



# Is it Anxiety or My Marijuana Use?

*Substance Misuse Prevention Newsletter: A Collection of Readings*

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## Consequences of Use

Over time marijuana has become stronger, leading to more concerns around the negative implications it may have on both the mind and body (National Institute on Drug Abuse [NIDA], 2012).

**Mind** - Marijuana affects the brain in a multitude of ways, but some consequences of use include anxiety, fear, distrust, panic, memory impairment, tachycardia, impaired coordination and reaction time, and hallucinations (NIDA, 2012). All of which can heighten symptoms of *anxiety*.

**Developing Brain** – Brain development continues through ones early to mid 20's, which makes this age group especially susceptible to drug induced brain changes (American Psychological Association [APA], 2018). These changes may include both structural and functional abnormalities in the brain (Kaliszewski, 2019).

**Body** – Physical risks may include respiratory illnesses, increased risk of myocardial infraction secondary to tachycardia and lower birth weight in infants of mothers who use marijuana (NIDA, n.d.)

### Articles & Video on the Effects of Marijuana:

[NIDA Marijuana Facts](#)

[NIDA Article & Videos on Marijuana](#)

[Ted Ed Video on how Marijuana Impacts the Brain](#)

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University Health and Counseling Services

## Definition and Prevalence of Anxiety

Anxiety is described as persistent worry and tension that may induce debilitating mental and biophysical changes in the body (American Psychological Association, 2019). Specific symptoms of anxiety may include trouble concentrating, tachycardia, disordered sleep, paresthesia's, persistent worry and more (Healthline, 2018). According to The American Institute of Stress (2019), in 2017 three out of four college students reported having experienced "overwhelming anxiety". Furthermore, a national survey of 33,000 college students found that 34% of the total sample screened positive for an anxiety disorder (The Healthy Minds Study, 2020). College students may be especially prone to developing symptoms of anxiety as they navigate the stressful transition from adolescence to the independence of young adulthood (The American Institute of Stress, 2019).

### Articles on Anxiety:

[Anxiety in College Students](#)

[The Healthy Minds Study](#)

[General Overview of Anxiety](#)

## How are Marijuana and Anxiety Connected?

Many individuals are under the impression that marijuana can help to alleviate symptoms of anxiety. However, there is little evidence supporting the use of marijuana in the treatment of anxiety (Verywellmind, 2020). Ironically, marijuana may actually increase heart rate, thus increasing symptoms of anxiety instead of decreasing them (Verywellmind, 2020). THC seems to be the underlying culprit behind the worsening of anxiety related symptoms, like an increase in heart rate and racing thoughts (Raypole, 2019). Over time, someone may come to rely on marijuana to cope with anxiety, which consequently leads to an increase in use in order to get the same effect (Stoner, 2017). This need to increase use more to achieve the same affect is called tolerance. With increasing tolerance comes an increased risk of dependence and rebound anxiety when someone ceases use (Stoner, 2017). In essence, marijuana is not a long-term solution as it poses health risks and does not alter the root cause of the anxiety (Raypole, 2019).

## Anxiety as an Overdose Symptom?

Individuals can overindulge in marijuana leading to an overdose. Edibles are often accidentally consumed in excess. Edibles take more time to produce a “high” often resulting in individuals consuming too many too quickly (National Institute on Drug Abuse, 2018). This can lead to a marijuana overdose. Symptoms of an overdose may include anxiety, panic, nausea, vomiting, hallucinations, increased blood pressure, and tachycardia (Centers for Disease Control and Prevention, 2018).

## How to Reduce Risk

- Know what is in your marijuana. Marijuana can be laced with dangerous and even lethal substances
- Take steps to cut down on the frequency and quantity of your use
- Avoid using marijuana while driving or operating other machinery
- Avoid combining marijuana with other substances
- Monitor your use and how it impacts your ability to function
- Abstain from use before classes, work or other important obligations



## Benefits of Abstaining from Marijuana & How these Relate to Anxiety

### Decreased Risk of Mental Health Conditions

Not only is anxiety an acute side effect of marijuana use, but there have been connections between the development of *anxiety*, depression, and suicidal ideation amongst adolescents (NIDA, 2012). Additionally, early marijuana use may make some more vulnerable to potentially developing a psychotic disorder (NIDA, 2012). Limiting or avoiding marijuana use may reduce one’s risk of developing these mental illnesses.

### Improved Memory

Marijuana can impede memory by changing how the Hippocampus processes information (NIDA, 2012). When we reduce or eliminate use, we can restore our ability to retain information, thus improving our focus and likelihood of succeeding at school and work. When we are able to focus and achieve our goals, this may also reduce *anxiety* as we feel more in control of our life and the decisions we make.

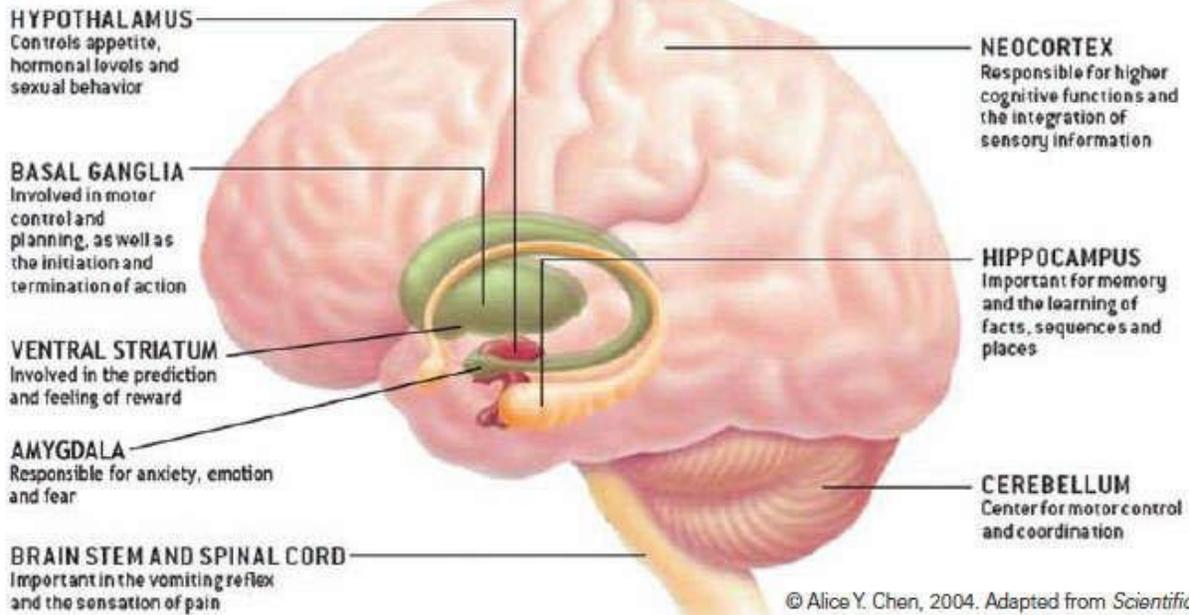
### Reduced Risk of Withdrawal

When an individual stops using marijuana after a long period of consistent use, they may experience withdrawal. Withdrawal symptoms can be distressing and include irritability, disruptions in sleep, cravings and *anxiety* (NIDA, 2012). Either abstaining or limiting marijuana use can help to prevent the onset of withdrawal.

### Improved Physical Health

As mentioned above, there can be many health-related implications related to marijuana use. Additionally, misuse of marijuana can cause an overdose resulting in a very scary trip to the emergency department. When we experience any sort of health crisis this can exacerbate *anxiety* and impede one’s ability to function in daily life. Abstaining from marijuana not only enhances physical wellbeing, but it can also prevent mental and functional instability.

## Marijuana's Effects on the Brain



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When marijuana is smoked, its active ingredient, THC, travels throughout the body, including the brain, to produce its many effects. THC attaches to sites called cannabinoid receptors on nerve cells in the brain, affecting the way those cells work. Cannabinoid receptors are abundant in parts of the brain that regulate movement, coordination, learning and memory, higher cognitive functions such as judgment, and pleasure.

For comments on this newsletter or suggestions for future articles please contact: Diane Geyer, LCPC, LADC, CCS, NCC~ Clinician and Coordinator of Clinical Substance Use Services at USM or Jillian Littlefield, RN and Graduate Assistant ~ Email: [diane.geyer@maine.edu](mailto:diane.geyer@maine.edu), [jillian.littlefield@maine.edu](mailto:jillian.littlefield@maine.edu)