



# Kava-kava

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## What is kava-kava?

Kava (also known as kava-kava) is a type of pepper that grows on the islands of the South Pacific. Its scientific name is *Piper methysticum*. The root is used medicinally. A beverage called kava-kava is traditionally created by grinding or chewing the root and mixing it with water or coconut milk. This beverage plays an important part in many of the cultural and religious customs of the native peoples of the Polynesian islands. Kava-kava creates a relaxed and mellow state, a property that has led many Western governments to consider it a recreational drug.

## WARNING

In August 2002, Canada's Federal Health Ministry, Health Canada, issued an order stopping the sale of supplements containing the herb kava because of safety concerns. Reports from the European Union, particularly Germany, suggested that the use of kava preparations has caused serious liver dysfunction and damage in more than 40 people, three of whom have died. As well, in six cases a liver transplant was necessary. The German drug regulatory agency, BfArM, banned the sale of kava. In Canada, there have been four cases of liver damage — none of

which resulted in death — associated with the use of kava.

People who use kava and who may be at increased risk of liver damage include those with pre-existing liver problems related to the following:

- diseases
- previous or current drug/alcohol abuse

Health Canada advises consumers to do the following:

- Check the label of herbal or food products for the presence of kava.
- Stop using these products and return them to their point of sale.
- Consult their health care provider if they have had any adverse effects from taking kava-containing products.

The following symptoms may occur in people with liver damage:

- nausea
- vomiting
- unusual tiredness
- weakness

- stomach or abdominal pain
- loss of appetite
- brown urine
- yellowing of the skin or whites of the eyes (jaundice)

Health care professionals and practitioners of complementary and alternative medicine can continue to report suspected adverse effects using the appropriate form — available at [www.hcsc.gc.ca/hpb/dgps/therapeut/zfiles/english/forms/adverse\\_e.pdf](http://www.hcsc.gc.ca/hpb/dgps/therapeut/zfiles/english/forms/adverse_e.pdf) — or via a toll-free telephone number — 1.866.234.2345.

What do people with HIV use this supplement for?

- **To treat anxiety**

Kava is used to treat anxiety and tension not related to mental illness. In one placebo-controlled German trial, participants took 100 mg of kava extract three times a day for four weeks. Researchers observed a significant reduction in anxiety after one week of this treatment. They observed no signs of physical or psychological dependency in the subjects, and no adverse effects were noted. Kava is considered a sedative, but one small study suggests it does not disturb mental alertness or coordination as much as other anti-anxiety medications such as Valium and other benzodiazepines. Kava has not been tested in HIV positive people.

- **To relieve pain**

Kava has also traditionally been used as a painkiller. It is most often used for muscle pain and spasms. Studies on mice given injections of kava seem to support this use, but no studies have been done in humans.

## Available forms and usage

In North America, kava is most commonly available in 100 mg capsules of a standardized extract that should contain 70% kavalactone. Most people take one capsule two or three times a day.

## Kava and liver damage

Though this herb is widely used in the South Pacific, numerous reports of liver dysfunction due to kava toxicity have not been reported from these islands. Moreover, authorities in the South Pacific have not banned the use of kava. To try to understand why this difference in toxicity may have occurred, we have prepared some background information.

## Traditional use of kava

Traditionally, kava is an important part of social life and has been used in some South Pacific societies as a relaxant. Today, its most common use in the European Union (EU) and North America has been for the management of the following:

- anxiety
- mild depression
- problems falling asleep

Kava does not appear to be addictive. The substances in kava responsible for its beneficial effects are called “kavalactones.”

## Preparing the herb

In the South Pacific islands, the root and bark of the kava plant are ground and mixed with cold water or coconut milk. Kava preparations sold in the EU and North America are made to maximize the content of the active ingredients. To do this, the herb is usually dissolved in a mixture of alcohol and water, or acetone and water, resulting in a mixture that contains

between 30% to 70% kavalactones. Some researchers suspect that these extraction and preparation techniques result in an “unnatural” change in the mix of kavalactones compared to traditional methods of extraction. As well, there is also the possibility that modern extraction techniques somehow add impurities or contaminants to the final product. Either of these possibilities may increase the potential for liver damage.

### Liver protector missing

The kava root and bark may also contain compounds that are not present in the alcohol or acetone extracts of kava. Some of these compounds — such as glutathione (GSH) — may protect the liver from the toxicity of kavalactones. High doses of kavalactones may deplete the liver of GSH, making some kava users more likely to experience liver damage from kava or from prescription medications. In one study of several commercially available kava preparations, researchers found a trend: the greater the kavalactone content, the lower the GSH level in the products tested.

Perhaps different preparations of kava are needed. Extraction techniques used in North America and the EU could be changed so that they are similar to those in the Pacific islands, where kava is prepared using water or coconut milk. Such techniques may preserve the GSH content of kava, perhaps reducing its toxicity. Another possible reason for the toxicity is that kava was clearly being used by people with pre-existing illnesses who were taking several medications (see below). Perhaps kava is not safe in such populations.

### Cautions and concerns

Many researchers continue to associate kava with the potential for drug abuse. Although trials of kava extract have not shown signs of

psychological or physical addiction, the traditional beverage kava-kava has been used in a self-destructive way by some people. Chronic users in some South Pacific Aboriginal communities show many of the signs of ill health associated with alcoholism, including:

- malnutrition
- liver damage
- red blood cell changes

As well, the long-term use of kava-kava produces a scaly, yellowish rash that itches.

### Side effects

Kava extract has caused a rash in a few people. The rash is believed to be a type of allergic reaction.

Drinking large amounts of kava-kava can cause visual disturbances, dizziness and stupor. These effects, however, have not been associated with the clinical use of the medicinal herb.

Naturopaths generally recommend that people take kava extract for no more than three consecutive months to avoid any adverse effects related to continuous use.

### Drug interactions

Kava may interact with barbiturates (downers like Nembutal, Seconal or “ludes”). There has also been one case report of a reaction between kava and Xanax (alprazolam), a drug belonging to the benzodiazepine family. In general, kava should not be used with the following:

- barbiturates
- benzodiazepine
- drugs used to treat schizophrenia

Some studies on animals also suggest the risk of an interaction between kava and alcohol,

although this possibility has not been confirmed by human trials. Naturopaths recommend that people taking kava use alcohol cautiously.

People with Parkinson's Disease should avoid kava because of its effect on neurotransmitters.

Kava's effects in pregnant or breast-feeding women are unknown.

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