

# KRATOM

*While kratom is marketed as a natural supplement, its psychoactive properties and potential for addiction raise significant concerns*

## Kratom contains many active chemicals called alkaloids.

Two of them - mitragynine and 7-hydroxymitragynine - *can stimulate opioid receptors*. Mitragynine is the most significant alkaloid and can have stimulating effects. 7-hydroxymitragynine is found in much smaller amounts but is more potent; causing euphoria and stimulating mu-opioid receptors, similar to morphine. The opiate-like effects of kratom are linked to the effects of 7-OH on those brain receptors.



**Whole leaf kratom** is consumed as fresh squeezed juice or dried leaves that are turned into a powder used for tea or placed in capsules. One gram of whole leaf kratom powder has 10-30 mg of mitragynine and less than 0.3-0.9 mg of 7-hydroxymitragynine. The average chronic user consumes 2-6 grams of whole leaf kratom daily. The effects begin within 30 minutes and last 4-6 hours. The production of kratom is unregulated, therefore some whole leaf kratom products have excessive heavy metal doses and should not be used by consumers.

**Mitragynine** can be extracted from kratom leaves. This process reduces most of the heavy metals and allows for manufacture of products with various doses of mitragynine. Many of these products are attractive to children - taffy, chocolate bars, and even “noobs” that look like the popular gummy clusters. *This alkaloid behaves like an opioid* so some individuals use it for pain management though there can be negative side effects.

**7-OH products** have seen a recent surge in popularity. These products are lab-grown/synthetic variations of mitragynine. The potency and opioid-like effects of 7-OH products have led to the nickname “gas station heroin.” These products have been shown in animal studies to cause euphoria and addiction similar to morphine. Anecdotal experiences suggest that they are as addictive as prescription and illicit opioids. They can cause people who are treating their opioid addictions with kratom to lose control of their opioid use disorder. These products are often sold as “natural” or called kratom products, but these descriptors are misleading and dangerous.

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**Adverse effects** from whole leaf kratom products or mitragynine extracts include dry mouth, nausea and vomiting, elevated blood pressure, delusions, hallucinations, and seizures. The risks increase along with the dose. *The risks and addiction potential of whole leaf kratom and mitragynine products are similar to those of alcohol and cannabis.* Prolonged use can cause tolerance and withdrawal symptoms. One tolerance symptom is hyperalgesia where they feel total body achiness when they are not taking kratom or another opioid. *Some consumers use whole leaf kratom products or mitragynine extracts to self-treat for their opioid use disorders or pain issues.* Anecdotal evidence suggests value in both uses, however no good clinical trials have confirmed this.

**Our main concerns** include the accessibility and appeal of these mitragynine extract and 7-OH products to young people. Currently, kratom products are sold in CT without age restrictions and have been found by youth doing “environmental scans” at vape shops, corner stores, and bodegas. Similar to alcohol, cannabis, and tobacco/vape products, kratom sales should be restricted to only those age 21 and older.

