What is KRATOM?

Stanford MEDICINE
REACH Lab

Kratom is a substance that comes from a tropical tree that typically grows in Southeast Asia.



Chemicals in kratom leaves that effect the brain & body

Mitragynine

~66%
of all the alkaloids
(natural chemicals) in kratom

- 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-OH (7-hydroxymitragynine)

<1%
of all the alkaloids
(natural chemicals) in kratom

- 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.

Dosage makes a difference!

Low dose:
Stimulant effects like feeling more awake or energetic.

High dose:
Sedative opioid-like effects, potential, addiction, psychosis, & confusion.

Natural Leaf vs. Semi-synthetic Kratom Products

Natural Kratom Leaf:
Natural kratom leaves contain only tiny amounts of 7-OH.

Concentrated Extracts & Enhanced 7-OH Products (Semi-Synthetic):
Some brands try to make kratom products stronger by increasing levels of mitragynine, 7-OH, or mitragynine pseudoindoxyl (MP). These stronger, opioid-like effects may lead to more serious risks including death.





Most concerns are about concentrated & enhanced 7-OH products rather than traditional leaf powder alone!

Effects of Kratom and 7-OH on the Body



Most Common Side Effects
- Nausea
- Constipation
- Dry mouth
- Dizziness
- Sweating
- Itching
- Appetite loss
- Increased urination
- Trouble sleeping

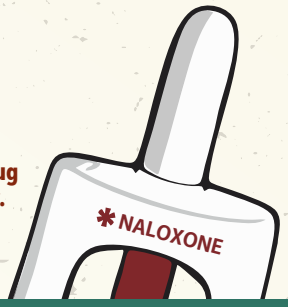
Common with Regular Use
- Tolerance
- Dependence/Addiction
- Withdrawal

Less Common, but Serious
- Confusion
- Hallucinations
- High blood pressure
- Seizures
- Liver damage

More Rare but Dangerous
- Slowed or dangerous breathing
- Psychosis
- Death

If you think someone may be experiencing a drug overdose, use naloxone & call 9-1-1 right away.

Learn how to administer naloxone:
tinyurl.com/REACHYouthNaloxoneVideo



Different Forms of Kratom



Dried leaf powder



Capsules



Liquid extracts



Gummies



Teas/ energy drinks

NOTE: Many of these products have added 7-OH rather than being natural traditional leaf powder alone!



What can increase risks?

Risks increase when kratom is used with alcohol, other drugs, and medications!

Kratom is NOT authorized or approved by the FDA:

- Beccause of this, kratom is illegal to sell and banned in several locations.
- Srength can vary a lot between different products or even between different trees, which can lead to accidentally taking too much.
- Packaging labels may not always be right, and some products may contain more 7-OH than expected even though they are still sold as "kratom."
- Some products may also contain heavy metals.



THE KRATOM CONVERSATION

Learn more by exploring our kratom curriculum today.