Shiitake Highly concentrated extract 8:1

Code: FE1870 – 60 vegetables capsules

Supplement based on a pure, high strength extract (8:1) of the medicinal fungus *Lentinula edodes*, very valued for its activity on the immune system, its anti-tumour action and its capacity to improve nervous balance and increase longevity. It supplies a great variety of bioactive compounds, but those mainly responsible for its therapeutic properties are polysaccharides, specifically beta-glucans, triterpenes and ergosterols. It also provides minerals (zinc, copper, iodine and iron, among others), amino acids and adenosine analogues.

The method of polysaccharide extraction is a critical point that determines the concentration and efficacy of the product. Our extract is obtained through a validated extraction process in hot water which concentrates, guarantees and preserves the active compounds, leading to a higher final concentration of polysaccharides. Mycelium contains polysaccharides that are bound to the cell walls of chitin, which is indigestible in the gastrointestinal tract. Chitin must be dissolved in hot water in order to release the polysaccharides and guarantee a high polysaccharide content as well as greater bioavailability. The extract is standardized to 40% polysaccharide content.

The mushrooms used for our formulation have been cultivated in greenhouses under climate controlled conditions and are free of heavy metals, herbicides and pesticides in order to guarantee the purity and strength of the extract.

Ingredients: Shiitake extract (*Lentinula edodes*), anticaking agent: magnesium salts of fatty acids, vegetable capsule (glacing agent: hydroxypropylmethylcellulose; purified water).

Nutritional information:	**3 capsules (1 263 mg)**
Shiitake *(Lentinula edodes*) (40% polysaccharides) (8:1)*	900 mg

*Standardized extract

Hot-water extraction

Size and format:
60 vegetable capsules.

Recommended daily dose:
1 capsule three times daily.
Do not exceed the stated recommended daily dose.

Highlights:

- 300 mg of Shiitake per capsule in the form of high strength extract (8:1)
- Validated extraction method guaranteeing an extract standardized to 40% polysaccharides (beta-glucans).
- Mushrooms from controlled and sustainable cultivation.

Indications and uses:

- Immune booster for a variety of imbalances related to viral and bacterial infections, repeated infection and immune deficiency.
- It can be of great help as a coadjuvant to chemotherapy to improve immune function. It is also supportive in cardiovascular disorders.
- It provides hepatoprotective and anti-ageing benefits.

Cautions:
Consult a health-care practitioner before use if you are pregnant or breast-feeding, if you are treated with medication (anticoagulants) or if you have a special medical condition (diabetes).

SHIITAKE (*Lentinula edodes*): This mushroom with a Japanese name (Shii=brown; Take=mushroom) has been used since antiquity both in China and Japan. A famous doctor from the Ming dynasty said that Shiitake was a good remedy for liver problems, diseases of the upper respiratory tract, venous insufficiency and weakness, preventive of premature ageing and revitalizing of the Chi (life force). Today, these benefits have been proven through modern medicine.

It supplies a great amount of lentinan, a beta-glucan which is responsible for its anti-tumour action, which, according to experimental studies, works by inhibiting tumour growth through the induction of T cell and macrophage-dependent immune

response. Study data confirm that the administration of Shiitake improves immune function, quality of life and survival in patients undergoing chemotherapy.

One study has shown that the combination of shiitake and monoclonal antibodies could act synergically to activate the complementary system, making it one of the most efficient treatments for gastric cancer [(1)]. A meta-analysis of 5 clinical trials showed a significant increase in survival in advanced gastric cancer patients treated with chemotherapy and lentinan, the beta-glucan found in shiitake [(2)]. One study showed that the administration of tegafur with lentinan increased survival in metastatic prostate cancer [(3)]. Other studies confirm an increase in survival, a decrease in side effects from chemotherapy and improvement in quality of life for colorectal, hepatic, prostate, breast and oesophageal cancer patients [(4-7)].

Eritadenine, an active compound of this mushroom, is responsible for its ability to reduce cholesterol and blood lipids. It exerts a very beneficial effect on patients with hyperhomocysteinemia, a pathological situation associated with cardiovascular and neurodegenerative disorders, and it has a pronounced anti-atherosclerotic action. In one study, it was shown that Shiitake inhibits the expression of adhesion molecules on vascular endothelia in pro-inflammatory conditions. Its cholesterol-lowering activity is associated with its possible role in lipid metabolism by regulating gene expression in the liver [(8)].

Shiitake has been extensively studied for viral diseases such as hepatitis B, HIV, herpes simplex I and II, polio, measles and mumps, among others, with good results as it activates T cells and macrophages and stimulates interleukin-1. [(9)] The lignin derivatives in this mushroom are partially responsible for its antiviral action [(10)].

The increased immunity provided by this mushroom is from an increase in antiviral activity shown in vivo and in vitro for HIV [(11-12)], and clinical studies have shown its immune-modulating effect in HIV patients. [(13-14)]

It has been proven to exert powerful anti-candida activity in-vitro. [(15-18)]

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