



**Foundational immune support formula featuring synergistic nutrients and botanicals that promote healthy immune function**

## APPLICATIONS / BENEFITS

- Provides comprehensive immune defense
- Enhances overall immune health
- Supports innate and adaptive immune response

## OVERVIEW

**Patient One Immune Maintenance** is a comprehensive formula that nutritionally supports immune health by strengthening the body's natural defenses. It provides a complementary combination of vitamins, trace minerals and proven botanicals that provide a foundation for overall wellness and enhanced immune system function.

Immune Maintenance supplies Vitamin C, Vitamin D3, Zinc (as TRAACS® glycinate chelate) and Citrus Bioflavonoids, along with Arabinogalactan and Reishi mushroom. Astragalus is included for additional immune support and its adaptogenic actions in helping to protect against the effects of occasional stress.

Immune Maintenance may be used year-round or at times when the immune system is challenged by environmental stressors.

## KEY INGREDIENTS

### Immune Supportive Vitamins and Minerals

Nutrients including vitamin C, vitamin D and zinc work synergistically to support healthy immune cell production and activity.

**Vitamin C** has been widely studied and is commonly known for its role in moderating the severity or duration of acute immune challenges. It appears to heighten the immune response, impacting T-cell proliferation. This nutrient also plays a role in the deactivation of histamine.

**Vitamin D** can modulate the innate and adaptive immune responses. Deficiency in vitamin D is associated with increased autoimmunity. Vitamin D stimulates the

production of cathelicidin, a protein with natural immune-enhancing properties.

The essential trace mineral **zinc** is involved in nearly every aspect of the immune system's function. The body requires zinc to develop and activate T-lymphocytes. Even mild to moderate degrees of zinc deficiency can impair macrophage and neutrophil functions and natural killer cell activity. Researchers have hypothesized that zinc could reduce the severity and duration of upper respiratory symptoms by directly inhibiting rhinovirus binding and replication in the nasal mucosa and suppressing inflammation. Low zinc status has been associated with increased susceptibility to immune system challenges. Zinc in Immune Maintenance is supplied as TRAACS®, a patented mineral amino acid chelate shown to have superior absorption.

### Citrus Bioflavonoids

Our formula includes citrus bioflavonoids, phytonutrients found in plants such as vitamin C-rich citrus fruit that are vital for proper absorption of vitamin C. Studies have shown their ability to enhance and prolong the action of vitamin C. Like vitamin C, bioflavonoids also support healthy histamine release.

### Astragalus

A well-known Chinese herb, Astragalus stimulates the body's white blood cells (also called leukocytes) that both ward off and fight invaders. Classified as an adaptogen, this botanical helps protect the body against various stressors, including physical, mental, or emotional stress. Studies suggest that astragalus strengthens immune defense and may help protect against upper respiratory issues.

## Arabinogalactan and Reishi Mushroom

Beta glucans are polysaccharide compounds that play an instrumental role in nutritionally supporting the immune system. Beta glucans support the macrophages and the immune cascade, an innate physiological immune response. In this formula, polysaccharides from arabinogalactan and reishi mushroom provide complementary support for immune cell function and healthy immune mediator activity.

Arabinogalactan, a fermentable fiber found in high concentrations in North American larch trees, has demonstrated the ability to activate immune cells involved with the body's first line of defense. It promotes cytokine production, the communication and signaling compounds of immune cells. It has also demonstrated the ability to promote the growth of beneficial bacteria. The vitamin C in Immune Maintenance may enhance arabinogalactan activity.

Mushrooms and humans share common microbial antagonists, including *Escherichia coli*, *Staphylococcus aureus*, and *Pseudomonas aeruginosa*, against which the fungi have developed potent chemical defenses. Reishi (*Ganoderma lucidum*) is a valuable mushroom for immune system enhancement. Reishi's Beta-D-glucan assists macrophage maturation. Reishi activates macrophages and T-lymphocytes, enhancing cytokine levels.

## RESEARCH

- A double-blind, randomized, placebo-controlled clinical trial with 48 men and women was conducted to investigate the efficacy and safety of *Astragalus membranaceus* in the treatment of patients with seasonal allergic rhinitis. The study revealed a significant number of positive signals indicating the therapeutic effectiveness.
- In vitro and in vivo studies suggest some immune stimulating effects of astragalus. It has shown in vitro antibacterial activity against *Shigella dysenteriae*, *Streptococcus hemolytic*, *Diplococcus pneumonia*, and *Staphylococcus aureus*.

## REFERENCES

1. Matkovic Z, Zivkovic V, Korica M, et al. Efficacy and safety of *Astragalus membranaceus* in the treatment of patients with seasonal allergic rhinitis. *Phytother Res*. 2010;24:175-81.
2. Shao BM, Xu W, Dai H, et al. A study on the immune receptors for polysaccharides from the roots of *Astragalus membranaceus*, a Chinese medicinal herb. *Biochem Biophys Res Commun*. 2004;320(4):1103-1111.
3. Mao SP, Cheng KL, Zhou YF. [Modulatory effect of *Astragalus membranaceus* on Th1/Th2 cytokine in patients with herpes simplex keratitis]. *Zhongguo Zhong Yi Jie He Za Zhi*. 2004;24(2):121-123.
4. English HN, Hay S, Macfarlane GT. Polysaccharide breakdown by mixed populations of human faecal bacteria. *FEMS Microbiology Ecology* 1987;95:163-171.
5. Causey JL, Robinson RR, Feirtag JM, et al. Effects of larch arabinogalactan on human peripheral blood mononuclear cells: results from in vivo and in vitro human trials. Unpublished results.

6. Egert D, Beuscher N. Studies on antigen specificity of immunoreactive arabinogalactan proteins extracted from *Baptista tinctoria* and *Echinacea purpurea*. *Plants Med* 1992;58:163-165.
7. Robinson R, Feirtag J, Slavin J; *Journal of the American College of Nutrition* 2001; 20 279-285.
8. Grieshop C, Flickinger E and G. Fahey; *Journal of Nutrition* 2002; 132 478-482.
9. Vince A, McNeil N, Wager J, Wrong; *British Journal of Nutrition* 1990; 63 17-26.

## Supplement Facts

**Serving Size:** 2 Capsules

**Servings Per Container:** 30 or 60

Amount Per Serving		% DV*
Vitamin C (as ascorbic acid)	150 mg	167%
Vitamin D3 (as cholecalciferol)	10 mcg	50%
Zinc (as TRAACS® zinc bisglycinate chelate)	10 mg	91%
Citrus Bioflavonoid Complex (from 50% total bioflavonoids)	75 mg	**
FiberAid® Larch Tree Arabinogalactan ( <i>Larix laricina</i> )	200 mg	**
Astragalus Root Extract ( <i>Astragalus membranaceus</i> L.) [Standardized for 70% polysaccharides]	150 mg	**
Reishi Mushroom fruiting body ( <i>Ganoderma lucidum</i> )	300 mg	**

\*Daily Values are based on a 2,000 calorie diet.

\*\* Daily Value not established

**Other Ingredients:** rice flour, vegetable cellulose (capsule), calcium palmitate

**Free of:** milk, egg, fish, peanuts, crustacean shellfish, soy, tree nuts, wheat, yeast and gluten. Free of ingredients derived from GMOs.

**Suggested Use:** Take 2 capsules daily as a dietary supplement, preferably with meals, or as directed by your health practitioner. Store in a cool, dry place.

**Caution:** If you are pregnant, nursing, or taking any medications, consult your health practitioner before use. Discontinue use and consult your health practitioner if any adverse reactions occur. **Keep out of reach of children.**

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Vegetarian

Gluten Free

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Vegetable Caps

The statements in this document have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

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