

Kratom and 7-OH What's the deal?

A Doctors for America Resource

What is Kratom?

Kratom is a botanical product derived from a tropical tree native to Southeast Asia. It has been used traditionally for centuries as a stimulant and analgesic. In the United States, kratom is widely available as a dietary supplement in the form of powders, capsules, teas, and concentrated extracts.



Kratom Products

Kratom and kratom-based products are currently legal and accessible in many areas, though U.S. and international agencies continue to review emerging evidence to inform kratom policy.

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Mechanism of Action

Kratom contains over 40 alkaloids. The two primary psychoactive compounds are:

- **Mitragynine** – the most abundant alkaloid (~60% of total alkaloid content)
- **7-Hydroxymitragynine (7-OH-MG)** – present in much smaller quantities (~2%) but significantly more potent

These alkaloids act as **partial agonists at the mu-opioid receptor (MOR)** and competitive antagonists at kappa- and delta-opioid receptors.

Impact

An estimated 10–16 million people in the United States take kratom, though current prevalence ranges of 1.3%–6.1% from national representative surveys may underestimate regular kratom users

Clinical Effects

Dose Range	Predominant Effect
Low dose	Stimulant-like: increased alertness, energy, sociability, mild euphoria
Low dose	Opioid-like: analgesia, sedation, euphoria, anxiolysis
Very High	Pronounced sedation, stupor; may mimic opioid overdose (though respiratory depression appears less common than with classical opioids)

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Dependence and Withdrawal

Regular kratom and 7-OH use can lead to tolerance, physical dependence, and a withdrawal syndrome similar to opioid withdrawal. Severity correlates with dose frequency and duration of use. Withdrawal symptoms typically begin within 12–24 hours of last use and last 1–3 days. Some patients may experience withdrawal within a few hours.

Withdrawal symptoms: muscle aches, joint pain, diarrhea, chills, tremors, decreased appetite, yawning, anxiety, restlessness, depressed mood, irritability.



Risk of Harm

- Death can occur from kratom use and occurs most often when used in combination with other substances such as alcohol or benzodiazepines
- Kratom and 7-OH can be expensive leading to financial strain due to chemical dependence
- Patients often do not associate kratom with being a harmful substance and may not identify themselves as having a problem
- Kratom and 7-OH are readily available in many states with restrictions starting to increase
- Patients with history of opioid use disorder who use kratom may be at increased risk of relapse

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Understanding why patients use Kratom

- Using as a treatment for underlying psychiatric disorder
- No access to opioids for chronic pain
- Recreation
- Focus
- It is important to identify the underlying driver of kratom use and treat underlying conditions appropriately

Identifying Kratom Use Disorders

- Screening for kratom use during patient encounters is the first step
- Discuss use patterns especially increasing dosages
- Utilize the DSM-5 criteria for substance use disorders for diagnosis

Treatment of Kratom Disorders

- Acute Withdrawal
 - Symptomatic management
 - Clonidine, ondansetron, loperimide, hydroxyzine
 - Standard screening tools for opioid withdrawal (e.g., COWS, SOWS) may be applied
- Treatment of Kratom Use Disorders
 - Approaches reported in the literature include:
 - **Sublingual buprenorphine-naloxone (Suboxone)** — reported as a promising option for both detoxification and maintenance therapy



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Harm Reduction Strategies

- Counsel patients on the harms of polysubstance use including risk of death
- Educate that purchased over the counter does not mean safe
- Prescribe naloxone to patients who use kratom or 7-OH as some case reports have shown benefit if overdose and respiratory depression

Regulatory Status (United States)

- Kratom is not federally scheduled under the Controlled Substances Act
 - The FDA has not approved kratom for any medical use and has issued consumer warnings
 - In July 2025, the FDA recommended that 7-hydroxymitragynine be scheduled under the Controlled Substances Act
 - Some states have enacted Kratom Consumer Protection Acts (KCPAs) with age limits and product purity requirements
 - Kratom does not appear on standard urine drug screens
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References:

<https://pmc.ncbi.nlm.nih.gov/articles/PMC8924421/>

<https://thecurbsiders.com/curbsiders-podcast/533-whats-the-tea-on-kratom>

