

Marijuana's Effects on Youth, Safety, and Mental Health

New Research Keeps Revealing More Evidence of Harm

Effects on Youth:

A long-term and well controlled study⁵ found that people who started using marijuana during their early teens and continued to use persistently into adulthood lost as much as 10 points off their IQ scores by the time they reached their late 30s. The average IQ loss for heavy users was 8 points and for moderate users 6 points. Even light users showed some loss. Age of first use was a key factor. IQ level is directly associated with job success and income level.

An exhaustive meta-analysis in 2004⁶ examined forty-eight previous studies and found that marijuana use is consistently associated with reduced grades and a reduced chance of graduating from school.

Vermont has the highest prevalence of past-30-day marijuana use in the country, for all ages. 11% of our high-school students report using it 10 or more times in the past 30 days.

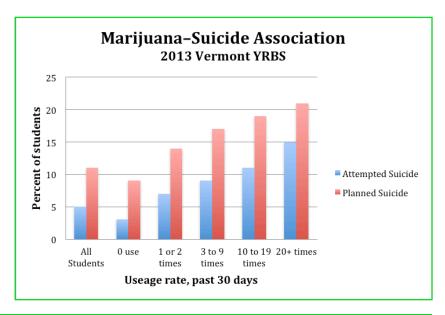
Highway Safety:

Marijuana doubles the risk of having an accident. While the extent and duration of marijuana impairment is still being investigated, it is clear that using marijuana – whether smoked or ingested – affects the driver's mental acuity in all of the areas involved in control of a motor vehicle.

- After the state of Colorado legalized medical marijuana, there was a significant increase in the proportion of drivers involved in fatal driving crashes who tested positive for marijuana⁷.
- In Vermont in 2014, there were only 44 traffic fatalities (the lowest since 1922). Six of these fatalities involved alcohol (4 alcohol only, 2 alcohol with a drug), while eight involved marijuana (5 marijuana only, 3 marijuana with another drug). This was first year on record in which marijuana was involved in more traffic fatalities than alcohol⁸.
- 16% of Vermont high-school students reported having driven while under the influence of marijuana in the past 30 days, and 23% reported riding as a passenger with a driver under the influence³.

Addiction:

About 1 out of every 11 people who use marijuana will become addicted to it at some point in their lives¹. That's 9%. One in 6 adolescents who use marijuana (17%) will become addicted to it; the risk lessens for people who begin using in their 20s, 30s, and so on. Heavy users (daily or near-daily use) have a dependence rate of 1 in 4, a full 25%. In addition to the cravings commonly





associated with addiction, some marijuana users also suffer the physical symptoms associated with *tolerance* (the need to use larger amounts and/or more frequently to achieve the same high) and *withdrawal* (negative physical, emotional, and behavioral symptoms that occur shortly after the user stops using). Tolerance and withdrawal are commonly labeled as *physical dependence* or simply *dependence*. They are the stepping stones to severe addiction.

Mental Health:

Marijuana use is strongly associated with several mental health disorders³. These include anxiety disorders, major depressive disorder, bi-polar disorder, anti-social disorder, obsessive-compulsive disorder, paranoia, and schizophrenia). Adolescent marijuana users, in particular, often show symptoms of anxiety, depression, PTSD, and ADHD, along with conduct disorders (which are considered a risk factor for heavy use).

- Approximately 33% of adolescents who use cannabis regularly exhibit anxiety, depression, or PTSD².
- Approximately 60% of adolescents who use cannabis regularly exhibit ADHD and/or conduct disorders².
- In Vermont, data from the 2013 Youth Risk Behavior Survey showed a direct relationship between the rate of marijuana use and the number of suicide attempts³.

A growing number of studies show that marijuana use not only worsens mental disorders, it causes them¹². A recent review of over 300 research articles concluded that "exposure to cannabinoids in adolescence confers a higher risk for psychosis outcomes later in life" and that, in people already afflicted with a mental health disorder, "cannabinoids can exacerbate symptoms, trigger relapse, and have negative consequences on the course of the illness."⁴

Increased Potency:

The marijuana available today is much stronger than the marijuana available in the 1960s through the 1990s. The main psychoactive component in marijuana is called THC (short for tetrahydrocannabinol). This drug matches natural cannabinoid receptors in the brain and creates the high that recreational users are after. In the 1960s, marijuana had an average potency of 1% THC. By 2007, the average potency had climbed to 12% THC, with some products reaching $30\%^{10,11}$, and it continues to rise as growers breed new varieties with ever higher concentrations of THC.

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