What is KRATOM?

Stanford MEDICINE
REACH Lab

Kratom is a substance derived from a tropical tree native to Southeast Asia. It is often turned into powders, capsules, & extracts.

Main active compounds in the natural Kratom leaf:

Mitragynine

~66%

of the plant's total alkaloid content

- Produces weaker opioid-like effects than full opioids because it only partially activates opioid receptors.
- Primarily responsible for the psychoactive effects (makes the user feel "high") in natural kratom leaves.
- **Main concern:** Liver harm
  - Taking kratom with some prescription medicines – including certain antidepressants – can affect how the liver processes those medicines. This may raise the chance of harm.

7-hydroxymitragynine (7-OH)

<1%

of the plant's total alkaloid content

- A compound with much stronger opioid-like effects than mitragynine.
- Some animal studies suggest that 7-OH may be up to 13 TIMES more potent than morphine.
- **Main concerns:** Slowed or dangerous breathing, addiction, and in some cases, death.

Natural Leaf vs. Semi-synthetic Kratom Products

Kratom leaf:
In the natural growing kratom leaf, 7-OH exists in only trace amounts.

Concentrated extracts & enhanced 7-OH products (Semi-Synthetic):
Many brands "enhance" their kratom product's effects by **increasing the amount of Mitragynine, 7-OH, or Mitragynine pseudoindoxyl (MP)**. These heightened opioid-like effects can cause even more severe health implications including death.



Most recent concerns involve concentrated extracts & enhanced 7-OH products rather than traditional leaf powder alone!



Kratom is NOT authorized or approved by the FDA:

- Beccause of this, kratom is illegal to sell and banned in several locations
- **Potency** of active compounds **can be different from package to package** or from tree to tree making unintentional high-dose exposure a huge risk
- Labels may be misleading (sometimes 7-OH is the most common component in each of these products, despite them being labeled as "Kratom")
- Some products may contain **heavy levels of metal content**

Effects of Kratom and 7-OH on the Body



Most Common Side Effects

- Nausea
- Constipation
- Dry mouth
- Dizziness
- Sweating
- Itching
- Loss of appetite
- Increased urination
- Insomnia

Common with Regular Use

- Tolerance
- Dependence/Addiction
- Withdrawal

Less Common, but Serious

- Confusion
- Hallucinations
- High blood pressure
- Seizures
- Liver damage

More Rare but Dangerous

- Severe respiratory depression
- Psychosis
- Death



If you suspect someone may be experiencing a drug overdose, **never hesitate to administer naloxone and call 9-1-1.**

Learn how to administer naloxone: tinyurl.com/REACHYouthNaloxoneVideo

How Kratom is Consumed



Dried leaf powder | **Capsules** | **Liquid extracts** | **Gummies** | **Teas/ energy drinks**

NOTE: Many of these products are enhanced 7-OH products rather than traditional leaf powder alone!

From 2015-2026, there was a

1200%

surge in US poison center calls related to kratom according to the CDC



What can increase risks...

Risks increase significantly when kratom is used in combination with alcohol, other drugs, or medications.

Where Kratom is Sold...



Smoke Shops | **Gas Stations** | **Retail Stores** | **Online**

THE KRATOM CONVERSATION

View our kratom curriculum today!