



Renz Addiction Counseling Center  
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### Effects of Cannabis on the Adolescent and Young Adult Brain: Why We Need to Intervene

Throughout adolescence and going into young adulthood, a profound amount of development occurs within the human brain. The brain of adolescent and young adults has a lot of developing to do, transforming from the brain of a child into the brain of an adult. Research has shown that the brain continues to mature and develop until approximately the age of 25 years. Marijuana use among adolescents and young adults has the potential to greatly affect this crucial process. As the rate of marijuana use among teens rises, so has the potency of marijuana, making it crucial to raise awareness and educate individuals as to the effects that marijuana can have on the growing adolescent brain. Marijuana being smoked today is much more potent than it was in the 1970s, with far higher levels of THC, the main mind-altering ingredient. With this being said, the higher the THC levels and frequency of use, the more disruption in development and changes occur to brain, in addition to placing teens at higher risk for addiction.

In a recent federally sponsored survey, results indicated that 60 percent of high school seniors reported they think marijuana is safe, and 23 percent reported that they have used marijuana in the past month, more than those who used alcohol or smoked cigarettes. In addition, six percent of high school seniors reported they use pot every day, which is triple the rate over the past decade. A growing number of studies that show regular marijuana use, consisting of once a week or more, can alter, impair and interfere with several areas of the teenage brain. Excessive and/or prolonged exposure to THC disrupts development of the communication system between brain cells and has the ability to cause injury and/or death of brain cells.

Disruption of communication between brain cells, targeting the area of the brain responsible for memory formation and problem solving can cause short and long term effects for the using individual. Learning, behavior and coordination, emotions, memory and intelligence are all affected when an individual continues to use marijuana. Marijuana use has been shown to negatively affect ones school performance and IQ (even into adulthood), driving ability, it also has the potential to be a gateway in relation to the use of other substances and can increase the risk for mental health problems. Marijuana use among teens doubles the risk of developing symptoms of depression and anxiety, has the potential to make the using individual three times as likely to have suicidal thoughts as compared to peers who do not smoke marijuana, as well as can create an increased risk of developing schizophrenia in later teen years. The risk for developing serious mental health problems, such as psychosis, schizophrenia, anxiety and depression is 2 to 5 times greater for individuals who start using marijuana before the age of 16 years. In all, continued exposure and use of marijuana among adolescents and young adults

generates effects that are often times life-long. The rate at which teens are using marijuana continues to rise, making it crucial to intervene, educate and raise awareness on the numerous effects that marijuana use can have on the adolescent and young adult population.

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