

Kratom: A Supplement to Opioid Addiction

Danny Vo, Megh Patel, Tanner Stern, Tyler Stern

UCI School of Pharmacy and Pharmaceutical Sciences

Background

Kratom (sold as Feel Free and others) is an herbal supplement that contains the alkaloid 7-hydroxymitragynine, producing opioid-like effects, which include euphoria and sedation. While some users report pain relief and reduced opioid withdrawal symptoms, kratom has also been associated with dependence toxicity, and overdose when used chronically or at high doses.

Status of Kratom Abroad:

Many countries treat kratom as a controlled substance. In Australia, it is a schedule 9 substance, as is heroin. In both Singapore and Malaysia, possession of kratom is a prisonable offence. In Poland and Sweden, kratom is also considered illegal and is in the same class as other narcotics. These countries banned kratom due to a lack of evidence, and concerns regarding addiction.

In the United States, kratom is legal federally, but is banned in certain states, such as Alabama, Arkansas, Indiana, Rhode Island, Vermont, and Wisconsin. Even within California, kratom is banned in San Diego.

Kratom is usually grown naturally in many asian-pacific countries. Countries including Indonesia, Malaysia, Singapore, and South Korea strictly enforce a ban on any possession of kratom.

Issue at Hand

Kratom use is a public health concern, but it is currently legal to sell without any regulation due to its status as a supplement, despite its opioid-like effects and high abuse potential.

Safety Concerns & Adverse Effects

- Nausea, vomiting, constipation
- Hepatotoxicity
- QT prolongation and seizures
- Respiratory depression
- Withdrawal effects

Proposed Resolutions

Assembly Bill AB 1088: Public health: kratom
The proposed bill would set limits on the sale of kratom. This restricts the amount of kratom that can be sold to 2%, restricts those under the age of 21 from being able to purchase the product, restricts advertising of kratom products to children, and requires the packaging of the product to be child-resistant.

Clinical & Drug Interaction Concerns

Kratom has a few severe drug interactions, such as concurrent use with CYP450 enzyme inhibitors. Taking Kratom along with other CYP450 inhibitors may alter how drugs are metabolised in the body. Concurrent use with CNS depressants (such as opioids) can cause an increase in both respiratory depression and sedation.

Impact of Resolutions and Future Impact

Kratom product sales will be limited only to those over 21 and limits the kratom content of these supplements. This may lower the rate of addiction among its users. Setting maximum concentration limits (e.g. 2%) may reduce the likelihood of overdose and any adverse effects. An area of concern is partial regulation as this may not fully address public health risks. If access becomes restricted without enforcement consumers may turn online to black market sources where products are contaminated or higher potency. In the long term stronger oversight, mandatory testing and adverse event reporting systems will be beneficial for public safety.

Role of Pharmacists:

Pharmacists can assist with reducing the use of kratom by educating patients on the risks and dangers of Kratom. By spreading awareness about the dangers and addictive properties of kratom, fewer people may turn to kratom and fall victim to the advertising surrounding kratom products. If someone is addicted, patients can be given resources that help them overcome substance abuse. Pharmacists can only do so much to prevent patients from using kratom, so it is important for pharmacists to also advocate for laws that make obtaining Kratom harder. Reporting adverse effects and events associated with Kratom to the public can also help spread awareness of the risks of this drug, as well as bring this issue to the desks of lawmakers.

Future Considerations:

Kratom should not be available over-the-counter as a supplement due to its addictive properties and high potential for abuse. Even the proposed resolution does not go nearly far enough. Rather than treating kratom as a recreational drug, like nicotine or alcohol, recreational kratom use should be banned in the state of California, following in the footsteps of many other US states, or at least controlled like many other opioids. Until its therapeutic potential has been researched, 7-hydroxymitragynine and kratom-containing products should not be allowed on the market, both in California and federally.

References:

Kratom (Mitragyna speciosa) drug profile | www.euda.europa.eu. Europa.eu. Published 2024.
https://www.euda.europa.eu/publications/drug-profiles/kratom_en
AB 1088: Public health: kratom. Digitaldemocracy.org. Published 2025. https://calmatters.digitaldemocracy.org/bills/ca_202520260ab1088
Kratom Use Statistics & Legality By State. Bicycle Health. <https://www.bicyclehealth.com/blog/kratom-statistics-legality-by-state>
Kratom: Unsafe and ineffective. Mayo Clinic. Published 2024.
<https://www.mayoclinic.org/diseases-conditions/prescription-drug-abuse/in-depth/kratom/art-20402171>
Kratomit.eu. Kratom legality: Where is kratom legal and where is it not? - Kratomit.eu. Published November 2026. Accessed February 19, 2026. <https://www.kratomit.eu/kratom-legality-where-is-kratom-legal-and-where-is-it-not/>

