Therapy Education Library

A THERAPY EDUCATION LIBRARY GUIDE

A Guide to *Kratom* and 7-OH

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Before you begin

This guide is for education. It is not a diagnosis or a substitute for care from a licensed professional. For free, confidential treatment referrals, call the SAMHSA National Helpline at **1-800-662-4357**, any time. If someone may have taken too much, call Poison Help at **1-800-222-1222** or **911**. If you are thinking about suicide, call or text **988**.

PART 1

What Are Kratom and 7-OH?

Kratom is a tropical tree native to Southeast Asia. Traditionally, its leaves were crushed and brewed into tea for their euphoric and medicinal effects. Today, Kratom is sold over the counter (OTC) as tablets, capsules, and extracts. It is often used recreationally: at low doses it produces stimulating effects such as alertness, and at high doses it produces euphoric, sedating effects. Kratom use can lead to addiction and has been linked to several dangerous side effects, including dependence, vomiting, drowsiness, and psychosis.



Photo · Kratom (*Mitragyna speciosa*) plants. Stock image

7-hydroxymitragynine (7-OH) is a naturally occurring compound found in trace amounts in the leaves of the Kratom plant, and it produces highly potent effects. 7-OH is a mu-opioid receptor agonist, with pharmacological characteristics similar to those of morphine, fentanyl, and other opioids. It is commonly sold OTC at gas stations and smoke shops in pill, resin, powder, or liquid form.

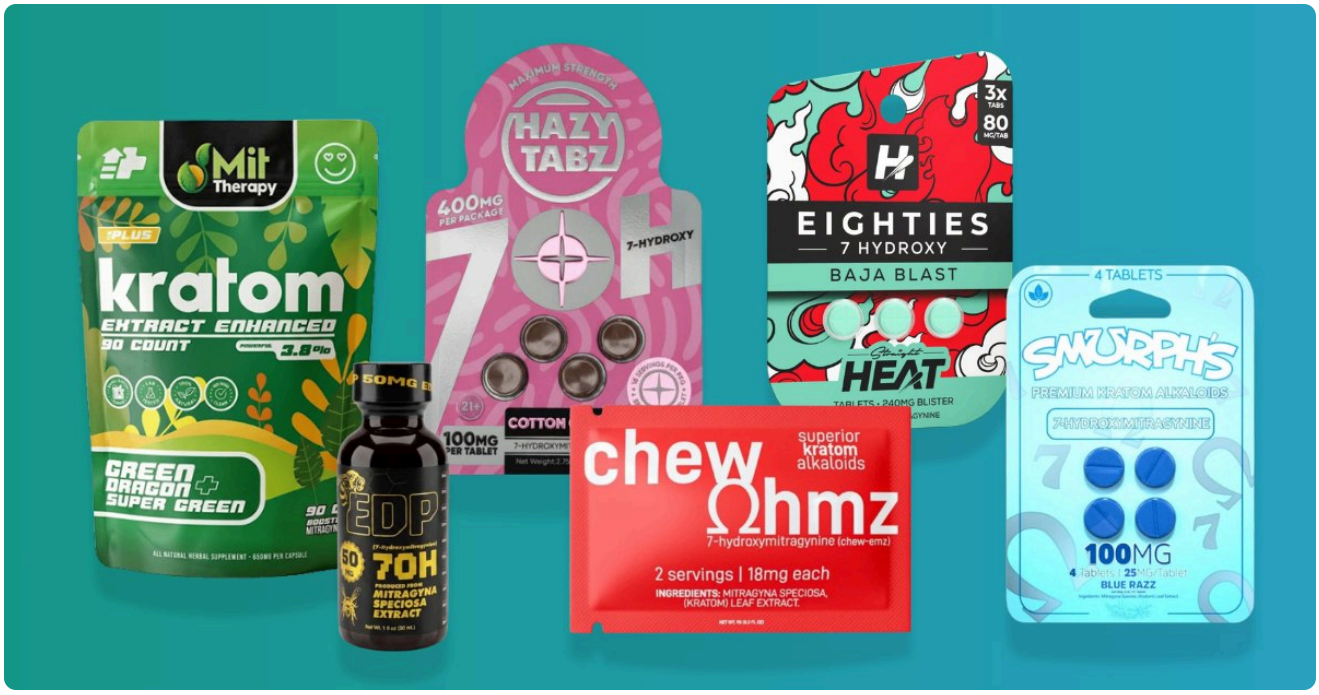


Photo · Examples of OTC Kratom and 7-OH products. Image: Welia Health

However, these OTC products are believed to be far more potent than what is extracted naturally from the Kratom leaf. Manufacturers are thought to convert other, more abundant alkaloids in the plant into 7-OH to create a stronger product. Research has found that OTC Kratom-related products contain 109–509% higher levels of 7-OH than the traces that occur naturally in the plant.[1] At these levels, the products carry a serious risk of recreational misuse.

109–509%

higher levels of 7-OH in OTC Kratom-related products than the traces that occur naturally in the plant.

Kratom & 7-OH are widely available OTC at gas stations, liquor stores, and smoke shops, as well as online.

Kratom & 7-OH products come in many forms: small bottles (similar to a five-hour energy shot), pills and tablets (packaged like standard OTC medication), gummies, and packets (similar to electrolyte packets), as well as traditional powders, teas, and leaves.

Kratom has been known as a recreational drug for many years, but its relatively low potency has limited its ability to cause serious or deadly harm. 7-OH, however, is a newer form of Kratom extract. Unless you work in addiction medicine, you may not even know that 7-OH comes from the Kratom plant. Historically, Kratom was sold as green or brownish pills, powders, or teas. 7-OH, by contrast, is sold in many forms and colors, often disguised by dyes or packaging.

PART 2

Why People Use Kratom and 7-OH

People use Kratom & 7-OH for a variety of reasons. A study of more than 350 Kratom & 7-OH users identified four main reasons people turn to Kratom.[2]

WHY PEOPLE USE KRATOM & 7-OH: FOUR GROUPS OF USERS

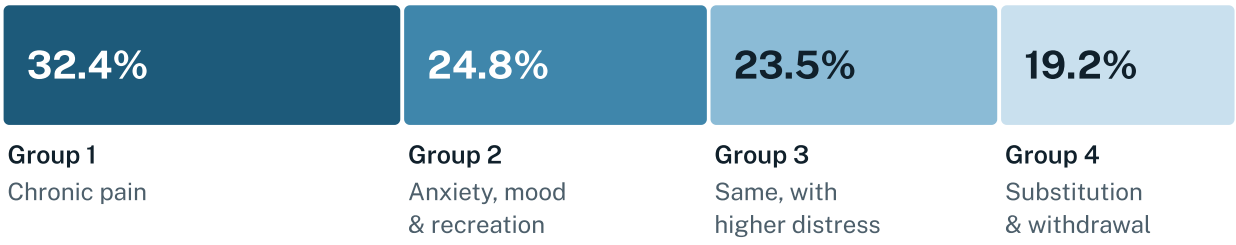


Figure 1 · Source: see note 2 on the Sources page

REASON 1

Chronic Pain

32.4%
of participants

The most common reason participants turned to Kratom & 7-OH was to manage chronic pain (32.4% of participants). People living with chronic pain often feel that conventional pain management is no longer working, so they look elsewhere for relief, much as some people turn to medical marijuana. But as with alcohol, cocaine, or other opioids, a substance that starts out as helpful can become a problem when it carries dangerous side effects or a high risk of misuse. Conditions people commonly self-treat with Kratom include fibromyalgia, arthritis, chronic migraines, and autoimmune disorders.

REASON 2

General Anxiety, Mood, and Recreational Use

24.8%
of participants

The second largest group (24.8%) used Kratom for general anxiety, mood, and recreational purposes. These users took Kratom to feel calmer, lift their daily mood, and reduce stress, and they enjoyed the pleasant, relaxing effects Kratom is known for. Notably, this group showed low levels of problematic use and used Kratom mainly to self-medicate for day-to-day well-being.

REASON 3

Anxiety, Mood, and Recreational Use with Higher Distress

23.5%
of participants

The third largest group (23.5%) also used Kratom for anxiety, mood, and recreational purposes, but reported much higher psychological distress and more problematic use than Group 2. Compared with Group 2, these participants had far higher rates of moderate-to-severe depressive symptoms (82% vs. 34%) and moderate-to-severe anxiety symptoms (50% vs. 13%), suggesting many were using Kratom to mask or self-medicate significant distress. They were also much more likely to have a moderate or greater Kratom use disorder (53% vs. 17%), pointing to a higher risk of dangerous or problematic use.

REASON 4

Substance Substitution and Withdrawal Management

19.2%
of participants

The smallest group (19.2%) used Kratom for substance substitution and withdrawal management, either as a replacement for illicit drugs or to ease withdrawal symptoms. People dependent on prescription painkillers, heroin, or fentanyl may see Kratom as a workable short-term alternative. Kratom's active compounds, mitragynine and 7-OH, act on the same opioid receptors as illicit opioids, so users may feel a similar high, or similar relief during withdrawal, as they would from their substance of choice.

As these findings show, people use Kratom & 7-OH for many different reasons. Because Kratom is sold legally and seen as "natural," coming from the leaves of a tropical tree, many users assume it is safe or even good for them.

But research shows that the Kratom sold in stores contains substantially higher levels of 7-OH, so unsuspecting buyers may be exposing themselves to dangerous levels of opioid-like compounds that can lead to physical dependence, withdrawal, toxicity, seizures, and even death.

PART 3: MINI-DIVE

Dangers and Overdose Risk

In 2025, the *Journal of Addiction Medicine* published a case report showing the devastating effects Kratom can have. It followed a 35-year-old man with a history of OTC Kratom use who eventually switched to 7-OH. Within two weeks, his tolerance had climbed so high that he was using a vial of 7-OH every one to two hours. He was ultimately diagnosed with a severe substance use disorder (SUD) and started on buprenorphine.[3]

> *Within two weeks, he was using a vial of 7-OH every one to two hours.*
>
> CASE REPORT · 35-YEAR-OLD MAN · JOURNAL OF ADDICTION MEDICINE, 2025

But many others are not so lucky. This fall alone, there have been several Kratom- and 7-OH-related deaths, including the deaths of two University of Mississippi students. A store clerk and his son now face federal charges of possession with intent to distribute controlled substances in connection with one of those deaths.[4]

The *Journal of the American Board of Family Medicine* has raised similar concerns about these adulterated "medicines." When Kratom is adulterated (altered by adding other substances), its potency and chemical makeup change.

The authors argue that concentrated 7-OH products carry a substantially higher risk, because their intense, opioid-like effects drive dependence, tolerance, and withdrawal.[5] They warn that withdrawal symptoms can include:

Muscle aches	Sweating	Anxiety	Insomnia
Diarrhea	Nausea	Restlessness	Strong cravings

Overdose

Overdose is the greatest and most dangerous risk of using Kratom, and 7-OH in particular. When a person takes an extremely high dose of 7-OH, or any opioid, the risk of overdose and death rises. A 7-OH overdose is most often caused by respiratory depression. 7-OH activates mu-opioid receptors throughout the brain, including in the brainstem, which regulates breathing and controls carbon dioxide (CO2) and oxygen (O2) levels. Once activated, these receptors change how brain cells communicate: they can reduce activity in certain neurons, trigger the release of neurotransmitters, or, in respiratory depression, suppress the neural circuits that generate and regulate breathing. The brain then stops responding normally to signals of low oxygen or rising carbon dioxide, and breathing can slow or even stop. Without enough oxygen, a person can lose consciousness, go into respiratory arrest, and die from prolonged oxygen deprivation.[6]

The risk of a 7-OH overdose rises further when it is combined with other substances, such as alcohol or other opioids.



Photo · Narcan (naloxone) nasal spray. Image: UW–Madison Police Department

If you think someone is overdosing, call 911 immediately and give Narcan (naloxone). Narcan is an opioid receptor antagonist: it pushes opioids off their receptors in the brain and reverses their effects, allowing the brain to recover and normal breathing to return. Keep in mind that more than one dose may be needed, that an overdose can return when Narcan wears off, and that emergency medical care is still needed even if Narcan was given correctly.[7]

If you need help now

If someone may be overdosing, call **911**. For Poison Help, call **1-800-222-1222**. For free, confidential treatment referrals, call the SAMHSA National Helpline at **1-800-662-4357**, any time.

PART 4

Signs of Dependence and Withdrawal

Warning signs that you, a patient, or a loved one may be developing a problem with Kratom or 7-OH include:

SEVERITY	Mild	Moderate	Severe
	2–3 symptoms	4–5 symptoms	6 or more symptoms

- [ ] Kratom/7-OH is often taken in larger amounts or over a longer period of time than intended.
- [ ] There is a persistent desire or unsuccessful efforts to cut down or control Kratom/7-OH use.
- [ ] A great deal of time is spent in activities necessary to obtain Kratom/7-OH, use it, or recover from its effects.
- [ ] Craving, or a strong desire to use Kratom/7-OH.
- [ ] Recurrent Kratom/7-OH use resulting in failure to fulfill major role obligations at work, school, or home.
- [ ] Continued Kratom/7-OH use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by its effects.
- [ ] Important social, occupational, or recreational activities are given up or reduced because of Kratom/7-OH use.
- [ ] Recurrent Kratom/7-OH use in situations in which it is physically hazardous.
- [ ] Continued use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by Kratom/7-OH.
- [ ] Tolerance, as defined by either of the following: (a) a need for markedly increased amounts of Kratom/7-OH to achieve intoxication or desired effect; (b) markedly diminished effect with continued use of the same amount of Kratom/7-OH.
- [ ] Withdrawal, as manifested by either of the following: (a) the characteristic Kratom/7-OH withdrawal syndrome; (b) Kratom/7-OH (or a closely related substance) is taken to relieve or avoid withdrawal symptoms.

Adapted from the DSM-5 criteria for opioid use disorder.[8]

PART 5

In Practice: Kratom, 7-OH, and Co-Occurring Disorders

In my work, I often see people enter treatment using Kratom alongside another substance. An estimated 1.5% of the US population reports lifetime Kratom/7-OH use. Among these lifetime users, 31% had at least one substance use disorder (4.5% had two, and 2.8% had three or more). Lifetime Kratom users were also far more likely to use other substances than people who had never used Kratom, and 26.7% reported major depression.[9]

LIKELIHOOD OF A CO-OCCURRING SECONDARY SUBSTANCE USE DISORDER



Figure 2 · Source: see note 9 on the Sources page

PART 6

Treatment Options

Quitting opioids cold turkey is difficult and dangerous, so it is best to consult a treatment provider first. The most common way to treat opioid use disorder is with medication.

	Buprenorphine (Suboxone)	Methadone	Naltrexone (Vivitrol)
HOW IT ACTS	Partially activates opioid receptors.	Fully activates opioid receptors.	Blocks opioid receptors.
WHAT IT DOES	Reduces cravings and withdrawal.	Reduces withdrawal and cravings.	Prevents opioids from producing their usual effects.
GOOD TO KNOW	Has a ceiling effect on some opioid effects, including respiratory depression.	Helps stabilize people with opioid dependence.	Requires an opioid-free period before initiation.

Research shows that when these medications are combined with therapy, AA, or other support, people are significantly more likely to achieve lasting recovery than by quitting cold turkey.[10]

If you or a loved one needs help with opioid use disorder, contact your treatment provider or local emergency room to start your recovery journey.

PART 7

A Closing Note

As Kratom & 7-OH become more accessible, it is important for clinicians, clients, and parents to know the risks these products carry. I hope that those who read this guide use its content to make educated decisions about Kratom & 7-OH.

Ben O'Connell

BEN O'CONNELL, LCSW

PART 8

What's Next

Here are some of the upcoming guides and content from Therapy Education Library:

- **Vol. 3:** Gambling and Obsessive-Compulsive Disorder
- **Vol. 4:** Medication-Assisted Treatment (MAT) for Gambling Disorder
- **Vol. 5:** Gambling in Collegiate and Professional Sports

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