

Poisonings from kratom, sold as an herbal supplement, are rising. But no one knows how much

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An unregulated herbal product that advocates say can relieve pain and help with opioid withdrawal has been linked to at least four deaths in the Philadelphia region, but with many authorities failing to track kratom poisonings, there's no way to know if there are more deaths related to the substance.

Kratom, derived from the leaves of a Southeast Asian tree that is part of the coffee family, has gained popularity in recent years. It is sold online, in gas stations and in smoke shops, and is typically brewed as a tea, chewed, smoked or ingested in capsules.

An estimated 3 million to 5 million people use [kratom](#), according to the American Kratom Association, a Colorado-based nonprofit founded in 2014 to promote the herbal product. It has become a billion-dollar business, according to the Botanical Education Alliance, another kratom advocacy group.

The U.S. Drug Enforcement Administration announced in 2016 it would reclassify kratom as a Schedule 1 drug, similar to heroin or marijuana, a step other nations have taken. But the industry groups lobbied to keep it on store shelves.

The U.S. Food and Drug Administration says the active ingredient in kratom, mitragynine, is an addictive substance that acts on the brain's

opioid receptors—and is indeed an opioid. Though touted as a stimulant (at low doses), sedative (at high doses), painkiller, and addiction therapy, kratom has no medical value, the FDA declared in February, and has been linked to at least 44 deaths nationally, though the agency admits tracking is haphazard. The kratom industry, meanwhile, disputes the FDA's science and data collection, insisting no one has died from kratom use.

Still, there are troubling indicators that poisonings are on the rise.

The American Association of Poison Control Centers has seen a sixfold increase in calls—from 97 in all of 2016, to 635 so far in 2018—to its national hotline for kratom use. Since 2016, it has recorded 10 deaths associated with kratom, three for the product alone, others in combination with other substances. Such mixtures, scientists say, can be especially dangerous because many users don't think kratom could compound the impact of other opioids, making overdose more likely.

NMS Labs, a nationally known forensic laboratory in Willow Grove, started testing for mitragynine about five years ago and is seeing more of it in postmortem toxicology cases, said vice president Barry Logan, a senior scientist. From January to June, there were 303 deaths in which mitragynine was found, often in combination with other opioids, he said.

In Pennsylvania, OverdoseFreePA, a website that tracks overdose fatalities, reported there were 27 deaths in 2017 in which mitragynine was present. Thirty-seven of Pennsylvania's 67 county coroners contribute to the database.

Since 2016, Bucks and Montgomery counties each have recorded a [death](#) that coroners attributed to mitragynine. Chester County found two deaths where mitragynine was listed as the sole cause of death.

Those three counties, along with Philadelphia, have also found at least 19 other deaths where mitragynine was present in postmortem toxicology reports, alongside drugs like heroin, fentanyl, and cocaine. Delaware County has not found mitragynine in any toxicology reports.

New Jersey does not track mitragynine-involved deaths, according to the Department of Health.

The most recent local death attributed to kratom occurred in Chester County on June 27.

Caleb Sturgis, 25, was driving to work on the Pennsylvania Turnpike in Chester County when his car veered into the right lane, stuck a curb and flipped over. The coroner there ruled this month the West Chester man died from "acute mitragynine intoxication." There were no other drugs—save an amount of caffeine equivalent to what's in a cup of coffee—in his system.

"I remember (Caleb) very adamantly telling us (kratom) would be perfectly safe and not a problem," said his father, Scott, an editor with the Philadelphia Inquirer and Daily News. Caleb had struggled with opioid use in the past after the narcotics were prescribed for wisdom tooth removal but stopped using them a few years ago, his father said.

Caleb began using kratom in the form of tea in fall 2016 after reading online that it was a safer stimulant than coffee, which gave him the jitters, said his mother, Lori Chernisky Sturgis. There were no dosing instructions on any of the kratom products he purchased online, she said.

But his parents noticed that Caleb kept using more of the product, and was becoming cranky, irritable, nervous, and tired, Scott Sturgis said.

"I wish I had known more about it, because I would have nagged him

and nagged him relentlessly," his mother said. "I can't bring him back. It's breaking my heart."

Montgomery County coroners listed Veronica Detwiler's cause of death in May as multiple drug intoxication. She had cocaine, heroin, fentanyl—and mitragynine—in her system.

Detwiler, 37, who also struggled with mental health issues, had been using opioids since she was a teenager, said her mother, Faith Detwiler, of Royersford. She had been in and out of rehab and tried 12-step meetings. She was even off all drugs for about two years, her mother said.

"I did not know she was using and I didn't know if she knew the risks," Detwiler said.

Brandon Jones was shocked when his brother, Ryan, 38, collapsed and died in May. He was equally surprised to find out that "mitragynine toxicity" was listed as a cause of death along with "hypertensive cardiovascular disease."

"I took it myself," Jones, of Downingtown, said about kratom. He described his brother as "a home body" who didn't use drugs, alcohol or tobacco. He was "a little" overweight and had high blood pressure, but no other heart-disease history and worked out every day.

Jones doesn't know why his brother was using kratom, which he purchased on the internet. He points out that "you have to go through rabbit holes to figure out what dose to take." Yet he supports keeping kratom legal.

"I think this is the first alert here," said Chester County Coroner Christina VandePol of deaths such as that of Ryan Jones.

Most physicians are not aware of the product and wouldn't know to ask patients whether they are using it. Many users think of it as an herbal supplement, not a drug, and may not mention it to their physician, she said.

"I do think people should be concerned and should be looking for it," she said.

Bucks County has had a total of 13 cases where mitragynine has been found. It was the primary cause of death in two of those cases, said Joseph Campbell, county coroner.

"I think a lot of research needs to be done with this particular item," he said.

FDA Commissioner Scott Gottlieb has been adamant in his criticism of kratom, with his agency issuing public health advisories and cautioning that kratom could expand the opioid epidemic.

The American Kratom Association, meanwhile, says government science and data are "incomplete, inaccurate, extrapolated and distorted."

"Every time we look at how studies were done, we've found some glaring errors," said David Herman, AKA chairman. He says his reviews show people died of heart attacks or cancer, not kratom.

"American citizens should have the right to consume what they want if it is not harmful," he said.

In 2016, 142,000 people signed a petition to the U.S. Senate Judiciary Committee asking that kratom not be listed by the DEA as a scheduled drug. Sixty-two members of the House and Senate wrote to the DEA in support of keeping kratom legal.

But Daniel Fabricant, president of the National Products Association, an 82-year-old trade association, says he agrees with the government on this one.

"That is not a dietary supplement, it is a drug, always has been, always will be," Fabricant said. The kratom industry is "making this a political issue and not a science issue."

C. Michael White, professor of pharmacy practice at the University of Connecticut, said kratom has been so little studied, its properties and risks are not fully understood.

Animal studies suggest its opioid effect could help treat pain. Respiratory depression has not been reported with kratom as with other opioids, he said, but it has been found to disrupt a liver enzyme that helps metabolize opioids, he said. For that reason, if drug users went off prescription narcotics or heroin in favor of kratom, but then went back to their previous drugs, kratom might be "increasing the deadliness of the other opioids that you were taking."

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