

What is Kratom and Why is the DEA Suddenly Banning It?

In the last decade, Kratom has been gaining popularity in the US and Europe as a “legal opioid alternative” that has been marketed as a supplement that provides legal means of pain relief with euphoric and anti-anxiety effects. With America’s **opioid crisis** finally in the spotlight, researchers and lawmakers alike have new motivation to deal with the problem *and* look for alternative ways to treat chronic pain. At the same time, **painkiller addicts** who are finding it harder to access drugs are also looking for alternatives. This collision of interests is presumably how the plant Kratom (*Mitragyna speciosa*) ended up in the spotlight this week. Because of its status as a supplement, Kratom has never been tested or regulated by the FDA, which has since issued a “public health advisory” on the potential danger of taking Kratom as a 10-fold rise in calls to poison control centers was reported from 2010-15 (**source**).

In November 2017, the DEA announced its intention to immediately place Kratom and its active ingredients on the “Schedule 1” list (**source**). The DEA’s first attempt to do this in 2016 was met with backlash from users and researchers alike, who were interested in developing Kratom as an “atypical opioid” or even a potential adjunct therapy for opioid withdrawal, which caused the first attempt at a ban to be reconsidered. However, along with the recent declaration of the **opioid epidemic** as a “national public health emergency,” the DEA is finally taking action, and Kratom will now be a Schedule 1 controlled

substance, alongside drugs like cocaine and heroin that are considered to have a high potential for abuse and no therapeutic value.

Where Does Kratom Come From?

“Kratom” comes from the leaves of plant (actually a relative of the coffee tree), with an ancient history of medicinal use in parts of Africa and Southeast Asia. Chewing the leaves or drinking a tea made from fermenting the plant are said to produce a mild stimulating effect, and at higher doses, Kratom also has analgesic (pain-relieving) qualities. For these reasons, Kratom was traditionally used by manual laborers, warriors, or individuals who had to walk long distances ([source](#)). In Southeast Asia, Kratom has also traditionally been used to help opium addicts’ symptoms of withdrawal ([source](#)).

Kratom is native to South Asian tropical regions and was cultivated widely for commercial use throughout the region. In the early 1940s, Kratom was banned in Thailand for political reasons related to competition for opium and taxes; in the 1970s it was placed into the same drug category as cannabis. Today, Kratom is now illegal in neighboring countries, including Indonesia, South Korea, and Myanmar.

Recently—in the last five years or so—Kratom’s popularity has skyrocketed in “western” cultures like the United States. During this time, both research and legal scrutiny have also increased; most modern studies on the effects of Kratom date from 2012 onward. Due to concerns over Kratom’s possible [classification as an opiate](#),

unknown side effects, and overall increasing popularity and consumption, the US has now labeled it as a “Schedule 1” drug and has already banned it in some states.

How Does Kratom Work in the Body?

It should be noted that as early as 1897, even before opioid receptors in the brain were understood, colonial Dutch doctors were discussing Kratom as a cure for opium dependence based purely on their observations. The Kratom plant has a complex chemistry of alkaloids, many of which bind to certain opioid and adrenergic **receptors in the human brain**.

Due to the sheer number of compounds involved, Kratom’s mechanism(s) of action are still not fully understood. Doctors do know that the opioid-binding compounds in Kratom are shaped much “differently” than traditional opioid-associated compounds. Perhaps because of its structural uniqueness, Kratom’s effects may be explained by its ability to activate both opioid receptors, agonists, and other (non-opioid) receptors simultaneously.

This unique mechanism of action has been shown in animal studies to both relieve pain while also activating pathways that regulate tolerance and withdrawal. Essentially, the same dose of the compound worked on mice for a month, with no evidence of the mice building tolerance or exhibiting signs of euphoria. Researchers looking for new

ways to treat chronic pain were understandably excited about this preliminary evidence ([source](#)).

That being said, the uptick in importation and use of Kratom without further clinical study to verify safety has raised concerns. Reported side effects of Kratom range from the mild—like nausea and dry mouth—to more serious effects with higher doses, including irreversible liver damage, seizures, and even death. However, with the DEA crackdown now labelling Kratom and its bioactive compounds as a “schedule 1” drug, access to materials for further study anywhere in the US will become more difficult and expensive, which may effectively halt the progress of research ([source](#)).

Kratom Safety and the “Supplement” Loophole

Supplements are a huge market in America that is unregulated by the FDA, aside from the rule that they must say “this product is not intended to cure or treat any disease.” The problem is, supplements vary from a simple folate pre-natal vitamin to products like “spice”, a smokable form of synthetic marijuana that has been implicated in psychotic episodes and death. Besides the lack of scientific rigor that goes into this process, supplements themselves have no regulations for standardizing active compounds or testing for product purity ([source](#)).

Kratom is available in several different varieties from dozens of unregulated suppliers. As its use has increased, so have reports of overdoses, poisonings, and even death. Since 2010, almost 40 Americans have died

with Kratom in their bloodstream. Unfortunately, in many of these deaths, Kratom had been combined with other substances including **alcohol**, **heroin**, **antidepressants**, and even acetaminophen, making it difficult for pathologists to ascertain what constitutes a “toxic” level of Kratom’s active ingredients ([source](#)). To make matters even less conclusive, the “supplement loophole” has made it hard for toxicologists to ascertain if negative effects are from Kratom itself, or from the lack of standardized dosing and/or contamination of the imported product with toxic substances.

Policymakers have also expressed concern that opiate addicts may be attempting to use the products as an informal detox treatment ([source](#)). On the “pro-Kratom” side, some researchers insist that because Kratom doesn’t cause respiratory depression (a leading cause of overdose-related deaths in opioid drugs), many lives could be saved if research and development of a standardized, FDA-approved version of the active ingredients were to be developed ([source](#)).

What’s Next for Kratom Research, Chronic Pain, and Opioid Abuse?

The DEA’s ban on Kratom is a mixed message to addicts, [chronic pain sufferers](#), and researchers alike. Regulators worry, with good reason, about Kratom being an unstudied, unregulated opioid-like substance with potential for abuse, damaging side effects, and even death. However, there is also evidence that Kratom could be an effective and indeed safer alternative treatment for chronic pain, or even withdrawal symptoms from “traditional” opioid-class drugs. For now, the DEA has effectively halted research toward this end in the US, but elsewhere in the world, its active

compounds will continue to be studied by scientists in the hope that someday, Kratom could have a place in treating pain along with **opioid addiction support**.