MYCOFEND

Ortho Molecular Products®
Because Efficacy Matters®

CLINICAL APPLICATIONS

- *Primes and Mobilizes Key Immune Cells*
- *Protects Against Immune Challenges Resulting From Ongoing Stress*
- *Increases Immune Vitality and Mental Clarity*
- *Protects Against Exercise-Induced Stress*

IMMUNE HEALTH

Mycofend is a blend of Wellmune® WGP (whole beta glucan particle) and selected medicinal mushrooms which work together to prime immune cells and protect against immune challenges. Its main ingredient, Wellmune WGP® is the most well-researched, single beta glucan, proven in clinical trials to prepare and protect the immune system from repeated and ongoing stressors. Wellmune® WGP is a highly purified, yeast-free beta glucan extract derived from *Saccharomyces cerevisiae*. It is standardized to contain 75 % pure beta glucan and is considered the most effective single nutrient to naturally prime immune cells. Mycofend also provides a blend of the most well-researched mushroom extracts including Maitake Gold 404 (MTG)®, and mycelial biomasses of shiitake, reishi, turkey tail, oyster, and Brazilian mushroom for a complete, synergistic approach to immune modulation.

Overview

A strong immune system is integral to overall health and well-being. Maintaining a strong immune system can often be a challenge in today's world- high stress levels, poor diet, lack of sleep and environmental pollutants can slow down immune response. Mycofend contains a proprietary blend of mushroom extracts including maitake, reishi, shiitake, Brazilian and chaga mushrooms which provide a powerfully synergistic effect for boosting immune response. Mycofend's primary active ingredient is Wellmune WGP®, a natural beta 1,3/1,6 glucan derived from the cell wall of a proprietary strain of baker's yeast (*Saccharomyces cerevisiae*). Once swallowed, immune cells in the gastrointestinal tract take up Wellmune WGP® and transport it to immune organs throughout the body. Specific immune cells called macrophages digest Wellmune WGP® into smaller fragments and slowly release them over a number of days. The fragments then bind to neutrophils (white blood cells), via complement receptor 3 (CR3). Neutrophils are the most abundant immune cells in the body, accounting for 60-70% of all immune cells. The activation of neurotrophils by Wellmune WGP® fragments allows these cells to move faster throughout the body, resulting in a significant boost in immune defense.

Wellmune WGP® †

Beta-glucan has been recognized for its support of immune system activity for centuries [1] and has become the subject of over 800 scientific studies. Wellmune WGP® has been shown in clinical studies to have a potent effect on immune responsiveness and to defend the system from the effects of recurring stress. Numerous studies have shown beta glucan also promotes production of antioxidant enzymes and supports immune function against microbes. [2] In a study of 54 firefighters given Wellmune WGP® or placebo, those who took Wellmune WGP® experienced better physical health and nearly 25% reported fewer upper respiratory challenges. A 2013 study on healthy women given 250 mg Wellmune WGP® or placebo also found 10% fewer upper respiratory challenges compared to placebo; better well-being and mental and physical energy levels were also reported.[3] In another randomized, placebo-controlled, double-blind study on the effects of four weeks of 250 mg Wellmune WGP® or 250 mg per day of rice flour placebo on the physical and psychological health of those with seasonal discomfort symptoms, Wellmune WGP® improved symptoms, overall physical health, and emotional well-being compared with placebo.[4] Further research on medical students found a 22% reduction in the total number of days

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with upper respiratory symptoms in Wellmune WGP® group vs. placebo. Finally, a 28-day lifestyle study found that participants taking Wellmune WGP® reported a 34% improvement in health scores after four weeks compared with the control group as well as increased vigor, and lower fatigue, confusion and tension. Wellmune WGP® has also been found to provide post exercise protection, to maintain white cell concentrations/ monocytes, improve mucosal immunity, enhance immune responses to a perceived challenge, and improved salivary IgA post-exercise.[5]

Mushrooms†

Not all immune boosters are created equally or are safe for everyday use. Some immune products on the market may artificially stimulate the immune system. Others lack the clinical research to support their claims. Mycofend contains ingredients that have been extensively researched and each ingredient's specific mechanism has been identified. Additionally, Mycofend's unique blend of ingredients primes the immune system for optimal response, without putting the immune system into overdrive. The following table outlines the specific mechanisms behind each ingredient of Mycofend's powerful mushroom blend:

Directions

2 capsules per day or as recommended by your health care professional.

Does Not Contain

Does not contain gluten, yeast, corn, animal or dairy products, artificial colors, artificial flavors, or preservatives.

Cautions

If you are pregnant or nursing, consult with your health care practitioner before taking this product.

Supplement Facts V3

Serving Size 2 Capsules
Servings Per Container 30

2 capsules contain	Amount Per Serving	% Daily Value
Proprietary Mushroom Blend	500 mg	*
Reishi Mushroom (*Ganoderma lucidum mycelium*)		*
Shiitake Mushroom (*Lentinula edodes mycelium*)		*
Turkey Tail Mushroom (*Coriolus versicolor* mycelium)		*
Brazilian Mushroom (*Agaricus blazei* mycelium)		*
Oyster Mushroom (*Pleurotus ostreatus* mycelium)		*
Maitake Mushroom (MaitakeGold404® *Grifola frondosa* Fruit Body Extract)		*
Bakers Yeast Extract (Wellmune WGP®) (Standardized to contain 75% beta-glucan)	250 mg	*
Alpha-Glucans (from Mushroom Blend)	200 mg	*
Chaga Mushroom Extract (*Inonotus obliquus*) (Fruiting Body)	150 mg	*

* Daily Value not established

ID# 504060 60 Capsules

Mushroom Name	Active Compound	Research Findings
Maitake (*Grifola fondosa*)- Maitake Gold 404	Polysaccharide	Increases T cell activity, and a variety of cytokines. [6,7]
Shiitake (*Lentinula edodes*)	Alpha and beta glucans	Competes against 85% of the microbial organisms tested on, including 50% of yeast and mold species. [8,9]
Reishi (*Ganoderma lucidum*)	Polysaccharides	Protective against free radical damage, reduce mutagen-induced cell damage,[10] induce cell cycle arrest and apoptosis. [11]
Chaga Mushroom (*Inonotus obliquus*)	Polysaccharides and Triterpenoids	Modulates Th1/Th2 cells and antigen-specific antibody production, modulates cytokines, regulates antigen-specific antibody production. [12]
Cordy-Gen/caterpillar (*Bionectria ochroluca* from *Cordyceps sinensis*)	Polysaccharide fractions	Possesses antioxidant activities, general immunomodulating effects, [13] inhibit and promote corticosterone production in non-stressful conditions. [14]
Oyster mushroom (*Pleurotus ostreatus*)	Polysaccharides, beta glucans	Helps maintain balanced blood sugar and modulate inflammation, [15] increases the number of circulating natural killer cells. [16]
Turkey tail mushroom (*Coriolus versicolor*)	Polysaccharide-K (PSK)	Induces apoptosis and growth inhibition in human cells and enhances IgM antibody production. [17,18]
Brazilian mushroom (*Agaricus Blazei*)	Beta glucans	Promotes innate and adaptive immunological responses, activation of the complement system, and synthesis of cytokines that regulate inflammation. [19]

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