

Bio.Revive™ Mycommune

A proprietary functional mushroom formula

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Bio.Revive™ Mycommune is a synergetic formulation of medicinal mushrooms. This blend of medicinal mushrooms is intended for preventive use to strengthen the immune system and against chronic or seasonal general weaknesses.

Bio.Revive™ Mycommune comprises of the following mushroom species: *Cordyceps spp.* mushrooms, *Ganoderma lucidum* (reishi mushroom), *Lentinula edodes* (shiitake mushroom), *Hericium erinaceus* (lion's mane mushroom), *Grifola frondosa* (maitake mushroom), *Poria cocos* (Indian bread mushroom), *Trametes versicolor* (turkey tail mushroom) and *Agaricus blazei* (royal sun agaricus).

Blending these mushrooms together means the formulation contains over a hundred different biologically active compounds, providing well-rounded support for immunity and biological function.

All the ingredients contained in the blend are produced organically and are sourced from the European Union. The entire process from the initial fungal culture in aseptic conditions, to the mushroom cultivation and drying, to the extraction of the ingredients is all carried out in the same facility. Thus, we can completely guarantee that the product does not contain any contaminating moulds nor pesticides and heavy metals, which are readily absorbed by wild mushrooms from their natural environment.

Fungi are one of the most diverse lifeforms on earth and play an important role in ecosystems in the form of nutrient degradation and recycling. Fungi naturally synthesise a wide array of metabolites, which are biologically active compounds that enable them to survive in the never-ending struggle with other organisms. When humans consume mushrooms, these compounds can elicit diverse physiological responses in our body, leading to mushroom poisoning or, on the other hand, beneficial effects on human health. Thus, certain mushroom species can exhibit a broad spectrum of therapeutic activity and help with various diseases, hence are referred to as medicinal mushrooms.

Bioactive mushrooms:

Hericium erinaceus

H. erinaceus contains bioactive components with described anti-inflammatory and anti-bacterial activity, cytotoxic effect on cancer cells and compounds that stimulate the synthesis of nerve growth factor (NGF), sustain the myelination process and improve cognitive functions¹. Hence, it has been referred to as 'nature's nutrient for the neurons'².

A double-blind, parallel-group, placebo-controlled trial showed significantly increased scores on the cognitive function scale, compared with placebo ($p < 0.001$) in women diagnosed with mild cognitive impairment at week 8, 12 and 16 of supplementation³.

In an ethanol-induced ulcer rodent study, pre-treatment with *H. erinaceus* extract increased mucus production in a dose-dependent manner up to 1.49-fold higher ($p < 0.05$) than that of the ulcer control group, and significantly decreased the ulcer ($p < 0.05$) in a dose-dependent manner when compared to ulcer control. The ulcer area was also significantly ($p < 0.05$) reduced⁴.

Ganoderma lucidum

A diverse array of circa 400 biologically active compounds have been identified in *G. lucidum*, including polysaccharides, terpenes, steroids, phenols, nucleosides, proteins and peptidoglycans. The most pharmacologically important are polysaccharides and triterpenes, with more than 200 and 130 found, respectively⁵.

Triterpenoids have been reported to possess anti-inflammatory hepato-protective, anti-hypertensive, hypocholesterolemic, anti-histaminic effects, anti-tumour and anti-angiogenic activity⁵.

Polysaccharides, especially β -D-glucans, have been shown to possess anti-tumour effects through immuno-modulation and anti-angiogenesis. In addition, polysaccharides have a protective effect against free radicals and reduce cell damage caused by mutagens⁵.

Min et al. reported that ganoderiol F, ganodermanondiol, ganodermanontriol from spores of *G. lucidum* exhibited strong anti-complement activity, through which these substances can affect the humoral immune system in the host defence⁶.

G. lucidum has been proposed as a promising antibiotic and anti-viral, since it showed anti-bacterial activity against various bacteria, and inhibitory effect on HIV-1, herpes simplex virus type 1 and 2, hepatitis B, and vesicular stomatitis virus⁷.

It has been used as a sedative, to relieve insomnia and anxiety, and is traditionally recommended for mental stabilisation².

Agaricus blazei

Recognised in particular for its anti-tumour and immuno-stimulatory activity, however, studies have also shown its anti-inflammatory and anti-allergic properties, as well as hepato-protective and anti-viral activity. The mushroom has traditionally also been used to reduce physical and emotional stress, and in a variety of diseases, including hepatitis, dermatitis, osteoporosis, peptic ulcers, as well as digestive and cardiovascular disorders⁸.

Cordyceps spp.

Clinical studies have shown *Cordyceps* to reduce scores of fatigue, increase vitality and energy by enhancing the cellular immune response and modulating the immune system⁹. *Cordyceps* have also been shown to inhibit viral replication^{2,9}.

Grifola frondosa

The therapeutic effects of *G. frondosa* are predominantly attributed to its unique β -glucan polysaccharide. The mushroom exerts an anti-tumour effect primarily by stimulating the immune system through the activation of immune cells and increased production of cytokines. Moreover, it has anti-oxidant, hepato-protective, anti-viral and anti-microbial properties¹⁰.

Poria cocos

In traditional Chinese and Japanese medicine, Poria is used as a diuretic, sedative, and tonic for overall health and vitality. The fungus also exhibited activity against parasites, including *Trypanosoma cruzi* and several nematode species¹¹.

Trametes Versicolor

Research has focused primarily on the anti-tumour properties of the two pharmacologically active polysaccharide-protein complexes or proteoglycans, called PSK (Polysaccharide-K or Krestin) and PSP (Poly-saccharide-Peptide), which have been evaluated in large-scale clinical trials. The compounds have been shown to be effective immunotherapeutics in cancer management, especially when combined with conventional treatment, without exhibiting toxicity or serious adverse side effects¹².

PSK is the first approved medicine derived from a mushroom and is one of the most widely accepted for the treatment of certain types of cancer, particularly in Japan. In numerous clinical studies, PSK has shown impressive results in patients with gastric, as well as colorectal, oesophageal, nasopharyngeal, uterine, lung and breast cancer, and leukaemia. In conjunction with conventional treatment, PSK significantly extended survival, enhanced the immune system by increasing immune cell count and reduced side effects of radiation and chemotherapy. In addition, PSK showed anti-oxidant properties and potentiated the immune response in 70–97% of patients with gastric, oesophageal, lung, ovarian and endometrial cancer¹².

Lentinula edodes

Lentinan – a polysaccharide from *Lentinula edodes* – has been approved in Japan as an adjuvant in the treatment of gastric cancer. It also displays activity against viral, bacterial, fungal and parasitic infections, such as candidiasis, common cold and influenza².

Dose:

3 capsules daily taken with or without food.

Nutritional Information	Per Dose
Actives	3 Capsules
Organic MycoMix®Immun (Cordyceps, Ganoderma lucidum, Lentinula edodes, Hericium erinaceus, Grifola frondosa, Poria cocos, Trametes versicolor, Agaricus blazei)	1500mg
Other Ingredients: Capsule Shell: Hydroxypropyl Methylcellulose	

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