

Studies show reishi mushrooms benefit people stricken with a variety of ailments, from high blood pressure to AIDS

by Dani Veracity
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Hailed in ancient Eastern medicine as the "mushroom of immortality" and the "medicine of kings," you'd expect reishi to offer you some pretty astounding health benefits, right? Your assumptions are correct. This prized fungus may be able to boost your immune system, fight cancer, ward off heart disease, calm your nerves and relieve both allergies and inflammation.

"Reishi indeed sounds like a cure-all," writes Rebecca Wood in her book "New Whole Foods Encyclopedia." She goes on to explain reishi's wide range of uses: "An immunostimulant, it is helpful for people with AIDS, leaky-gut syndrome, Epstein-Barr, chronic bronchitis and other infectious diseases. It is used as an aid to sleep, as a diuretic, as a laxative and to lower cholesterol." It almost seems too good to be true.

How can one fungus help the human body in so many ways? Traditional Eastern medical science explains reishi's wide range of medicinal applications better, perhaps, than mainstream medicine ever could. According to Eastern thought, the body needs to defend itself against threats to its "equilibrium." These threats can be physical, such as viruses and bacteria that cause infection; emotional, such as stressors that cause anxiety; or energetic, in that they reduce alertness. Whatever the threat, reishi helps the body maintain its defense against these threats to its equilibrium, helping the body to maintain balance. In this sense, diseases like heart disease and cancer mean that the body is out of balance, which is why an equilibrium-enhancing remedy such as reishi can help so many diverse ailments.

Skeptics can doubt the previous explanation as Taoist "mumbo jumbo," but laboratory research proves many of reishi's medicinal applications. As Dr. Andrew Weil writes, reishi "has been the subject of a surprising amount of scientific research in Asia and the West." Research shows that the polysaccharide beta-1,3-D-glucan in reishi boosts the immune system by raising the amount of macrophages T-cells, which has major implications for people suffering from AIDS and other immune system disorders.

This immune-boosting action also works wonders in the prevention and treatment of cancer, as the T-cells are then able to fight cancer cells more effectively. However, reishi may help the body defeat cancer in not just one, but four ways. In addition to boosting the immune system, the glucan in reishi helps immune cells bind to tumor cells. Many experts believe that it also actually reduces the number of cancerous cells, making it easier for T-cells and macrophages to rid the body of them. Another substance in reishi, called canthaxanthin, slows down the growth of tumors, according to "Prescription for Dietary Wellness" author Phyllis A. Balch and other experts. As a result of these amazing anti-cancer abilities, laboratory research and traditional medicinal usage of reishi to fight cancer is so positive that the Japanese government officially recognizes it as a cancer treatment.

Besides cancer, reishi can help and treat another of America's top killers: cardiovascular disease. The protection reishi offers against heart disease and stroke is truly remarkable because it helps prevent so many different risk factors, due to its high content of heart-saving substances like sterols, ganoderic acids, coumarin, mannitol and polysaccharides. Experts believe that the ganoderic acids in particular lower triglyceride levels, remove excess cholesterol from the blood, lower blood pressure, reduce platelet stickiness and even help correct arrhythmia. In fact, for 54 people with hypertension unresponsive to medication, taking reishi extract three times a day for four weeks was enough to significantly lower blood pressure, according to a study reported by Burton Goldberg in "Heart Disease." Just imagine how the incidence of cardiovascular disease could be reduced if using reishi really caught on in the Western hemisphere.

While you protect your body against infectious disease, cancer and heart disease, your use of reishi can also help relieve your everyday discomforts. Do you have allergies? Japanese researchers discovered that the lanostan in reishi acts as a natural antihistamine. Do you suffer from muscle aches or arthritis? Dr. William B. Stavinhoa of the University of Texas Health Science Center found that reishi is as powerful as five milligrams of hydrocortisone, but with minimal side effects. What about anxiety or insomnia? According to "Mind Boosters" by Dr. Ray Sahelia, the reishi mushroom can calm the mind, as well as improve memory, concentration and focus. With all these benefits, reishi truly is the "medicine of kings."

Different types of reishi

Though there are six different types of reishi, all classified by color, herbalists generally call red reishi the most potent and medicinal variety, and thus it is the most commonly used form of reishi in North America, Japan, China, Taiwan and Korea. In the wild, the mushroom grows on deciduous trees in heavily forested areas of China and Japan, but it's now easily and widely cultivated commercially, so you don't have to venture into the forest to enjoy the benefits of what "Herbal Medicine-Maker's Handbook" author James Green calls a "remarkably beneficial fungus for the human body."

However, keep in mind that reishi isn't exactly the kind of mushroom you'll want to put in your next salad, either. Since it's more than 90 percent indigestible fiber, reishi has an extremely wood-like texture and to top it off, it's unpleasantly bitter. In spite of this bitter flavor, many reishi enthusiasts use ground reishi to make a life-enhancing tea or even use the mushrooms in soups. For the less daring, many health food stores offer reishi capsules, tablets and extracts, and Japanese research suggests taking vitamin C along with it may enhance reishi's medicinal effects.

So, how much reishi should you take? In the "Vitamin Bible for the Twenty-first Century," vitamin expert Earl Mindell advises an average dose of 100 milligrams of reishi extract daily to boost your immune system, reduce inflammation and ease joint pain. On the other hand, Dr. Linda B. White recommends up to three 1,000-milligram tablets up to three times per day in her book "The Herbal Drugstore." Because of this wide range of dosage suggestions and additional risks it might pose for pregnant or lactating women (even though reishi has no known toxicity) you should check with a physician, preferably a naturopath, before adding reishi to your regimen. Similarly, you should be aware that reishi does have some side effects, including abdominal upset, dizziness, nose bleeds and dry mouth and throat,

according to "Natural Pharmacy" author Schuyler W. Lininger. In other words, it's up to you and your naturopath to decide which dose of reishi is right for you.

The experts speak on reishi:

Reishi's wide range of medicinal applications

Health Benefits: Reishi indeed sounds like a cure-all. An immunostimulant, it is helpful for people with AIDS, leaky gut syndrome, Epstein-Barr, chronic bronchitis, and other infectious viruses. It is used as an aid to sleep; as a diuretic; as a laxative; and to lower cholesterol. Reishi mushrooms are antioxidants and liver protectants..

New Whole Foods Encyclopedia by Rebecca Wood, page 288

One key function, identified long ago by Eastern medical science, is defense--that is, the body has the need and ability to defend itself against threats to its equilibrium, whether they be physical, emotional, or energetic. Having noted and studied the body's defensive capabilities, Chinese doctors then explored the natural world to find ways of maintaining and enhancing them, and they discovered a number of ways to do so, including the administration of herbal remedies. Among these remedies are ginseng, astragalus, and several mushrooms that grow on trees, such as *Ganoderma lucidum* (known to the Chinese as ling chih and the Japanese as reishi).

8 Weeks To Optimum Health By Andrew Weil MD, page 15

Not all of the active components in reishi have been isolated; like many other organic substances, the molecules in this plant are quite complex, though they are probably mostly polysaccharides and peptides. Dr. Terry Willard, a proponent of the medical uses of this mushroom, maintains that reishi also decreases free radicals by 50.4 percent through an as yet, unidentified antioxidant. ... Other researchers suspect that reishi may not have an antioxidant of its own but rather stimulates production of the body's own free radical scavenger, an enzyme called superoxide dismutase (SOD). According to the Bulletin of the Oriental Healing Arts Institute, reishi acts as an agent for promoting an increase in leukocytes, phagocytosis which in turn increase the number of disease-fighting T-cells in the bloodstream.

Attaining Medical Self Sufficiency An Informed Citizens Guide by Duncan Long, page 196

These powerful adaptogens -- Siberian ginseng, schisandra, ginseng, astragalus, and reishi--are among what Teeguarden calls the "superstars of Chinese tonic herbalism . . . incomparable, legendary herbal substances [that] have withstood the test of time." These five herbs also tend to be the ones with the most scientific backing for their strengthening and normalizing effects.

Off The Shelf Natural Health How To Use Herbs And Nutrients To Stay Well By Mark Mayell, page 291

Reishi and the immune system

Reishi is a purely medicinal mushroom, not a culinary one, both because it is hard and woody and because it tastes very bitter. But it is nontoxic and has been the subject of a surprising amount of scientific research, both in Asia and the West. Although most of the research has been in animals, the results are so promising that I think human studies will soon follow. Like maitake and other related mushroom

species, reishi improves immune function and inhibits the growth of some malignant tumors. Additionally, it shows significant anti-inflammatory effect, reduces allergic responsiveness, and protects the liver.

8 Weeks To Optimum Health By Andrew Weil MD, page 140

Reishi is a supreme immune tonic. Because of its neutral energy, it is fine for anyone to take. It treats immune disorders including AIDS as it raises the T cell levels (an index of AIDS and immune disorders). It is also specific for Chronic Fatigue Syndrome. It inhibits bacteria and viruses, treats cancer and tumors and its adaptogenic quality protects the body against stress. It treats heart disease, reduces cholesterol and lowers high blood pressure.

The Herbs Of Life by Lesley Tierra, page 195

Maitake, shiitake, and reishi mushrooms possess beta-1,3-D-glucan, a type of polysaccharide that stimulates the immune cells. Their immune-boosting power makes them essential for fighting the flu.

Prescription For Nutritional Healing by Phyllis A Balch CNC and James F Balch MD, page 469

In addition to being an effective energizer, reishi is an antioxidant that protects the body from the harmful effects of radiation and free radicals. It contains polysaccharides and other compounds that may combat bacteria and viruses and boost the immune system

Off The Shelf Natural Health How To Use Herbs And Nutrients To Stay Well By Mark Mayell, page 56

Reishi Mushrooms Known as kisshotake or the "lucky fungus," in Japan, reishi mushrooms were originally used in China in both cooking and traditional healing. However, for several thousand years the Japanese have used these delicately flavored mushrooms in their cuisine. reishi mushrooms, which are quite pricey, are available in Asian markets and gourmet shops. However, they may be worth their weight in gold. Recent studies show that reishi may stimulate the immune system, which increases the body's ability to ward off disease. In addition, reishi mushrooms contain compounds that are natural antihistamines and have strong anti-allergic activity. Other studies show that reishi can lower blood cholesterol levels and prevent the formation of dangerous blood clots that can lead to a heart attack or stroke..

Earl Mindells Soy Miracle Earl Mindel RPH PHD, page 107

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The Herbs Of Life by Lesley Tierra, page 195

Herbal Medicine: There are numerous herbs useful in the care of infections. Some are directly antibacterial or antiviral while others are immune potentiators. Some herbs do both. Examples include goldenseal, licorice, astragalus, garlic, Panax ginseng, reishi and shiitake mushrooms, slippery elm, and echinacea.

Alternative Medicine by Burton Goldberg, page 1112

The third is reishi (*Ganoderma lucidum*), currently available in US health food stores. It is said to have been used as a "fountain of youth" elixir for centuries. A novel protein with immunomodulating activity in vivo has been isolated from the mycelial extract of reishi.

Cancer Therapy by Ralph W Moss PhD, page 248

reishi tones the immune system, supports nerve function, scavenges free radicals, protects the liver, and quells inflammation and allergies. According to Hobbs (1996), "reishi has the unique ability among medicinal mushrooms to calm and support nerve function." In his practice, he recommends reishi to people with chronic stress, anxiety, or insomnia.

Disease Prevention And Treatment by Life Extension Foundation, page 116

Reishi, shiitake, and maitake mushroom extracts or powders are all proven antivirals and are used as immunostimulants around the world for everything from colds to cancer.

Herbal Defense by Ralph T Golan ND, page 180

Immunity (increases) astragalus, codonopsis, cinnamon, ginger, ginseng, bayberry, schisandra reishi echinacea and American ginseng.

The Herbs Of Life by Lesley Tierra, page 231

The most common herbs used in fu-zheng are blood-vitalizing herbs, including astragalus, millettia, reishi, panax ginseng, schizandra, jujube, ligus-ticum, hoelen, salvia, ho shou wu, cordyceps, atractylodis, and codonopsis. Studies continue to demonstrate that these herbs have a dramatic impact on the enhancement of an immune system weakened by chemo and radiation therapies. They not only protect the immune and endocrine systems but also inhibit such diseases as influenza, upper respiratory infections, fungal infections, and chemically induced hepatitis. These diseases can cause serious complications for the person with cancer, requiring an interruption in treatment and a course of antibiotics that can lead to diarrhea and other debilitating problems.

Herbal Medicine Healing Cancer by Donald R Yance Jr, page 85

If yeast or other vaginal infections keep coming back, your best bet is to see a natural health practitioner who'll recommend an herbal tonic program that you'll use for a series of months. It will likely include herbs such as astragalus, reishi, shiitake, nettles, or burdock -- botanicals that gently and gradually rebuild the immune system and the many organs it involves. Such a program will likely include some diet changes as well, such as cutting down on caffeine and sugar.

The Herbal Drugstore by Linda B White MD, page 535

The once extremely rare and precious reishi mushroom is now cultivated and widely available. It is a very potent immune system and longevity tonic. Traditionally used to "nourish the heart and pacify the spirit," it has also been found to have numerous other health benefits.

The One Earth Herbal Sourcebook by Alan Keith Tillotson, page 190

Use one of the immune-boosting tonics, like maitake, reishi, or astragalus. In cities, people live in close proximity and come into contact with each other more frequently than in rural areas. Germs spread easily in dense populations, so give your immune

system some help.

8 Weeks To Optimum Health By Andrew Weil MD, page 229

HERBS: Herbal medicine is best administered under the guidance of a professional trained in their use. The following herbs can be used safely as a self-care protocol, however. Dr. Bock recommends astragalus, ginseng, and maitake and reishi mushrooms for general immune support.

Alternative Medicine by Burton Goldberg, page 1043

Mushrooms, particularly Eastern varieties, revitalize the body. Various cultures consider them to contain the secrets of staying young. Reishi and shiitake mushrooms build resistance to stress by strengthening the immune system. They also provide key B vitamins to the liver and stimulate the adrenals with their high concentration of pantothenic acid. The common American button mushroom contains methionine, an amino acid high in sulphur. When combined with tofu, the result is a more complete protein.

Food Swings by Barnet Meltzer MD, page 258

Several species of mushroom -- including shiitake (*Lentinus edodes*), reishi (*Ganoderma lucidum*), and maitake (*Grifola frondosa*) -- are considered immune system stimulants. They contain compounds called polysaccharides that are similar to those found in other immune-boosting plants, such as astragalus and echinacea. These compounds increase the ability of white blood cells to devour germs.

Anti-Aging Prescriptions by James Duke PhD, page 163

This is the type of herbal tea I drink most frequently. After all, on a day-to-day basis, we mostly need to keep our good health intact. If I feel "immune challenged" or I want to start my day with an immune boost, I'll drink a cup of a blend that contains any of the following tonic herbs, known as adaptogens (herbs that strengthen or enhance the immune system, nervous system, and/or glandular system while they help the body cope with stress): Siberian ginseng, Panax ginseng, astragalus, shizandra, echinacea, ashwagandha, reishi mushrooms, licorice.

Caffeine Blues By Stephen Cherniske MS, page 324

Therapeutic and Healing Powers: reishi and shiitake mushrooms boost the immune system by producing interferon-like effects that fight viral infection. Mushrooms are also being studied for their anti-cancerous capabilities.

Food Swings by Barnet Meltzer MD, page 216

Mushrooms from Japan -- specifically, shiitake as a food, and reishi and maitake (which are currently available in the United States only as extracts) -- offer a host of immune-system benefits.

Herbal Defense by Ralph T Golan ND, page 152

All edible mushrooms contain both medicinal and nutritional qualities. Scientific research indicates that the major actions of medicinal mushrooms are stimulating the immune system and protecting against cardiovascular disease, free radicals, mutagens, and toxins. Most medicinal mushrooms contain polysaccharides (complex sugar molecules) called beta-glucans that increase RNA and DNA in the bone marrow where immune cells, like lymphocytes, are made. The combination of compounds in mushrooms is believed to target the immune system and aid in neuron transmission, metabolism, and the transport of nutrients and oxygen. Three mushroom varieties --

reishi, shiitake, and maitake -- have been studied intensively and have proven to possess strong medicinal properties. All mushrooms must be cooked to get the nutritional value. The cell walls cannot be digested unless they are tenderized by heat.

Prescription For Dietary Wellness by Phyllis A Balch, page 167

If you have a family history of cancer, have been a smoker, have worked in a hazardous occupation, or know that you have had toxic exposures, take one or more of the tonics that are cancer-protective and immune-enhancing. My first choices would be maitake and reishi mushrooms.

8 Weeks To Optimum Health By Andrew Weil MD, page 251

Ganoderma: Ganoderma lucidum, the Chinese "mushroom of immortality" called ling zhi (in Japan, reishi) has been extensively studied in the laboratory for antiviral activity and is well known for its immune-modulating activity. My teacher of Chinese medicine, the late Dr. York Why Loo, kept a specimen of dried wild Chinese ling zhi in a jar for use in his old age. So revered by Chinese doctors is ling zhi that it is frequently pictured on their business cards or displayed in their shop windows as a sign of respect for its importance.

Viral Immunity by J.E, page 292

In China, many pharmacological, chemical, and biochemical studies have been conducted with this remarkable mushroom. Results show that reishi meets all qualifications of being an ad-aptogen and tonic. Its use bolsters the immune system, stimulates health, and improves or prevents allergic conditions and a variety of degenerative and other disease conditions.

Miracle Medicine Herbs by Richard M Lucas, page 9

Try shiitake or reishi mushrooms with your veggies -- the Chinese use them to bolster the immune system.

Prescription Alternatives by Earl Mindell RPh PhD and Virginia Hopkins MA, page 283

Preliminary human research demonstrates some efficacy for the mushroom reishi in treating chronic hepatitis B, although this use still needs to be confirmed.

The Natural Pharmacy by Schuyler W Lininger, page 80

Many researchers are now recommending a combination of mushrooms to maximize effects on the immune system. "A complex blend of medicinal fungi can offer a powerful therapeutic punch," says internationally renowned mycologist Paul Stamets, known by some as "Mr. Medicinal Mushroom."¹ Two other mushrooms that hold great therapeutic promise are reishi, or Ling zhi (*Ganoderma lucidum*), and maitake (*Gri-Jola frondosa*).

The Encyclopedia Of Popular Herbs by Robert S McCaleb, page 335

Improves conditions of viral hepatitis (70% of all cases with this condition showed marked improvement after taking reishi).

Miracle Medicine Herbs by Richard M Lucas, page 9

Chinese herbalists have long considered mushrooms to be the most beneficial of all medicinal foods; however, the ordinary culinary mushrooms found at the supermarket are not as advantageous to the immune system as the more exotic

reishi, maitake, or shiitake mushrooms. Modern research has determined that these mushrooms can support immune function. Extracts of these mushrooms can be purchased in capsule form.

Prescription For Dietary Wellness by Phyllis A Balch, page 10

Immune tonics: reishi, astragalus, schisandra liver tonics: dandelion, fennel nerve tonics: scullcap, valerian nutritive tonics: comfrey, marshmallow.

The Herbs Of Life by Lesley Tierra, page 139

Immune-modulating plants often used by doctors of herbal medicine include Asian ginseng, eleuthero (Siberian ginseng, ashwagandha, and the medicinal mushrooms shiitake and reishi.

The Natural Pharmacy by Schuyler W Lininger, page 89

The reishi mushroom is traditionally used in Chinese medicine for asthenia-type syndromes, characterized by a deficiency of vital energy and functions of the lower body. reishi is the perfect remedy for the typical American suffering from constant stress. This type of individual has depressed vital force and is likely to be both deficient and toxic. When a person in such a state develops cancer and is then faced with the toxicities of chemotherapy, the situation calls for reishi. reishi's overall effects could be described as regulatory and beneficial to the restoration of homeostasis. Its effect on the immune system is total enhancement of immune function: increase of white blood-cell count, platelets, hemoglobin, and various tumor-fighting cells. reishi also improves both energy and sleep.

Herbal Medicine Healing Cancer by Donald R Yance Jr, page 156

Master the language of mushrooms. Forget those bland, almost tasteless specimens that you find in the typical mushroom omelet. Your immune system craves exotic mushrooms, notably shiitake, maitake, and reishi. "Shiitake and maitake mushrooms strengthen the immune system," notes Santa Cruz, California, herbalist Christopher Hobbs, L.Ac., the author of several authoritative herb guides. "reishi mushrooms build up bone marrow, where white blood cells are made."

Blended Medicine by Michael Castleman, page 10

Reishi is one of the most versatile medicinal mushrooms. It has long been used in Asia as an energy tonic to promote longevity and overall health. Studies indicate that reishi is an antioxidant and contains polysaccharides and other compounds that may boost the immune system. reishi is taken to counter bacteria and viruses and has shown promise as an agent to help prevent or treat cancer, chronic fatigue syndrome, and other conditions. Russian researchers at the Cancer Research Center in Moscow have had positive results using reishi extracts to boost the immunity of cancer patients.

Off The Shelf Natural Health How To Use Herbs And Nutrients To Stay Well By Mark Mayell, page 88

The fruiting body of reishi mushroom is sweet in taste and neutral to slightly warming in action. It calms the spirit; strengthens immunity; slows aging; strengthens the heart, lungs, and liver; and relaxes spasms.

The One Earth Herbal Sourcebook by Alan Keith Tillotson, page 190

Reishi and cancer

For the past decade, reishi has also been used as a cancer treatment in Japan, with some success. reishi appears to inhibit cancer via its beneficial effect on the immune system. Compounds in reishi can boost immune function by activating macrophages and T-cells, the disease-fighting cells that help rid the body of all foreign invaders, including viruses, bacteria, and cancer cells.

Earl Mindell's Supplement Bible by Earl Mindell RPh PhD, page 167

One of the reishi polysaccharides, called glucan, shows anti-tumor potential according to some researchers. Researchers speculate that glucan reduces the number of cancerous cells making it possible for the body's immune system to handle them more effectively.

Attaining Medical Self Sufficiency An Informed Citizens Guide by Duncan Long, page 196

Carbohydrate-proteins, called mucopolysaccharides, which are found in many herbs, such as echinacea and reishi mushrooms, not only activate macrophages but actually help them to bind to the antigen or tumor cell.

Herbal Medicine Healing Cancer by Donald R Yance Jr., page 93

Canthaxanthin acts as an antioxidant, boosts immunity, slows the growth of cancer cells, and may help to prevent skin and breast cancers. Food sources include mushrooms, particularly reishi, maitake, and shiitake.

Prescription For Dietary Wellness by Phyllis A Balch, page 50

Studies done at the Cancer Research Center in Moscow have found reishi to act as a host defense protector. It helps the body to fight cancer and slow down tumor growth.

Treating Cancer With Herbs by Michael Tierra ND, page 166

Ancient Chinese herbalists considered the reishi mushroom the most beneficial of all medicines and the emperors of Japan believed the reishi granted them immortality. Today, the Japanese government officially recognizes the reishi mushroom as a substance for treating cancer.

Prescription For Dietary Wellness by Phyllis A Balch, page 167

Because it is called ling zhi in Chinese, the scientists called this protein ling zhi-8. And Prof. H. Maruyama called the antitumor activity of a water extract of reishi as well as two other mushrooms "remarkably effective for inhibition of tumor growth."

Cancer Therapy by Ralph W Moss PhD, page 248

Scientific studies report this food's effectiveness in controlling cancers of the breast, lung, and prostate, and in minimizing the side effects of chemotherapy. Shiitake and reishi mushrooms, also called ganoderma mushrooms, exhibit anticancer properties as well, and are used by Orientals to enhance longevity. Animal research done in Japan showed a highly significant rate of tumor elimination in animals fed extracts of maitake, shiitake, and reishi mushrooms.

Complete Encyclopedia Of Natural Healing by Gary Null PhD, page 82

Besides its anti-tumor and immuno-modulatory properties, reishi also helps counteract stress. The crude extract of reishi has been found to be more effective in fighting free radical damage than isolated, synthetic compounds. reishi also contains bitter triterpenes. These strengthen the circulatory and immune systems, tone the

liver and protect the body from physical stress. Triterpenes work as adaptogenics, antihypertensives and to control allergic reactions.

Treating Cancer With Herbs by Michael Tierra ND, page 166

Shiitake and reishi mushrooms will be magic because they help prevent cancer.

Asian Health Secrets by Letha Hadady DAC, page 477

The reishi and maitake mushrooms are two other fungi for which researchers are cheering in their fight against cancer and viruses.

The Complete Book Of Alternative Nutrition by Selene Y Craig, page 225

Other Herbs -- Other herbal medicines have been identified as potentially useful adjuncts to cancer treatment, including: pearl barley (*Hordeum vulgare*); reishi mushroom (*Ganoderma lucidum*); shiitake mushroom (*Lentin-ula edodes*); cauliflower (*Brassica oleracea*); wax gourd (*Benincasa hispida*); calendula (*Calendula officinalis*); chaparral (*Larrea divaricata* and *Larrea tridentata*); white mulberry (*Moms alba*); Japanese pepper (*Piperfutokadura*); thyme (*Thymus serpyllum*); Chinese cucumber (*Tri-chosanthes kirilowii*); and stinging nettle (*Urtica dioica*).

Alternative Medicine by Burton Goldberg, page 612

The reishi mushroom (*Ganoderma lucidum*) has a sweet and warm energy, is both sedative and tonic, is a supreme deep immune system tonic, and nourishes the spirit, essence, and vital energy. It has strong anticarcinogenic properties and is rich in a number of complex phyto-chemicals, including ergosterol, fumaric acid, aminoglucose, and man-nitol; coumarins; alkaloids; lactone; and various enzymes.

The Way Of Herbs by Michael Tierra, page 313

Finally, evidence has shown that reishi, shiitake, and maitake mushrooms can serve as formidable opponents of cancer cells.

Complete Encyclopedia Of Natural Healing by Gary Null PhD, page 72

If you have cancer, you should work with a knowledgeable physician or natural healer. As a cancer treatment, doses are much higher than those for pain control -- you will need to take about 10 grams of reishi daily. But reishi is considered safe even at the highest levels; there is no known toxicity.

Earl Mindell's Supplement Bible by Earl Mindell RPh PhD, page 167

According to researchers at the National Cancer Center in Japan, there was complete tumor elimination in about 80% of cancer-induced animals fed extracts from maitake, shiitake, and reishi mushrooms. Compounds in each of these mushrooms increase the tumor-fighting activity of NK cells and improve antibody responses, but maitake seems to have the strongest and most consistent effect.

Alternative Medicine by Burton Goldberg, page 613

As with other medicinal mushrooms, this herb is rich in polysaccharides that increase white blood cells; it serves as a potent free radical scavenger and generally exerts broad anticancer and antitumor properties. Reishi contains the immune stimulating polysaccharide, beta D-glucan, which has been shown to be effective against sarcoma. The polysaccharide stimulates macrophage activity to produce tumor-necrosis factor (TNF-a), together with cancer killing interleukins. In another study the polysaccharides (PS) from fresh fruiting bodies of *G. lucidum* (PS-G) were isolated and used to potentiate cytokine production by human mono-cytes-

macrophages and T lymphocytes. Results demonstrated that the levels of interleukins (IL)-1 beta, tumor necrosis factor (TNF)- alpha, and IL-6 in macrophage cultures treated with PS-G (100 micrograms/ml) were 5.1, 9.8 and 29 fold higher, respectively, than those of untreated controls. In addition, the release of interferon (IFN)- gamma from T lymphocytes was also greatly promoted in the presence of PS-G (25-100 micrograms/ml). Furthermore, these cytokine-containing mononuclear cell-conditioned media (PSG-MNC-CM) suppressed the proliferation of both the HL-60 and the U937 leukemic cell lines. Further, a process of DNA labeling was able to induce cell death (apoptosis) only of cancer cells.

Treating Cancer With Herbs by Michael Tierra ND, page 166

Two other types of medicinal fungi, which have received considerable attention in the scientific community in the last few decades, are the reishi (pronounced REE-she) and shiitake (pronounced SHE-taw-key) mushrooms. They are venerated throughout the Orient for their marvelous healing properties, especially in the treatment and prevention of cancer. Laboratory and clinical studies done with both of them in man and beast alike have shown remarkable regression of malignant tumors, particularly through the injection method.

Encyclopedia Healing Herbs Spices by John Heinerman, page 243

Adding foods to the diet which contain significant amounts of the trace element germanium, which enhances the action of oxygen in the body. Germanium foods and supplements are commonly used as cancer remedies and for immune restoration in general. Among the more concentrated food and herb sources: "turkey tails" and related shelf or punk mushrooms that grow on the sides of decaying trees; other mushrooms including shiitake, ling zhi or reishi (*Ganoderma luddum*), and champignon; garlic; the herbs Suma (*Pfaffia paniculata*), ginseng, and unrefined aloe vera juice; chlorella micro-algae, and barley.

Healing With Whole Foods by Paul Pitchford, page 40

Medicinal mushrooms with immunomodulating activities have been traditionally used as tonics in Traditional Chinese Medicine (TCM). They are now used in cancer treatments to counteract the toxic effects of radiation and chemotherapy. Mushrooms used in cancer therapies are generally processed into liquid or powder in order to obtain the necessary potency. It takes about 15 pounds of reishi mushrooms to produce 1 pound of the powdered concentrate. Medicinal mushrooms make a significant contribution to the healing process by enhancing and stimulating the body's own immune system. This is a very important factor in diseases like cancer and HIV, which have components unique to each individual. In my protocols for people with cancer, I always include one or more medicinal mushroom extract products. Descriptions of some of the more frequently used mushrooms follow.

Herbal Medicine Healing Cancer by Donald R Yance Jr, page 155

It is believed, they are more accessible to the immune system cell called the macrophage. Remember, these are nonspecific "Pac Man"-like immune cells that literally gobble up invaders. When the macrophage becomes activated, it signals helper T cells to get to work. From research in China and Japan, the immune cells being activated by reishi to kill tumor cells are primarily the macrophages and helper T cells.

Healing Pets With Nature's Miracle Cures By Henry Pasternak DVM CVA, page 114

Reishi calms the central nervous system, exerting a blood-pressure-lowering effect beneficial to the heart. It is now employed in China for treatment of autoimmune diseases and to calm hypersensitivity. Like many other medicinal mushrooms, reishi mushroom can be used to treat cancer patients due to its ability to activate NK cells, macrophages, T-lymphocytes, and cytokines, all important immune system components. Kee Chang Huang reports that reishi "exerts a synergistic effect with other anticancer chemotherapeutic agents or radiotherapy, to augment the clinical therapeutic effect in the treatment of cancer patients."

The One Earth Herbal Sourcebook by Alan Keith Tillotson, page 191

reishi (*Ganoderma lucidum*) contains carbohydrates, fiber, amino acids, protein, steroids, triterpenes, lipids, alkaloids, polysaccharides, glucoside, coumarin glycoside, volatile oil, vitamin B2 (riboflavin), and ascorbic acid. It also contains the minerals calcium, zinc, magnesium, copper, and germanium. Additionally, reishi contains ganoderic acid, which is a free-radical scavenger, giving reishi antioxidant powers. The polysaccharides in reishi mushrooms appear to activate a type of white blood cell known as a macrophage. These cells filter the blood, destroying cancer cells, viruses, bacteria, and other large particulate material. Macrophages also signal other white blood cells to seek out and destroy tumor cells.

Prescription For Dietary Wellness by Phyllis A Balch, page 168

Reishi is also being studied for its effects against arthritis, bronchitis, asthma, acute hepatitis, diabetes, allergies, insomnia, and altitude sickness

The Encyclopedia Of Popular Herbs by Robert S McCaleb, page 335

reishi. Several species of ganoderma have traditionally been used by the Chinese to prevent or treat cancer of the esophagus and other organs. Studies show that certain steroidlike compounds in reishi can help kill liver cancer cells. reishi extracts have also been shown to boost the immunity of cancer patients.

Off The Shelf Natural Health How To Use Herbs And Nutrients To Stay Well By Mark Mayell, page 226

One study showed that reishi strongly inhibited the growth of sarcoma 180, with an inhibition rate of 95.6 to 98.6 percent at an interperitoneal dosage of 20 mg/kg for ten days in mice.¹¹⁶ Another study demonstrated that reishi polysaccharides significantly inhibited the proliferation of JTC-26 tumor cells, a human cancer-cell strain. Ganodermic acids U through Z, which are six types of cytotoxic triterpenes found in reishi, showed significant cytotoxicity on hepatoma cells grown in vitro.

Herbal Medicine Healing Cancer by Donald R Yance Jr, page 156

Reishi mushroom has impressive antioxidant and anti-cancer benefits, as do shiitake and maitake mushrooms.

The Encyclopedia Of Popular Herbs by Robert S McCaleb, page 421

Medicinal Mushrooms: Especially maitake, reishi, shiitake and turkey tail mushrooms. Maitake D- fraction has been shown to enhance the effects of chemotherapy as well as having anticancer and immune strengthening properties. New research shows maitake D-fraction also has apoptosis (cancer cell death) inducing properties. Planetary formulas Maitake Mushroom and reishi Mushroom Supreme have shown themselves to be very efficacious.

Treating Cancer With Herbs by Michael Tierra ND, page 374

Like the shiitake, reishi extract -- known as *G. lucidum* -- has shown immune-enhancing ability and may curb the growth of tumors, according to proponents. They also believe that reishi can help to fight a host of ailments, including high blood pressure, allergies, asthma, fatigue, arthritis, high cholesterol, dizziness, liver problems and congestion.

The Complete Book Of Alternative Nutrition by Selene Y Craig, page 225

Immune tonics such as reishi mushroom and astragalus can be given in higher dosage during the early stages of disease or to prevent recurrence. In the more advanced stages, tonics are also used but to a lesser extent, with greater emphasis on the use of eliminative, heat clearing herbs. In the middle stages of cancer one combines tonification and elimination substances equally.

Treating Cancer With Herbs by Michael Tierra ND, page 117

Kelp, reishi, and St. John's wort may help protect against the adverse effects of x-ray radiation.

Prescription For Nutritional Healing by Phyllis A Balch CNC and James F Balch MD, page 730

Antitumor: Prevents or helps alleviate tumors. Examples: chaparral, red clover, astragalus, reishi, fu ling.

The Herbs Of Life by Lesley Tierra, page 137

Cancer and HIV/AIDS Foods: beans and legumes; blueberries; carrots; cherries; cruciferous vegetables; flaxseeds; garlic; kelp; all leafy greens; maitake, reishi, and shiitake mushrooms; millet; papaya; peaches; red grapes; vegetables; soy foods; wheatgrass.

Prescription For Dietary Wellness by Phyllis A Balch, page 288

Herbal and nutritional therapies can make chemotherapy more sensitive to the particular cancer being treated. For example, bromelain and quercetin are especially compatible with most chemotherapies used in cases of breast, ovarian, and colon cancers, as well as leukemia and most melanomas, while reishi, coriolus, astragalus, and Siberian ginseng work well with all chemotherapies for all types of cancers.

Herbal Medicine Healing Cancer by Donald R Yance Jr, page 281

The immune potentiating effects of the astragalus polysaccharide was validated through research at the M.D. Anderson hospital in Houston, Texas during the 1980's. No patentable drug resulted from this research because of the difficulty of patenting plant polysaccharides. However, both in China and Japan a wide range of anticancer herbs rich in immune potentiating polysaccharides are used including a variety of medicinal mushrooms such as ganoderma (reishi), lentinus (shiitake), grifola (maitake) and coriolus ver-sicolor (turkey tails) and cordyceps (dong chong xia cao).

Treating Cancer With Herbs by Michael Tierra ND, page 77

Sabley said that reishi contains two major groups of organic compounds: Ganodermic acids (compounds with a structure similar to steroid hormones) and polysaccharides (long chains of naturally occurring sugar molecules or carbohydrates). Many believe that polysaccharides, commonly found in mushrooms, seaweed and numerous plants, have immune-enhancing properties, possibly capable of treating some forms of cancer.

Attaining Medical Self Sufficiency An Informed Citizens Guide by Duncan Long, page 196

Popularized by the Chinese and Japanese, ganoderma, also known as the reishi mushroom, is a general energy stimulant that also possesses cancer-fighting abilities. It is particularly effective when used along with astragalus and legustrum.

Complete Encyclopedia Of Natural Healing by Gary Null PhD, page 108 < p> reishi: immune booster, cancer preventive, system balancer

Off The Shelf Natural Health How To Use Herbs And Nutrients To Stay Well By Mark Mayell, page 19

The beta-glucans lentinan, grifolan, schizophyllan and SSG are available in Japan. Lentinan and schizophyllan are approved in Japan as drugs for the treatment of cancer. ... Non-edible mushrooms that are rich in beta-glucans include the reishi mushroom (*Ganoderma lucidum*) and the coriolus mushroom (*Coriolus versico-lor*).
PDR For Nutritional Supplements by Sheldon Saul Hendle and David Rorvik, page 316

Various types of mushrooms can be good sources of vitamin D, B1 (thiamine), B2 (riboflavin), B3 (niacin), minerals, and amino acids. They have the ability to enhance the body's immune system T cells that seek and destroy cancer cells. Shiitake, zhu ling, enoki, reishi, and maitake mushrooms have all been reported to have anti-cancer properties.

Prescription For Nutritional Healing by Phyllis A Balch CNC and James F Balch MD, page 253

reishi MUSHROOM (*Canoderma lucidum*) Ling zhi All types of cancers when there is qi weakness, blood deficiency, low and/or threatened immune system, dampness, nervousness and anxiety. It is also used to offset the adverse effects of chemotherapy and radiation. Dose: 9-30g

Treating Cancer With Herbs by Michael Tierra ND, page 81

Ling zhi, the famous reishi mushroom, is not known for its sweet flavor so much as for its cleansing, anticancer effects. Although the mushroom itself is not sweet, the instant cube is.

Asian Health Secrets by Letha Hadady DAc, page 52

Reishi and cardiovascular disease

Reishi contains several constituents, including sterols, coumarin, mannitol, polysaccharides, and triterpenoids called ganoderic acids. Ganoderic acids may lower blood pressure as well as decrease low-density lipoprotein and triglyceride levels. These specific triterpenoids also help reduce blood platelets from sticking together -- an important factor in lowering the risk for coronary artery disease. While human research demonstrates some efficacy for the herb in treating altitude sickness and chronic hepatitis B, these uses still need to be confirmed.

The Natural Pharmacy by Schuyler W Lininger, page 456

Because there is some evidence that reishi extract lowers cholesterol and blood pressure and reduces platelet stickiness, another cardiovascular risk factor, it is being studied for its potential in the treatment of heart disease.

**Off The Shelf Natural Health How To Use Herbs And Nutrients To Stay Well
By Mark Mayell, page 56**

This mushroom is prized in Japan and China, where its rejuvenating qualities have been known for over 4,000 years. Scientific studies have confirmed its medicinal properties. Published studies in humans show that it lowers blood pressure and reduces "bad" LDL cholesterol and triglycerides, another type of blood fat. It also reduces the tendency of blood platelets to accumulate, thus making blood less likely to clot and provoke heart attacks and strokes. Since the raw mushroom is woody and inedible, the traditional method of preparing reishi is to make a tea by simmering it for a long time in water. Fortunately, it is also available in a powdered form. Typical dosage: 1,000 to 9,000 milligrams in capsules per day, - or 50 to 75 milligrams in concentrated capsules three times per day.

The Herbal Drugstore by Linda B White MD, page 327

Chinese herbal medicine physicians regard the reishi mushroom as an "elixir of immortality." Research confirms that reishi is an effective cardiogenic. In a study of 54 people (average age, 58.6) whose blood pressure was over 140/90 and who were unresponsive to hypertension medication, those taking reishi mushroom extract in tablet form three times a day for four weeks experienced a significant drop in their blood pressure compared to the control group. The blood pressure of all the test subjects fell below 140/90.

Heart Disease by Burton Goldberg, page 205

Today, both shiitake and reishi mushrooms are used to treat a variety of disorders and to promote vitality. They are used to prevent high blood pressure and heart disease, to control and lower cholesterol, to build resistance to disease, and to treat fatigue and viral infections. They are also known to have anti-tumor properties valuable in treating cancer.

Prescription For Nutritional Healing by Phyllis A Balch CNC and James F Balch MD, page 80

Reduces excessive levels of cholesterol in the blood, thus improving circulation.

Miracle Medicine Herbs by Richard M Lucas, page 9

reishi has been shown in several studies to lower cholesterol levels, helping to prevent atherosclerotic changes in the blood vessel walls (reported in Huang, 1999).

The One Earth Herbal Sourcebook by Alan Keith Tillotson, page 191

Today, both shiitake and reishi mushrooms are used to treat a variety of disorders and to promote vitality. They are used to prevent high blood pressure and heart disease, to control and lower cholesterol, to build resistance to disease, and to treat fatigue and viral infections. They are also known to have anti-tumor properties valuable in treating cancer.

The A-to-Z Guide to Supplements by James F Balch MD, page 157

Reishi is a variety of mushroom that also fights infection and has traditionally been used to treat heart disease and lower blood pressure and cholesterol.

Alternative Medicine by Burton Goldberg, page 192

High Blood Pressure hawthorn berries ginkgo leaf, reishi dandelion, echinacea, chamomile, plantain

The Herbs Of Life by Lesley Tierra, page 231

Clinical studies at the Tongji Medical University, Wuhan, China, involving 15 healthy volunteers and 33 patients with atherosclerotic disease suggest that the mushroom may offer help for other diseases as well and the team reported that reishi also inhibited platelet aggregation.

Attaining Medical Self Sufficiency An Informed Citizens Guide by Duncan Long, page 197

Reishi (*Ganoderma lucidum*). Sixteenth-century Ming Dynasty texts say that this marvelous Chinese medicinal mushroom "mends the heart." And my good friend, pharmacognosist (natural product pharmacist) Albert Leung, Ph.D., says in his *Better Health with (Mostly) Chinese Herbs and Food* that reishi has considerable value in preventing and treating arrhythmia.

The Green Pharmacy by James A Duke PhD, page 121

This medicinal mushroom has long been used in China as a general heart tonic, as well as for a host of other conditions. If your arrhythmias are caused by stress, reishi is a good choice to add to your routine because it acts on the many body systems that can be affected by stress. Typical dosage: up to five 420-milligram capsules per day, - or up to three 1,000-milligram tablets up to three times per day.

The Herbal Drugstore by Linda B White MD, page 155

Morel, reishi, shiitake, and maitake are mushrooms that were touted by the ancient Chinese as superior medicines that give eternal youth and longevity. They prevent high blood pressure and heart disease, lower cholesterol, prevent fatigue and viral infections, and much more. They are found in supplement form as well as fresh.

Prescription For Nutritional Healing by Phyllis A Balch CNC and James F Balch MD, page 138

Since heart disease is America's most serious health risk, any program designed to maintain and optimize health must start with protecting the cardiovascular system. This means reducing artery-clogging cholesterol, preventing the oxidation of blood fats, and maintaining a strong, steady heart beat. The best-researched herbal remedies for reducing blood fat levels (cholesterol) and for obtaining other cardiovascular benefits include garlic, hawthorn, ginger, horse chestnut, bilberry, reishi mushroom, and the Ayurvedic herb

The Encyclopedia Of Popular Herbs by Robert S McCaleb, page 12

Reishi is a heart tonic, like hawthorn and ginkgo. It improves blood flow to the heart, reduces coronary demand for oxygen and helps ease the chest pain of angina. I make reishi tea using three to six teaspoons of dried herb per cup of boiling water.

The Green Pharmacy by James A Duke PhD, page 121

Reishi is a type of mushroom, contains several constituents that seem to help decrease triglyceride levels based on preliminary reports.

The Natural Pharmacy by Schuyler W Lininger, page 88

Perhaps one of the reasons the Chinese regard mushrooms as spirit medicine is the claim found in the oldest recorded botanical monograph on another powerful Chinese

medicinal mushroom, the ling zhi or reishi mushroom (*Canoderma lucidum*). The Chinese claimed that it made the body lighter, which may refer to its ability to reduce cholesterol and blood lipid levels. Shiitake mushrooms have immune-potentiating properties similar to those of reishi mushrooms.

The Way Of Chinese Herbs by Michael Tierra LAc OMD, page 431

Reishi as an antihistamine

Japanese researchers have also found that reishi acts as an antihistamine, making it useful for treating allergies. Lanostan, a compound found in reishi, appears to control the release of transmitting chemicals in the body, thereby inhibiting the release of histamine. Since reishi also promotes the adrenal function and immune reaction, it has added effectiveness in controlling the body's reaction to an allergen.

Attaining Medical Self Sufficiency An Informed Citizens Guide by Duncan Long, page 196

reishi is a true adaptagen, enhancing health and normal functions of the body. For example, while it increases some components of the immune response to cancers, it also inhibits pathological immune functions in autoimmune diseases. It has also been reported to reduce the histamine release associated with allergic reactions, and even to help prevent life threatening ana-phylactic reactions.

Healing Pets With Nature's Miracle Cures By Henry Pasternak DVM CVA, page 112