



What would you think about eating a **mushroom** that looks a little like the scruff of a lion? Not totally convinced about lion's mane mushroom? What if I told you that it's associated with major brain repair, potential cancer-fighting power and is undergoing research on dozens of other health benefits?

Lion's mane mushroom is a **nootropic** food very popular in traditional Chinese medicine. A large body of research has focused around this **brain-boosting mushroom** in the last few years, and the results are nothing short of astounding.

One study published in the *Journal of Agricultural and Food Chemistry* lists the benefits by stating lion's mane mushroom is "antibiotic, anticarcinogenic, antidiabetic, anti-fatigue, antihypertensive, anti-hyperlipodemic, anti-senescence [anti-aging], cardioprotective, hepatoprotective, nephroprotective, and neuroprotective, and improves anxiety, cognitive function, and depression." (1)

Wow. That's quite a list!

Whether you're interested in trying out lion's mane mushroom in your **mushroom coffee** or are just curious what this odd-looking fungus might be good for, I'm sure you're going to be impressed.

What Are Lion's Mane Mushrooms?

Known in Latin as *Hericium erinaceus*, lion's mane is native to North America, Europe and Asia, although it's not cultivated widely in areas outside of Asia. It's sometimes referred to as Hedgehog Mushroom, Yamabushitake or Houtou, and it belongs to the tooth fungus, or hydroid fungi group.

Lion's mane mushrooms have long, dangling spines that are usually greater than a centimeter in length. Unlike most mushroom species, whose spines project from a branch, the spines of *Hericium erinaceus* projects outward, giving it that unique look of a lion's mane. These mushrooms grow on both living and dead broadleaf trees and are common in the late summer and fall months.

Research shows that lion's mane possesses anti-inflammatory, antioxidant and immunostimulating properties in cells, animals and humans. It has been used for thousands of years as a medicinal mushroom, especially among **traditional Chinese medicine** practitioners. (2)

Lion's Mane Mushroom Benefits

1. Enhances Brain Function

Maybe the most thoroughly researched feature of lion's mane mushroom is its impact on brain cells and related functions. This incredible fungus may have revolutionary impact on neurodegenerative diseases.

One method by which lion's mane affects brain function is by enhancing "neurite outgrowth" in the brain and related organs, according to research published in the *International Journal of Medicinal Mushrooms*. (3, 4) Neurite outgrowth refers to the growth of axons and dendrites from neurons (anybody's high school biology classes coming back?).

That's a big deal in brain health research. By increasing this growth, it could potentially be possible to slow or reverse cell degeneration in the brain — the main characteristic of diseases like [Alzheimer's](#) and Parkinson's.

A 2012 study conducted in Malaysia found that consuming lion's mane mushroom could actually regenerate damaged cells from peripheral nerve injury, an injury affecting the delicate tissue between your brain and spinal cord. (5)

When studying how brain diseases might be affected by particular medications or treatments, scientists often use what is known as the PC12 cell line for testing. Extracts and various forms of lion's mane mushroom seem to have a major impact on PC12 cells, protecting them from damage and delaying their cell death significantly. This finding may prove to be extremely relevant for prevention or treatment of brain conditions. (6, 7, 8)

In animal research published in *Evidence-Based Complementary and Alternative Medicine*, lion's mane mushroom stimulates cognitive function and helps improve memory in rats, both with and without an Alzheimer's model. (9) Multiple studies have found an inverse correlation between lion's mane and Alzheimer's-related symptoms, meaning that after consuming the mushroom extract, the rats' symptoms improved. (10, 11)

An improvement of mild cognitive impairment in humans was also found in research published in *Phytotherapy Research* after eight to 16 weeks of lion's mane supplementation, although this improvement did not last after subjects stopped taking this supplement. (12)

The danger of ischemic injury (damage caused by a lack of blood flow) to neurons is also of significance when you're talking about brain damage and disease. In laboratory tests conducted in Taiwan, lion's mane mushroom has been shown to help prevent this type of injury. (13)

Taking supplements of lion's mane has also been found to have potentially protective effects on the spread of [Parkinson's disease](#), another neurodegenerative disorder, according to research published in the *Journal of Translational Medicine*. (14)

While this research is still in its infancy and has not progressed to large-scale human trials in most cases, the consistent effect lion's mane mushroom has been found to have on brain cells should not be ignored.

2. May Protect Against Cancer

Lion's mane may also be significant in [treating cancer](#), according to a host of research. (15) In varying degrees, compounds from or supplementation with lion's mane mushroom has been found to potentially slow the progression or reverse the spread of:

- Leukemia

- Gastric (stomach) cancer
- Lung cancer
- Cervical cancer
- Liver cancer
- [Colon cancer](#)
- [Breast cancer](#)

In regard to leukemia, lion's mane was shown to significantly reduce leukemia cells in a Korean study. (16) Further Korean research conducted by the Department of Molecular Science and Technology at Ajou University found that thanks to the [phytochemicals](#) in lion's mane mushroom, it has "therapeutic potential against human leukemia." (17)

As far as gastric cancer is concerned, a study published in the *International Journal of Biological Macromolecules* found that lion's mane caused cell death and cell cycle arrest with gastric cancer. The researchers concluded, "our study provides in vitro evidence that HEG-5 may be taken as a potential candidate for treating gastric cancer." (18)

Studies published in the *Journal of Natural Products* and *Kaohsiung Journal of Medical Sciences* unearth the ability of lion's mane mushroom to treat lung cancer. (19, 20) Meanwhile, according the *Journal of Biomedicine and Biotechnology* and the *Journal of Ethnopharmacology*, lion's mane exhibits anticancer activity against colon, breast and other cancers as well. (21, 22)

Some studies actually suggest the use of lion's mane mushroom supplements to treat cancer, although long-term and large-scale studies haven't been conducted to prove that as a viable option.

Another interesting finding involved the metastasis (cancer spreading) from the colon to the lung. When a cancer spreads to more than the original organ in which it was found, a patient is considered to have stage IV cancer. In a study conducted on rats out of Korea, rats were given either hot water lion's mane extract or microwaved ethanol extracts of lion's mane mushroom. By consuming lion's mane extract, the rats studied showed inhibited metastasis of cancer cells to the lungs by 66 percent and 69 percent, respectively. (23)

3. Supports Heart and Circulatory System Health

Lion's mane mushroom might also help you in preventing heart disease. Research has found that extracts of lion's mane can prevent the increase of LDL [cholesterol](#) (sometimes referred to as "bad" cholesterol), increase HDL, or "good," cholesterol and lower [triglycerides](#) in the bloodstream, an early indicator of heart disease. (24, 25)

[Stroke](#), a lack of blood supply to the brain from the heart, is sometimes caused by blood clots. It's also related to atherosclerosis, a serious heart condition. An extract of lion's mane mushroom may be able to prevent blood clots and help to reduce the risk of stroke, according to a study by from the Department of Cellular Signaling, Graduate School of Pharmaceutical Sciences at Tohoku University in Japan. (26)

4. Might Improve Digestive Health

Due in part to its powerful anti-inflammatory properties, lion's mane mushroom might improve the function of your stomach and digestive system.

In multiple studies, lion's mane mushroom has been shown to protect from or shrink [gastric ulcers](#). For instance, according a study conducted on rats by the Mushroom Research Centre at the University of Malaya in Malaysia, researchers concluded the bioactive compounds in lion's mane extract may be responsible for the gastroprotective activity exhibited on the rats. (27) Research from China published in the *International Journal of Medicinal Mushrooms* confirms this, noting that "results

indicate that the polysaccharide fraction is the active component of the *H. erinaceus* mycelium culture, which protects against gastric ulcers.” (28)

Lion’s mane may also significantly improve symptoms of two major inflammatory disorders of the digestive system, [gastritis](#) and [inflammatory bowel disease](#). (29, 30)

5. Reduces Inflammation

Although it’s a relatively different way of looking at health, research on natural ways to reduce [inflammation](#) is a major way natural health practitioners help prevent disease.

A 2015 study out of Japan found that lion’s mane mushroom was able to reduce inflammation in fatty tissue. This is important because fatty tissue inflammation is a factor in the formation of [metabolic syndrome](#), a cluster of conditions that increase your risk of heart disease, stroke and diabetes. (31)

Lion’s mane also has antibacterial effects against [h. Pylori](#), often considered “the most successful pathogen in human history.” Many people never have symptoms of carrying the bacteria, but for some people it causes severe gastric conditions, like ulcers in the stomach and/or intestines. (32, 33)

6. Acts as a Powerful Antioxidant

[Fighting free radical damage](#) has a number of health benefits, including the prevention of disease. The molecules in lion’s mane mushroom have antioxidant abilities and help prevent and relieve the oxidative stress caused by poor nutrition and exposure to chemicals in the environment. (34, 35)

One specific way these [antioxidants](#) may be useful is in the healing of wounds. A study at the University of Malaya found that a liquid extract of lion’s mane sped up wound healing significantly compared to natural healing in rats. (36)

These antioxidants may also:

- Help prevent osteoporosis (37)
- Protect from alcohol-induced [liver](#) damage (38)
- Slow the aging of skin (39)

7. Improve Mental Health and Overall Well-Being

A lion’s mane mushroom supplement may also help you to feel better by improving sleep and reducing the effects of mental health issues.

The powerful polysaccharides extracted from lion’s mane have been shown to fight fatigue in mice trials. (40) They also might have the ability to adjust circadian rhythms back to normal, as they did on mice in a study conducted at the Department of Agro-environmental Sciences, Faculty of Agriculture at Kyushu University, which is particularly significant for people who are at risk for [dementia](#). (41)

Consuming lion’s mane mushroom may also be a [natural remedy for depression](#) and [anxiety](#). Thirty women were given either a placebo or lion’s mane for four weeks. Researchers concluded, “Our results show that HE intake has the possibility to reduce depression and anxiety and these results suggest a different mechanism from NGF-enhancing action of *H. erinaceus*.” (42) This seems to be related, in part, to the inflammation factor related to depression, as shown in mice studies. (43)

8. Improves Immune Function

It’s important to know [how to boost your immune system](#) so your body can fight infection well. Lion’s mane seems to have the ability to enhance immune system function in a manner also related to the polysaccharide content in the fungus, according to research performed on mice. (44)

9. Might Be Useful for Managing Diabetes

A 2013 animal study showed marked improvement in blood glucose levels, insulin sensitivity and various other **diabetes symptoms** when an extract of lion's mane mushroom was given to them. (45)

Possibly because of the antioxidant activity of lion's mane, administering it to animals also seems to relieve pain caused by **diabetic neuropathy**. (46)

Lion's Mane Mushroom Nutrition Facts

Because of the limited amount of lion's mane mushroom produced for mass consumption, it's difficult to find specific nutrition facts. However, at least one source states that one serving (around 84 grams) contains 20 calories, 2 grams of protein and 3 grams of carbohydrates. (47)

Research suggests that lion's mane is a source of at least 32 bioactive compounds. Although it's hard to pinpoint the vitamin and mineral content of lion's mane, it's believed to be a rich source of potassium, zinc, iron and **selenium**. One reason lion's mane has been researched for a wide variety of purposes is because of the polysaccharides it contains. Polysaccharides are complex carbohydrate structures, like glucose. (48)

Lion's mane mushroom contains beta-glucan polysaccharides, which are known scientifically to have correlations with various health benefits, like heart health and immune responses.

Lion's Mane in TCM and Traditional Medicine

Lion's mane mushrooms have been used for centuries as a food source and herbal medicine in several Asian countries. In the last 10 years or so, this medicinal mushroom has attracted considerable attention because of its potential therapeutic capabilities in neurodegenerative diseases.

In the East, reverence for fungi dates back many centuries, with fungi known as "spirit plants" that were believed to provide longevity and spiritual potency. According to research published in the *Journal of Restorative Medicine*, in Chinese and Japanese medical systems, lion's mane has traditionally been used to nourish the gut, fortify the **spleen** and also as an anticancer agent. In traditional medicine, it's said to be nutritive to our five internal organs — the lung, heart, spleen, kidney and liver, and it's used to promote good digestion, strength and general vigor. (49)

Lion's mane mushroom is also used to improve symptoms of Qi deficiency (a lack of "vital energy") in traditional Chinese medicine, and is often taken for issues involving the central nervous system, insomnia and weakness.

REFERENCE SOURCE: <https://draxe.com/nutrition/mushrooms/lions-mane-mushroom/>