

Immuplex[®]

Immuplex Contains Vitamins A, C, and B₆, as well as Selenium and Zinc for Long-term Nourishment of the Immune System

Our immune system is a complex network of organs, cells, and tissues that provide defense against physical stress. Specialized cells called lymphocytes and phagocytes are immune cells that recognize and destroy microscopic invaders. These, along with other parts of the immune system, help support our health. The constant pressure from environmental factors, poor eating habits, stress, and lack of sleep and exercise can compromise immune function. Immuplex contains several nutrients that are well known for their important roles in immune system health and function, and is designed to provide ongoing nourishment to the immune system.†

How Immuplex Keeps You Healthy

Contains vitamins A, C, E, and selenium and zinc: immune-boosting vitamins and minerals

Vitamin A is essential for immune health. It supports the formation and differentiation of lymphocytes and helps initiate T-lymphocyte activity. Vitamin A also supports skin and mucosal cell integrity, which provides a barrier function to protect cells. Both vitamin E and selenium are also important to the immune system. Not only do they generally protect all cells against free radical damage, they also specifically provide protection to immune cells, enhance immune cell function, and support a healthy natural inflammatory response function. Healthy immune response also relies on adequate zinc intake. Zinc is needed in over 100 enzymatic reactions in the body. In addition to supporting immune function, zinc supports growth and development, and neurological and reproductive functioning. At the cellular level, zinc supports DNA synthesis, cell signaling, and supports protein and cell structure and function.†

Helps maintain immune function, especially for older adults

Adequate vitamin B₆ intake is important to supporting healthy immune function. B₆ deficiency can cause impaired immune function, especially in older adults, because it is associated with decreased lymphocyte production and decreased production of interleukin-2. Lymphocytes are immune cells and interleukin-2 is a cytokine in the immune system that signals cells to protect against physical stress.†

Provides powerful antioxidant support

Vitamin E and selenium work together to protect against lipid peroxidation. This is what occurs to cells when the lipids in the cells are compromised by free radicals. Several selenium-containing enzymes, called glutathione peroxidases, provide strong antioxidant protection against free radicals. Vitamin C provides strong antioxidant protection by protecting cells, including immune cells, from free radicals.†



Introduced in: 1984

Content:

40 Capsules

150 Capsules

Supplement Facts:

Serving Size: 2 capsules

Servings per Container: 20 or 75

		%DV
Calories	4	
Cholesterol	5 mg	2%
Vitamin A	1,585 IU	30%
Vitamin C	54 mg	90%
Vitamin E	7.4 IU	25%
Vitamin B ₆	2 mg	100%
Folate	100 mcg	25%
Vitamin B ₁₂	2 mcg	35%
Iron	5 mg	30%
Zinc	9 mg	60%
Selenium	6 mcg	8%
Copper	180 mcg	10%
Chromium	30 mcg	25%

Two capsules supply 165 mg bovine liver PMG™ extract, 80 mg veal bone PMG™ extract, 45 mg bovine spleen PMG™ extract, 40 mg bovine and ovine spleen, 35 mg bovine thymus PMG™ extract, and 35 mg bovine thymus Cytosol™ extract.

Proprietary Blend: Bovine liver PMG™ extract, veal bone PMG™ extract, nutritional yeast, bovine spleen PMG™ extract, bovine thymus PMG™ extract, bovine thymus Cytosol™ extract, bovine liver, bovine spleen, and ovine spleen.

Other Ingredients: Gelatin, zinc liver chelate, ascorbic acid, iron liver chelate, water, chromium yeast, selenium yeast, copper liver chelate, mixed tocopherols (soy), colors, arabic gum, starch, sucrose, vitamin A palmitate, pyridoxine hydrochloride, dicalcium phosphate, calcium stearate, cyanocobalamin, and folic acid.

Suggested Use: Two capsules per meal, or as directed.

Warning: Accidental overdose of iron-containing products is a leading cause of fatal poisoning in children under 6. Keep this product out of reach of children. In case of accidental overdose, call a doctor or poison control center immediately.

Sold through health care professionals.



800-558-8740 | www.standardprocess.com

Please copy for your patients

Immuplex[®]

Immuplex[®]

What Makes Immuplex Unique

Product Attributes

Immuplex is a combination formula

- ▶ Allows it to affect multiple systems to support the immune system response†

Contains Protomorphogen™ Extracts

- ▶ Standard Process uses a unique manufacturing method of deriving tissue cell determinants from animal glands and organs
- ▶ Help provide cellular support and rehabilitation to the corresponding human tissues
- ▶ Important antigenic properties of nucleoprotein-mineral determinants are the foundation of this product†

Manufacturing and Quality Control Processes

Low-temperature, high-vacuum drying technique

- ▶ Preserves the enzymatic vitality and nutritional potential of ingredients

Not disassociated into isolated components

- ▶ The nutrients in Immuplex are processed to remain intact, complete nutritional compounds

Degreed microbiologists and chemists in our on-site laboratories continually conduct bacterial and analytical tests on raw materials, product batches, and finished products

- ▶ Ensures consistent quality and safety

Vitamin and mineral analyses validate product content and specifications

- ▶ Assures high-quality essential nutrients are delivered

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

Whole Food Philosophy

Our founder, Dr. Royal Lee challenged common scientific beliefs by choosing a holistic approach of providing nutrients through whole foods. His goal was to provide nutrients as they are found in nature—in a whole food state where he believed their natural potency and efficacy would be realized. Dr. Lee believed that when nutrients remain intact and are not split from their natural associated synergists—known and unknown—bioactivity is markedly enhanced over isolated nutrients. Following this philosophy, even a small amount of a whole food concentrate will offer enhanced nutritional support, compared to an isolated or fractionated vitamin. Therefore, one should examine the source of nutrients rather than looking at the quantities of individual nutrients on product labels.

Studies on nutrients generally use large doses and these studies, some of which are cited below, are the basis for much of the information we provide you in this publication about whole food ingredients. See the supplement facts for Immuplex[®].

Arthur, J. R., McKenzie, R. C., & Beckett, G. J. (2003). Selenium in the immune system. *J Nutr*, 133(5 Suppl 1), 1457S-1459S.

Baum MK, Shor-Posner G, Campa A. Zinc status in human immunodeficiency virus infection. *J Nutr*. 2000;130(5S Suppl):1421S-1423S.

Beharika, A., Pedican, S., Leka, L., & Meydani, S. N. (1997). Vitamin E status and immune function. *Methods Enzymol*, 282, 247-263.

Bsoul SA, Terezhalmay GT. Vitamin C in health and disease. *J Contemp Dent Pract*. 2004 May 15;5(2):1-13.

Carr AC, Frei B. Toward a new recommended dietary allowance for vitamin C based on antioxidant and health effects in humans. *Am J Clin Nutr*. 1999;69(6):1096-1107.

Food and Nutrition Board, Institute of Medicine. (2000). Selenium. In *Dietary reference intakes for vitamin C, vitamin E, selenium, and carotenoids* (pp. 284-324). Washington D.C.: National Academy Press.

Food and Nutrition Board, Institute of Medicine. (2000). Vitamin E. In *Dietary reference intakes for vitamin C, vitamin E, selenium, and carotenoids* (pp. 186-283). Washington D.C.: National Academy Press.

Food and Nutrition Board, Institute of Medicine. *Vitamin C. Dietary Reference Intakes for Vitamin C, Vitamin E, Selenium, and Carotenoids*. Washington D.C.: National Academy Press; 2000:95-185.

Gladyshev, V. N. (2006). Selenoproteins and selenoproteomes. In D. L. Hatfield, Bery, M.J., Gladyshev, V.N. (Eds.), *Selenium: Its molecular biology and role in human health* (2nd ed., pp. 99-114). New York: Springer.

Hawkes, W. C., Kelley, D. S., & Taylor, P. C. (2001). The effects of dietary selenium on the immune system in healthy men. *Biol Trace Elem Res*, 81(3), 189-213.

Hoffmann, P. R., & Berry, M. J. (2008). The influence of selenium on immune responses. *Mol Nutr Food Res*.

McCollough, F. et al. The effect of vitamin A on epithelial integrity. *Proceedings of the Nutrition Society*, 1999; volume 58; pages 289-293.

Meydani SN, Ribaya-Mercado JD, Russell RM, Sahyoun N, Morrow FD, Gershoff SH. Vitamin D₃ deficiency impairs interleukin 2 production and lymphocyte proliferation in elderly adults. *Am J Clin Nutr*. 1991;53(5):1275-1280.

Moriguchi, S., & Muraga, M. (2000). Vitamin E and immunity. *Vitam Horm*, 59, 305-336.

Rayman, M. P. (2000). The importance of selenium to human health. *Lancet*, 356(9225), 233-241.

Rose AC. Vitamin A and retinoids. In: Shils M, ed. *Nutrition in Health and Disease*. 9th ed. Baltimore: Williams & Wilkins; 1999:305-327.

Semba RD. Impact of vitamin A on immunity and infection in developing countries. In: Bendich A, Deckelbaum RJ, eds. *Preventive Nutrition: The Comprehensive Guide for Health Professionals*. 2nd ed. Totowa: Humana Press Inc; 2001:329-346.

Semba RD. The role of vitamin A and related retinoids in immune function. *Nutr Rev*. 1998;56(1 Pt 2):S38-48.

Shankar, A.H. & Prasad, A.S. Zinc and immune function: the biological basis of altered resistance to infection. *American Journal of Clinical Nutrition*. 1998; volume 68; pages 447S-463S.

Talbot MC, Miller LT, Korvikov NI. Pyridoxine supplementation: effect on lymphocyte responses in elderly persons. *Am J Clin Nutr*. 1987;46(4):659-664.

Traber, M. G. (1999). Vitamin E. In M. Shils, Olson, J.A., Shike, M., Ross, A.C. (Ed.), *Nutrition in Health and Disease* (9th ed., pp. 347-362). Baltimore: Williams & Wilkins.

Trumbo, P., Yates, A. A., Schlicker, S., & Poos, M. (2001). Dietary reference intakes: vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc. *J Am Diet Assoc*, 101(3), 294-301.

Wintergerst, E. S., Maggini, S., & Hornig, D. H. (2007). Contribution of selected vitamins and trace elements to immune function. *Ann Nutr Metab*, 51(4), 301-323.

