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The Teen Brain and Marijuana

According to the *National Institute on Drug Abuse*, marijuana is the most commonly used and abused substance among teens, with the exception of alcohol. Emerging research about marijuana suggests that the drug may have far more powerful effects on the teenage brain than on that of an adult.

Risks to teens that use marijuana include, but are not limited to:

- Twice as likely to cause depression or anxiety problems;
- Smoking marijuana three or more times a week is more likely to cause suicidal thoughts among 12-17 year-olds;
- Increased risk for schizophrenia and other mental health disorders later in life.

One reason for the above evidence is the teen brain is not fully developed. Marijuana affects both the amygdala and the hippocampus, which are both part of the limbic system in the brain. A teens brain is underdeveloped and often causes has highly developed emotions the prefrontal cortex that controls judgment. For this reason, teens may make decisions based on emotion rather than rational thought. Teens who use marijuana may have a harder time making rational decisions due to the affects that tetrahydrocannabinol (THC), the main ingredient in marijuana, has on the amygdala.

Apart from mental health issues, marijuana can also affect teens learning and memory. This disruption happens in the hippocampus, part of the brain that is critical to learning. This can impact studying, learning new things, and recalling recent events. Though it has not been scientifically proven in humans, laboratory studies show that this damage is permanent.

According the *National Center on Addiction and Substance Abuse* at Columbia University, “Parents are the single most important influence on children’s decision to smoke, drink, or use drugs, yet many parents do not fully understand the extent of their influence”ⁱ. For tips on how to talk to your teen about marijuana, visit: [Parents: the Anti-Drug](#) or [Time to Talk](#) . For tips on how to help a young person who is already using marijuana, go to [Time to Act](#) or call the Denver Office of Drug Strategy at 720-944-2972. For more information on the impact that parents and other adults have young people, you can download the 2008 Parents Attitude Tracking Survey (PATS) from Partnership for a Drug Free America by [clicking here](#).

ⁱ The National Center on Addiction and Substance Abuse (CASA) at Columbia University. (2001b). Malignant Neglect: Substance Abuse and America’s Schools.