

Asafoetida: Why This Stinky Herb Is so Beneficial

Analysis by [Dr. Joseph Mercola](#)

✓ Fact Checked

January 30, 2023

STORY AT-A-GLANCE

- › The Indian cooking spice asafoetida is a gum obtained from a type of giant fennel. It has an offensive smell akin to that of rotting garlic and sweaty feet, but an appetizing savory, umami taste
- › With its onion-garlic flavor, you can use it as a substitute for either of those ingredients. Many recommend using it in bean-based dishes, as it helps prevent gassiness
- › Asafoetida has antibacterial, antiparasitic and antiviral properties. In 2009, researchers discovered certain compounds in the herb were more effective at killing the H1N1 influenza virus than the commercial antiviral drug amantadine
- › Asafoetida also has antispasmodic, carminative, expectorant, laxative and sedative properties, just to name a few. Historical uses include the treatment of nervous conditions, bronchitis, asthma, whooping cough and more
- › This smelly herb can also be useful for the prevention and treatment of various gut ailments, and for feminine health issues such as sterility, premature labor, painful and excessive menstruation and leucorrhoea

The Indian cooking spice asafoetida^{1,2} — a name that translates into “rotten resin”³ — also known as hing, hingu⁴ or heeng,⁵ is a gum obtained from a type of giant fennel. It has an offensive smell akin to that of rotting garlic and sweaty feet, but an appetizing savory, umami taste. In France, the herb is known as devil’s dung.

According to GoodFood.com,⁶ Jain and Brahmin Indians have long used it in lieu of garlic and onions. It's also popular among those in whom onions cause digestive trouble.

While it is sometimes possible to locate asafoetida in its raw gum form, it's most commonly sold as a ground powder mixed with flour, starch or turmeric. This is likely a good thing, as eating it raw can cause severe diarrhea and/or vomiting.⁷ It has a very strong odor and should be used in very small amounts. As noted by GoodFood.com:⁸

“Once a container of asafoetida has been opened it's best to close it as soon as possible. Then, keep it hermetically sealed in an airtight plastic container, or double wrapped – at least. If the aroma escapes you will awake to find a house reeking of yesterday's garlic ...

Generally, the yellow, diluted asafoetida powder is used in about the proportion of a pinch or two to 250g of the main ingredient ... longer cooking mellows it ...

Asafoetida works best when first fried for five to ten seconds in hot oil until its pungency is dramatically obvious – make sure you have the extractor on or the window open. Then quickly add other ingredients to stop it burning.”

Health Benefits of Asafoetida

With its onion-garlic flavor, you can use it as a substitute for either of those ingredients. Many recommend using it in bean-based dishes, as it helps prevent gassiness.⁹

Its ability to cut gas is attributed to antibacterial compounds that impede the activity of gut bacteria responsible for flatulence.¹⁰ It also has a number of other health benefits,¹¹ including antibacterial, antiparasitic and antiviral properties.

In 2009, researchers discovered certain compounds in the herb were more effective at killing the H1N1 influenza virus than the commercial antiviral drug amantadine.^{12,13}

Another study¹⁴ found the ferulic acid in asafoetida has the ability to control fascioliasis,¹⁵ a zoonotic liver disease (meaning it can spread between animals and people) caused by eating watercress or other water plants contaminated with *Fasciola hepatica* and/or *Fasciola gigantica*.

According to a paper¹⁶ in the *Pharmacognosy Review*, asafoetida also has antispasmodic, carminative, expectorant, laxative and sedative properties, just to name a few. Historical uses include the treatment of hysteria, nervous conditions, bronchitis, asthma, whooping cough, infantile pneumonia and flatulent colic.¹⁷

According to the *Pharmacognosy Review* paper, it's particularly beneficial for asthma, thanks to volatile oils that are eliminated through the lungs. It's also been shown to work as a natural blood thinner and helps lower blood pressure. In traditional medicine in India, the herb is taken to help break up and eliminate kidney stones and gallstones.¹⁸

Historically, it has also been used as an antidote to opium. According to the *Pharmacognosy Review*, "Given in the same quantity as opium ingested by the patient, it will counteract the effect of the drug."¹⁹

Asafoetida Has Anticancer and Life Extending Properties

Asafoetida also contains a number of chemicals shown to have anti-inflammatory, anticancer and antimutagenic activities.²⁰ As reported in the *Pharmacognosy Review*:²¹

"Dried resin, administered orally to Sprague–Dawley rats at doses of 1.25 and 2.5% w/w of the diet, produced a significant reduction in the multiplicity and size of palpable N-methyl-N-nitrosourea-induced mammary tumors, and a delay in mean latency period of tumor appearance.

Oral administration to mice increased the percentage of life span by 52.9%. Intraperitoneal administration did not produce any significant reduction in tumor growth.

The extract also inhibited a two-stage chemical carcinogenesis induced by 7,12-dimethylbenzanthracene and croton oil on mice skin with significant reduction in papilloma formation.”

Similarly, a study²² published in the Journal of Ayurveda and Integrative Medicine in 2017 confirmed the asafoetida resin had antitumor effects against breast cancer.

According to the authors:²³

“Our results showed that treatment with asafoetida was effective in decreasing the tumor weight and tumor volume in treated mice. Body weight significantly increased in female BALB/c mice against control.

Apart from the antitumor effect, asafoetida decreased lung, liver and kidney metastasis and also increased areas of necrosis in the tumor tissue respectively.”

Other studies²⁴ have also found the isolated ferulsinaic acid in asafoetida has life extending capability, increasing the mean life span of *Caenorhabditis elegans* by as much as 18.03%, and their maximum life span between 8.33% and 41.6%.

Improved heat stress tolerance and reductions in lipid peroxidation are thought to be responsible for this effect. According to the authors, “Ferulsinaic acid had therapeutic efficacy as an antioxidant with the possibility of its use as an antioxidant drug.”

Asafoetida’s Usefulness in Treatment of Women’s Ailments

Asafoetida may also be useful in the treatment of a variety of female health ailments, such as sterility, premature labor, painful and excessive menstruation and leucorrhoea.

The Pharmacognosy Review²⁵ suggests taking 12 centigrams of asafoetida gum fried in ghee with 120 grams of fresh goat’s milk and 1 tablespoon of honey, three times a day for four weeks, to increase secretion of progesterone, which can be helpful in these situations.

In male rats, asafoetida at doses between 25 and 200 mg/kg has been shown to significantly increase the number and viability of sperm, thus improving fertility.²⁶

Care must be used if you're pregnant or planning to become pregnant,²⁷ however, as asafoetida also has the ability to prevent pregnancy and induce miscarriage. Antifertility effects have been noted in rats at a dosage of 400 mg/kg, preventing pregnancy in 80% of cases.^{28,29}

Breastfeeding women should also avoid asafoetida as it can be transferred via breast milk to their baby, in whom certain chemicals in the herb may contribute to certain blood disorders.³⁰ To treat colic, asafoetida is typically applied to the infant's navel in the form of a paste, opposed to being ingested.³¹

Brain and Cardiovascular Benefits

As mentioned, the herb has been shown to lower blood pressure, and appears to be quite effective at this, the Pharmacognosy Review notes.³² One of the mechanisms responsible for this hypotensive effect is vasodilation. Tinctures and water extracts of dried gum resin has been shown to have a significant smooth muscle relaxant and anticoagulant effects.³³

Moreover, certain compounds appear to have the ability to inhibit acetylcholinesterase,^{34,35} which means it may be useful against Alzheimer's disease.³⁶ In animal trials, asafoetida at doses of 200 to 400 milligrams per kilo has also been shown to improve memory formation.

Asafoetida Helps Promote Gut Health

Another area in which this smelliest of herbs can be useful is for the prevention and treatment of various gut ailments. One study³⁷ looking at asafoetida's effects on functional dyspepsia (FD), a chronic disorder of the upper digestive tract,³⁸ found it to be both safe and effective. As reported in this study:³⁹

“In the double-blinded, placebo-controlled study, 43 subjects diagnosed to have moderate to severe discomforts of nonulcer FD were randomized to receive hard-shell capsules (250 mg × 2/day) of either placebo or a food-grade formulation of asafoetida (Asafin) for 30 days.

When evaluated by a set of validated indexing tools ... almost 81% in the Asafin group showed significant improvement in the overall score and quality of life as compared to the placebo. At the end of the study, 66% of subjects in the Asafin group remained symptoms-free.

Although the symptoms score improved significantly in both the groups ... the relative percentage of subjects in the Asafin group with more than 80% reduction in various symptoms were: bloating (58%), appetite (69%), postprandial fullness (74%) motion sickness (75%), and digestion (77%) as compared to less than 10% nonspecific improvement in the placebo group.

All the subjects remained safe with no adverse events or variations in haematological and biochemical parameters.”

Cooking With Asafoetida

If the idea of smelling up your kitchen isn't a deterrent, consider spicing up your meals with this medicinal herb.

In “Asafoetida Stinks, But It Helps the Cook,”⁴⁰ published in The Seattle Times, Monica Bhide details how to use it in cooking, and provides you with a recipe for savory cheesecake topped with red pepper and green tomatillo chutney to get you started.

Additional cooking tips can be found on NDTV's Food Channel,⁴¹ and a recipe for lemon-asafoetida water is given on netmeds.com.⁴²

Sources and References

-
- ¹ [Examine.com, Asafoetida Research](#)

- ^{2, 7} [Wise Geek, Asafoetida](#)
- ^{3, 10, 13} [Chemistry World, Asafoetida](#)
- ^{4, 19} [Pharmacognosy Review 2012 Jul-Dec; 6\(12\): 141–146, Introduction](#)
- ^{5, 41} [Food.ndtv.com, How to Use Heeng in Cooking](#)
- ^{6, 8, 9} [Goodfood.com, Asafoetida](#)
- ¹¹ [Pharmacognosy Review 2012 Jul-Dec; 6\(12\): 141–146](#)
- ¹² [J Nat Prod. 2009 Sep;72\(9\):1568-72](#)
- ¹⁴ [J Parasitol Res. 2011; 2011: 240807](#)
- ¹⁵ [Merck Manuals, Fascioliasis](#)
- ¹⁶ [Pharmacognosy Review 2012 Jul-Dec; 6\(12\): 141–146, Abstract and Table 1](#)
- ¹⁷ [Pharmacognosy Review 2012 Jul-Dec; 6\(12\): 141–146, Abstract](#)
- ¹⁸ [Pharmacognosy Review 2012 Jul-Dec; 6\(12\): 141–146, Ferula Asafoetida as traditional medicine in India](#)
- ²⁰ [Pharmacognosy Review 2012 Jul-Dec; 6\(12\): 141–146, Table 1](#)
- ²¹ [Pharmacognosy Review 2012 Jul-Dec; 6\(12\): 141–146, Ferula asafoetida and cancer](#)
- ²² [Journal of Ayurveda and Integrative Medicine July-September 2017; 8\(3\): 152-158](#)
- ²³ [Journal of Ayurveda and Integrative Medicine July-September 2017; 8\(3\): 152-158, Results](#)
- ²⁴ [J Pharm Pharmacol. 2011 Mar;63\(3\):423-8](#)
- ²⁵ [Pharmacognosy Review 2012 Jul-Dec; 6\(12\): 141–146, Ferula asafoetida as women's ailments](#)
- ²⁶ [J Ayurveda Integr Med. 2015 Jul-Sep; 6\(3\): 175–180](#)
- ^{27, 30} [Parenting.firstcry.com, Is Consuming Asafoetida Safe During Pregnancy?](#)
- ²⁸ [Pharmaceutical Biology 1999; 37\(4\) : 273-276](#)
- ²⁹ [Examine.com, Asafoetida Research, 9.1 Women's health](#)
- ³¹ [Parentune August 2022](#)
- ³² [Pharmacognosy Review 2012 Jul-Dec; 6\(12\): 141–146, Ferula asafoetida and its effect on blood pressure](#)
- ³³ [Pharmacognosy Review 2012 Jul-Dec; 6\(12\): 141–146, Ferula asafoetida on blood vessels and blood](#)
- ³⁴ [Phytother Res. 2009 Feb;23\(2\):172-7](#)
- ³⁵ [Examine.com, Asafoetida Research, 4.1 Cholinergic neurotransmission](#)
- ³⁶ [Front Mol Neurosci. 2011; 4: 22](#)
- ³⁷ [Evid Based Complement Alternat Med. 2018; 2018: 4813601](#)
- ³⁸ [Bad Gut, Functional Dyspepsia](#)
- ³⁹ [Evid Based Complement Alternat Med. 2018; 2018: 4813601, Abstract](#)
- ⁴⁰ [Seattle Times Updated July 9, 2011](#)
- ⁴² [Netmeds.com Hing: Medicinal Uses](#)