

Kava Consumption & Liver Health

An analysis of the effects of kava on the liver and a comparison to other substances



Overview

Kava, a product derived from the roots of the shrub *Piper methysticum*, has been used for over 2,000 years in the Pacific Islands for its calming effects. The most common ways to consume kava is as tea or in powdered form, which is reported to reduce occasional stress. Overwhelmingly, kava is said to cause damage to the liver based on case reports from the early 2000s, but more recent scientific evidence and historical use data challenge those assertions.

Does kava damage your liver?

In the late 1990s and early 2000s several case reports of hepatotoxicity and liver failure were causally linked to using kava supplements in Germany. In response to these reports, the World Health Organization (WHO) designated a committee in 2007 to assess the risk of hepatotoxicity associated with kava products. This investigation concluded that “the condemnation of kava extracts appears unwarrantable”.^[1] An additional study on the safety of both traditional and recreational use of kava was undertaken in 2016 by the WHO. This study found that heavy kava consumption's most significant health effects were a scaly skin rash (kava dermatopathy) and elevated gamma-glutamyl transferase (GGT; a liver enzyme) levels. Both conditions reversed upon cessation of kava use. Overall, this study concluded that “it is possible for kava beverage to be consumed with an acceptably low level of health risk; however, further studies are needed to define the parameters necessary to ensure safe use of the beverage”.^[2]

How can you safely consume kava?

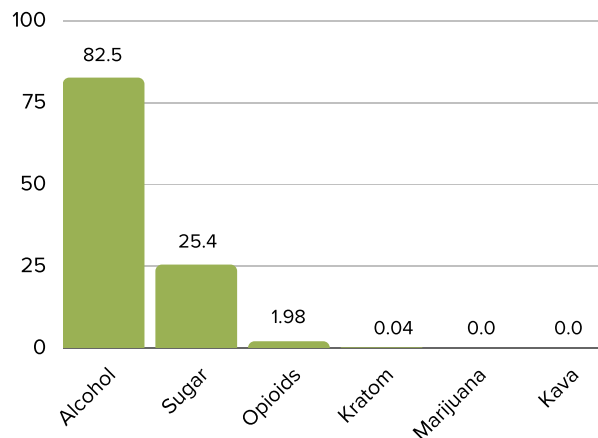
As with any plant-derived ingredient, the quality of the raw material is of utmost importance when selecting a product. Any product derived from the kava root should be tested for trace contaminants, pesticides, and mycotoxins. Consultation with a healthcare professional and in-depth examination of any preexisting conditions or comedications is necessary to ensure no additional risk is presented by kava consumption.

How does kava compare to other substances?

To put the risk of liver damage due to kava in perspective, it is helpful to describe it versus other commonly prescribed and/or over-the-counter alternatives. The kava toxicity rate has been calculated as 0.23 cases per 1 million daily doses. In contrast, diazepam, a benzodiazepine widely prescribed for anxiety, has a toxicity rate of 2.12 cases per 1 million daily doses.^[3] And acetaminophen, the active ingredient in many over-the-counter pain-relieving and cold/flu drugs, is the leading cause of acute liver failure in the United States, whereas kava taken alone has no reported incidences of acute liver failure in the Food and Drug Administration’s Adverse Events Reporting System Public Dashboard. In 2021, there were no incidents of death related to kava use.

Comparison of Death Rates by Substance

Estimated Death Rates in 2021 per 100,000 users



1. WHO (World Health Organization) *Assessments of the Risk of Hepatotoxicity with Kava Products*. Geneva, Switzerland: WHO Document Production Services; 2007.
 2. WHO. *Kava: A Review of the Safety of Traditional and Recreational Beverage Consumption*. Volume 1. Food and Agriculture Organization of the United Nation, Rome, Italy: 2016. pp. 1–35.
 3. Schmidt M, Morgan M, Bone K, et al.(2005) Kava: A risk-benefit assessment. In: Mills S, Bone K (eds) *The Essential Guide to Herbal Safety*, St. Louis, MO: Elsevier, Churchill, Livingstone, pp. 155–221.