



shots

TREATMENTS

Marijuana's Health Effects? Top Scientists Weigh In

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PATTI NEIGHMOND



The highly rated variety of medical marijuana known as "Blue Dream" was displayed among other strains at a cannabis farmers market in Los Angeles in 2014.

Frederic J. Brown/AFP/Getty Images

So far, more than half of all U.S. states have legalized marijuana for medical use, and eight (plus the District of Columbia) have legalized the drug for recreational use. Varieties of cannabis available today are more potent than ever and come in many forms, including oils and leaves that can be vaped, and lots of edibles, from brownies and cookies to candies — even cannabis gummy bears.

A report published Thursday by the National Academies of Sciences, Engineering and Medicine analyzed more than 10,000 studies to see what could conclusively be said about the health effects of all this marijuana. And despite the drug's increasing popularity — a recent survey suggests about 22 million American adults have used the drug in the last month — *conclusive* evidence about its positive and negative medical effects is hard to come by, the researchers say.

According to the report, that's at least partly because the federal drug enforcement agency's designation of the drug as a Schedule I substance — having "no currently accepted medical use and a high potential for abuse" — entails so many restrictions that it has been difficult for researchers to do rigorous research on marijuana.

We just need "far more information," Dr. Marie McCormick, chair of the NAS committee and professor of pediatrics at Harvard Medical School, tells Shots.

Some of the highlights of her committee's 337-page report on marijuana include:

Medical Benefits

- **Pain relief** Regarding chronic pain, there's evidence that patients who are treated with cannabis or cannabinoids "are more likely to experience a significant reduction in pain symptoms," the researchers say. More particularly, for adults with muscle spasms related to multiple sclerosis, there is "substantial evidence," they say, that short-term use of certain oral cannabinoids can improve symptoms. And for adults with chemotherapy-induced nausea and vomiting, "there is conclusive evidence" that certain oral cannabinoids are effective in preventing and treating those ailments.

Health Risks

- **Cancer** There is no evidence that smoking marijuana increases the risk for cancers often associated with tobacco use, such as lung and head and neck cancers, the scientists report,

adding that more research is needed to determine whether marijuana use is associated with heart attack and stroke. However, they say, "some evidence suggests smoking marijuana may trigger a heart attack among individuals with diagnosed heart disease." There's also some evidence that smoking marijuana during pregnancy is linked to lower birth weight in the offspring.

- **Asthma and other chronic respiratory problems** Evidence suggests that smoking marijuana on a regular basis is associated with more frequent chronic bronchitis and worse respiratory symptoms, such as chronic cough, the scientists say. But they add that it's unclear whether the drug increases the risk of developing asthma or chronic obstructive pulmonary disease.
- **Mental health problems** While the report notes some research suggesting that using marijuana might increase risk of developing schizophrenia or other social anxiety disorders, the committee of scientists cautions that there may be other explanations for that link; it could simply be, for example, that people with these mental health problems are more likely to smoke marijuana.
- **Injury or death** In terms of risk to life and limb, the NAS committee found that driving under the influence of cannabis "increases the risk of being involved in a motor vehicle accident." The report also cited evidence that increasing numbers of young children may be accidentally ingesting marijuana products now, particularly in states where cannabis use is legal.
- **Substance abuse disorders** Some parents worry that their teens' use of cannabis can cause problems, and the report was mixed in its conclusions on that. The evidence that marijuana is a gateway drug to trying other drugs, including tobacco, "is limited," the researchers say. But they found "moderate evidence" that there's a link between cannabis use and the development of substance dependence or abuse problems with alcohol, tobacco and illicit drugs. What's more, the evidence suggests that initiating marijuana use at a younger age, the researchers say, "increases the likelihood of developing dependency, which can affect academic performance and social interactions."

"The adolescent brain is very sensitive to these kinds of substances," McCormick says. "So they continue to use it — and may use it in increasing amounts — and are at risk for developing problematic cannabis use."

Erik Altieri, who directs the National Organization for the Reform of Marijuana Laws, says he thinks the legalization of marijuana by many states may actually reduce the

problematic use of the drug by teens.

"That's because we are taking marijuana off of the street corner," he says, "and out of the hands of drug dealers, who have nothing but incentive to sell to everyone and anyone." Legalizing the drug, he points out, puts it "behind the counter of a regulated business that has to check for ID, answer to the government and has oversight."

So far, states that have legalized recreational marijuana have not seen an increase in use among underage teens, Altieri says.

"By legalizing it and normalizing it," he says, "it's become just another everyday thing that adults partake in — it doesn't have that same draw to it that it used to."

Still, McCormick says, many health questions remain to be answered by better research. The increased legal availability of cannabis products in many states, and their increased potency, she says, make that rigorous research more important than ever.

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