HEALTH BASICS

Kratom

Kratom is a psychoactive plant product with stimulant-like and opioid-like effects.

WHAT IT IS
A psychoactive product made from Mitragyna speciosa leaves

WHERE IT COMES UP
Powders, capsules, teas, extracts, gummies, or bottled shots

WHY IT MATTERS
Can affect alertness, breathing, dependence risk, and medicine safety

WHAT IT IS NOT
Not a disease or an FDA-approved treatment

WHO TO ASK
Primary care clinician, pharmacist, poison control, or addiction service

HOW IT IS CHECKED
Product history and specialized mitragynine testing when needed

Overview

Kratom is made from the leaves of Mitragyna speciosa , a tree native to Southeast Asia. It is sold as dried leaves, powder, capsules, tea, extracts, gummies, and concentrated drinks sometimes called shots.

Kratom is not a disease or a diagnosis. It is a psychoactive substance, meaning it changes how the brain and nervous system work. People may use it for energy, pain, mood, or to manage opioid withdrawal. However, these uses have not been approved as medical treatments by the US Food and Drug Administration (FDA).

Kratom products are not all equivalent. The amount of active chemicals can differ between products and batches. Concentrated extracts may differ greatly from traditional leaf preparations. Some products sold alongside kratom contain concentrated 7-hydroxymitragynine, often called 7-OH, and should not be assumed to act like ordinary kratom leaf.

There is no established kratom dose that can be considered safe for everyone. Product labels may not accurately show strength, purity, or added ingredients.

How it works

Kratom contains many natural chemicals called alkaloids. The best studied are mitragynine and 7-hydroxymitragynine.

These chemicals interact with opioid receptors. These are parts of nerve cells involved in pain, reward, mood, and breathing. Kratom does not come from the opium poppy, but some of its effects overlap with those of opioids like oxycodone or morphine .

People often describe more stimulating effects, such as increased alertness, with some products or amounts. Other products or larger amounts may cause relaxation, sleepiness, or opioid-like effects. This pattern is not predictable enough to guide safe dosing. Extract strength, individual metabolism, other substances, and product contents can all change the response.

The liver breaks down kratom chemicals. Kratom may also affect how the body processes some medicines, although many possible interactions have not been studied well. Combining it with alcohol, opioids, sleep medicines, benzodiazepines like diazepam or lorazepam , or other sedating substances may increase drowsiness and breathing risk.

Why it matters for your health

Kratom can cause unwanted effects such as nausea, vomiting, constipation, dizziness, sweating, dry mouth, sleepiness, agitation, or a fast heartbeat. The effects can be difficult to predict because commercial products are not standardized.

Regular use can lead to physical dependence. This means the body adapts to the substance and reacts when it is stopped. Withdrawal may include restlessness, irritability, low mood, difficulty sleeping, muscle aches, runny nose, diarrhea, or strong urges to use kratom.

Dependence is not the same as a substance use disorder. A substance use disorder involves continued use despite harm, difficulty controlling use, or major effects on daily life. Either concern is worth discussing with a clinician without judgment.

Kratom has been linked to liver injury, seizures, confusion, abnormal heart rhythms, and slowed breathing. Serious events appear more likely when concentrated products, unknown ingredients, or other drugs are involved. Deaths have been reported, often after more than one substance was taken, which can make kratom's exact role difficult to determine.

Pregnancy and breastfeeding raise additional concerns. Kratom has not been shown to be safe during pregnancy, and regular use during pregnancy has been associated with withdrawal in newborns. If you are pregnant and using kratom regularly, seek medical advice rather than stopping suddenly without support.

What can go wrong

Poisoning or overdose can cause severe sleepiness, confusion, vomiting, seizures, loss of consciousness, or respiratory depression. Respiratory depression means breathing becomes dangerously slow, shallow, or irregular. Risk may be higher when kratom is combined with opioids, alcohol, benzodiazepines, or other sedatives.

Dependence and withdrawal can develop with repeated use. A person may find they need more for the same effect, feel unable to cut down, or continue despite problems at work, home, or with health.

Drug-induced liver injury is inflammation or damage caused by a substance. Warning signs include yellow skin or eyes, dark urine, pale stools, severe itching, or persistent pain under the right ribs.

Medicine and drug interactions may increase sedation, breathing problems, heart effects, or medicine levels. Research has not identified every possible interaction, so a complete medicine and supplement list is important.

Contamination or adulteration means a product contains unwanted germs, metals, medicines, or other chemicals. Kratom products have previously been linked to Salmonella infections and excessive levels of lead and nickel. Appearance and taste cannot confirm that a product is uncontaminated.

Pregnancy-related exposure may affect both the pregnant person and newborn. A newborn exposed regularly before birth may need medical care for withdrawal after delivery.

What you can do

There is no home test that can show whether kratom is pure, accurately labelled, or safe for you. Independent laboratory testing may provide information about selected contaminants, but it cannot remove kratom's drug effects or rule out every hazard.

If you use kratom, keep a record of:

Bring the packaging or a clear photograph to a medical visit. Ask a pharmacist or clinician to review possible interactions, especially if you take opioids, sedatives, mental health medicines, seizure medicines, or medicines processed by the liver.

Arrange routine follow-up if you use kratom regularly, use it to manage pain or opioid withdrawal, need increasing amounts, or have trouble cutting down. Evidence-based treatments exist for pain, opioid use disorder, anxiety, and other reasons people may turn to kratom.

Seek prompt medical care for persistent vomiting, dehydration, yellow skin or eyes, dark urine, worsening confusion, or a suspected product-related infection.

Call emergency services for very slow or stopped breathing, inability to wake, a seizure, collapse, blue or grey lips, or severe chest pain. If opioid-type poisoning is possible, give naloxone if it is available and you know how to use it, then remain with the person until help arrives.

In the United States, Poison Control can provide immediate advice at 1-800-222-1222 . Elsewhere, contact your local poison information service. Keep the product container available.

- The product name, form, manufacturer, and batch or lot number
- When you took it and the approximate amount shown on the label
- Medicines, alcohol, supplements, or other substances taken with it
- Any unexpected effects and when they began

Common questions

Is kratom an opioid?

Kratom is not made from the opium poppy and is not a conventional opioid medicine. However, some kratom chemicals activate opioid receptors and can produce opioid-like effects, including dependence and slowed breathing.

Does a standard drug screen detect kratom?

Usually not. Standard workplace or clinical drug panels generally do not include kratom. Specialized urine or blood tests can look for mitragynine or related chemicals, but they are not routinely available. A test result also cannot show whether a particular product was safe.

Is kratom an approved treatment for pain or opioid withdrawal?

No. The FDA has not approved kratom as a medicine for any condition. If you are using it for pain or opioid withdrawal, a clinician or addiction service can discuss treatments with better-established quality, dosing, and monitoring.

Can I stop kratom suddenly?

Occasional use may not cause physical dependence, but regular users can experience withdrawal after stopping. If you use kratom often, have previously had withdrawal, are pregnant, or also use opioids or sedatives, ask a clinician or addiction service for an individual plan. Do not substitute dosing advice from product sellers for medical assessment.

Does "natural" kratom mean it is safer?

No. Natural substances can have strong drug effects. Kratom strength can differ between products, and contamination or added ingredients may not be visible on the label.

Sources

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- Post S, Spiller HA, Chounthirath T, Smith GA. Kratom exposures reported to United States poison control centers: 2011-2017 . Clinical Toxicology . 2019;57(10):847-854.