

Special Topic Brief: Kratom

WHAT IS KRATOM?

Kratom refers to the leaves of the tree *Mitragyna speciosa*, native to the tropical regions of Southeast Asia, as well as the various products derived from its leaves. The kratom leaf contains many chemical compounds, but its primary active compounds include mitragynine and its metabolite 7-hydroxymitragynine.

The compound 7-hydroxymitragynine binds to μ -opioid receptors, producing opioid-like effects, while scientists believe mitragynine may bind to adrenergic, serotonin, and dopamine receptors, contributing to some of the stimulant effects reported by users.

Kratom has gained popularity in the United States since the early 2000s, although it has been used by traditional medicine practitioners for centuries.² It is commonly utilized to relieve pain, aid in opioid-use cessation, manage psychiatric problems, and increase energy and productivity.^{3,4}

While kratom may be well-tolerated and even beneficial to some individuals, it is not regulated by the U.S. Food and Drug Administration (FDA) and there is growing concern about the quality and purity of kratom products sold in the United States. The FDA has investigated several instances of kratom products contaminated with dangerous adulterants such as heavy metals and harmful bacteria like salmonella.^{5,6} Moreover, synthetic kratom products sold in the U.S. may contain much higher concentrations of its active compounds, increasing the risk for adverse side effects.⁷

FORMULATIONS AND AVAILABILITY

People typically use kratom by swallowing raw plant matter in whole leaf or powdered form, mixing kratom powder into food or drinks, brewing the leaves for tea, or taking a liquid kratom extract.¹

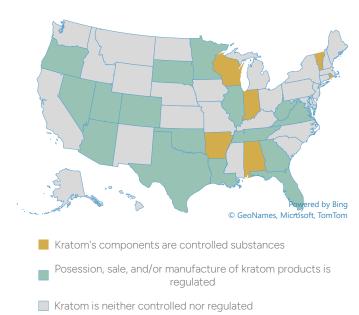
Kratom is readily available for purchase online, in gas stations and at smoke shops across the United States and in Idaho.



EFFECTS ON THE BODY

Kratom's effects seem to be dependent on both the strain and the dosage with users citing stimulant effects at lower doses and sedative effects at higher doses. The red vein variety of kratom is known to have pain relieving effects while the white and green vein varieties are reported to have more stimulating effects. Common side effects include nausea, weight loss, fatigue, constipation, insomnia, dry mouth, frequent urination, and hyperpigmentation of the cheeks. Some heavy users have exhibited mild withdrawal symptoms including anger, nervousness, restlessness, depression, anxiety and insomnia.

The FDA reports that although there have been a few deaths associated with kratom use alone, kratom is usually used in combination with other substances, making kratom's role in overdose deaths unclear. Additionally, the FDA has noted a few cases of kratom-related substance use disorder (SUD), with individuals meeting SUD criteria such as having cravings for kratom, using more kratom than intended, and experiencing withdrawal symptoms when kratom use is stopped.



POLICY AND REGULATION

State of Idaho

Kratom is not currently regulated in Idaho.¹¹ Previous efforts to regulate the labeling of kratom products and ban sales to minors in Idaho have been unsuccessful.¹² However, some retailers may prohibit the sale of kratom to underaged persons and require an ID for purchase.

Federal

Kratom, mitragynine, and 7-hydroxymitragynine are not regulated at the federal level.¹¹ Kratom is not scheduled under the Controlled Substances Act but the DEA has identified it as a *Drug and Chemical of Concern*.¹³ Since the FDA has not approved any products containing kratom or its active compounds, kratom may not be marketed in the U.S. as a drug product, a dietary supplement, or a food additive.¹⁰

Other States

As of early 2024, 22 states have regulated kratom to some extent.¹⁴ Alabama, Arkansas, Indiana, Rhode Island, Vermont, and Wisconsin have banned kratom completely. Sixteen states have banned the sale of kratom products to individuals under 18 or 21. Several states require kratom products to be properly labeled with directions for safe use, the concentration

of active compounds, or other requirements. Some states allow local municipalities to establish regulations around kratom.

DATA TRENDS AND USE IN IDAHO

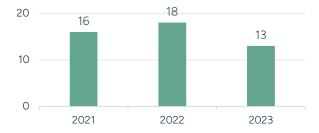
National Trends

In 2022, the National Survey on Drug Use and Health (NSDUH) reported that approximately 1.9 million people aged 12 and older reported past year kratom use. 15

State Trends

Between 2021 and 2023, there were 64 kratom-related poison control calls in the state. ¹⁶ In that same time, kratom was listed as a contributing factor in the death of 47 Idahoans (*Figure 1*). ¹⁷ In every kratom-related death in Idaho, there has been another drug (almost always an opioid) present in the post-mortem toxicology as well (*Table 1*).

Figure 1. Number of Kratom-Related Deaths Among Idaho Residents



While data on kratom-related emergency department visits and emergency medical services (EMS) service calls in Idaho are limited, these data also suggest that kratom is most often used by Idahoans in combination with other legal or illicit substances.¹⁸

Table 1. Percent of Kratom-Related Deaths Involving Co-Occurring Substances Among Idaho Residents

	2021	2022	2023
Any Opioid	100%	94%	100%
Fentanyl	28%	28%	53%
Any Stimulant	25%	16%	38%
Methamphetamine	19%	11%	31%

CONCLUSION

Kratom use has grown in popularity in the United States and Idaho, though concerns about kratom products' quality, potency, and unregulated status persist. While many users report benefits, the adverse effects, potential for dependence, and unregulated federal status have led to varying state responses. In Idaho, kratom remains legal and unregulated, and data indicates that kratom use among Idahoans often involves other substances, notably opioids, and has been linked to multiple poison control cases and fatalities in recent years. These findings suggest that

further research into kratom's public health impact is warranted, and individuals who use kratom should be cautious and consult with a medical provider to avoid negative health outcomes.

NOTES

Kratom-related deaths are identified using the International Classification of Diseases, 10th Revision (ICD–10), underlying cause-of-death code T402, along with narrative information abstracted from death certificates, 17

For questions about this brief, please email SEOW.idaho@gmail.com.

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