

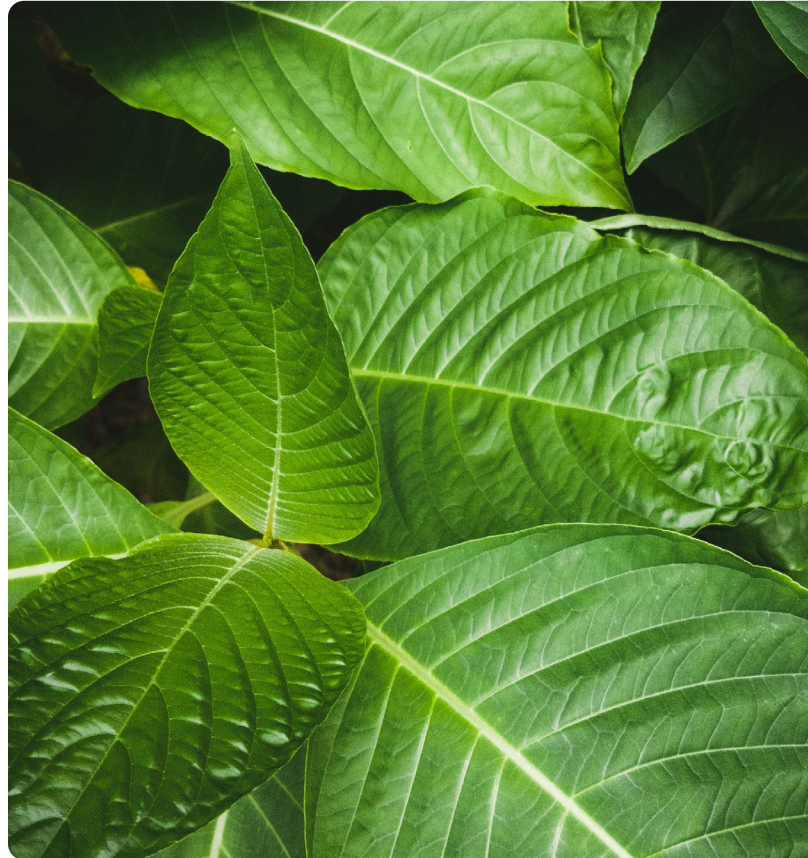
Kratom, 7-OH, and Local Regulatory Strategies

BACKGROUND

Kratom is a tropical tree native to Southeast Asia whose leaves have likely been consumed for centuries, either by chewing fresh leaves or brewing them into tea (Henningfield et al., 2024). Kratom began appearing in the United States in the late 1990s, and has grown in popularity since. Commercially available kratom products are often marketed to alleviate pain, anxiety, depression, and fatigue. These products are commonly sold in smoke shops, gas stations, convenience stores, and online retailers. They are available in forms including powders, capsules, tablets, liquid, or gummies (Legislative Analysis and Public Policy Association, 2026).

The primary psychoactive component in kratom, mitragynine, acts as an opioid receptor agonist, meaning it can produce opioid-like effects at high doses. As a result, some individuals use kratom products to replace opioids or manage opioid withdrawal symptoms. Others report using kratom products to manage chronic pain or mental health conditions (California Senate Committee on Health, 2026). However, very little research has been conducted to evaluate these uses or any other potential medical use for kratom. Although kratom may have therapeutic potential in the future, there is currently insufficient evidence to demonstrate that it is safe or effective for medical use (National Institutes of Health, 2022).

In recent years, more potent kratom derivatives have entered the U.S. market. Among the most notable are products containing concentrated 7-hydroxymitragynine (7-OH), a compound often chemically synthesized from mitragynine into a significantly more potent opioid receptor agonist. Although 7-OH occurs naturally in kratom leaf, it is present only in trace amounts, typically accounting for less than 2% of the plant's active compounds (Alsbrook et al., 2025). In contrast, these new 7-OH products contain concentrations far exceeding those found in unprocessed kratom leaf, increasing the potential for opioid-like effects (California Senate Committee on Health, 2026; Alsbrook et al., 2025).



Kratom leaves growing in nature.

The Drug Enforcement Administration (DEA) moved to schedule kratom in 2016, but that effort was withdrawn after concerns from both the public and congressional leaders. In the summer of 2025, however, the Food and Drug Administration (FDA) formally recommended the DEA schedule 7-OH as a Schedule I substance, meaning it has high potential for abuse, no currently accepted medical use, and a lack of safety for use under medical supervision. On July 6, 2026, the DEA acted on that recommendation, filing Notices of Intent to temporarily schedule 7-OH above a threshold of 0.05% of total alkaloids, and three related synthetic substances (mitragynine pseudoinoxyl, MGM-15, and MGM-16) as Schedule I controlled substances under the Controlled Substances Act (CSA). The temporary scheduling is expected to

Kratom, 7-OH, and Local Regulatory Strategies

take effect on or after August 5, 2026, pending a 30-day public comment period on the 0.05% threshold that closes July 31, 2026. Natural botanical kratom below the 0.05% threshold is explicitly exempted from this action. (DEA, 2026). In the period leading up to this federal action, many states and localities had moved to ban or regulate kratom or 7-OH on their own, leaving a patchwork of policies nationwide (Legislative Analysis and Public Policy Association, 2026).



An assortment of Kratom and 7-OH products.
Photo: KSHB 41/Fabian Rosales

At the same time, the market remains largely unregulated. Many kratom and 7-OH products are sold with misleading labeling, inconsistent ingredient information, or little indication of potency, making it difficult for consumers to distinguish between traditional kratom products and highly concentrated synthetic derivatives. Some have also been found to contain heavy metals and bacterial contaminants, raising additional public health and safety concerns (Mayo Clinic, 2024; National Institutes of Health, 2022).

PUBLIC HEALTH RISKS

Even traditional or whole-leaf kratom products can cause adverse effects and withdrawal symptoms, although early studies seem to suggest these effects are generally milder than those associated with opioids. Reported adverse effects include agitation, rapid heartbeat, drowsiness, vomiting, liver damage and high blood pressure (California Senate Committee on Health, 2026; Mayo Clinic, 2024). Kratom also has the potential for dependence. In a survey of long-term kratom users, 20% reported unsuccessful attempts to quit, and 30% reported using more than intended. Both of these behaviors are consistent with patterns associated with substance use disorders. Withdrawal symptoms are often described as moderate, especially when compared to opioid withdrawal, but can include cravings, low energy, irritability, fatigue, anxiety, difficulty sleeping, and mood symptoms (Rogers et al., 2024).

More concerning, however, are the increasingly opioid-like effects associated with highly concentrated 7-OH products. Early evidence suggests these products mimic “opioid pharmacodynamics” including respiratory depression, tolerance, dependence, withdrawal, and naloxone-reversible effects (Alsbrook et al., 2025).

Because these highly concentrated 7-OH products have only become widely available in recent years, research on their health effects remains limited. However, emerging evidence and Health Alert Network (HAN) reports have already documented incidents where individuals required naloxone administration or mechanical ventilation, with at least 3 fatal overdoses in 2025 associated with these products. Additional clinical case observations depict patients presenting with opioid-like withdrawal, acute mania following abrupt cessation, cardiopulmonary arrest, and substance-induced psychosis culminating in self-harm (Alsbrook et al., 2025).

Kratom, 7-OH, and Local Regulatory Strategies

RECOMMENDATIONS

With the increased availability of highly concentrated 7-OH products, combined with limited regulatory oversight and reports of serious adverse effects, local governments may need to consider targeted public health safeguards to reduce consumer harm and limit youth access. Several municipalities in the Kansas City metropolitan area have already adopted ordinances regulating kratom, 7-OH, and related substances, **as shown on page 4 of this brief**. In addition, the state of Kansas classified kratom and all of its derivatives as Schedule I controlled substances, prohibiting their sale and possession effective July 1, 2026. As Missouri communities evaluate potential policy responses, they may consider the following strategies:

- **Restrict the sale of all kratom products to individuals 21 and older**, and require all kratom products to be stored behind the sales counter or in locked display cabinets.
- **Prohibit the sale of any kratom products** with packaging, labeling, flavors, or product designs **that appeal to minors**.
- **Prohibit inhalable formats**, banning the sale of any kratom product manufactured, packaged, or marketed for vaporization, smoking, or combustible use.
- Require all kratom products sold to **include a third-party Certificate of Analysis**, proving the product does not contain synthetic 7-OH, heavy metals, or other dangerous adulterants.
- **Prohibit the sale and distribution of all synthetic kratom products or products containing high concentrations of 7-OH.** (*A threshold of 2% or greater had become a common regulatory standard among states and localities in the United States; note that the DEA's July 2026 Notice of Intent uses a considerably more restrictive federal threshold of 0.05% of total alkaloids. Cities may want to define prohibited products as any substance or derivative classified under Schedule I of the federal or Missouri Controlled Substances Act.*)

(Alsbrook et al., 2025; Henningfield, et al., 2024; Legislative Analysis and Public Policy Association, 2026)

Note: The DEA's temporary scheduling of 7-OH and related synthetic derivatives, expected to take effect on or shortly after August 5, 2026, will largely preempt local ordinances addressing high-concentration 7-OH commercial products. However, local ordinances will remain valuable for regulating natural botanical kratom, enforcing age restrictions, retail display, and addressing product adulteration – areas not covered by federal CSA action.

REFERENCES

- Alsbrook, S., Pro, G., & Koturbash, I. (2025, October). From kratom to 7-hydroxymitragynine: Evolution of a natural remedy into a public-health threat. *Pharmaceutical Biology*, 63(1), 896-911.
- California Senate Committee on Health. (2026, February). Kratom and 7-Hydroxymitragynine: Public Health Concerns and Regulatory Challenges. <https://shea.senate.ca.gov/system/files/2026-02/kratom-and-7-oh-background-paper.pdf>
- Drug Enforcement Administration. (2026, July 6). Schedules of controlled substance: Temporary placement of 7-hydroxymitragynine above a specified threshold in schedule I. 91 Fed. Reg. 40917 (proposed July 6, 2026) (to be codified at 21 C.F.R. pt. 1308). <https://www.govinfo.gov/content/pkg/FR-2026-07-06/pdf/2026-13580.pdf>
- Henningfield, J.E., Grundmann, O., Huestis, M.A., & Smith, K.E. (2024, June). Kratom safety and toxicology in the public health context: Research needs to better inform regulation. *Frontiers in Pharmacology*, 15. <https://doi.org/10.3389/fphar.2024.1403140>
- Legislative Analysis and Public Policy Association. (2026, January). Kratom: Summary of state laws. <https://legislativeanalysis.org/wp-content/uploads/2026/02/Kratom-Summary-of-State-Laws.pdf>
- Mayo Clinic. (2024, June). Kratom: Unsafe and ineffective. <https://www.mayoclinic.org/diseases-conditions/prescription-drug-abuse/in-depth/kratom/art-20402171>
- National Institutes of Health, National Center for Complementary and Integrative Health. (2022, April). Kratom. <https://www.nccih.nih.gov/health/kratom>
- Rogers, J.M., Weiss, S.T., Epstein, D.H., Grundmann, O., Hill, K., & Smith, K.E. (2024, July). Kratom addiction per DSM-5 SUD criteria, and kratom physical dependence: Insights from dosing amount versus frequency. *Drug and Alcohol Dependence*, 260(1). doi: 10.1016/j.drugalcdep.2024.111329

KANSAS CITY METRO KRATOM REGULATION COMPARISON

Category	Kansas City	Blue Springs	Lee's Summit	Independence	Kansas HB 2365	Model Ordinance
Date enacted	Feb 12, 2026	Mar 16, 2026	Mar 24, 2026	Apr 8, 2026	Apr 10, 2026	N/A
Takes effect	Apr 13, 2026	Mar 16, 2026	Jun 1, 2026	Jun 7, 2026	Jul 1, 2026	N/A
Prohibited Products (sale/distribution)						
7-OH above 2%	✓	✓	✓	✓ (possession too)	✓ (full ban)	✓*
Adulterated products	✓	✓	✓	—	✓	✓
Confection/candy appearance	✓	✓	✓	—	✓	✓
Combustible/vaporization use	✓	✓	✓	—	✓	✓
Kratom derivatives	—	—	—	✓	✓	✓*
Pseudoindoxyl	—	—	—	✓	✓	✓*
Synthetic derivatives	—	—	—	✓	✓	✓*
Age Restrictions (under 21 years)						
All Kratom products	✓	✓	✓	✓	✓	✓
Products displayed inaccessibly	✓	✓	✓	—	✓	✓
Penalties and Enforcement						
Enforcement	Administrative	—	Administrative	Administrative	Criminal	Administrative
Fines	\$1 – \$1,000	\$750 – \$1,000	See §1-13 city code	Up to \$500	Felony fines	Up to \$1,000
Imprisonment	Up to 6 mo.	15 days – 6 mo.	See §1-13 city code	Up to 6 mo.	Possession: Level 5 Sale: Level 3	None

✓ = restricted/required

✓* = see federal context section below

— = not specified or not applicable

KANSAS CITY

Administrative approach with a city-issued kratom retail license.

Bans adulterated products, high 7-OH concentrations, candy-like packaging, and combustible use. Under-21 sales restriction and display requirements both apply. Fines run \$1 to \$1,000, with up to 6 months imprisonment as a backstop.

INDEPENDENCE

The narrowest ordinance of the group.

Does not address adulterated products, candy appearance, or combustible use directly, but does restrict kratom derivatives, pseudoindoxyl, and synthetic derivatives, with possession (not just sale) prohibited. Fines capped at \$500.

BLUE SPRINGS

Similar administrative structure to Kansas City,

with the addition of intoxicating hemp provisions (sale, purchase, and behind-register display rules). Note that Missouri HB 2641, effective November 12, 2026, will supersede these hemp provisions statewide.

KANSAS HB 2365 (STATE LAW)

The only criminal framework in the comparison.

Kratom, 7-OH at any concentration, and related synthetic substances are placed in Schedule I, making sale, distribution, and possession felony offenses (Level 3 for sale/distribution, Level 5 for possession). No administrative or license-based option.

LEE'S SUMMIT

Administrative enforcement per city code

(see §1-13 for specific fines and imprisonment terms). Covers the same core prohibited-product categories as Kansas City, including under-21 sales restrictions and display requirements.

MODEL ORDINANCE (RECOMMENDED)



Administrative mechanism with the broadest substantive coverage.

Bans adulterated products, high 7-OH concentrations, candy packaging, combustible use, pseudoindoxyl, and other synthetic derivatives. Under-21 restriction and display requirements apply to remaining kratom products. Fines up to \$1,000 per violation.

*FEDERAL CONTEXT

The DEA filed Notices of Intent to temporarily place 7-OH (above 0.05% threshold) and three related synthetic substances (mitragynine pseudoindoxyl/MP, MGM-15, MGM-16) into Schedule I of the Controlled Substances Act.

Temporary scheduling takes effect approximately on or after August 5, 2026 (30 days after the July 6 Federal Register publication). Natural botanical kratom below the 0.05% 7-OH threshold is explicitly exempted from this federal action.

Local Ordinance Alignment

Municipalities can concurrently prohibit these synthetic kratom derivatives by tying their definitions to the federal Controlled Substances Act schedules.