



Clinical Applications

- Immune Support Against Acute Foreign Microbial Challenges
- Antioxidant Support

Each **Core Immune Boost** capsule features the same highly concentrated, naturally derived 1,3/1,6 gluco polysaccharide (whole glucan particle) used in Immune Support formulas, plus Olive Leaf Extract (standardized to a significantly high 20% oleuropein), and vitamin C (as ascorbic acid). These ingredients supplement and support the body's natural defenses against acute challenges. The formula is designed to be used short term, beginning at the first sign of immune challenge.

Core Immune Boost Meets or Exceeds cGMP Quality Standards

Discussion

Every day, whether by choice or by chance, millions of people encounter physical and emotional stress which can challenge the immune system. The ingredients in **Core Immune Boost** were selected for their immune-supporting mechanisms.

Whole Glucan Particle is a mannan-free, high-quality, very pure, patented GRAS ingredient containing an insoluble complex carbohydrate known as beta 1,3/1,6 glucan, which is purified from *Saccharomyces cerevisiae* (baker's yeast). The 1,3/1,6 linkages of yeast beta glucan are known to spark the greatest degree of biological immune enhancement.¹ Among more than 800 published studies, animal toxicity studies with doses ranging from 0 to 1,000 times the recommended daily dose (sub-chronic & acute toxicity) and human studies with doses up to 60 times (15 grams) the recommended daily dose have demonstrated safety without an increase in tested cytokines or any adverse effects.^[2,3] A 250 mg oral dose produces efficacious immune modulation by a defined mechanism of action accepted by the scientific community.^[4] Health benefits are demonstrable by measuring significant increases in phagocytosis, selective cytokine release, and oxidative degranulation.⁵ Statistically significant clinical studies have consistently demonstrated that daily use of whole glucan particle improves overall physical health, reduces the harmful effects of stress on the body, reduces symptoms associated with common immune challenges, enhances vigor and mental clarity, and reduces fatigue.^[6,7]

Olive Leaf Extract (*Olea europea*), derived from a traditional medicinal plant, has demonstrated, through in vitro and animal studies, multiple healthful properties. These include support against foreign microbes such as bacteria, viruses, fungus, and parasites when administered either pre- or post-infection. In one study, olive leaf extract dramatically decreased viral titers and viral protein accumulation (virucidal effect) dose-dependently when added to cell monolayers 36 h post-infection. In the same study, olive leaf extract and its most active component, oleuropein, were able to inhibit viral-induced cell-to-cell membrane fusion in uninfected cells, suggesting interactions with viral envelope. Other mechanisms of action include the ability to stimulate phagocytosis, an immune response against harmful microbes, plus, in certain cases, the ability to neutralize the production of reverse transcriptase and protease, enzymes that can adversely alter the RNA of healthy cells.^[9-12]

Core Immune Boost's "clean" source of olive leaf extract is standardized to a generous 20% for oleuropein, a bitter glucoside hydrolyzed in the body to elenolic acid, which is believed to be the most active component. Some formulas are standardized to as little as 6% oleuropein.

Vitamin C (as ascorbic acid), known mostly as an antioxidant, has been the subject of controversy for more than six decades with respect to its ability to prevent or reduce the severity/duration of common acute immune challenges. A Cochrane Review examined 65 years worth of placebo-controlled studies (55 studies) that employed at least 200 mg vitamin C.^[13] Within, three meta-analyses, in a subgroup of six studies, vitamin C reduced signs of acute immune challenge an average of 50% in marathon runners, skiers, and soldiers that had been stressed physically or by cold temperature. Prophylactic use of the relatively large doses of the vitamin reduced duration significantly.^[14,15]

Manufactured For:
Dr. Tom's Tonics
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CORE IMMUNE BOOST

Supplement Facts

Serving Size: 3 Capsules
Servings Per Container: 15

	Amount Per Serving	%Daily Value
Vitamin C (as ascorbic acid)	1000 mg	1667%
Olive Extract (<i>Olea europaea</i>)(leaf)(20% oleuropein)	1000 mg	**
Whole Glucan Particle (High Potency Beta Glucan naturally derived from <i>Saccharomyces cerevisiae</i>)	250 mg	**

** Daily Value not established.

Other Ingredients: HPMC (capsule), stearic acid, magnesium stearate, and silica.

MAY BE COVERED BY ONE OR MORE OF THE FOLLOWING PATENTS AND APPLICATIONS:

US 7,981,447; US 7,022,685; US 7,566,704; US 6,369,216; US 5,702,719 and patents pending.

Directions

At the first sign of immune challenge, take three capsules, with water, preferably on an empty stomach. Repeat one to two more times within 24 hours.

References

1. Vetvicka V, Vetvikova J. An evaluation of the immunological activities of commercially available B1, 3-glucan. *JANA* 2007; 10(1):25-31
2. Fuller R., et al. A randomised controlled trial to assess the ability of yeast-derived 1,3/1,6 glucopolysaccharide to reduce upper respiratory tract infection symptoms. Not yet published. Presented at the 2010 meeting of the British Society of Immunology
3. Babicek K., Cechova I., Simon R.R., Harwood M., Cox D. J., 2007. Toxicological Assessment of a Particulate Yeast (1,3)-β-D-glucan in rats. *Food and Chemical Toxicology* 2007; 45: 1719-1730
4. Hong F., et al. β-Glucan Functions as an Adjuvant for Monoclonal Antibody Immunotherapy by Recruiting Tumoricidal Granulocytes as Killer Cells. *Cancer Res.* 2003 63(9023-9031)
5. Novak M., Vetvicka V. Glucans as biological response modifiers. *Endocr Metab Immune Disord Drug Targets.* 2009 Mar;9(1):67-75. [PMID: 19275682]
6. Konig.D., et al. Upper respiratory tract infection in athletes: influence of lifestyle, type of sport, training effort and immunostimulant intake. *Exerc Immunol Rev* 2000;6:102-120. [PMID: 10919064]
7. Cohen S., et al. Psychological Stress, Cytokine Production, and Severity of Upper Respiratory Illness. *Psychosom Med* 1999;61:175-180. [PMID: 10204970]
8. Talbott S. Talbott J. Effect of WGP® 3-6 on Upper Respiratory Tract Infections and Psychological Well-Being in Stressed Subjects. *Journal of Sports Science and Medicine* 2009; 8, 509-515
9. Lee OH, Lee BY. Antioxidant and antimicrobial activities of individual and combined phenolics in *Olea europaea* leaf extract. *Bioresour Technol.* 2010 May; 101(10); 3751-4. Epub 2010 Jan 27. [PMID: 20106659]
10. Micol V., et al. The olive leaf extract exhibits antiviral activity against viral haemorrhagic septicaemia rhabdovirus (VHSV). *Antiviral Res.* 2005 Jun;66(2-3): 129-36. Epub 2005 Apr 18. [PMID: 15869811]
11. Markin D., Duek L., Berdicevsky I. In vitro antimicrobial activity of olive leaves. *Mycoses* 2003;46(3-4):132-136
12. O'Brien N. M., et al. Modulatory effects of resveratrol, citroflavan-3-ol, and plant-derived extracts on oxidative stress in U937 cells. *J Med Food* 2006;9(2):187-195. [PMID: 16822204]
13. Douglas R.M., et al. Vitamin C for preventing and treating the common cold. *Cochrane Database Syst Rev.* 004;2004:CD000980.pub2
14. Anderson T.W., et al. The effect on winter illness of large doses of vitamin C. *Can Med Assoc J.* 1974;111:31-36. [PMID: 4601508]
15. Pauling L. The significance of the evidence about ascorbic acid and the common cold. *Proc Natl Acad Sci USA.* 1971;68:2678-2681. [PMID: 4941984]

Cautions

Consult with your healthcare practitioner before use. Keep out of reach of children.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

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