



## IMMUNITONE PLUS™

NATURAL SUPPORT FOR THE IMMUNE SYSTEM  
120 VEGETARIAN CAPSULES | NPN80091331 | IMP120-CN

**Immunitone Plus™** is a comprehensive herbal formula that is designed to support healthy immune system function. It contains herbs that support normal natural killer (NK) cell activity and the balance of cytokines, which are the regulatory proteins released by immune cells as part of a normal immune system response. The standardized herbs in this formula contain optimal and consistent amounts of the most active ingredients.

### RESEARCH HIGHLIGHTS

Research suggests that certain herbs, mushroom extracts and other natural compounds have potential antiviral and antibacterial activity as well as the ability to help stimulate natural killer (NK) cell activity, cytokine synthesis and the T-cell and B-cell mediated responses. The research presented here on compounds found in nature show significant potential in the support of treatment for an array of conditions such as influenza, respiratory tract infections, sinusitis, and various bacterial infections.<sup>1-20</sup>

- **Echinacea** (*Echinacea angustifolia*) - "Traditional herbal medicine provides several remedies for supporting the body's resistance to illness through effects on immune system components. Echinacea, a native plant of North America, is widely used to help prevent colds. Preclinical studies lend biological plausibility to the idea that echinacea works through immune mechanisms. Numerous clinical trials have been carried out on echinacea preparations: it appears that the extracts shorten the duration and severity of colds and other upper respiratory infections (URIs) when given as soon as symptoms become evident."<sup>16</sup>
- **Astragalus Extract** (*Astragalus membranaceus*) - "Astragalus extract improved the memory, raised SOD activity in brain and liver, decreased the MDA content in the liver of aged mice, reduced the MDA content in ischemia-reperfusion kidney, decreased the creatinine level in blood of rats, and promoted the activity of NK cells."<sup>7</sup>
- **Elderberry Extract** (*Sambucus nigra*) - "Symptoms were relieved on average four days earlier and use of rescue medication was significantly less in those receiving elderberry extract compared with placebo." Elderberry extract may offer an efficient, adjunct to treatment for influenza.<sup>15</sup>
- **Andrographis** (*Andrographis paniculata*) - "It is concluded that *Andrographis paniculata* had a high degree of effectiveness in reducing the prevalence and intensity of the symptoms in uncomplicated common cold beginning at day two of treatment. No adverse effects were observed or reported."<sup>10</sup> Temperature was moderately reduced in the treatment group. It can be concluded that Kan Jang has a positive effect in the treatment of acute upper respiratory tract infections and also relieves the inflammatory symptoms of sinusitis. The study drug was well tolerated."<sup>11</sup> (Kan Jang = *Andrographis paniculata*)
- **Larch Tree** (Arabinogalactan) - "Arabinogalactan is composed of greater than 98% arabinogalactan, a highly branched polysaccharide consisting of a galactan backbone with side-chains of galactose and arabinose sugars. Evidence also indicates human consumption of larch arabinogalactan has a significant

effect on enhancing beneficial gut microflora, specifically increasing anaerobes such as *Bifidobacteria* and *Lactobacillus*. Experimental studies have indicated larch arabinogalactan can stimulate natural killer (NK) cell cytotoxicity, enhance other functional aspects of the immune system. The immune-enhancing properties also suggest an array of clinical uses, both in preventive medicine, due to its ability to build a more responsive immune system, and in clinical medicine, as an adjunct in conditions associated with lowered immune function, decreased NK activity, or chronic viral infection.”

- **Cordyceps Mushroom** (*Cordyceps sinensis*) - “These results indicate that an oral administration of hot water extract of *Cordyceps sinensis* may modulate IL-6 production by the activation of macrophages, and also enhance the secretion of hematopoietic growth factors such as GM-CSF and IL-6 from Peyer’s patch which results in the modulation of not only the local but also systemic immune system.”<sup>3</sup>
- **Shiitake Mushroom** (*Lentinula edodes*) - “The production of IL-2 and TNF-alpha were augmented in the treated human peripheral blood mononuclear cells. These results suggest that LE may induce Th1 immune responses.”<sup>14</sup> (LE = *Lentinus edodes* = Shiitake mushroom) (Th1 = T helper cell Type 1)
- **Maitake Mushroom** (*Grifola frondosa*) - “Mushrooms such as shiitake may have important salutary effects on health or even in treating disease. A mushroom characteristically contains many different bioactive compounds with diverse biological activity, and the content and bioactivity of these compounds depend on how the mushroom is prepared and consumed. It is estimated that approximately 50% of the annual 5 million metric tons of cultivated edible mushrooms contain functional “nutraceutical” or medicinal properties. In order of decreasing cultivated tonnage, *Lentinus* (shiitake), *Pleurotus* (oyster), *Auricularia* (mu-er), *Flammulina* (enokitake), *Tremella* (yin-er), *Hericium*, and *Grifola* (maitake) mushrooms have various degrees of immunomodulatory, lipid-lowering, and other beneficial or therapeutic health effects without any significant toxicity... because of their potential medicinal effects, functional mushrooms deserve further serious investigation.”
- **Lauric Acid** - “Previous studies have shown that glycerol monolaurate (GML), a surfactant commonly used in a wide variety of food and cosmetic products, inhibits the production of a variety of exotoxins by group A streptococci and staphylococci. Given the highly lipophilic nature of the structure of GML, it is suspected that the surfactant exerts its toxin inhibition effects via interaction with the cell membrane. Studies suggest that GML may be exerting its T-cell-proliferative effects along the calcium-dependent inositol phospholipid signal transduction pathway, but did not affect B cells.”<sup>5</sup>
- **Beta 1, 3 Glucan** (*Saccharomyces cerevisiae*) - “Beta-glucans are structural cell wall polymers of many fungi which possess immunomodulatory activities. Although the therapeutic benefits associated with these compounds, particularly as anti-infective and antitumorigenic agents, have led to a large body of published research over the last five decades, it is still unclear how these carbohydrates mediate their effects.”<sup>1</sup> “It was found that the function of NK cells was potentiated by preincubation with beta-glucan.”<sup>2</sup>

**Medicinal Ingredients (per capsule):**

Echinacea ( <i>Echinacea angustifolia</i> -Root) (4% Echinacoside).....	150 mg
Astragalus ( <i>Astragalus membranaceus</i> -Root).....	50 mg
Common andrographis ( <i>Andrographis paniculata</i> -Stem) (4% Andrographolide).....	50 mg
European elder ( <i>Sambucus nigra</i> -Fruit).....	50 mg
Arabinogalactan ( <i>Larix occidentalis</i> gum).....	25 mg
Green tea extract ( <i>Camellia sinensis</i> -Leaf) (45% Epigallocatechin 3-gallate, 98% Polyphenols, 20:1).....	25 mg
Lauric acid.....	25 mg
Maitake ( <i>Grifola frondosa</i> , Mycelia).....	12.5 mg
<i>Ophiocordyceps sinensis</i> (Fruiting body).....	12.5 mg
Reishi ( <i>Ganoderma lucidum</i> -Fruiting body).....	12.5 mg
Shiitake ( <i>Lentinula edodes</i> -Fruiting body).....	12.5 mg
Beta-1,3-Glucan ( <i>Saccharomyces cerevisiae</i> -Whole).....	2.25 mg

**Non-Medicinal Ingredients:** Hypromellose, microcrystalline cellulose, tricalcium phosphate, vegetable stearate, silicon dioxide. **Recommended Dose:** Adults: Take 4 capsules once per day with meals, or as directed by your health care practitioner. Consult a health care practitioner for use beyond 12 weeks.

**REFERENCES**

For a list of references cited in this document, please visit: <http://catalog.designsforhealth.com/assets/itemresources/ImmunotonePlusReferences.pdf>

# Immunitone Plus™

*Natural support for the immune system*

Immunitone Plus™ is a comprehensive, synergistic formula that combines herbs, mushroom extracts and other natural compounds to help the body maintain a normal immune system response. Some of its significant botanicals include echinacea, astragalus, elderberry, and green tea that is standardized to a very high level of its key active component epigallocatechin gallate (EGCg). In addition, Immunitone Plus™ includes an impressive combination of the immune-supportive mushrooms cordyceps, shiitake, maitake and reishi.

## Immunitone Plus™ Highlights

- Effective immune system support
- Very comprehensive formula combining herbs, mushroom extracts and other natural compounds
- Safe for all age groups

The immune system is an extraordinary, complex system comprised of specific cells, organs and other microscopic immune defense organisms. Together, they make up the defense system that protects the health and wellness of our bodies on a day to day basis. An essential part of a strong immune system requires a healthy digestive tract consisting of beneficial gut microflora. This exceptional formula contains the herb Arabinogalactan, also known as Larch tree, which has a significant effect on enhancing beneficial gut microflora, specifically Bifidobacteria and Lactobacillus.

The standardized herbs in Immunitone Plus™ contain optimal and consistent amounts of their most active ingredients. This immune support formula is extremely effective and safe, and is suitable for both acute and chronic applications. It is also appropriate for all age groups.

**Recommended Dose:** Take three capsules per day with meals, or as directed by your health care practitioner. Consult a health care practitioner for use beyond 12 weeks. Do not use if you are pregnant or breastfeeding. **Does not contain gluten.**



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