7-Hydroxymitragynine (7-OH)-Enhanced kratom products: What providers need to know

Public Health Bulletin for Health Care Providers - March 2026

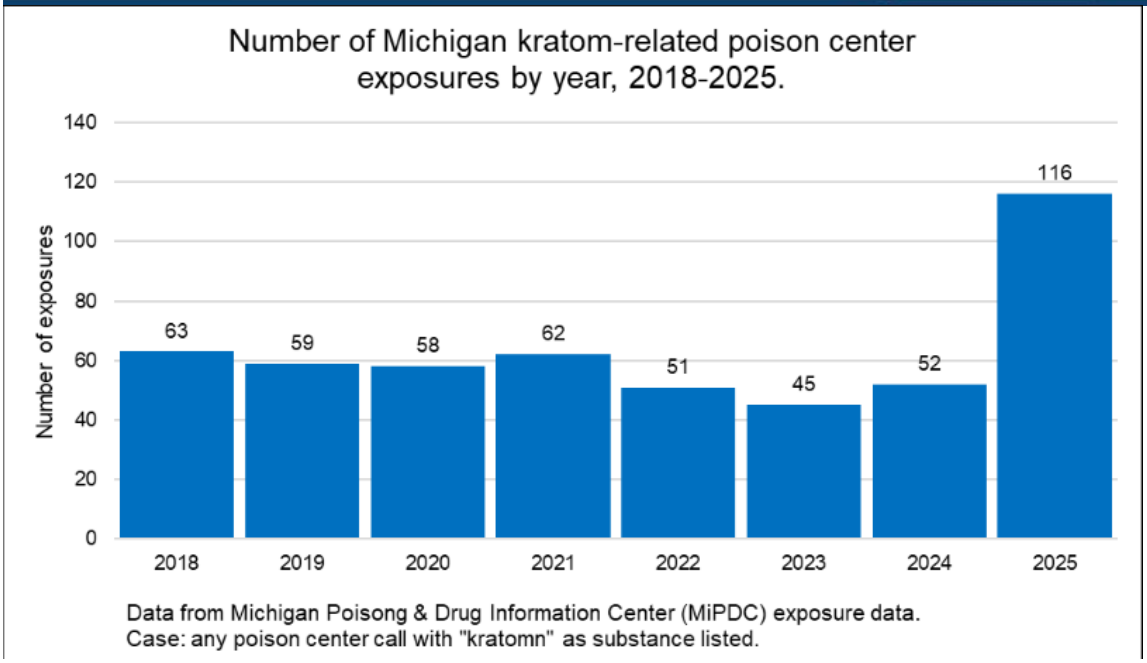
Dear colleagues,

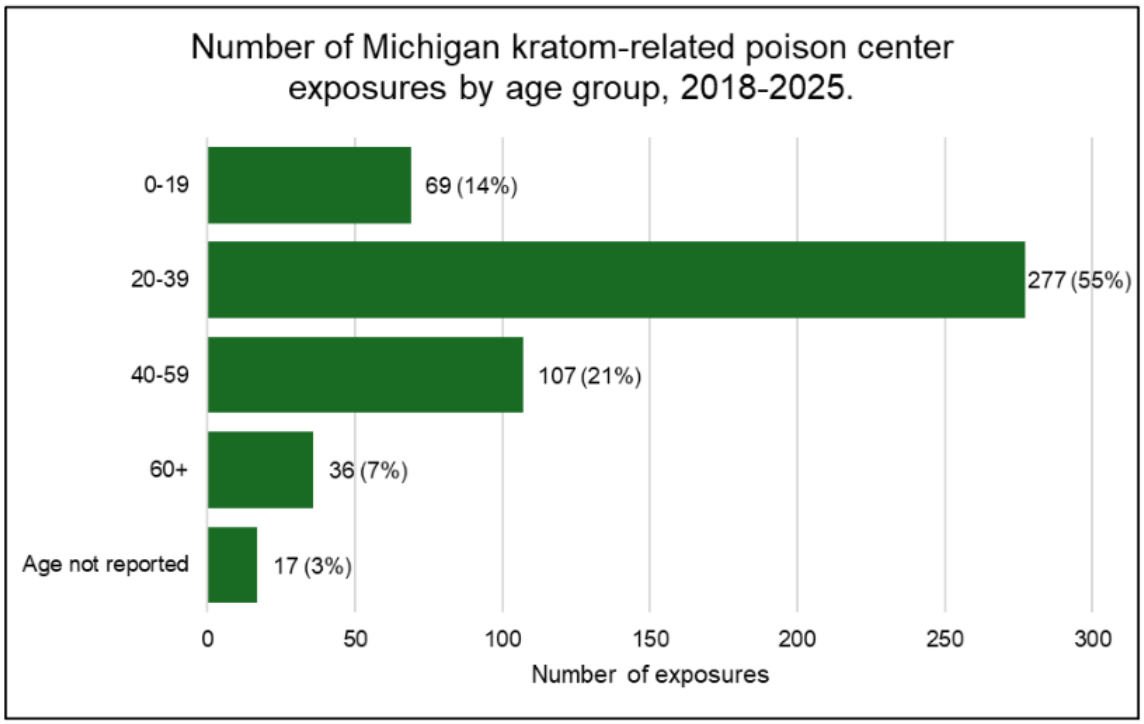
We want to bring to your attention the rise of **"synthetic kratom"** and **concentrated 7-hydroxymitragynine (7-OH) products** (or 7-OH-enhanced kratom products) in Michigan's unregulated market, and the ongoing public health impacts.

While kratom (*mitragyna speciosa*) is a Southeast Asian tree known for mild stimulant effects from mitragynine and trace amounts of 7-OH, modern products carrying the "kratom" label are often unregulated, significantly more potent – containing added concentrations of 7-OH – and dangerous. These high-potency products, or 7-OH-enhanced products, are rapidly displacing traditional kratom leaf-products on retail shelves, creating a false sense of safety for consumers and increasing public health risks.

We continue to see calls to the Michigan Poison and Drug Information Center (MiPDC) related to exposures from kratom-labeled products, including cases involving adverse interactions, polysubstance use and concerns about severe symptoms. These calls often involve **concentrated products containing 7-OH** or situations where labeled kratom products were used alongside other substances. According to the MiPDC, in 2025, 7-OH-enhanced kratom product exposures demonstrated **higher risk of overdose,** higher withdrawal burden, more frequent buprenorphine recommendation/administration and higher ICU utilization. **This suggests that rapid market penetration of the highly potent 7-OH-enhanced kratom products is associated with greater health care utilization and withdrawal severity.**

While the annual number of reported exposures has fluctuated over time, cases increased in 2025. Adults ages 20-39 accounted for the highest number of reported kratom-related exposures to the MiPDC, however, exposures were reported across all age groups, including 69 cases involving children.


Number of Michigan kratom-related poison center exposures by year, 2018-2025.
Number of exposures
140
120
100
80
60
40
20
0
63
59
58
62
51
45
52
116
2018
2019
2020
2021
2022
2023
2024
2025
Data from Michigan Poisong & Drug Information Center (MiPDC) exposure data.
Case: any poison center call with "kratomn" as substance listed.


Number of Michigan kratom-related poison center exposures by age group, 2018-2025.
0-19
69 (14%)
20-39
277 (55%)
40-59
107 (21%)
60+
36 (7%)
Age not reported
17 (3%)
0
50
100
150
200
250
300
Number of exposures

Kratom's primary psychoactive alkaloids, mitragynine and 7-OH, bind to opioid receptors. At lower doses, these products may produce stimulant-like effects. At higher doses, concentrated 7-OH products have more potent opioid-like effects. While kratom products are not approved by the Food and Drug Administration for medical use, people report using kratom to self-manage pain, anxiety, fatigue or symptoms related to opioid withdrawal. However, regular use of 7-OH-enhanced kratom products can lead to dependence and withdrawal, overdoses resulting in seizure, other serious health events and even death. Severe events are often in relation to polysubstance use, used in combination with opioids, benzodiazepines, alcohol or other depressants.

Kratom and 7-OH products are widely available in gas stations, smoke shops, convenience stores and online marketplaces, often marketed as natural, herbal and/or legal. A commercial product's potency and composition can vary significantly. Some products, particularly extracts or "enhanced" formulations, may contain higher concentrations of 7-OH, which binds more strongly to opioid receptors and is substantially more potent than traditional leaf kratom products that people may be more familiar with.

The continued reports underscore the importance of provider awareness and clinical recognition. **We hope this bulletin serves as a reference for understanding health risks, drug interactions and clinical considerations to support screening, counseling and care for patients who may be using 7-OH-enhanced kratom products.** Thank you for your continued commitment to protecting the health and safety of Michigan residents.

Sincerely,

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Recognizing 7-OH-enhanced kratom products

7-OH-enhanced kratom products are often not immediately recognized by patients or clinicians as substances of concern, particularly because they are marketed as supplements, wellness products or energy boosters.



They are sold in a wide range of product types that may resemble common supplements or beverages, including powders and capsules.

- Teas and energy or "wellness" drinks.
- Gummies and candies.
- Concentrated liquid shots or extracts.

Some of these products are packaged similarly to energy shots, herbal supplements or flavored beverages, which can make them easy to overlook during screening or medication reconciliation. Patients may use the term “kratom” or may refer to these 7-OH-enhanced kratom products by strain names: Maeng Da, Bali, Borneo, Indo, Red, White or Green Kratom. Increasing provider familiarity with how these products appear and are labeled may support earlier identification and more accurate clinical assessment

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Health risks and clinical considerations

Regular use of 7-OH-enhanced kratom products has been shown to lead to physical dependence and reported withdrawal symptoms, such as:

- Anxiety, irritability and restlessness.
- Insomnia and fatigue.
- Gastrointestinal distress.

- Muscle aches, chills and runny nose.

Patients may increase dose or frequency to avoid withdrawal symptoms.

7-OH-enhanced kratom products can interfere with how the body processes many prescription medications. Because of this, people who use these products may experience stronger-than-expected side effects from their medications. This is particularly important for:

- Certain antidepressants and antipsychotics.
- Medications for anxiety or sleep, especially benzodiazepines.
- Some heart medications.
- Medications for pain.
- Any drug where small changes in dose can have a big effect.

Sedation and overdose risk may increase if 7-OH-enhanced kratom products are used with opioids, especially when combined with alcohol or benzodiazepines. Serious adverse events can occur, including:

- Seizures.
- Agitation, hallucinations and mood changes.
- Increased heart rate, hypertension or other cardiac symptoms.

What this means for clinicians

Because 7-OH-enhanced kratom products are unregulated in Michigan, product labels may not accurately reflect contents or potency. Some products have been found to contain varied or unexpectedly high alkaloid concentrations, heavy metals and stimulants or opioid-like substances. Effects can be unpredictable, particularly with concentrated products or when combined with alcohol, opioids, benzodiazepines or other sedating medications.

MDHHS encourages health care providers to incorporate 7-OH-enhanced kratom products into routine substance use assessment and clinical care:

- **Screen routinely:** Ask patients about use of 7-OH-enhanced kratom products, including teas, powders, capsules, liquid shots or gummies.
- **Assess risk:** Document frequency, product type, dose (if known) and co-use with other substances.
- **Monitor for adverse effects:** Be alert for sedations, agitation, seizures, gastrointestinal symptoms or withdrawal.
- **Prevent overdose:** Counsel patients on the heightened risk of combining 7-OH-enhanced kratom products with opioids, alcohol and sedatives. **Ensure naloxone access when possible.** Naloxone can be effective with 7-OH-enhanced kratom products, but because of the unregulated nature of these products and the exact 7-OH concentrations are unknown, there is no guarantee the naloxone will be effective.
- **Educate patients:** Explain that 7-OH-enhanced kratom products are unregulated in Michigan, meaning potency and contents may not match labeling.
- **Support reduction or discontinuation:** Use nonjudgmental, patient-centered approaches. Provide symptomatic support and referrals to behavioral health or addiction medicine services when appropriate.

Providers should remain alert to clusters of adverse events potentially linked to 7-OH-enhanved kratom products or specific products. Unusual patterns may be reported through appropriate clinical and public health channels, including MiPDC and local health departments.

Additional Resources

Kratom Education

- DEA – Drugs of Abuse Resource Guide 2024 – Kratom Drug Fact Sheet.
- Mayo Clinic – Kratom Unsafe and Ineffective.
- Know Overdose Nevada County – Kratom Fact Sheet (2025).

- National Council for Mental Wellbeing – What You Need to Know About Youth Kratom.

Data and Surveillance

- MDHHS MI Overdose Data to Action Dashboard.
- MDHHS Michigan's Crisis Response.
- CDC Drug Overdose Surveillance and Epidemiology (DOSE) System.
- DOSE Dashboard: Nonfatal Overdose Syndromic Surveillance Data.
- DOSE Dashboard: Nonfatal Overdose Emergency Department and Inpatient Hospitalization Discharge Data.
- CDC State Unintentional Drug Overdose Reporting System (SUDORS).
- SUDORS Dashboard: Fatal Drug Overdose Data.

Provider and Partner Tools

- MDHHS SUD Resources – Information for Health Professionals.
- MDHHS SUD Provider Map.
- MDHHS Naloxone Resources.
- Harm Reduction and Syringe Service Programs.