

Vermont is ranked as one of the healthiest states, but Vermonters have one of the highest prevalence of marijuana use.ⁱ This is an unhealthy trend, especially for teens. Marijuana use changes teens' brains, bodies, and behaviors. Help us work to ensure Vermont teens have safe, healthy and successful futures!

Safety & Impairment

Marijuana use limits judgment and self-control. This may lead to poor decisions and risky behavior.

- Heavy marijuana use is linked to an increased risk for motor vehicle crashes.ⁱⁱ
- Nationally, in 2011, 57% of Emergency Department visits for illicit drug use among 12-24 year olds involved marijuana.ⁱⁱⁱ

Health

Marijuana use damages both the brain and body in a way that can make problems for them now and in the future.

- Studies indicate that problems with attention, learning, memory and the ability to quickly process information can be associated with heavy marijuana use during adolescence.^{iv v}
- The amount of tar inhaled by marijuana smokers and the level of carbon monoxide absorbed are three to five times greater than from tobacco smoke.^{vi}
- Marijuana contains more cancer-causing chemicals than tobacco.^{vii}
- Using marijuana weekly or more often has also been associated with doubling a teen's risk for depression or anxiety.^{viii ix}

Future Success

Marijuana use keeps teens from doing their best in school, at work, and in learning new skills. This affects them for the rest of their life.

- Marijuana use in teens has been linked to lower academic performance and worse job prospects.^x
- Heavy marijuana users experience attention and memory problems that last beyond the time when they are high. Studies indicate these problems can worsen with years of regular use.^{xi}
- For individuals who began smoking marijuana as adolescents, continued regular use of marijuana has been shown to lead to a decrease in IQ 20 years later.^{xii}

Addiction

Teens who use marijuana are at greater risk for addiction.

- Research has established that marijuana is addictive, and that it is three times more likely to lead to dependence among adolescents than adults.^{xiii}
- The earlier a person starts using marijuana, the greater the risk of developing chemical dependence. For example, about one in six of those who start using marijuana before age 14 develop addiction.^{xiv}
- In State Fiscal Year 2014, 1,302 Vermonters were treated for marijuana dependence at state-funded treatment facilities.^{xv}

Perception of Harm

Today's marijuana is more harmful. It is stronger than in the past, contains dangerous chemicals, and can be laced with other drugs.

Teens who use marijuana can't know for sure what they are putting into their bodies and how it will affect them. This is a concern because the percentage of Vermont students who think youth their age risk great harm from smoking marijuana regularly is trending downward.

- Today's marijuana is far more potent: The average THC content in marijuana has risen from under 4% in 1983 to more than 17% in 2015 (in Colorado).^{xvi}
- Greater marijuana potency can increase the risk of unexpected medical complications.^{xvii}

ⁱ Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2011 and 2012.

ⁱⁱ Ashbridge, M. & Hayden, JA (2012) Acute Cannabis Consumption and Motor Vehicle Collision Risk: Systematic Review of Observational Studies and Meta-analysis. *British Medical Journal*, 344:e356.

ⁱⁱⁱ Substance Abuse and Mental Health Services Administration, *Drug Abuse Warning Network, 2011: National Estimates of Drug-Related Emergency Department Visits*. HHS Publication No. (SMA) 13-4760, DAWN Series D-39. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013

^{iv} Meier, MH et. al (2012) Persistent Cannabis Users Show Neuropsychological Decline from Childhood to Midlife. *Proceedings of the National Academy of Sciences*. 109(40) e2657-e2664.

^v Jacobus, J., Bava, S. et. al. (2009) Functional Consequences of Marijuana Use in Adolescents. *Pharmacology, Biochemistry and Behavior* 92(4).

^{vi} Drugs and Human Performance Fact Sheets - Cannabis / Marijuana (D 9 - Tetrahydrocannabinol, THC). National Highway Traffic Safety Administration, n.d. Accessed at: <http://www.nhtsa.gov/people/injury/research/job185drugs/cannabis.htm> .

^{vii} The British Lung Foundation (2012) *The Impact of Cannabis on Your Lungs*. Accessed at: <http://www.blf.org.uk/Files/8ec171b2-9b7e-49d9-b3b1-a07e00f11c05/The-impact-of-cannabis-on-your-lungs---BLF-report-2012.pdf>

^{viii} Hayatbakhsh, M.R. et al. (2007) Cannabis and anxiety and depression in young adults: A large prospective study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 46(3):408-17.

^{ix} Patton, GC et al. (2002) Cannabis use and mental health in young people: cohort study. *British Medical Journal*, 325:1195-1198.

^x Meier, MH et. al (2012) Persistent Cannabis Users Show Neuropsychological Decline from Childhood to Midlife. *Proceedings of the National Academy of Sciences*. 109(40) e2657-e2664.

^{xi} Solowij N, Stephens RS, Roffman RA, et al. (2002) Cognitive Functioning of Long-term Heavy Cannabis Users Seeking Treatment. *JAMA*, 287(9):1123-1131.

^{xii} Meier, MH, Caspi, A, Ambler, A, Harrington, H, Houts, R, Keefe, RSE, McDonald, K, Ward, A, Poulton, R, & Moffitt, TE (2012). Persistent cannabis users show neuropsychological decline from childhood to midlife. *Proceedings of the National Academy of Sciences*, published online August 27, 2012.

^{xiii} Gfroerer, JC, Wu, LT., & Penne, MA. (2002). Initiation of Marijuana Use: Trends, Patterns, and Implications (Analytic Series: A-17, DHHS Publication No. SMA 02-3711). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

^{xiv} Wagner, FA & Anthony, JC (2002) From first drug use to drug dependence; developmental periods of risk for dependence upon cannabis, cocaine, and alcohol. *Neuropsychopharmacology* 26(4), 479-488.

^{xv} Vermont Substance Abuse Treatment Information System (SATIS), 2005-2014
<http://healthvermont.gov/adap/treatment/documents/data/totals/TotalTreatedbySAandFY.pdf>

^{xvi} Pacula, RL & Sevigny, EL (2014) Natural Experiments in a Complex and Dynamic Environment: The Need for a Measured Assessment of the Evidence. *Journal of Policy Analysis and Management*, 33, 232-235.

^{xvii} Mehmedic Z, et al (2010) Potency Trends of r9-THC and Other Cannabinoids in Confiscated Cannabis Preparations from 1993 to 2008. *Journal of Forensic Science*, 55(5):1209-17.

Adapted from the State of Maine Office of Substance Abuse and Mental Health Services "5 Key Messages about Marijuana and Tips for Talking to Your Teen" <http://maineparents.net/TeensandMarijuana/index.htm>