

Before reading, define the following words.

- Neuron
- Neurotransmitter
- Dependency
- Adolescent
- Dopamine

**What do you already know about marijuana or cannabis?**

**Why do you suppose marijuana usage has become more accepted and mainstream over the last decade?**

## Think About It

- **How is marijuana usage portrayed in your school? Community? Family**
- **How can drug use and addiction affect the lives of not only the users, but also those who love and care about them?**
- **According to the CDC, ‘Research shows that about 1 in 6 teens who repeatedly use marijuana can become addicted, which means that they may make unsuccessful efforts to quit using marijuana or may give up important activities with friends and family in favor of using marijuana’ Even as some teens and adults have experienced this problem or know of someone who has, many still argue that marijuana is not addictive. Why do you suppose people do not want to acknowledge the addictive quality of marijuana?**

# **Marijuana — is the high worth the hazard?**

Over the past few years, the debate over both the recreational and medicinal

**1** use of marijuana has intensified. Many consumers argue that marijuana usage is more “natural” and anxiety reducing than other mind-altering, yet more mainstream, chemicals such as alcohol. With the recent legalization in many states, marijuana usage has become quite common. Many adolescents and adults combined are unaware of the risks associated with marijuana usage. Although the argument against the addictive nature of cannabis has been circling for decades, scientists have discovered alarming facts when it comes to the misuse of the plant, the dangers to the adolescent brain, and just how difficult breaking the habit can truly be.

### **What is Marijuana?**

**2** Marijuana is actually made from the dried flowering, stems, seeds, and leaves of a plant called Cannabis Sativa. Recent medical research has shown that some components of the plant may be useful in treating pain, inflammation, and other chronic conditions. However, CBD - the portion of the plant used to treat such issues, is only one in 120 or more substances found within marijuana.

**3** A primary component of the plant, delta-9-tetrahydrocannabinol (more commonly referenced as THC), is actually notorious for its mind-altering capabilities. THC reacts with specific brain receptors and causes changes in mood, the possibility of suicidal thoughts, and the disruption of normal learning abilities. This is the same substance that increases appetite (known as “the munchies”) and may also lead to dependency. When a person smokes marijuana, THC is absorbed through the bloodstream and reaches the brain quickly - actually within a matter of minutes. THC acts as a neurotransmitter and sends chemical messages between neurons within the nervous system. These are the neurotransmitters that affect concentration, memory, coordination, perception of time, and more. These effects alone make it quite dangerous for a person who has smoked marijuana to drive, engage in physical venture (such as sports), and try any risky activity in general.

**4** By consuming marijuana, the THC within the plant can also lead to the release of dopamine in the brain. Dopamine is a chemical released by the neurons that deals with pleasure. It is what gives a person who has recently smoked marijuana the feeling of elation, euphoria, or relaxation. On the other hand, the brain can also be stimulated to send and receive altered messages about sensory perception. Sometimes, a marijuana user can experience feelings of paranoia, intensified emotions, and distorted feelings of time and space.

**Is it really that risky?**

**Many adolescents and adults alike argue that marijuana is as simple as**

**5** having a glass of wine before bed to relax. However, the frightening aspects of marijuana come into play when one realizes that the effects of most of the 120 components found in marijuana are unknown.

**6** Since several states have legalized the use of recreational marijuana for adults, many teenagers do not understand the extremely dangerous consequences of using the drug while their brain is still developing. Even though there are strict age limits to the purchase and use of recreational marijuana in the states where it has become legalized, many people worry that the legalization will make it easier for minors to obtain. Heavy use of marijuana during teenage years typically yields poor school performance, lethargy, an increased chance of dropping out of school, greater unemployment rates (most jobs require a drug test), and even lower satisfaction with life outcomes in general.

**7** However, there are more specific, biological results that prove to be quite alarming when viewing ways in which marijuana affects the teenage user. Until around the mid-20's, the brain is still very much "under construction." When young people choose to use marijuana, they are **actually choosing to disrupt the regular functions and formations of their brains.** A team of researchers from Duke University found startling results that adolescents who regularly use marijuana suffered from a decline in IQ. The portion of the brain responsible for decision making, impulse control, and emotions appears to be the most affected by marijuana use in young people. Stated simply, adolescents who use marijuana are putting themselves at risk of damaging portions of their brains that allow them to think rationally, control their emotions, and even focus.

**8** At this time, researchers are in the early phases of discovering exactly how marijuana impacts both the adolescent and the adult brain. Currently, initial studies have indicated that marijuana consumption in teenagers yields various negative results from sexual dysfunction to gum disease or even acute memory loss.

**8** How common is the issue?

**9** Few would argue that interest in marijuana is growing like a "weed". As recently as 2017, almost 1 in every 15 high school seniors reported regularly using marijuana. Some people list things like anxiety reducing, stress relieving, or even recreation as the reasons why they use marijuana in some form. Still, some cite peer pressure, the normalization of the drug within their own home, and even curiosity as the reason behind why they consume marijuana.

Others use the substance to treat a variety of issues such as chronic pain, glaucoma, anorexia, or insomnia. No matter the excuse given for

**10** consuming the plant, statistics reveal that teenage marijuana use is at its highest level in nearly three decades. Today, teenagers report that they are more inclined to use marijuana rather than smoke cigarettes. Many teenagers claim that using marijuana is not addictive and/or it doesn't affect them. Science has actually disproved both of these arguments. There is even a direct correlation between marijuana use and the likelihood of a person to try other illicit drugs.

Adolescents don't always see the hype behind why adults, teachers,

**11** parents, or guardians discuss the dangers of using marijuana. One may think: a marijuana overdose doesn't kill a person, and aren't adults just **exaggerating the hazards of the drug**? Although many teens may try the drug and not experience a life-changing outcome, is it really worth the huge social, emotional, legal, and biological risk to find out?



**Read each question and answer choice carefully. Circle the correct answer.**

1. **What is the most likely reason that the author chose to end the selection with rhetorical questions?**
  - A. **To enhance the reader's sense of curiosity toward the medicinal benefits of cannabis**
  - B. **As a means to establish credibility and increase reliability**
  - C. **To persuade the reader into considering the threat imposed by marijuana**
  - D. **As a way to introduce an additional concept to the argument**
  
2. **How does the author unfold her argument?**
  - A. **By recounting scientific research which focuses on statistics and surveys**
  - B. **By introducing historical information that correlates with the central claim**
  - C. **By appealing to the reader's emotions to force a connection between writer and reader**
  - D. **By reinforcing the idea that marijuana has medicinal benefits**
  
3. **Which of the following is an objective summary of the text?**
  - A. **Statistics are proving that teenage marijuana use is at an all time high.**
  - B. **Smoking marijuana has proven to lead many toward other illicit drugs.**
  - C. **The after effects of smoking marijuana are frightening and can easily be avoided by, "just saying no".**
  - D. **Marijuana has medicinal benefits, but other compounds in the drug have negative biological effects.**
  
4. **How does the counterpoint in paragraph 2 reinforce the central claim?**
  - A. **The fact that researchers have proven the positive effects of cannabis highlights the writer's notion that marijuana is misused.**
  - B. **The statistic below the counter point leads the reader to infer that the bad outweighs the good.**
  - C. **The idea pushes the reader to see how there is evidence that researchers need to spend more time implementing medicinal, clinical trials with cannabis.**
  - D. **The notion introduces readers to the idea that research on marijuana is often biased and therefore will never yield positive results.**

5.

What can be inferred by the author's focus on scientific research?

- A. The author believes that scientists have exaggerated their findings.
- B. The author thinks that scientists have spent too much time focusing on the medicinal treatments offered from CBD.
- C. The author believes that marijuana usage is only a minor problem hyped by adults who do not really understand the data.
- D. The author thinks that marijuana use is far too normalized and should be viewed as being more dangerous than it is.

6.

What is the effect of the simile in the last paragraph?

- A. It acts as both a simile and a paradox as it forces the reader to see the connection between the "natural" and the unnatural effects
- B. It acts as both a simile and a pun as it combines formal language with slang terminology to form a connection with the reader.
- C. It acts as a bridge between chronological history and informed suggestions to add credibility.
- D. It acts as a reminder to young people to consider the scientific evidence before experiencing the bandwagon effect.

7.

Which of the following accurately describes the author's attitude toward the subject?

- A. Incessant
- B. Troubled
- C. Satisfied
- D. Irritated



8. What is the significance of the following statement: "Today, teenagers report that they are more inclined to use marijuana rather than smoke cigarettes."
- A. It implies that marijuana use is more commonly accepted.
  - B. It indicates that teenagers do not understand the harsh effects of the drug.
  - C. It shows that Nicotine is not nearly as addictive as cannabis.
  - D. It displays the ignorance of teenagers toward the biological hazards of smoking cigarettes.

# WRITE About It

Consider each question below. Use information from the article, observations from your own life, and any additional outside sources to fully answer the question. Utilize correct spelling, punctuation, and grammar in your response.

How does the media's portrayal of marijuana influence teenagers?

Explain the science behind why marijuana use could become addictive to many users.

Why should a student athlete be particularly adamant about avoiding marijuana use?



