts on mental health to consider.

\*For information on the benefits of reducing cannabis use then please scroll to the bottom of this handout.

# 1. Anxiety:

#### Short-term Effects:

- Heightened Sensations: Some users report an increased sensitivity to their surroundings, leading to overwhelming feelings.
- Rapid Heartbeat: THC can cause an accelerated heart rate, which may cause anxiety or panic in some users.
- Disorientation: A user might feel a distorted sense of time or a sense of unreality, which can be unsettling.

#### Long-term Effects:

- Chronic use can alter the neural pathway related to stress and anxiety, potentially leading to an increased risk of anxiety disorders.
- Dependence: Chronic users might begin to rely on cannabis as a way to cope with their anxiety, which can worsen symptoms when the drug wears off.
- Altered Stress Response: Regular cannabis use can change the way the brain responds to stress, potentially making users more susceptible to anxiety over time.



# 2. Depression:

#### Short-term Effects:

- Mood swings: Some users report feeling euphoric, followed by a significant drop in mood.
- Increased feelings of sadness or a sense of detachment from reality.
- Lethargy: A user can feel excessively tired or lack motivation to partake in activities.
- Heightened Emotions: Some users might experience intense emotions, both positive and negative, which can be distressing.

#### Long-term Effects:

- Regular cannabis use is linked to an increased risk of developing depression.
- Alters brain regions connected to motivation, mood, and reward.
- Dysregulated Mood: Over time, the brain might come to rely on cannabis to regulate mood, leading to increased depression during periods of non-use.
- Isolation: Chronic users might withdraw from social or recreational activities, leading to feelings of loneliness.

# 3. Attention-Deficit Hyperactivity Disorder (ADHD):

#### Short-term Effects:

- Difficulty in focusing.
- Increased impulsivity.
- Increased Distraction: THC can heighten distractibility in users.
- Hyperactivity: Some users, especially those with ADHD, might experience increased restlessness after using cannabis.

#### Long-term Effects:

- Increased risk of substance dependence or misuse.
- Worsened Symptoms: Over time, cannabis use can exacerbate ADHD symptoms, making it harder for individuals to focus even during periods of non-use.
- Memory Issues: Chronic cannabis use can affect the brain's ability to process and retain information.



### 4. Other Mental Health Concerns:

- Psychosis and Schizophrenia: High doses or early and regular use during teenage years can increase the risk of psychosis or schizophrenia in predisposed individuals.
- Cognitive Impairment: Chronic cannabis use can impair cognitive function, affecting memory, attention, and decision-making capabilities.
- Substance Use Disorder: Regular use can lead to cannabis use disorder, characterized by increased tolerance, cravings, and withdrawal symptoms upon cessation.
- Decreased Brain Volume: Studies have shown reductions in the gray matter volume in certain brain regions related to chronic cannabis use, potentially impacting various cognitive functions.

# Different Forms of Consumption and Their Impact:

- Smoking Marijuana:
  - Combustion releases harmful toxins and carcinogens.
  - Immediate impact on brain function, leading to the aforementioned mental health concerns.
- Vaping:
  - While some consider it less harmful than smoking, vaping cannabis can still deliver a potent dose of THC, potentially leading to increased risk of anxiety, paranoia, or psychosis.
  - Recent concerns about lung injuries (e-cigarette or vaping useassociated lung injury (EVALI))
- Edibles (e.g., gummies):
  - Delayed onset of effects, which can lead users to consume more than intended, resulting in overdosing
  - Prolonged and often more intense effects compared to smoking or vaping.
- Delta-8 and Delta-10 THC:
  - These are lesser-known analogs of Delta-9 THC (the primary psychoactive component of cannabis).
  - They can cause similar mental health effects, including anxiety, paranoia, and cognitive impairment.
  - Studies of long-term consequences of both analogs are lacking.



# Physical effects of cannabis use:

- Respiratory Issues:
  - Smoking Cannabis: Similar to tobacco smoke, marijuana smoke contains a mix of toxic chemicals and carcinogens that can irritate the lungs. Regular smoking can lead to chronic bronchitis symptoms, lung infections, and other respiratory issues.
  - Vaping Cannabis: While vaping is sometimes perceived as a safer alternative to smoking, there have been reports of vapingassociated lung injuries. The exact cause is still under investigation, but contaminants in vaping liquids might be a factor.
- Cardiovascular Risks:
  - Cannabis use can lead to a rapid heartbeat and increased blood pressure immediately after use. Over time, this can increase the risk of heart disease, especially in those with other risk factors. There's also a risk of heart attack shortly after use due to the increased heart rate and blood pressure combined with blood vessels narrowing.
- Impaired Motor Skills:
  - THC affects areas of the brain that control body movements, balance, coordination, memory, and judgment. This can lead to impaired driving, increasing the risk of car accidents.
- Digestive Issues:
  - Smoking cannabis can lead to dry mouth and increased appetite. Additionally, there are reports of cannabinoid hyperemesis syndrome (CHS) in some heavy users, characterized by recurrent nausea, vomiting, and crampy abdominal pain.
- Immune System Impact:
  - Some research suggests that THC can negatively affect the immune system, making the body more susceptible to illnesses. However, this area needs more research for definitive conclusions.
- Hormonal Effects:
  - Chronic cannabis use can affect testosterone levels in men and can disrupt menstrual cycles in women. This can potentially impact fertility in both sexes.
- Lower Bone Density:
  - Some studies suggest that heavy cannabis use might be linked to lower bone density, which could increase fracture risk.



- Oral Health Issues:
  - Cannabis smoke can cause gum disease or exacerbate existing oral health issues.
- Potential for Contaminants:
  - Illegally produced cannabis products might not meet safety standards and could be contaminated with harmful chemicals, mold, or other substances.
- Tolerance:
  - Over time and with regular use, individuals might need to consume more cannabis to achieve the same effects, potentially leading to increased exposure to the negative physical effects of the drug.

# Benefits of discontinuing cannabis use:

Discontinuing marijuana use, especially if it's frequent or heavy, can have numerous short and long-term benefits for mental health. While individuals' experiences with cannabis vary widely, many people report improvements in their overall well-being after discontinuing its use. Here are some reasons why ceasing marijuana consumption can be beneficial:

### Short term benefits:

- Clearer Thinking: One of the immediate effects of marijuana is the alteration of cognition. Stopping its use can lead to clearer, more focused thought processes within days.
- Improved Memory: THC, the primary psychoactive compound in marijuana, is known to impair short-term memory. Cessation can lead to immediate improvements in memory recall.
- Reduced Anxiety: Some users experience heightened anxiety and paranoia during and after marijuana consumption. This can dissipate upon cessation, leading to an immediate reduction in anxiety levels.
- Improved Sleep: While some use marijuana as a sleep aid, it can disrupt the REM sleep cycle. Discontinuing can lead to more restful, restorative sleep patterns.
- Better Mood Regulation: Some users report mood swings associated with marijuana use. Stopping can help stabilize mood more quickly.



#### Long term benefits:

- Neuroplasticity Recovery: Chronic marijuana use can alter the brain's structure and function. Over time, abstaining can allow the brain to recover and restore some of its natural functions and structures, though the extent of this recovery can vary.
- Reduced Risk of Mental Health Disorders: Long-term cannabis use has been linked to an increased risk of disorders like depression, anxiety, and psychosis. Abstaining can decrease these risks.
- Improved Motivation: Chronic users often report a lack of motivation, known as cannabis-induced amotivation. Over time, motivation levels can return to baseline after discontinuing use.
- Better Cognitive Performance: In the long run, stopping marijuana use can lead to improvements in cognitive functions like problem-solving, attention, and decision-making.
- Lowered Dependence Risk: Continuous use can lead to cannabis use disorder. Ceasing consumption reduces the risk of developing this disorder or alleviates its symptoms if already present.
- Enhanced Social Interactions: Chronic users sometimes withdraw from social activities or face difficulties in social settings due to the effects of marijuana. Over time, abstaining can lead to improved social interactions and re-engagement in social or recreational activities.
- Healthier Lifestyle Choices: Without the sedative effects of marijuana, many individuals find they have more energy and motivation to engage in healthy behaviors like exercising, pursuing hobbies, or focusing on personal growth.

### **Conclusion:**

While some people use cannabis without apparent harm, it's crucial to be informed of its potential negative effects on mental health. The reaction to cannabis varies depending on the individual, the form of consumption, dosage, and frequency of use. Abstaining from marijuana, particularly after regular use, can lead to noticeable shortterm and long-term benefits in mental health. However, it's essential to approach cessation with proper support, as some individuals might experience withdrawal symptoms. If you or someone you know is struggling with cannabis use or its impact on mental health, seek advice from a healthcare professional.