

# Kratom: Benefits, Risks, Legal Status, and Everything You Need to Know

Kratom, a tropical plant native to Southeast Asia, has seen a massive rise in popularity across the United States and Europe over the last decade. Once an obscure herb used in traditional medicine, kratom is now the subject of both widespread consumer interest and mounting legal controversy. According to a 2023 report by the <u>American Kratom Association</u> (AKA), over 15 million Americans have tried kratom many seeking relief from pain, anxiety, or opioid withdrawal. Yet, the same surge has also coincided with thousands of adverse event reports, increasing ER visits, and even wrongful death lawsuits tied to unregulated or contaminated products.

The increasing use of kratom raises major public health questions. Supporters describe it as a miracle botanical with pain-relieving and anti-anxiety effects, while critics including several state legislatures and federal agencies warn of addiction, toxicity, and fatalities. Its legal status remains inconsistent: banned in some states and welcomed in others under regulation. And despite its widespread use, kratom remains largely unregulated, making consumer safety a growing concern.

This article offers an exhaustive, evidence-based look into kratom: what it is, how it works, its benefits and risks, and the critical legal, medical, and regulatory discussions surrounding it today.

#### What Is Kratom?

Kratom (*Mitragyna speciosa*) is a tropical evergreen tree indigenous to countries like Thailand, Indonesia, Malaysia, and Papua New Guinea. It belongs to the coffee family (Rubiaceae) and has been used for centuries by farmers and laborers in Southeast Asia to fight fatigue and relieve pain.

The leaves of the kratom plant contain more than 40 alkaloids, with **mitragynine** and **7-hydroxymitragynine** being the most pharmacologically active. These compounds interact with opioid receptors in the brain, producing stimulant effects at low doses and sedative or euphoric effects at higher doses.

While traditionally chewed raw or brewed into tea, modern kratom is now processed into powders, capsules, tinctures, extracts, and resins for retail sale often marketed online or in smoke shops, gas stations, and herbal stores across the U.S.



## Forms and Methods of Use of Kratom

Kratom is sold in multiple formulations, each varying in potency and effect:

- Raw Leaves Used traditionally in Southeast Asia by chewing or making tea.
- Powdered Leaves The most common modern form. Can be mixed with water or juice.
- Capsules Popular among Western users for convenience and accurate dosing.
- **Tinctures and Extracts** Concentrated forms, often used by experienced users. May pose higher risk due to strength.
- Resins or Crushed Leaf Rare but sometimes used for stronger effects.

#### **Methods of consumption** include:

- Drinking as tea
- Toss and wash (placing powder in the mouth and washing down with water)
- Mixing with smoothies or yogurt
- Sublingual tinctures

Dosage varies widely. Low doses (1–5 grams) may produce stimulating effects. Moderate doses (5–15 grams) may produce sedative and analysesic effects, while doses above 15 grams are considered high and increase the risk of side effects or overdose.

#### What Is Kratom Used For?

Kratom is used for a wide range of purposes, with motivations varying based on dosage, individual needs, and cultural context. While traditional Southeast Asian populations have long used kratom for physical endurance and relief from fatigue, modern users in the West often turn to kratom as a natural alternative to prescription medications for pain, anxiety, and addiction support. Below is a detailed breakdown of the most common uses of kratom today:

## 1. Pain Management

Kratom's most cited use is as a natural analgesic. Its alkaloids bind to opioid receptors in the brain, producing effects similar to those of morphine or codeine without technically being opioids. Many users report effective relief from:

- Chronic pain (back pain, joint pain, migraines)
- Neuropathic pain (sciatica, fibromyalgia)
- Inflammatory conditions (arthritis, autoimmune disorders)

Unlike prescription opioids, kratom is not regulated and does not carry the same overdose profile at therapeutic doses, though high doses still pose risks.



## 2. Anxiety and Depression Relief

Some users consume kratom to help manage symptoms of anxiety, panic disorders, and depression. The mood-enhancing effects are believed to stem from kratom's interaction with dopamine and serotonin pathways. Specific strains like "Green Malay" and "Red Bali" are popular for their calming properties, helping users experience a sense of emotional balance, reduced social anxiety, and improved well-being.

## 3. Boosting Energy and Focus

At low doses (1–5 grams), kratom acts as a mild stimulant. Users report increased motivation, mental clarity, and energy comparable to caffeine, but smoother and longer-lasting. This is especially common with white vein strains, which are marketed as productivity-enhancers and pre-workout alternatives. Laborers in Southeast Asia historically chewed kratom leaves to fight fatigue during long hours of physical work.

## 4. Opioid Withdrawal and Replacement Therapy

Kratom has gained traction in recent years as an aid for individuals recovering from opioid addiction. Some former opioid users report that kratom helped reduce their cravings and alleviated harsh withdrawal symptoms like nausea, insomnia, and body aches. Although not medically approved as a treatment for opioid use disorder, some harm reduction advocates see kratom as a safer bridge to long-term recovery. However, dependence on kratom itself is a growing concern.

## 5. Mood Enhancement and Euphoria

Moderate doses (4–8 grams) of kratom can produce mild euphoria, increased sociability, and emotional uplift. These effects are often short-lived but sought after by individuals dealing with chronic stress, burnout, or emotional exhaustion. Red vein strains are especially popular for their sedative and mood-balancing qualities.

# 6. Sleep and Relaxation Aid

Certain strains of kratom particularly red-vein varieties are used by individuals with insomnia or restless sleep patterns. Kratom's sedative properties at higher doses can promote relaxation and help ease the transition into sleep. It is commonly used as an alternative to benzodiazepines or over-the-counter sleep aids.

# 7. Other Emerging or Anecdotal Uses

• Post-workout recovery (due to anti-inflammatory effects)



- ADHD management (for improved focus though not clinically validated)
- Sexual performance enhancement (in low doses, due to stimulant effect)
- Migraines and cluster headaches (as a pain-relief strategy)

While kratom is used for these purposes, it's important to remember that most of these applications are supported by anecdotal evidence, not large-scale clinical trials. The FDA has not approved kratom for any medical condition, and self-medicating can carry significant risks, particularly without proper dosage knowledge or product testing.

Kratom's effects stem largely from mitragynine and 7-hydroxymitragynine. These alkaloids interact with mu-opioid receptors, similar to morphine, though with different intensity and mechanisms.

- Mitragynine: The most abundant alkaloid; acts as a partial agonist at opioid receptors, delivering mild to moderate analgesia
- **7-Hydroxymitragynine:** Much more potent than mitragynine; responsible for sedative and euphoric effects

Studies have found that kratom alkaloids also interact with adrenergic and serotonergic systems, contributing to its complex profile. However, peer-reviewed research is still in early stages, and most trials are either animal-based or observational.

## The Science Behind Kratom

Kratom's main alkaloids, mitragynine and 7-hydroxymitragynine, act primarily on **mu-opioid receptors** the same receptors targeted by drugs like morphine and fentanyl. However, their structure and activity differ slightly, which gives kratom both stimulant and sedative effects depending on the dose.

- Mitragynine is a partial agonist of opioid receptors, meaning it activates them but not as strongly as typical opioids.
- **7-hydroxymitragynine** is more potent and has been shown in some studies to be 13 times more powerful than morphine.

Early studies show kratom also interacts with **serotonin**, **dopamine**, and **adrenergic receptors**, which may explain its mood-lifting and stimulating properties.

Despite promising animal studies and anecdotal user reports, large-scale, placebo-controlled human trials are lacking. The DEA has cited this knowledge gap in its opposition to full-scale legalization.



## Health Risks and Side Effects

While kratom may offer therapeutic benefits, its risks are real especially at higher doses or with long-term use.

#### Common Side Effects:

- Nausea and vomiting
- Constipation
- Dry mouth
- Sweating
- Loss of appetite
- Dizziness or drowsiness
- Insomnia

#### Severe Risks

- Liver Damage: Reports of cholestatic liver injury in chronic users.
- Seizures: Particularly in cases of high doses or adulterated products.
- Respiratory Depression: Especially when mixed with sedatives or alcohol.
- Psychosis: Hallucinations and paranoia in heavy users.
- Cardiac Issues: Irregular heartbeat and elevated blood pressure have been noted.

In 2021, the CDC reported over **1,800 kratom-related calls to poison control centers**, and more than **90 deaths** were linked to kratom, often in combination with other substances.

#### Kratom Addiction and Withdrawal

Contrary to claims of being "non-addictive," kratom can cause physical and psychological dependence. Users who abruptly stop report withdrawal symptoms similar to opioids, though generally milder.

# Signs of Addiction:

- Tolerance (needing more for same effect)
- Inability to quit
- Withdrawal symptoms
- Continued use despite harm



## Withdrawal Symptoms:

- Muscle aches
- Irritability or mood swings
- Insomnia
- Runny nose
- Fatigue
- Diarrhea
- Depression or anxiety

Detox from kratom may require medical supervision in severe cases. Some rehab centers now offer kratom-specific addiction programs.

# Legal Status of Kratom in the United States

Kratom's legality is one of the most confusing aspects of its use:

In the United States:

- Federally legal (not scheduled under the Controlled Substances Act)
- Banned in 5 states: Alabama, Arkansas, Indiana, Vermont, Wisconsin
- Banned in some cities/counties (e.g., San Diego, CA; Sarasota County, FL)
- Regulated via KCPA in several states like Georgia, Utah, and Nevada

The **FDA** has repeatedly issued warnings, seized kratom imports, and published health risk assessments. The **DEA** proposed scheduling kratom as a Schedule I drug in 2016, but intense public backlash caused them to withdraw the plan temporarily.

#### Internationally:

- Banned in countries like Thailand (recently legalized again), Australia, Malaysia, and several European nations.
- Legal in Canada but unapproved for consumption.
- Often sold as "not for human consumption" to bypass regulation.

# Kratom Regulation and Consumer Protection

A growing number of states are adopting the <u>Kratom Consumer Protection Act</u> (KCPA), which aims to regulate kratom rather than ban it. These laws typically require:

• Age restrictions (18+ or 21+)



- Product labeling requirements
- Prohibitions on adulterants or synthetic kratom
- Mandatory third-party lab testing
- Reporting and enforcement systems

Still, most kratom products are sold in an unregulated marketplace. No <u>FDA-approved kratom</u> drugs or supplements exist, and many products lack batch testing, proper dosage info, or verified alkaloid levels.

# **Expert Opinions and Debates About Kratom**

Medical, legal, and regulatory experts remain split:

- Addiction medicine specialists warn of dependency risk and call for FDA oversight.
- **Ethnobotanists and pharmacologists** point to kratom's complex chemistry and long traditional use as reason for continued research.
- Legal scholars argue that banning kratom pushes it underground and harms public safety.
- **Advocacy groups** like the AKA claim the deaths are from contaminated or synthetic products, not pure kratom.

The consensus: more independent research, regulation, and public education are essential.

## Should You Use Kratom?

Kratom may help some users, but not without risks.

You should not use kratom if you:

- Are pregnant or breastfeeding
- Have a history of substance abuse
- Are on medications that affect liver function or CNS activity
- Don't have access to third-party tested products

#### If you choose to use it:

- Start with low doses
- Use products with verified testing
- Avoid combining with alcohol, benzodiazepines, or opioids
- Monitor your body for adverse reactions

Always consult a healthcare provider before using kratom, especially for medical purposes.



## Conclusion

Kratom sits at a controversial crossroads, praised as a natural alternative to opioids and condemned as a dangerous, unregulated drug. The reality lies somewhere in between. While the plant itself holds promise, the lack of standardization, regulation, and clinical evidence leaves consumers vulnerable.

As the debate continues, one thing is clear: more research, legal clarity, and consumer education are urgently needed. Whether kratom becomes a regulated supplement, a scheduled drug, or a modern herbal tool depends on how the next few years unfold.