



It's a BIG DEAL

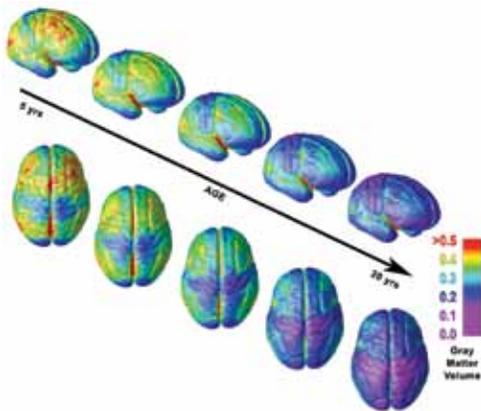
HOW MARIJUANA
HARMS YOUTH

The human brain isn't fully mature until roughly the age of 25. That means children and adolescents are in stages of brain growth and development that leave them especially vulnerable to problems caused by drug use, abuse and addiction.

When someone says it's not that big of a deal for kids to smoke a little weed, don't believe them. Marijuana is addictive, and 1 in 6 people who try it before the age of 18 develops a clinical diagnosis of marijuana abuse or dependence.

Marijuana use is a risk factor for:

- Poor school performance and dropout
- Risky sexual behavior resulting in disease transmission and teen pregnancy
- Aggression
- Anxiety
- Accidents causing death
- Psychosis



Source: Paul Thompson, Ph.D., UCLA School of Medicine

How the brain matures

The color blue indicates maturity. Other colors indicate immaturity. The part of our brain that craves pleasure matures much earlier than the area that controls our ability to understand risks and consequences.

The growing adolescent brain

In adolescence, the brain works hard to become more efficient. It prunes unnecessary synapses, or connections, and it myelinates, or grows little fat cells, to make nervous impulses travel more effectively. Studies show that drug use and abuse during this critically important phase of development can have negative, lifelong effects, including impaired cognition and memory.

The brain matures from the bottom up and from the back to the front. That's a pattern of development important to understand. Why? Because it means the parts of our brain that drive our desire to seek pleasure, rewards, thrills and adventure outpace development of the areas that are responsible for judgment and recognizing consequences.

In other words, the adolescent brain craves pleasure and doesn't know how to weigh risks or say enough is enough. That's why youth are more likely than adults to become addicted to drugs.



Today's marijuana is more potent

The marijuana smoked today is more addictive than ever. For decades, the level of tetrahydrocannabinol (THC), marijuana's active ingredient, averaged 2.3 percent. Today, marijuana's average THC level exceeds 8 percent — and often reaches 35 percent in certain hybrids. These high levels of THC typically result from marijuana growers' manipulation and modification of the plant — much like tobacco companies' manipulation of the nicotine content of cigarettes to make their products stronger.

Underscoring marijuana's potency and potential harmfulness to adolescents is this: abuse of the drug is the No. 1 reason why adolescents are admitted for substance-abuse treatment in the United States. Approximately 67 percent of adolescent admissions are for marijuana dependence, according to the Substance Abuse and Mental Health Services Administration. In Kansas, 78% of youth under the age of 18 who are admitted for substance abuse treatment are admitted for marijuana use.

How marijuana undermines student learning

Marijuana use has acute (meaning up to 6 hours), sub-acute (6 hours to 20 days) and long-term (more than 20 days) effects. So even if a youth isn't currently using the drug, his or her ability to learn and interact successfully at school could be compromised for extended periods of time.

If Teens Didn't Use Marijuana Before Age 18, There Would Be...

17% Fewer High School Dropouts

5% Fewer College Non-Attendees

3% Fewer College Dropouts

Source: Fergusson et al., 2010

Long-term, regular users who start smoking the drug before the age of 18 often develop changes in their brain's structure and functioning that result in permanent cognitive deficits. Essentially, they can create for themselves a level of "normal" performance that is at a lower functioning capacity than the level of normal performance they may have achieved had they not used marijuana. Deficits can be found even long after a person has stopped using the drug. For example, research has found that marijuana users experience a loss of verbal intelligence, which measures the ability to analyze information and solve problems using language.

Studies show that when marijuana users are intoxicated, their working memory is impaired, and they are more impulsive, less attentive, less motivated and slower to make decisions.

Marijuana users withdrawing from the drug are often aggressive and irritable, which can contribute to bad decision-making.

For adolescents, the impaired performance and decision-making that stem from marijuana use increase the risk of school dropout. A study published in 2010 that followed more than 6,300 New Zealand children to adulthood found that people who did not smoke marijuana before the age of 18 were nearly four times more likely to earn a high school degree and graduate from college than a person who started smoking before the age of 15.

What contributes to marijuana use?

Three Major Things:

- Availability of the drug
- Social norms surrounding the drug's use
- Perceived harmfulness of the drug

The more available a drug is, the more socially acceptable it is to use it, and the less harm the drug is perceived to have, the more likely teens are to use it.

The 2011 Monitoring the Future study, which surveyed 47,000 students in grades 8, 10 and 12, reported an increase in marijuana use among teens for the fourth straight year. This is in sharp contrast to the considerable decline that had occurred in the preceding decade. Daily marijuana use is now at a 30-year peak level among high school seniors, according to the survey. Compared to

adolescents in the previous year, youth surveyed in 2011 also reported that accessing marijuana has become easier, that they are less likely to disapprove of their friends' marijuana use and that marijuana is less harmful — including regular use.

It's also important to note that numerous studies show adolescents are especially influenced by media — and that marijuana is advertised in places youth often frequent, including thousands of online websites and alternative newspapers and magazines.

How to help prevent drug use & dependence in children

It's never too early to start having age-appropriate conversations with kids about drugs.

Elementary school students

Help them understand self-control and how to deal with their emotions positively. Help them understand how to solve social problems effectively. Provide academic support, especially with reading.

Middle school and high school students

Keep the lines of communication open, and periodically explain that drug use is unhealthy and unwise — and that it isn't allowed. Help children build self-esteem and self-confidence through good study habits and academic performance and through healthy, prosocial activities. Encourage them to build healthy, positive friendships, and remind them that not all kids try drugs.



Warning signs of a worsening problem

Marijuana use is rising

In 2012, 0.9 percent of 6th graders, 5.4 percent of 8th graders, 14 percent of 10th graders and 18.6 percent of 12th graders reported using marijuana at least once in the last month. Use has increased among Kansas' 10th and 12th graders since 2008, with only a slight drop in the 2012 data.

Perception of marijuana's harmfulness is decreasing

The percentage of students who believe there is "no risk" to using marijuana regularly increased from 2011 to 2012 in all age groups. Since 2008, there has been a 51 percent increase in the belief held by 6th, 8th, 10th and 12th graders that marijuana isn't harmful. According to the 2010 National Survey on Drug Use and Health, youth nationwide were less likely to perceive great risk for smoking marijuana than for other listed substances.

Friends who use marijuana

Increasing numbers of Kansas students report they have friends who smoke marijuana. The 2012 Kansas Communities That Care survey data indicate 4.8 percent of 6th graders, 18.7 percent of 8th graders, 42.5 percent of 10th graders and 51.8 percent of 12th graders have close friends who use marijuana. Since 2008, there has been a 7 percent increase in students who report that of their four best friends, at least one of them smokes marijuana.

Marijuana is easier to get

In 2012, 2.4 percent of 6th graders, 11.7 percent of 8th graders, 32.4 percent of 10th graders and 42 percent of 12th graders report that marijuana is very easy to get. The belief that marijuana is easy to get has increased by 10% since 2008.

Source: 2012 Kansas Communities That Care Survey

The marketing of marijuana

What youth hear, see and believe about marijuana influences their use of the drug. As more states have permitted marijuana to be sold as "medicine" for various conditions, **adolescent use has increased**. Responsible adults and parents know it's important to get the facts from credible, reputable sources supplying evidence-based information. Past experience with marijuana is not enough, and news stories can be erroneous and misleading. Legislative action can be compromised by well-funded, special interests. **No major medical association is in favor of smoked marijuana for widespread, medical use.** Marijuana is not an approved medicine under the Food and Drug Administration's scientific review process, and **the FDA has not found smoked marijuana to be either safe or effective medicine for any condition.**

Go Online for More Information

Find a more detailed fact sheet and other resources about marijuana's effects on adolescents at www.kansasfamily.com/MarijuanaToolkit

CREDITS

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SOURCES

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