



ACUTE IMMUNE™

Colds, cough and flu are three of the most common ailments presented in doctors' offices everywhere. Bacterial and viral infections are ubiquitous, and usually we find ourselves on the receiving end of one of these cold or flu-like conditions at least once a year. **Acute Immune™** is formulated with highly functional ingredients, based on a formula created by Dr. William Turska of Mist, Oregon. He was an old naturopathic physician who was one of Dr. Massey's mentors in the early 1980's. Taking into consideration the rapid rise in viral infections over the past 25 years, we decided to add olive leaf extract, oregano extract and a blend of six organic mushrooms to strengthen the anti-viral effectiveness of the formula. **Acute Immune™** works quickly and efficiently, often reducing recovery time. If taken at the first sign of an infection, it may even keep symptoms from developing.

Supplement Facts

Serving size: 2 Capsules

Servings per container: 30

Amount per serving		%DV
Vitamin A (Palmitate)	10,000 IU	200%
Vitamin C (Poly C Ascorbate)	250 mg	417%
Vitamin B6 (Pyridoxine HCl)	25 mg	1250%
Magnesium (Glycinate)	20 mg	5%
Zinc (Methionate)	10 mg	67%
Echinacea purpurea (aerial parts) extract (4% polyphenols)	350 mg	*
Olive extract (Olea europaea) (leaf) (18% oleuropein)	350 mg	*
Mushroom Blend (Organic)	200 mg	*
Cordyceps sinensis (Caterpillar) (Bionectria ochroleuca)		*
Coriolus versicolor (Turkey-tail)		*
Grifola frondosa (Maitake)		*
Letinula edodes (Shiitake)		*
Schizophyllum commune (Split gill)		*
Tramella fuciformis (White Wood-ear)		*
DMG (Dimethylglycine)	100 mg	*
Garlic (Allium sativum) extract (bulb) (1% allicin)	75 mg	*
Ginger (Zingiber officinale) extract (root) (5% gingerol)	50 mg	*
Grapefruit extract (Citrus paradisi) (seed) (20:1)	50 mg	*
Oregano extract (Origanum vulgare) (leaf) (4:1)	50 mg	*
Quercetin	50 mg	*
Beta Glucan (60%)	50 mg	*
Cayenne (Capsicum) (fruit) (90M HU/gm)	20 mg	*
Selenium (Amino Acid Chelate)	100 mcg	*

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

* Daily Value not established.

Other ingredients: vegetarian capsules (cellulose and water), silica

INGREDIENTS:

Echinacea Purpurea

The applicable parts of echinacea are the roots and the above ground parts. Echinacea is used for upper respiratory tract infections such as common cold and influenza infections because it is reported to have antiviral, antibacte-rial, and immune system stimulatory effects (8). Echinacea increases phagocytosis and increases lymphocyte activity, possibly by promoting the release of tumor necrosis factor (TNF), interleukin-1 (IL-1), and interferon (9).

Olive Leaf Extract

The active constituent in the olive leaf is oleuropein, a phenolic glycoside that is structurally classified as an iridoid. Olive leaf also contains the bioflavonoid rutin, luteolin, and hesperidin, which work synergistically with oleuropein to enhance its natural activity. This pharmaceutical grade olive leaf extract is from Euromed® and contains the highest concentration (17-23%) of oleuropein available. This provides natural protection and a healthy environment for cells without suppressing immune system function or harming beneficial microflora (10).

Mushroom Blend

We include six immune specific organic mushrooms to increase the effectiveness of both our Chronic and Acute Immune™ formulas. Cordyceps sinensis stimulate immune function by increasing the number of T helper cells (11). Coriolus contains polysaccharide peptide (PSP) and polysaccharide krestin (PSK) that have been shown to have antitumor and immunomodulating effects (12). Maitake mushroom contains Beta Glucan, which has been shown to possess antitumor activity. Shiitake contains lentinan, which also has antitumor effects. Split-gill and white wood-ear mushrooms contain immunomodulating properties.

Oregano

The applicable part of oregano is the leaf and oil, making it a powerful immunostimulant. Research at Cornell University found oregano was one of the few natural substances that killed all 30 germs against which it was tested. Authors publishing in the International Journal of Food Microbiology found that of all spices tested, oregano proved most powerful for halting the growth of fungi.

Beta 1, 3 Glucan

Beta glucans are polysaccharides that consist of (1-3)-beta-D-linked polymers of glucose that are either non-branched or with 1-6 beta branches. Laboratory findings indicate beta glucans specifically bind to monocyte and macrophage cell lines, increase the proliferation and activation of cytokine interleukin-1 (IL-1) by macrophages, which in turn promotes the release IL-2 by T-cells.

Vitamin A (Palmitate)

Vitamin A is a fat-soluble vitamin that includes a family of molecules containing a 20-carbon structure with various chemical groups at the 15-carbon position. The liver maintains Vitamin A concentrations within a relatively narrow range by storage and release of Vitamin A (1). Maintaining sufficient levels of natural killer cells, increasing the production of cytokines, such as interleukin 1 (IL-1), and B lymphocyte growth, differentiation, and activation are all dependent on retinol (2). Maternal-fetal transmission of HIV is higher in presence of low Vitamin A status.

Vitamin C (Poly C Ascorbate)

Vitamin C is a water-soluble vitamin best known for its effects as an antioxidant, free radical scavenger and its role in maintaining proper immune function (3). Taking 250 mg daily in combination with vitamin A, beta-carotene, vitamin E, selenium and coenzyme Q-10 improves markers of oxidative defense and oxidative stress in men with human immunodeficiency virus (HIV) disease (4).

Vitamin B6 (Pyridoxine HCl)

Pyridoxine is required for amino acid metabolism and is also involved in carbohydrate and lipid metabolism. Pyridoxine has some antioxidant and free radical scavenging activities and a deficiency of pyridoxine has been associated with a suppressed immune system (5).

DMG (Dimethylglycine)

DMG is built from the simplest amino acid, glycine, where two hydrogen atoms have been replaced with methyl (CH₃) groups on its nitrogen atom. Because DMG is a methyl donor, it enhances the immune response and increases disease resistance. DMG strengthens both the cell-mediated (T lymphocytes) immunity and humoral immunity (B lymphocytes that produce antibodies or immunoglobulins, IgA, IgG, IgM, IgD and IgE) (13).

Magnesium (Glycinate)

Magnesium is the second most plentiful cation in the intracellular fluid and the most plentiful cation in the body. Magnesium is involved with more than 300 enzyme systems and plays an essential role in more than 300 cellular reactions (6). Magnesium is required for the formation of cyclic AMP (cAMP) and is involved in ion movements across cell membranes. Glycinate is the most bioavailable form.

Zinc (Methionate)

Zinc is a biologically essential trace element and is the second most abundant trace element in the body. About 30% of cellular zinc is found within the nucleus. Zinc is found in more than 300 enzymes. Zinc is responsible for neutrophil, natural killer cell, and T-lymphocyte function (7). Plasma zinc levels are low in people with HIV infection.

Cayenne

The applicable part of capsicum is the fruit and contains the active constituent capsaicin, which accounts for its hot taste. Capsicum is an anodyne (pain reliever), stimulates circulation in debilitated patients, and an excellent synergist.

Garlic

The applicable part of garlic is the bulb that contains allicin, ajoene, and other organosulfur constituents such as S-allyl-L-cysteine. Garlic stimulates T-cell proliferation, restores suppressed antibody responses, stimulates macrophage cytotoxicity and phagocytosis of tumor cells, and induces the release of interleukin-2 (IL-2) tumor necrosis factor-alpha (TNF-alpha) and gamma interferon (14).

Ginger Root

The applicable parts of ginger are the rhizome and root. Ginger contains active constituents known as gingerol, gingerdione, and shogaol. These constituents seem to have a variety of pharmacological properties including antipyretic, analgesic, antitussive, antibiotic, antifungal and other properties (16).

Grapefruit Seed Extract

Grapefruit seed extract (20:1) detoxifies and normalizes the digestive tract, inhibits the growth of bacteria, yeasts, and molds (Streptococcus species, Staphylococcus aureus, enterococci, Enterobacter, E-coli, Candida, Geotrichum, Aspergillus, and Penicillium species) (17).

Quercetin

Quercetin is a dietary flavonoid found in many plants. The most common form of quercetin is rutin, in which quercetin is bound to a glucose-rhamnose moiety. Quercetin has antioxidant, anti-inflammatory, nitric oxide inhibitor, and tyrosine kinase inhibitor (leading to inhibition of the division and growth of T-cells, and some cancer cells) activity (15).

Patients: Consult with your healthcare professional for the proper dosage and use of this formula. For more information about this and other Condition Specific Formulas® please visit our website at:

www.mountainpeaknutritionals.com



9953 SW Arctic Drive
Beaverton, OR 97005

5.6.19

REFERENCES

1. Pharmacotherapy 2002;2:814-22
2. Food and Nutritional Board, Institute of Medicine. National Academy Press, 2002; Reference Intakes for Vitamin A, Copper
3. Amer Society of Health-System Pharmacists, 1998 McKevooy GK, Ed.
4. Eur J Clin Nutr 2001;55:107-14.
5. IS J Psychiatry 2001;158:1511-4
6. Modern Nutrition in Health and Disease. 8th ed. Shils M, Olson A, Shike M. 1994
7. Am J Clin Nutr 1998;68:447S-63S
8. Hosp Pharm 1998;33:180-8.
9. Infect Immun 1984;46:845-9
10. Biochem Biophys Res Commun 2003 Aug 8;307:1029-37
11. Chin Med J (English) 1991;104:4-8
12. Gen Pharmacol 1997;29:269-73
13. Townsend Letter for Doctors and Patients, May 2000:75-85
14. J Nutr 2000;130:2662-6
15. Urol Clin North Am 2000;27:157-62
16. Urology 1999; 54:960-3. Adv Ther 1998;15:25-44
17. Adv Ther 1998;15:25-44

