

# The King of Herbs

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The Gale Group Inc., Gale, Detroit, Gale Encyclopedia of Alternative Medicine, 2005

**Description:** Ganoderma is the name of the fungus *Ganoderma lucidum*. It is also called the **reishi mushroom** or in Chinese *ling zhi*. It is one of the most popular medicinal mushrooms in China, Japan, and the United States.

Ganoderma grows on logs or tree stumps. It has a shiny, hard, asymmetrical cap that ranges in color from yellow to black. The cap, spores, and mycelium are all used medicinally. Wild ganoderma is rare in Asia.

In ancient China, ganoderma was so rare and so highly prized that it was reserved for the emperors and called the "Elixir of Life." In 1972, Japanese researchers successfully cultivated the mushroom. There are six different colors of cap: red, green, white, black, yellow, and purple. These researchers showed that all colors are the same species, and that the color variations are the result of differences in environmental conditions. Despite this, some herbalists insist that certain colors of reishi mushroom are more potent or effective in healing certain conditions than others.

**General use:** Ganoderma is considered one of the most important herbs in Asian healing. Its use extends to almost every system of the body. Not only is it believed to heal physical ailments, it is said to bring about a peaceful state of mind, and to increase spiritual potency energy for Taoists and other Asian spiritual seekers.

Ganoderma has been used in China for over 4,000 years. It is the primary shen tonic in Chinese herbalism. In a broad sense, it is used to help a person adapt both physically and mentally to the world. It is used to strengthen and calm the nerves, improve memory, and prevent or delay senility.

Herbalists consider ganoderma an adaptogen, or natural regulator, suppressing the immune system if it is overactive and boosting it if it is underactive. Many health claims are made on the effect that ganoderma has on the immune system. These claims are based primarily on the presence of high molecular weight polysaccharides and free radical **antioxidants** in ganoderma extracts. Ganoderma also contains the elements **potassium (K)**, **magnesium (Mg)**, **calcium (Ca)**, and germanium (Ge).

Ganoderma is used in Japan and China to treat **cancer** and to stimulate the immune system after radiation or chemotherapy. It is also used to treat myasthenia gravis and **systemic lupus erythematosus (SLE)**, both autoimmune diseases. In Japan and China, ganoderma is also used to treat symptoms of viral diseases such as colds, **influenza**, **canker sores**, and **hepatitis**.

Quite a few research studies on ganoderma extracts have been done at universities in Japan, China, and South Korea. Many of these are test-tube or animal studies. The results are not clear-cut, but they seem to indicate that at least in these non-human systems, ganoderma has an effect on the immune system, some anti-tumor properties, and some anti-viral activity. One group of researchers reported in 2002 that ganoderma appears to protect the liver from inflammation caused by infection.

More recent research in Asian universities has investigated the effects of ganoderma on human cells or tissues. A recent study done in Taiwan indicates that ganoderma inhibits apoptosis (cell self-destruction) in human white blood cells. This finding may help to explain ganoderma's beneficial effects on the immune system.

Ganoderma has recently attracted the attention of Western cancer researchers. A case study report from Columbia University indicates that a Japanese dietary supplement containing ganoderma as well as genistein, a soybean derivative, may be useful in the prevention and treatment of **prostate cancer**.

Ganoderma is also used in treating conditions of the nervous system. It is used to calm the nerves, cure **insomnia**, reduce **stress**, eliminate nervous exhaustion, and increase determination and focus. Laboratory studies show fairly conclusively that ganoderma does act as a sedative on cells of the central nervous system and possibly has painkilling and anti-convulsive properties.

Ganoderma is frequently used to treat **allergies**, **hay fever**, bronchial **asthma**, and to reduce skin inflammation. Laboratory studies support these uses and show that some components of ganoderma have a strong antihistaminic effect that interrupts the development of allergic reactions.

Many conditions of the blood and circulatory system are treated with ganoderma. These include:

- altitude sickness
- **atherosclerosis**
- cardiac arrhythmia
- coronary heart disease
- high blood pressure
- high blood sugar
- high cholesterol
- low blood pressure
- **stroke**

Scientific research shows that compounds found in ganoderma do lower blood sugar and also interfere with the clotting of blood platelets. This reduction in clotting may account for ganoderma's effectiveness against stroke and atherosclerosis.

Ganoderma is also used to treat a variety of other diseases. These uses are generally backed up by little or no scientific evidence. They include:

- gastroenteritis
- **diarrhea**
- constipation
- gallstones
- ulcer
- acne
- hair loss
- inflammation of the kidneys
- menstrual cramps
- erectile dysfunction
- low sex drive

**Preparations:** Virtually all ganoderma available commercially are from cultivated mushrooms. Different preparations are made using the cap, the spores, and the mycelium. These preparations are available in the form of fresh and dried whole mushrooms, capsules, concentrated drips, extracts, tablets, tea bags, tea granules, and tinctures. A common dose is 1,800-2,400 mg in capsule form per day. However, doses vary hugely depending on the condition being treated and the strength and part of the mushroom being used.

**Precautions:** Although no toxic reactions to ganoderma have been reported, people with allergies to other mushrooms may also experience allergic reactions to ganoderma.

**Side effects:** Large doses (2-9 g) of ganoderma taken regularly over the course of 3-6 months may result in diarrhea, upset stomach, and **dizziness**. **Nosebleeds** from high doses of ganoderma have also been reported. Some herbalists claim that large doses of **vitamin C** taken with this herb will control the symptoms of diarrhea.

**Interactions:** Ganoderma and other Chinese herbs are often used together with no reported interactions; in fact, a new health food supplement is made from reishi mushrooms grown on herbs, in the belief that the mushrooms absorb some of the properties of the herbs on which they're grown.

With regard to Western pharmaceuticals, ganoderma has been reported to produce negative interactions with warfarin, a blood-thinning medication. Because ganoderma extract may cause a drop in blood pressure, persons who are taking prescription antihypertensives (medications to lower blood pressure) should use ganoderma only if they are being monitored by a physician.

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