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What are the benefits of lion's mane mushrooms?



Medically reviewed by [Alan Carter, Pharm.D.](#) — Written by [Jayne Leonard](#) on October 22, 2018

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Research suggests that Lion's mane mushrooms may offer a range of health benefits, including reduced inflammation and improved cognitive and heart health. People can eat them or take them in the form of supplements.

Lion's mane mushrooms (*Hericium erinaceus*) are white, globe-shaped fungi that have long, shaggy spines.

People in Asia use these mushrooms for both culinary and medicinal purposes. Health food stores sell lion's mane extract in supplement form, and both the fungus and its extracts appear to be beneficial to health.

Here we discuss the potential benefits of lion's mane mushrooms and consider the possible risks and side effects of their use.

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What are the potential benefits?

Lion's mane mushrooms may help with the following:

Inflammation and oxidation



Lion's mane mushrooms may offer a number of health benefits.

[Antioxidants](#) may fight both [inflammation](#) and oxidation in the body.

Inflammation contributes to many medical conditions, including [diabetes](#), [heart disease](#), and autoimmune diseases.

A [2012 study](#) evaluating the medicinal potential of 14 types of mushroom found that lion's mane had the fourth highest antioxidant activity, which researchers described as “moderate to high.”

Immune function

Lion's mane mushrooms may enhance the immune system, partly by reducing inflammation and preventing oxidation.

[Research](#) on mice suggests that lion's mane mushrooms may boost the activity of the intestinal immune system.

The results of another [study](#) on mice indicate that a protein in lion's mane mushrooms encourages the growth of beneficial gut bacteria that strengthen immunity.

Anxiety and depression

Extracts from lion's mane mushrooms may be beneficial in the treatment of [anxiety](#) and [depression](#).

In a [2015 study](#)[👁], mice that consumed lion's mane mushroom extract displayed fewer depressive behaviors and had blood markers that indicated lower depression. The researchers suggest that this is due to the extract's anti-inflammatory effects.

The findings of a [2018 animal study](#)[👁] support this, with the authors concluding that these mushroom extracts may contain agents that are useful for treating depressive disorders.

In a [small Japanese study](#), women with a variety of health complaints, including menopausal symptoms and poor sleep quality, ate cookies containing lion's mane extracts or [placebo](#) cookies for 4 weeks. The participants who ate the extract reported lower levels of irritation and anxiety than those in the placebo group.

Cognitive health

It is possible that lion's mane mushrooms might boost cognitive function, but the existing research is mainly on animals.

In [one study](#)[👁], lion's mane dietary supplements appeared to give mice better object recognition and recognition memory.

[Other researchers](#)[👁] have concluded that the mushrooms may have the potential to treat or prevent diseases that cause a decline in cognitive health, such as [Parkinson's disease](#) and [Alzheimer's disease](#).

However, there is currently a lack of research on the effects of lion's mane mushrooms in humans with Alzheimer's disease.

[An older Japanese study](#)[👁] on adults aged between 50 and 80 years with mild cognitive impairment found that daily consumption of mushroom extract for 16 weeks led to higher scores on cognitive function scales compared with a placebo group. These scores decreased again once the participants stopped taking the extract.

Heart health

Lion's mane extract may improve heart health, but the research to date has primarily used animal subjects.

[Research on rats](#)[👁] showed that the mushroom extracts might have a cholesterol-lowering effect.

Cancer

The antioxidant properties of lion's mane mushrooms may play a role in [cancer](#) prevention or treatment.

The results of an [in vitro study](#) indicate that lion's mane extracts have therapeutic potential against human [leukemia](#).

[A study](#) using animal models found that these mushroom extracts may also fight liver, colon, and [gastric cancer](#) cells.

These findings are promising, but it is not currently possible to confirm that the same effects will apply in people.



Controlling blood sugar levels is key to managing diabetes. In [one study](#), blood sugar levels in rats with diabetes were lower after they received lion's mane mushroom extract for 4 weeks.

One of the complications of diabetes is nerve damage resulting from prolonged periods of high blood sugar. A [2015 study](#) on rats, in which they ingested lion's mane extract for 6 weeks, showed positive results, including lower blood sugar levels, reduced feelings of nerve pain, and improved antioxidant activity.

Digestive health

Lion's mane may help digestive health by fighting inflammation, which could be beneficial for people with inflammatory bowel disease (IBD). The mushroom may also boost immune function and encourage the growth of good bacteria in the gut.

In vitro studies [report](#) that lion's mane mushrooms can result in antibacterial activity that may improve digestion. [Research](#) in mice supports these findings by showing that extracts of lion's mane may protect against stomach ulcers.

Wound healing

Extracts from lion's mane mushrooms may provide healing benefits for skin wounds.

[A study](#) on rats with neck wounds found that topical application of lion's mane extract led to faster healing.

However, more extensive research is necessary for the medical community to recommend lion's mane mushrooms for topical use on humans.

Nervous system recovery

Damage to the nervous system can have significant effects on health.

Some research [suggests](#) that extracts of lion's mane mushrooms may encourage nerve cells to grow and repair more quickly.

[One study](#) showed that rats with nerve damage receiving a daily extract of lion's mane mushrooms had quicker nerve regeneration than control animals.

Risks and side effects

Most studies on lion's mane mushrooms have used animals, but it appears to be safe to eat the mushrooms in moderate quantities, as people do in many countries in Asia.

The safety and effectiveness of lion's mane supplements are less apparent because dietary supplements do not have the same regulations as food and drug products.

However, in the animal studies, even high doses [did not produce](#) adverse effects in the rodents.

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Forms and dosages

People can take lion's mane mushroom as a supplement.

People wishing to incorporate lion's mane mushrooms into their diet should cook them until the outer layer is crispy as the taste can be bitter otherwise.

Supplements are available in stores and [online](#) in the following forms:

- capsule
- liquid
- tablet
- powder

The dosages of these supplements vary, and people should follow the instructions on the label carefully. It is also advisable to discuss the use of any new supplement with a doctor.

People who experience adverse reactions to lion's mane mushrooms should stop using them and seek immediate medical attention.

Takeaway

Lion's mane mushrooms and their extracts show promise in animal and in vitro studies. However, there is not yet enough evidence to support their use for the treatment or prevention of any health condition in humans.

It should be safe for most people to enjoy lion's mane mushrooms for culinary purposes. However, people who wish to take lion's mane supplements should speak to a doctor first.

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Nutrition / Diet Complementary Medicine / Alternative Medicine

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