

Insights is published by ESS as a service for educational professionals. Each issue highlights an important research article and provides practical applications of the findings for the classroom and the school environment.

## The Impact of Marijuana Legalization on Students

The growing trend to legalize marijuana for medical and recreational use – over 50% of states so far - has both heightened and complicated the debate about marijuana's safety. While overall the research about whether marijuana use permanently alters the brain has yielded mixed results, scientists at the National Institute on Drug Abuse (NIDA) emphasize the growing evidence that early and frequent use by children and adolescents disrupts brain development. Since brain development continues into the mid-20's, America's students are particularly vulnerable to damage from drug exposure.

Most of the cannabinoid receptors are found in parts of the brain that affect mood regulation, memory, thinking, attention, sensory and time perception, balance, and coordinated movement. Effects on the hippocampus can disrupt studying, learning, and memory, while effects on the frontal cortex interfere with judgment, planning, and decision making. Sports and other physical activities such as driving and dancing are impacted by the drug's effects on the cerebellum and basal ganglia.

Survey data on whether teen use of marijuana has increased or decreased in states where the drug has been legalized are inconsistent. But the Drug Abuse Warning Network has reported a 61% increase in marijuana-related Emergency Room (ER) visits. A recent utilization study for one children's hospital in Colorado, where medical marijuana was legalized in 2009 and recreational use in 2012, revealed an increase from 161 marijuana-related ER visits for adolescents in 2005, to 777 visits in 2015.

So, while concerns about the damaging effects of teenage marijuana use continue to grow, fewer teens think marijuana is harmful given the success of legalization efforts. What can teachers do?

- Did you know that 420, 4:20, or 4/20 (pronounced four-twenty) is a code-term that refers to the consumption of marijuana, and as a way to identify oneself with the cannabis culture?

Observances include smoking cannabis at 4:20 in the afternoon, or on April 20<sup>th</sup>. As April approaches, alert parents, and pay particular attention to signs of marijuana use on April 20<sup>th</sup>.

- Inform students and parents that according to NIDA, 1 out of every 6 people who start using marijuana in their teens becomes addicted. Beyond addiction, marijuana has other possibly permanent effects on the brain: impaired short-term memory, slowed reaction time, altered judgment and decision-making ability, altered mood, and risk of psychosis in vulnerable individuals. At least one longitudinal study has shown that marijuana use during the teen years can permanently lower a person's IQ, with the heaviest users dropping up to 8 IQ points. Highlight areas of particular interest and value to each student – e.g., effects on coordination for athletes, musicians, and dancers.
- Some parents may be reluctant to speak to their teens because of their own histories or current use of marijuana. Remind them that pregnant women routinely drank alcohol, and many more people smoked cigarettes, before data emerged about the risks of these behaviors.
- Challenge the belief that marijuana is safer than alcohol, especially since marijuana potency, measured by average THC content, has steadily increased over the past few decades.
- Refer students and families to available student assistance resources, including ESS.

### RESOURCES:

<https://www.jesselewischooselove.org> (entire curriculum is free and can be accessed at this site)

<https://www.jesselewischooselove.org/choose-love-calendar/>

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