

Will Smoking Pot Make Me Vomit Forever?

Cyclic vomiting syndrome is on the rise among adults, and marijuana use may be partially to blame.

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AUG 30, 2017

The Atlantic



By all accounts, DARE—the acronym for Drug Abuse Resistance Education, an anti-drug education program founded in 1983 and, for a time, taught in up to 75 percent of American middle and high schools—doesn't work: Students who've undergone the program are just as likely to use drugs as those who haven't, and may be even more likely to drink or smoke cigarettes. That said: DARE definitely worked on *me*. As a high-school student the only thing I feared more than sex was drugs. Though I drank plenty in college, I refused to even be in the same room as marijuana (let alone everything else my classmates were doing). I held out until I was 24, and then I only smoked pot because a man hurt my feelings badly enough that I was willing to risk ... death, or whatever else I thought was going to happen to me, in order not to feel them. But I was fine, like I have been fine every time I've smoked since, which hasn't been that much, I swear. I stopped worrying, for the most part, until recently, when I first read about something called "cyclic vomiting syndrome," and how smoking weed could cause it.

Cyclic vomiting syndrome is, I think, the best and worst clinical term for a condition that I've ever heard. Most

clinical terms somewhat obscure the grossness of the thing described (think "incontinence" for diarrhea), but not cyclic vomiting syndrome (or CVS). It is pretty clear, pretty immediately, that what you are in for here is nonstop puking, in episodes lasting anywhere from a few hours to several days at a time. The exact cause is unknown, though there are a number of factors thought to contribute: emotional stress (particularly in children), hot weather, overeating, fatigue, migraines. A diagnosis of CVS is most common among young children, though the number of diagnoses among adults is increasing—and one of the reasons for that increase may be pot.

A study published in 2012 found that marijuana use may be as high as 40 to 50 percent among male CVS patients. (While studies show that the typical patient for CVS linked to marijuana use is a middle-aged white man, women and minorities are also susceptible.) Uncontrollable vomiting as a result of marijuana use is also sometimes referred to as "cannabinoid hyperemesis syndrome." But some researchers say CHS should be considered a subset of CVS, and one literature review states that the "only reliable criterion" to distinguish the two is whether the symptoms

completely stop after the person stops smoking. The two conditions are otherwise "clinically extremely similar, the researchers write.

So, because I fear throwing up about as much as I fear drugs, I decided to speak to a medical professional to find out how likely it is that the average casual pot smoker will develop CVS.

Robert Glatter, an emergency physician at Lenox Hill Hospital in New York, tells me he saw patients with CVS for years before the wider medical profession realized there may be a link between the syndrome and marijuana use. "I would see people in the emergency department with heavy and chronic [marijuana] use who would have these vomiting syndromes with abdominal pain, and we just didn't know what it was," he says. He describes CVS as an "underrecognized and underreported" phenomenon. Part of the reason it took so long to draw a link between marijuana use and CVS may be that marijuana is typically thought to reduce nausea. "If you look at the pharmacology of cannabinoids, there are multiple types of cannabinoids, and at low doses, the majority of these cannabinoids are antiemetic," says Glatter. "But with higher and heavier usage what you develop is this paradoxical effect, this incidence of vomiting and nausea."

The "higher and heavier usage" part of that statement is paramount. Most cannabis consumers who come to the hospital with CVS symptoms smoke heavily and daily—three to five times per day, at a median of 15 to 16 years, says Glatter. This is not to say that heavy, long-term use of marijuana *will* lead to CVS, only that it might, and physicians still aren't sure what makes some people more predisposed than others.

"The exact cause is really unclear," says Glatter. "Some research indicates that it may be related to a genetic polymorphism in what we call the cytochrome P450 enzyme system, which is how we metabolize marijuana." But there's probably more to it than that. For one thing, patients suffering from CVS often compulsively bathe during vomiting episodes, perhaps because taking a hot bath or shower can reduce nausea in the short term.

Glatter says it may be the case that hot showers "ameliorate the disequilibrium, and re-adjust the set point of the thermoregulatory system in the hypothalamus." Another theory, he says, is that "heat dilates blood vessels in the skin and muscle" which in turn diverts blood flow away from the circulation system that supplies the gut and intestines. "When there is less blood flow to the gut and intestines, symptoms of nausea and vomiting are reduced," adds Glatter. But, he admits, there isn't a lot of research on this yet, and there's a lot about it physicians don't understand.

I ask if Glatter thinks the lack of information may be owed in part to patients' reluctance to disclose their drug use, particularly in states where marijuana has not been legalized. "The patients often don't easily volunteer this history," he agrees. "In states that have legalized, I think it's easier to ascertain that history because they're more willing to come forward." But doctors are only recently beginning to ask CVS patients about their marijuana use, and even then, it's usually considered as something of a last-resort contributing factor—the symptoms of CVS are serious enough that more dangerous diagnoses must first be eliminated, which can mean a lot of work for nurses and physicians. "We have to exclude everything else first," says Glatter. "[It could be] endocrine, metabolic, something structural causing the vomiting, it could be a bowel obstruction or gallstones. To the patient who is newly presenting, you have to do the full workup. You don't want to miss anything."

As for how to treat CVS among cannabis consumers, Glatter says there's only really one foolproof method: Stop smoking weed. Hot showers will help in the short term, and so might sedatives like benzodiazepines, but if they don't discontinue their drug use, Glatter sees his CVS patients "like clockwork, every three to four months." Still, these cases remain rare, and are very unlikely to show up in any but the most chronic of marijuana users. Says Glatter, "This is not someone who smokes maybe once a week or even twice a week. This is with long-term, heavy use." So, not to sound like a D.A.R.E. officer, but if you love weed and hate puking, it's probably wise to limit your cannabis intake sooner rather than later.