

1. **Marijuana usage as measured in roadside testing shows Marijuana is in the blood stream of 12.6% of weekend nighttime drivers aged 16 and over.**

The use and co-use of alcohol and drugs has been associated with impairment of psychomotor and cognitive functions while driving.

A national roadside survey using biochemical specimens among drivers aged ≥ 16 years found that during 2013–2014, the percentages of weekend nighttime drivers who tested positive for alcohol, marijuana and illicit drugs were 8.3%, 12.6%, and 15.1%, respectively.

https://www.cdc.gov/mmwr/volumes/68/wr/mm6850a1.htm?s_cid=mm6850a1_w

2. **Those with the chemical THC, from Marijuana, in their blood streams are 3-7 times more likely to be responsible for a crash than those who are clean and sober.**

Surveys that established recent use of cannabis by directly measuring THC in blood showed that THC positives, particularly at higher doses, are about three to seven times more likely to be responsible for their crash as compared to drivers that had not used drugs or alcohol.

Ramaekers JG, Berghaus G, van Laar M, Drummer OH. Dose related risk of motor vehicle crashes after cannabis use. *Drug Alcohol Depend.* 2004;73(2):109-119.

3. **Marijuana is addictive to 9% of adults and 17% of teens.**

Marijuana use disorder becomes addiction when the person cannot stop using the drug even though it interferes with many aspects of his or her life. Studies suggest that 9 percent of people who use marijuana will become dependent on it, rising to about 17 percent in those who start using in their teens.

Anthony JC, Warner LA, Kessler RC. Comparative epidemiology of dependence on tobacco, alcohol, controlled substances, and inhalants: Basic findings from the National Comorbidity Survey. *Exp Clin Psychopharmacol.* 1994;2(3):244-268. doi:10.1037/1064-1297.2.3.2444.

4. **4 million people in the United States are considered dependent or addicted.**

In 2015, about 4.0 million people in the United States met the diagnostic criteria for a marijuana use disorder; 138,000 voluntarily sought treatment for their marijuana use.

Lopez-Quintero C, Pérez de los Cobos J, Hasin DS, et al. Probability and predictors of transition from first use to dependence on nicotine, alcohol, cannabis, and cocaine: results of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). *Drug Alcohol Depend.* 2011;115(1-2):120-130. doi:10.1016/j.drugalcdep.2010.11.004

5. **Marijuana use among teenagers is growing steadily.**

In 2016, 9.4 percent of 8th graders reported marijuana use in the past year and 5.4 percent in the past month (current use). Among 10th graders, 23.9 percent had used marijuana in the past year and 14.0 percent in the past month. Rates of use among 12th graders were higher still: 35.6 percent had used marijuana during the year prior to the survey and 22.5 percent used in the past month; 6.0 percent said they used marijuana daily or near-daily

Johnston L, O'Malley P, Miech R, Bachman J, Schulenberg J. *Monitoring the Future National Survey Results on Drug Use: 1975-2018: Overview: Key Findings on Adolescent Drug Use*. Ann Arbor, MI: Institute for Social Research, The University of Michigan; 2018.

6. Medical emergencies related to Marijuana have also increased.

The Drug Abuse Warning Network (DAWN), a system for monitoring the health impact of drugs, estimated that in 2011, there were nearly 456,000 drug-related emergency department visits in the United States in which marijuana use was mentioned in the medical record (a 21 percent increase over 2009). About two-thirds of patients were male and 13 percent were between the ages of 12 and 17.

Center for Behavioral Health Statistics and Quality (CBHSQ). *Drug Abuse Warning Network: 2011: Selected Tables of National Estimates of Drug-Related Emergency Department Visits*. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2013.

7. Perhaps, Medical emergencies are increasing because the THC content in Marijuana is increasing.

In the early 1990s, the average THC content in confiscated marijuana samples was roughly 3.8 percent.

In 2014, it was 12.2 percent.

Now, the average marijuana extract contains more than 50 percent THC, with some samples exceeding 80 percent.

Mehmedic Z, Chandra S, Slade D, et al. Potency trends of Δ^9 -THC and other cannabinoids in confiscated cannabis preparations from 1993 to 2008. *J Forensic Sci.* 2010;55(5):1209-1217. doi:10.1111/j.1556-4029.2010.01441.x

8. Marijuana use causes memory loss, impaired thinking and interferes with a person's ability to learn and perform complicated tasks. The loss can be as high as 6-8 permanently lost IQ points for persistent cannabis users.

In a study of 1,037 individuals followed from birth (1972/1973) to age 38, cannabis usage was ascertained in interviews at ages 18, 21, 26, 32 and 38 years old. IQ testing was conducted at each of these stages.

Persistent cannabis use was associated with neuropsychological decline broadly across domains of functioning, even after controlling for years of education. Informants also reported noticing more cognitive problems for persistent

cannabis users. Impairment was concentrated among adolescent-onset cannabis users, with more persistent use associated with greater decline. Further, cessation of cannabis use did not fully restore neuropsychological functioning among adolescent-onset cannabis users.

Study members with more persistent cannabis dependence showed greater IQ decline. For example, study members who never used cannabis experienced a slight increase in IQ, whereas those who diagnosed with cannabis dependence at one, two, or three or more study waves experienced IQ declines of -0.11 , -0.17 , and -0.38 Standard Deviation units, respectively. An IQ decline of -0.38 Standard Deviation units corresponds to a loss of ~ 6 IQ points, from 99.68 to 93.93.

Madeline H. Meier, Avshalom Caspi, Antony Ambler, HonaLee Harrington, Renate Houts, Richard S. E. Keefe, Kay McDonald, Aimee Ward, Richie Poulton, and Terrie E. Moffitt PNAS October 2, 2012 109 (40) E2657-E2664; <https://doi.org/10.1073/pnas.1206820109>

9. 48 Studies in New Zealand suggests that students who smoke marijuana have poorer educational outcomes than their nonsmoking peers.

For example, a review of 48 relevant studies found marijuana use to be associated with reduced educational attainment (i.e., reduced chances of graduating). A recent analysis using data from three large studies in Australia and New Zealand found that adolescents who used marijuana regularly were 1.5 to 2 times more likely than their non-using peers to drop out of high school and/or college.

They also had a much higher chance of developing dependence, using other drugs, and attempting suicide.

Silins E, Horwood LJ, Patton GC, et al. Young adult sequelae of adolescent cannabis use: an integrative analysis. *Lancet Psychiatry*. 2014;1(4):286-293. doi:10.1016/S2215-0366(14)70307-4

10. Several studies have also linked heavy marijuana use to lower income, greater welfare dependence, unemployment, criminal behavior, violence being inflicted on the user and lower life satisfaction.

Brook JS, Lee JY, Finch SJ, Seltzer N, Brook DW. Adult work commitment, financial stability, and social environment as related to trajectories of marijuana use beginning in adolescence. *Subst Abuse*. 2013;34(3):298-305. doi:10.1080/08897077.2013.775092

McCaffrey DF, Pacula RL, Han B, Ellickson P. Marijuana Use and High School Dropout: The Influence of Unobservables. *Health Econ*. 2010;19(11):1281-1299. doi:10.1002/hecl.1561