Marijuana Before, Marijuana Now

The gradual legalization of marijuana has produced many changes. Scientists are able to study the drug and its effects more easily, which will inform and educate Americans in the coming decades. However, with legalization, manufacturers can now make the drug exponentially stronger. In the 1970s, THC—the psychoactive ingredient—was normally about 3%, whereas now it can be anywhere between 12% to 30%. Oil that you rub on your skin can have up to a 100% THC level. Levels this high are extremely dangerous. They can cause psychotic events and permanent mental damage.

Brain Health

The Center for Disease Control and Prevention found that using marijuana affects your brain directly. Use of cannabis can damage the parts of your brain that hold memories and help you to learn. In addition, cannabis use can affect your ability to:

- Make decisions
- Regulate your emotions
- React quickly
- Coordinate your limbs

In addition to your learning, memory, and attention being damaged after using cannabis, the brain cannot necessarily recover after you stop using it.

Emerging Studies

A study conducted over 25 years, tracking individuals until mid-adulthood, found that exposure to cannabis was associated with lower scores on verbal memory. This study controlled for other factors including other drug use, alcohol abuse, and other psychiatric illnesses.
Another longitudinal study found that adults who used marijuana frequently in adolescence was associated with a loss of an average of six to eight IQ points measured in adulthood. Quitting use of marijuana in adulthood did not recover the lost IQ points\(^2\).

A study in 2014 found that adolescents who smoked marijuana even occasionally may be changing the brain function in areas related to emotional processing and regulation, motivation, rewards, addiction, and forming long-term memories. This casual use affected the nucleus accumbens and the amygdala in density, volume and shape\(^4\). These are two fundamental, delicate parts of the brain\(^3\).

In animal studies, exposure to THC—the main chemical found in marijuana—during adolescence, showed cognitive impairment in adult rats\(^2\).

**Poor Academic Outcomes**

So, what happens when young people in school use marijuana?

Several studies have shown that the more frequently students use marijuana, the outcomes become negative:

- their GPA drops
- they skip more classes
- they take longer to graduate\(^5\)

Because the brain continues to develop until the mid-twenties, it can be more dangerous to begin smoking marijuana early than if you begin smoking as an adult.