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Spices of Life Savor earth's healing flavors

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Turkey Tail

Reishi

Wild Medicine by Linda Knittel

BENEFITS

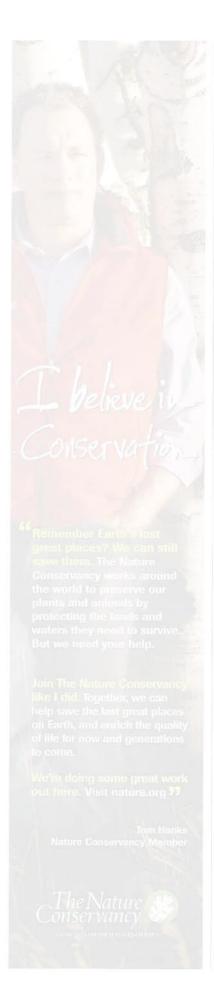
boosts immune system helps prevent cancer eases inflammation helps lower cholesterol reduces stress supports liver function

Shiitake

Maitake

In appearance, mushrooms are drab, sometimes gnarled, even eerie; nothing like the colorful, juicy fruits and vegetables we associate with healthfulness. In taste, they're often mild, soaking in other flavors and adding a velvet woodiness to foods, but

Cordyceps



MEDICINAL MUSHROOMS

The five mushrooms discussed in the story can help treat a range of ailments. Consult with your health-care provider before using mushrooms for any serious or chronic condition.

Health Condition	Helpful Mushrooms
Immune support	maitake, reishi, shiitake, cordyceps, turkey tail
Inflammation	reishi ·
High blood sugar	maitake, reishi
Cancer treatment/prevention	reishi, shiitake, turkey tail, maitake
Bacterial/viral infections	shiitake, reishi, maitake
High cholesterol	shiitake, reishi, maitake, cordyceps
High blood pressure	maitake, reishi, shiitake
Liver support	shiitake, reishi, turkey tail
Stress	cordyceps, shiitake, reishi

rarely the defining flavor. Yet of all earth's natural substances, mushrooms are among the most medicinal. Among other properties, their predilection for breaking down impurities (scientists are now looking at them as pollution-fighters, cleaning oil spills in the environment) makes them natural health allies. The fact that some mushrooms are poisonous is, for some scientists, merely proof that they are highly bioactive, all the more worth studying.

"The healing potential of mushrooms is one of the most exciting and powerful areas of medical research going on today," says Christopher Hobbs, L.Ac., a fourth-generation herbalist, acupuncturist, and author of Medicinal Mushrooms: An Exploration of Tradition, Healing, & Culture. Mushrooms are turning out to be superstars at fighting cancer, high cholesterol and infections. Even the National Institutes of Health (NIH) is banking on the power of medicinal mushrooms, recently granting \$2.3 million dollars to the University of Minnesota and Bastyr University to study the ability of the turkey tail mushroom (Trametes versicolor) to fight cancer. Although this mushroom and a number of others have been used in China and Japan for centuries, possibly millenia, to boost immunity and fight cancer and other

FUNGI FOOD

Organic shiitake and maitake mushrooms can be found fresh in many natural-foods stores, and make a nutritious and delicious addition to soups,
stir-fries and stews. To use, wipe off
any dirt, trim the stems, and include in
your recipe. Be sure to retain any
cooking water, as it will be rich in beta
glucan and other nutrients.

Although both reishi and turkey tail mushrooms are too tough to eat, boiling them in water for an hour will produce a strong, nutrient-rich tea, or stock for soups and other dishes. "You can get good effectiveness just from eating a stir-fry made with turkey tail or reishi stock," says herbalist Christopher Hobbs, L.Ac.

To mask the bitterness of the tea, Hobbs suggests adding fresh ginger (1 part to every 8 parts mushrooms) and dried licorice root (available at herb stores; 1 part to every 16 parts mushrooms).

diseases, only recently has their healing presence begun to pop up stateside. Now a number of companies make mushroom supplements in capsule and tincture form that turn the mysterious fungi into easy medicine.

While researchers are only beginning to understand how the many compounds in mushrooms can fight ailments ranging from infections to cancer, two substances have begun to stand out above the rest. First are the terpenoids, potent antiviral, antibiotic, and anti-inflammatory agents. The others are complex chain-like sugars called polysaccharides, which enhance the immune system and help the body fight cancerous tumors.

Also found in oats and certain yeasts, the polysaccharides in mushrooms responsible for revving up the immune system are known as beta-glucans. "Each mushroom has a slightly different version of beta-glucan, but they all pack a powerful immune-boosting punch," says Hobbs. Because beta-glucan's chemical structure resembles that of bacteria, eating it alerts the body to beef up its defenses. Thinking an invader has entered, the immune system boosts the production and activity levels of various infection-fighting white blood cells.

The following five medicinal mushrooms have studies backing their safety and efficacy.

Maitake

(Grifola frondosa)

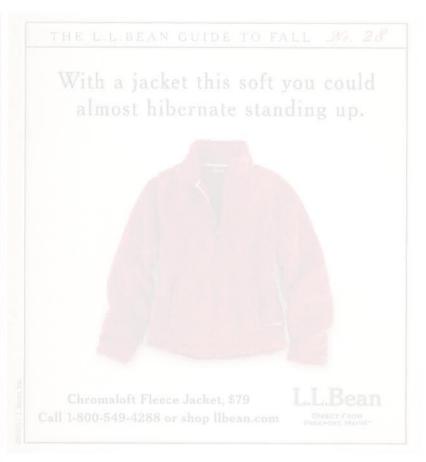
Also known as "hen of the woods," maitake was historically used as an adaptogen, a substance that balances the system and helps the body adapt to stress. Recent studies have shown that maitake mushrooms can help lower blood pressure and reduce blood-sugar levels. In addition, extracts of maitake have had an anticancer effect in patients with lung, stomach, and other cancers, and have helped to ease the side effects of chemotherapy.

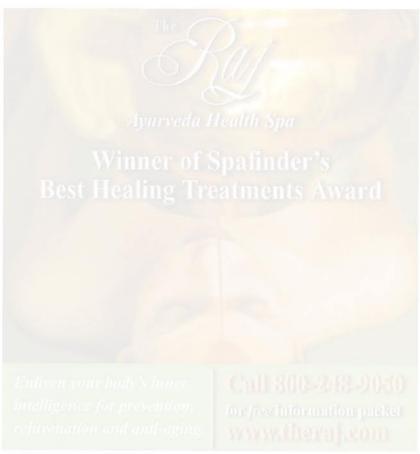
Common dose: 3–7 grams a day (fresh or dried) in supplements, tea, or soups.

Shiitake

(Lentinus edodes)

The shiitake has become so common on restaurant menus that it's easy to forget it has long been used to heal colds, protect the heart, and boost blood flow. Recent research indicates that a chemical in shiitakes called lentinan can boost immune function and decrease cancer tumors. Shiitakes can





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also help battle an overgrowth of yeast called *Candida albicans*, and increase the body's production of interferon, a potent antiviral substance.

Common dose: 6–16 grams of dried (or 90 grams fresh) in tea or soup. A dose of 1–3 grams is common when taking commercial preparations known as lentinus edodes mycelium (LEM). Safety: Diarrhea can result with high doses (15–20 grams).

Reishi

(Ganoderma lucidum)

The reishi mushroom has long been known as an "elixir of immortality" in Taoist tradition. More recently it has been valued for producing interferon, thereby exerting antiviral effects in the body. Reishi has also been effective against coronary heart disease, asthma, hypertension, and arthritis. In Japan, some doctors use with cancer treatment, often combining it with vitamin C to increase absorption. In addition, studies there indicate that it helps protect against the side effects of radiation treatment. And in Traditional Chinese Medicine, says Hobbs, "reishi is used to calm the spirit in people with anxiety or insomnia." Of the six types of reishi mushroom, red reishi is most frequently used medicinally. Common dose: 3-5 ml of liquid extract 3 times daily; or 1/2-1 gram powderedextract tablets, 2-3 times daily. Safety: Occasional dizziness or stomach upset can result from use.

Cordyceps

(Cordyceps sinensis)

Perhaps one of the most unique forms of fungus, cordyceps is a parasite that grows and feeds on the bodies of living caterpillars. Fortunately, manufacturers have discovered cordyceps will also grow on grain without losing any of its potency. This mushroom is believed to not only boost sex drive and fertility, but also protect the kidneys, lower cholesterol levels, and improve physical endurance.

BUYING BASICS

Each mushroom species has a unique form of beta-glucan, and therefore distinct protective benefits. Some experts believe that medicinal-mushroom blends deliver the broadest spectrum of protection. Christopher Hobbs, L.Ac., disagrees, advocating for a "serial monogamy" approach: "It's a good idea to take a single mushroom for three or four months and then switch," says Hobbs. "The body gets used to one form of beta-glucan and stops responding; rotating mushrooms keeps the immune system on its toes."

Whether you choose isolated mushrooms or blends, look for products
produced in the U.S. that are certified
organic and have been tested for heavy
metals; many products coming from
Asia are tainted with these toxins. In
general, says Hobbs, products made
from the "fruiting body" are more potent
than those made from the mycelium,
the fine strands seen when mushrooms
are picked. (Cordyceps fruiting bodies,
however, are very expensive, and the
mycelium are just as potent.)

Products come in liquid and powdered form; Hobbs favors the latter but recommends choosing a "powdered extract over just powdered mushrooms." In powdered extracts, the mushrooms are boiled down and extracted, eliminating the indigestible parts and pulling out the powerful beta-glucans and terpenoids. See page 132 for buying information.

Common dose: 3–5 ml of liquid extract 3 times daily; or 1/2–1 gram powdered-extract tablets, 2–3 times daily.

Turkey Tail

(Trametes Versicolor)

Turkey tail is commonly used in Japan as an adjunct to conventional cancer treatments. Modern chemists have isolated the potent cancer-fighter in turkey tail known as polysaccharide-krestin, or PSK. Preliminary studies suggest that PSK may improve survival rates in cancer patients.

Common dose: One or two 500-mg powdered-extract capsules 2–3 times daily, or as recommended by your health-care practitioner. Take after meals if possible. +

