

# MUSHROOM DEFENSE+

ncapsulate®  
Premium natural formulations

Organic immunity blend with mushrooms and herbals



- Multi-mushroom organic immunity blend
- Supports the immune system and nervous system
- Protects cells from oxidative stress
- Reduces tiredness and fatigue

Suitable for vegetarians and vegans

Organic — registered with the Soil Association

Dairy-free

Gluten-free

Contains no added artificial colours, flavourings, preservatives, dairy products, gluten, lactose, soya, sugar, wheat or yeast

## POTENTIALLY BENEFICIAL FOR:

- The immune system
- The nervous system
- Energy levels
- Collagen formation
- Heart health
- Cognitive function
- Mental performance and focus
- Anxiety / nervous tension
- Detoxification
- Blood sugar levels
- Oxidative stress
- Digestion
- Inflammation
- Bones, gums, skin and teeth
- Healthy weight status

ncapsulate® Mushroom DEFENSE+ is an organic mushroom immunity blend with:

### MUSHROOMS...

Maitake, Reishi, Shiitake, Lion's Mane and Chaga mushroom PLUS

### HERBALS...

Astragalus root, Acerola fruit and black pepper.

All in one convenient capsule, providing important nutrients (such as vegan vitamin D) and active ingredients that are not found in other plants.

As well as its primary immune-boosting properties (with **EFSA approved immunity claims**), this special complex supports everything from cognitive function, mental well-being and energy levels, to healthy digestion, lower levels of inflammation, protection from oxidative stress and general wellness.

The ingredients used in this food supplement have been **certified organic** by the Soil Association, the United Kingdom's leading organic certifier, meaning no toxic pesticides or fertilisers have been used resulting in a "clean" product. Being organic also helps the mushrooms to maintain their bio-availability and keeps them nutrient-dense, as some nutrients can be lost when non-organic ingredients are used.

## ABOUT THE MUSHROOMS



**SHIITAKE MUSHROOM:** Shiitake mushrooms are members of a special group of medical fungi or mushrooms that have been used in Japan and South East Asia from over 1000 years. They contain a number of beneficial compounds (such as lentinan — a beta-glucan), which protect cells from **oxidative damage**. Eritadenine

substances help reduce **cholesterol levels** and support **cardiovascular health**. Researchers at Shizuoka University in Japan found that eritadenine supplementation significantly decreased plasma cholesterol concentration.

Shiitakes are also unique because they contain all eight essential amino acids, along with linoleic acid (an essential fatty acid). Linoleic acid helps with weight loss and building muscle. It also has bone-building benefits, improves digestion, and reduces food allergies and sensitivities.

Shiitakes also:

- **help to fight infection** (by producing interferon, a group of natural proteins that stops viruses from multiplying)
- **help to fight obesity** (certain components of the shiitake mushroom have hypolipidaemic (fat-reducing) effects, such as eritadenine and b-glucan, a soluble dietary fibre that is also found in barley, rye and oats. Studies have reported that b-glucan can increase satiety, reduce food intake, delay nutrition absorption and reduce plasma lipid levels)
- **support immune function** (by way of providing important vitamins, minerals and enzymes)
- **have antimicrobial properties**
- **boost energy and brain function** (Shiitake mushrooms are a great source of B vitamins, which help support adrenal function and turn nutrients from food into useable energy. They also help balance hormones naturally and break through “brain fog” to maintain focus — even improving cognitive performance)
- **provide vitamin D** (although vitamin D is best obtained from the sun, Shiitake mushrooms can also provide a good source of this essential vitamin. Vitamin D is important for bone health as well as reducing the risk of heart disease, diabetes, autoimmune diseases and other illnesses. It is vital for the absorption and metabolism of calcium and phosphorus too. Getting an ample supply of vitamin D also helps regulate and support the immune system, maintain healthy body weight, maintain brain function as you age, reduce the severity of asthma symptoms, reduce the risk of

developing rheumatoid arthritis in women, and reduce the risk of developing multiple sclerosis)

- **promote skin health** (Shiitakes are an excellent source of the antioxidant selenium. When selenium is taken with vitamins A and E, it can help reduce the severity of acne and the scarring that can occur afterwards).



**CHAGA MUSHROOM:** Chaga mushroom is a type of fungus that grows mainly on the bark of birch trees in cold climates, such as Northern Europe, Siberia, Russia, Korea, Northern Canada and Alaska. Chaga produces a woody growth, or conk, which looks similar to a clump of burnt charcoal.

However, the inside reveals a soft core with an orange colour. For centuries, it has been used as a traditional remedy, mainly to **boost immunity** and overall health. They are high in **fibre** and rich in **antioxidants**.

Chaga mushrooms also:

- **help to fight inflammation** (inflammation is a natural response of your immune system. However, long-term inflammation is linked to conditions like heart disease and rheumatoid arthritis. Studies suggest that Chaga extract can positively impact immunity by reducing long-term inflammation and fighting harmful bacteria and viruses. By promoting the formation of beneficial cytokines — specialised proteins that regulate the immune system — Chaga stimulates white blood cells, which are essential for fighting off harmful bacteria or viruses. What’s more, other studies demonstrate that Chaga can prevent the production of harmful cytokines, which trigger inflammation and are associated with disease (including gut damage))
- **help to lower blood sugar levels** (a study in obese, diabetic mice observed that Chaga extract reduced blood sugar levels and insulin resistance compared to diabetic mice who did not receive the supplement. In another study in diabetic mice, Chaga supplements led to a 31% decrease in blood sugar levels over three weeks)
- **help to lower cholesterol** (Chaga extract may also benefit cholesterol levels, reducing the risk of heart disease. In an eight-week study in rats with high cholesterol, Chaga extract reduced “bad” LDL cholesterol, total cholesterol and triglycerides while increasing antioxidant levels. Similar studies gave the same results and observed that — in addition to reducing “bad” LDL cholesterol — chaga increased “good” HDL cholesterol. Researchers believe that the antioxidants present in chaga are responsible for its effects on cholesterol).

## ABOUT THE MUSHROOMS



**MAITAKE MUSHROOM:** “Maitake” means dancing mushroom in Japanese. The mushroom is said to have gotten its name after people danced with happiness upon finding it in the wild, such as its incredible healing properties. It grows wild in parts of Japan, China, and North America, at the bottom of Oak, Elm, and Maple trees.

Maitake is a type of **adaptogen**. Adaptogens assist the body in fighting against any type of mental or physical difficulty. They also work to regulate systems of the body that have become unbalanced.

Although maitake mushrooms have been used in Japan and China for thousands of years, it has only gained popularity in the United Kingdom and United States over the last twenty years, as it has received more wide-spread recognition for its benefits for **health, vitality, and longevity**.

Maitakes also:

- **help to boost immunity** (they are rich in: antioxidants, beta-glucans, vitamins B and C, copper, potassium, fibre, minerals and amino acids. They are also: fat-free, low-sodium, low-calorie and cholesterol-free)
- **help to lower cholesterol** (researchers in a 2013 study found that Maitake powdered extract lowered cholesterol levels in mice. It was also shown to increase fatty acids that provide energy. Because of this, researchers theorised that eating Maitake mushroom may help keep arteries healthy)
- **help to normalise blood sugar levels** (the results of a 2015 study showed that Maitake mushroom can have a positive effect on rats with type 2 diabetes. During the study, maitake mushroom consumption had a positive effect on glucose levels of rats).



**REISHI MUSHROOM:** The Reishi mushroom is a fungus that grows in various hot and humid locations in Asia. For many years, it has been a staple in Eastern medicine. Within the mushroom, there are several molecules, including triterpenoids, polysaccharides and peptidoglycans, that may be responsible for its beneficial health effects.

Reishi mushrooms:

- **help to boost immunity** (one of the most important effects of the Reishi mushroom is that it can boost your immune system. Studies have shown that it can affect the genes in white blood cells, which are critical parts of the immune system. What's more, these studies have found that some forms of Reishi may alter inflammation pathways in white blood cells. And evidence has shown that these mushrooms

can help healthy people too. In one study, the fungus improved lymphocyte function, which helps fight infections in athletes exposed to stressful conditions)

- **help to fight fatigue, regulate mood and promote general wellness** (one study examined its effects in 132 people with neurasthenia, a poorly defined condition associated with aches, pains, dizziness, headaches and irritability. The researchers found that fatigue was reduced and well-being was improved after 8 weeks of taking the supplements. Another study found that fatigue was reduced and quality of life was improved after 4 weeks of taking reishi powder in a group of 48 breast cancer survivors. What's more, the people in the study also experienced less anxiety and depression)
- **promote heart health** (one 12-week study of 26 people showed that Reishi mushroom may increase “good” HDL cholesterol and decrease triglycerides)
- **help to lower blood sugar levels** (several studies have indicated that molecules found in the Reishi mushroom can decrease blood sugar in animals)
- **help to protect against oxidative stress** (Reishi mushrooms can enhance antioxidant status in the body).



**LION'S MANE MUSHROOM:** Lion's Mane mushrooms are large, white, shaggy mushrooms that resemble a lion's mane as they grow. They have both culinary and medical uses in Asian countries like China, India, Japan and Korea.

These mushrooms contain bioactive substances that can have beneficial effects on the body, particularly the **brain, heart and gut**.

Lion's Mane mushrooms can also:

- **help to protect the brain** (the brain's ability to grow and form new connections typically declines with age. Studies have found that Lion's Mane mushrooms contain two special compounds that can stimulate the growth of brain cells: hericenones and erinacines)
- **help to relieve mild symptoms of depression and anxiety** (up to one-third of people living in developed countries experience symptoms of anxiety and depression. While there are many causes of anxiety and depression, chronic inflammation could be a major contributing factor. Research has found that Lion's Mane mushroom extract has anti-inflammatory effects that can reduce symptoms of anxiety and depression in mice. Other studies have found that it can also help regenerate brain cells and improve the functioning of the hippocampus, a region of the brain responsible for processing memories and emotional responses)



## ABOUT THE MUSHROOMS

- **support recovery from nervous system injuries** (the nervous system consists of the brain, spinal cord and other nerves that travel throughout the body. These components work together to send and transmit signals that control almost every bodily function. Injuries to the brain or spinal cord can be devastating. They often cause paralysis or loss of mental functions and can take a long time to heal. However, research has found that Lion's Mane mushroom extract may help speed recovery from these types of injuries by stimulating the growth and repair of nerve cells. In fact, lion's mane mushroom extract has been shown to reduce recovery time by 23–41% when given to rats with nervous system injuries)
- **help to protect the digestive tract** (ulcers are capable of forming anywhere along the digestive tract, including the stomach, small intestine and large intestine. They are often caused by two major factors: overgrowth of a bacteria called H. pylori and damage to the mucous layer of the stomach that's often due to long-term use of non-steroidal anti-inflammatory drugs (NSAIDs). Lion's Mane extract may protect against the development of stomach ulcers by inhibiting the growth of H. pylori and protecting the stomach lining from damage. Additionally, an animal study found that Lion's Mane extract was more effective at preventing alcohol-induced stomach ulcers than traditional acid-lowering drugs — and without any negative side effects. It can also reduce inflammation and prevent tissue damage in other areas of the intestines and therefore may help treat inflammatory bowel diseases like ulcerative colitis and Crohn's disease)
- **support heart health** (major risk factors for heart disease include obesity, high triglycerides, large amounts of oxidised cholesterol and an increased tendency to get blood clots. Research shows that Lion's Mane extract can influence some of these factors and reduce the risk of heart disease. Studies in rats and mice have found that lion's mane mushroom extract improves fat metabolism and lowers triglyceride levels. One study in rats fed a high-fat diet and given daily doses of lion's mane extract observed 27% lower triglyceride levels and 42% less weight gain after 28 days. Since obesity and high triglycerides are both considered risk factors for heart disease, this is one way that lion's mane mushrooms contribute to heart health. Studies have also found that Lion's Mane extract can help prevent the oxidation of cholesterol in the bloodstream. Oxidised cholesterol molecules tend to attach to the walls of arteries, causing them to harden and increasing the risk of heart attack and stroke. Therefore, reducing oxidation is beneficial for heart health. What's more, Lion's Mane mushrooms contain a compound called hericenone B, which can decrease the rate of blood clotting and lower the risk of heart attack or stroke)
- **help to lower blood sugar levels** (Diabetes is a disease that occurs when the body loses the ability to control blood sugar levels. As a result, levels are consistently elevated. Chronically high blood sugar levels eventually cause complications like kidney disease, nerve damage in the hands and feet and vision loss. Lion's Mane mushroom may be beneficial for diabetes management by improving blood sugar control and reducing some of these side effects. One way that it lowers blood sugars is by blocking the activity of the enzyme alpha-glucosidase, which breaks down carbohydrates in the small intestine. When this enzyme is blocked, the body is unable to digest and absorb carbs as effectively, which results in lower blood sugar levels)
- **help to lower inflammation and protect against oxidative stress** (chronic inflammation and oxidative stress are believed to be at the root of many modern illnesses. Research shows that Lion's Mane mushrooms contain anti-inflammatory and antioxidant compounds that may help reduce the impact of these illnesses. In fact, one study examining the antioxidant abilities of 14 different mushroom species found that Lion's Mane had the fourth highest antioxidant activity and recommended it be considered a good dietary source of antioxidants. Several animal studies have found that Lion's Mane extract reduced markers of inflammation and oxidative stress in rodents and may be especially useful in the management of inflammatory bowel disease, liver damage and stroke. Lion's Mane mushrooms may also help to reduce some of the health risks associated with obesity, as they have been shown to decrease the amount of inflammation released by fat tissue)
- **help to boost immunity** (a strong immune system protects the body from bacteria, viruses and other disease-causing pathogens. On the other hand, a weak immune system puts the body at a higher risk of developing infectious diseases. Research shows that Lion's Mane mushroom can boost immunity by increasing the activity of the intestinal immune system, which protects the body from pathogens that enter the gut through the mouth or nose. These effects may partly be due to beneficial changes in gut bacteria that stimulate the immune system. One study even found that supplementing with Lion's Mane extract daily nearly quadrupled the lifespan of mice injected with a lethal dose of salmonella bacteria).

## ABOUT THE HERBALS



**ACEROLA FRUIT (AND VITAMIN C):** Acerola cherries are widely considered to be “superfruits”, due to their excellent nutritional value and exceptionally high vitamin C content. They provide a naturally bio-available and powerful source of vitamin C, which is fully utilised by the body — unlike synthetic ascorbic acid, which is sold as vitamin C.

By way of a comparison of vitamin C content with other fruits, 1 small acerola cherry contains around 80mg of vitamin C — this is 30 times the amount found in oranges (of the same weight). These cherries possess an amazing array of nutrients, including potent antioxidants. In fact, researchers have identified nearly 150 nutritive constituents, which include bioflavonoids, proteins, mineral salts, iron, calcium and phosphorus.

**EFSA APPROVED HEALTH CLAIMS RELATING TO VITAMIN C:** Vitamin C contributes to maintaining the normal function of the immune system. It also contributes to normal collagen formation for the normal function of blood vessels, bones, cartilage, gums, skin and teeth, normal energy-yielding metabolism, normal functioning of the nervous system, normal psychological function, protection of cells from oxidative stress, the reduction of tiredness and fatigue, the regeneration of the reduced form of vitamin E and increases iron absorption.



**ASTRAGALUS ROOT:** Astragalus belongs to a special class of herbs known as **adaptogens**, which have unique effects that work to bring the body and mind into greater balance, depending on what is needed, thereby helping to **reduce stress and promote energy and vitality**.

For over 2,000 years, it has been one of the 50 elite Chinese tonic herbs that are most frequently used in the Traditional Chinese Medicine pharmacopeia, due to its remarkable ability to restore health on virtually every level — mentally, emotionally, physically, energetically and spiritually. It is one of the few herbs mentioned in multiple ancient Chinese medical texts as a “Heaven Class” premier herbal medicine for **restoring health and rejuvenating the body and mind** at the deepest levels.

Widely referred to as “the ancient herb of **longevity** and strength”, a number of studies have shown that certain compounds in Astragalus root have measurable telomerase-stimulating and enhancing effects, which have been linked to increased longevity, anti-aging and DNA repair. Astragalus has also become notable over the years for its powerful **immune-boosting** properties - studies have shown that regular use of Astragalus root leads to an increase in disease-fighting immune antibodies, stimulation of T-cells (which are powerful immune-regulating white blood cells) and an increase in levels of the antiviral compound interferon.



**BLACK PEPPER:** Black pepper is the fruit of the black pepper plant from the Piperaceae family. Piperine is the alkaloid within black pepper that is responsible for its pungency. It increases thermogenic activity in the body — the way of developing cellular energy — and this results in an increase in the metabolic rate. Black pepper is also a very good **anti-inflammatory** agent. Black pepper has been included in this formula, specifically because it increases the absorption and utilisation of the other beneficial ingredients.