

Marijuana's Impact on Mental Health and Learning

■ Mental Health

- Since 2002, almost a dozen studies have shown that regular use of marijuana carries a significant increased risk of developing psychotic illnesses like schizophrenia.
- A study by Northwestern University has shown that teens who were heavy marijuana users – smoking it daily for about three years – had “marijuana-related brain abnormalities that were correlated with a poor working memory performance and look similar to schizophrenia-related brain abnormalities.”¹
- Young adults who used marijuana only recreationally showed significant abnormalities in two key brain regions that are important in emotion and motivation.²
- A recent study in 2012 found that those who used cannabis heavily in their teens and continued through adulthood showed a permanent drop in IQ of 8 points.³
- Studies have shown that people who are smoking strong, high-potency marijuana triple their likelihood of having psychosis later in life. Those who smoked high-potency pot daily had a fivefold increased risk of developing psychosis.⁴
- Use of marijuana in adolescence has been correlated with the development of suicidal ideation, certain personality disorders and interpersonal violence.⁵

■ Learning

- Compared with their peers who don't use, students who smoke marijuana tend to get lower grades and are more likely to drop out of high school.⁶
- The use of marijuana impacts working memory, the ability to transiently hold and process information for reasoning, comprehension and learning.⁷
- Youth with an average grade of D or below were more than four times as likely to have used marijuana in the past year than youth with an average grade of A.
- College students who smoked marijuana regularly skip more classes, spend less time studying, earn lower grades, had a higher college dropout rate and more were unemployed after college.⁸
- Marijuana continues to negatively affect attention span, memory, learning, and intelligence after the intoxicating effects of the drug have subsided.⁹

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Drug Free Action Alliance

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Drug Free Action Alliance is a statewide, 501(c)(3) non-profit charitable organization founded in 1987. We deliver up-to-date information and develop initiatives that serve the immediate needs of those working to prevent substance abuse throughout the State of Ohio and beyond.

While young people are our primary target population, we also engage in efforts to promote healthy lifestyles for all Ohioans. We form partnerships with businesses, community members, substance abuse prevention professionals, policy makers, law enforcement, school personnel, and, most importantly, parents.

- 1 Smith M, Csernansky J, Cobia D, et.al, "Cannabis-Related Working Memory Deficits and Associated Subcortical Morphological Differences in Healthy Individuals and Schizophrenia Subjects, Schizophrenia," Schizophrenia Bulletin, Volume 40 Issue 2, pp. 287-299.
- 2 Jodi M. Gilman, John K. Kuster, et. al. "Cannabis Use is Quantitatively Associated with Nucleus Accumbens and Amygdala Abnormalities in Young Adult Recreational Users." Journal of Neuroscience, April 16, 2014.
- 3 Meier, M.H., Caspi, A., et al. "Persistent Cannabis Users Show Neuropsychological Decline from Childhood to Midlife." October 2012. <http://www.ncbi.nlm.nih.gov/pubmed/22927402>
- 4 <http://www.sciencedirect.com/science/article/pii/S2215036614001308>
- 5 Copeland J, Rooke S, Swift W. Changes in Cannabis use among young people: Impact on mental health. Curr Opin Psychiatry 2013; 26:325-329.
- 6 National Institute on Drug Abuse, <http://www.drugabuse.gov/publications/marijuana-facts-teens/some-things-to-think-about>, July, 2013
- 7 Cell Press. "How marijuana impairs memory." ScienceDaily. ScienceDaily, 1 March 2012. <www.sciencedaily.com/releases/2012/03/120301143424.htm>.
- 8 Arria A, Caldeira, K., et. al "The Academic Opportunity Costs of Substance Use During College." University of Maryland School of Public Health, May 2013.
- 9 Hall, W., and Degenhard L. Adverse Health Effects on Non-Medical Cannabis Use. October 2009. <http://www.ncbi.nlm.nih.gov/pubmed/19837255>