

# Maitake Extract 8:1

Code: FE1860 – 60 vegetable capsules



Supplement based on a pure, high-strength extract (8:1) of the medicinal fungus *Grifola frondosa*, very valued for its activity on the immune system, its anti-tumour and anti-metastatic activity and its capacity to regulate metabolism. What's remarkable about its composition is its so-called D-fraction, made up of a mix of proteins and polysaccharides responsible for its anti-tumour activity by strengthening immune response. It also contains vitamins B1, B2 and B3, ergosterol (vitamin D2 precursor), minerals such as potassium, iron and magnesium, amino acids, lecithin and metalloproteins.

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:** Maitake extract (*Grifola frondosa*), anticaking agent (magnesium salts of fatty acids), vegetable capsule (glazing agent: hydroxypropylmethylcellulose; purified water).

#### Nutritional information :

1 capsule (522 mg)

Maitake (*Grifola frondosa*) (40% polysaccharides) (8:1)\*

400 mg

\*Standardized extract. **Hot-water extraction**

#### Size and format:

60 vegetable capsules.

#### Recommended daily dose:

1 capsule daily.

Do not exceed the stated recommended daily dose.

#### Indications and uses:

- It increases immune response in a variety of imbalances related to autoimmune disease and immunodeficiency.
- It can be of great help as a coadjuvant to chemotherapy and radiotherapy to improve immune function (particularly in breast and prostate cancer).
- It is also supportive in cardiovascular disorders (hypocholesterolaemia, hypertension).
- It improves glycaemic control (diabetes) and is a metabolic regulator (obesity).
- It induces ovulation in patients with polycystic ovary syndrome.

#### Cautions:

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

**MAITAKE:** This mushroom with a Japanese name ("king of mushrooms") has long been highly regarded in Japan for its delicious flavour and great health benefits. It grows in a fan-like shape in shades of greyish-brown on trees and fallen wood, and can reach over 45 kg in weight. A Japanese mycologist identified a fraction present in the mushroom with excellent anti-tumour activity, consisting of a mix of proteins and polysaccharides called the D-fraction. This important activity has an antimetastatic effect, slowing the progression of malignant cells and increasing the activity of NK cells and Th lymphocytes. The D-Fraction has been widely studied for diseases such as hypertension, type II diabetes, hepatitis B and HIV, among others, and has been shown to activate macrophages, Th lymphocytes, interleukins 1 and 2 and lymphokines.

Maitake is a good preventive and coadjuvant treatment for therapies such as chemotherapy, since it induces apoptosis in tumour cells<sup>(1)</sup>. There are many mechanisms that modify the expression of certain genes involved in the stimulation of apoptosis, the inhibition of cell growth and proliferation, detaining the cell cycle and tumour cell metastasis and inducing sensitivity to multiple drugs. Specifically, the concomitant use of maitake with chemotherapy decreased the incidence of adverse effects caused by anti-neoplastic agents for breast, lung and prostate cancer<sup>(2-4)</sup>. In mice, it increases the efficacy of chemotherapy with cisplatin and reduces the nephrotoxicity<sup>(5)</sup>. The maitake D-fraction (beta-glucans) has great potential for

treating cancer, stimulating the immune system and reducing the adverse effects of chemotherapy<sup>(4,6-8)</sup>. It has also shown beneficial and preventive effects in bladder cancer<sup>(9-10)</sup>.

Maitake is specifically recognized for its action on metabolic syndrome since it very effectively controls hyperglycaemia by improving insulin sensitivity and by protecting pancreatic beta cells from oxidative stress and from nitric oxide synthesis.<sup>(11-12)</sup> Other studies have shown that it contains an alpha-glucosidase inhibitor that decreases blood sugar levels naturally<sup>(13)</sup>.

Its cholesterol-lowering activity is associated with its possible role in lipid metabolism by regulating gene expression in the liver. In animals fed a high-fat diet, it helps lipid metabolism by inhibiting hepatic and serum lipids<sup>(14)</sup>. It also has the short-term effect of reducing blood pressure in animals<sup>(15)</sup>.

Some studies have shown that maitake, alone or combined with drug therapy, can induce ovulation in patients with polycystic ovary syndrome<sup>(16)</sup>.

Certain isolated beta-glucans in maitake participate actively in the collagen biosynthesis of fibroblasts and as cicatrizing agents in cosmetic and skincare products<sup>(17)</sup>.

It increases antibody production in response to flu vaccination, and also reduces cold symptoms<sup>(18)</sup>.

## References:

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