

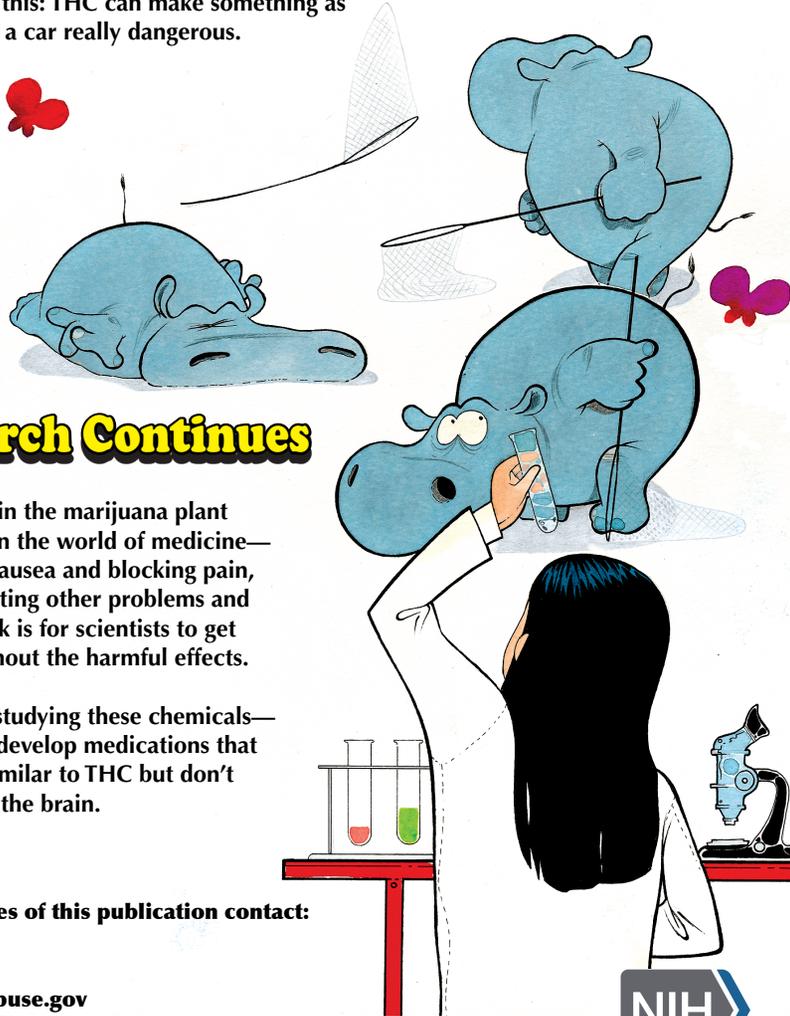
# Effects of Marijuana on the Brain

One region of the brain that contains a lot of THC receptors is the hippocampus, which usually helps with memory. When THC attaches to receptors in the hippocampus, it interferes with memory.

Researchers have also shown that heavy use of marijuana by young people can actually cause IQ to go down—and this change in IQ can last a long time and may even be permanent! This means that someone who uses marijuana may not do as well in school and may have trouble remembering things like their friend's phone number.

Maybe you've heard that marijuana can cause a range of emotions from uncontrollable laughter to paranoia. That's because THC also influences emotions, probably by acting on a region of the brain called the limbic system.

And don't forget this: THC can make something as simple as driving a car really dangerous.



## The Search Continues

Some chemicals in the marijuana plant might be useful in the world of medicine—like preventing nausea and blocking pain, and possibly treating other problems and diseases. The trick is for scientists to get these results without the harmful effects.

Researchers are studying these chemicals—so that they can develop medications that are chemically similar to THC but don't negatively affect the brain.

For printed copies of this publication contact:  
**NIDA DrugPubs**  
1-877-643-2644  
[drugpubs.drugabuse.gov](http://drugpubs.drugabuse.gov)

Mind Over Matter is produced by the National Institute on Drug Abuse, National Institutes of Health. Feel free to reprint this publication. Citation of the source is appreciated. NIH Publication No. 14-3859. Printed 1997. Reprinted 1998, 2000, 2003, 2005, 2006. Revised 2007, 2014.

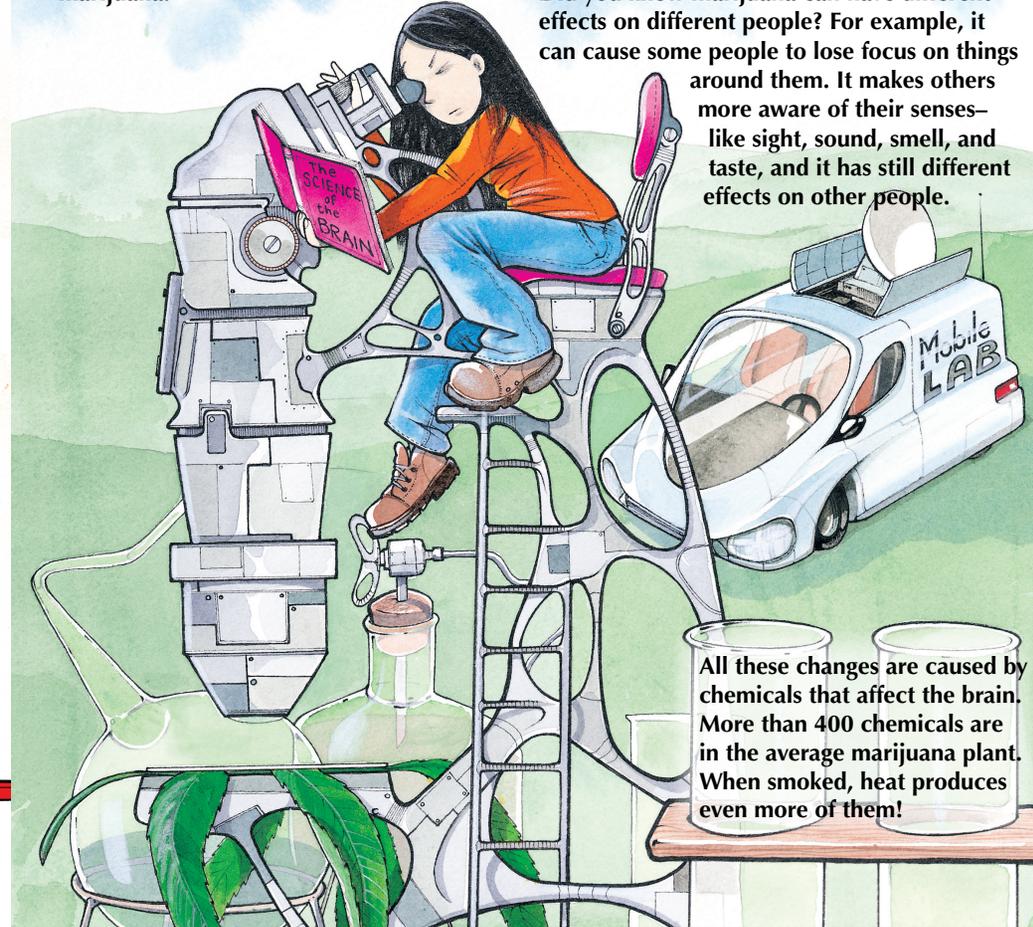


# The Brain's Response to Marijuana

Hi, my name is Sara Bellum. Welcome to my magazine series exploring the brain's response to drugs. In this issue, we'll investigate the fascinating facts about marijuana.

You may have heard it called weed, pot, grass, ganja or skunk, but marijuana by any other name is still a drug that affects the brain.

Did you know marijuana can have different effects on different people? For example, it can cause some people to lose focus on things around them. It makes others more aware of their senses—like sight, sound, smell, and taste, and it has still different effects on other people.



All these changes are caused by chemicals that affect the brain. More than 400 chemicals are in the average marijuana plant. When smoked, heat produces even more of them!

National Institute on Drug Abuse

