

Colostrum with Immune Factors

(formerly Colostrum Plus)

Stock# 1587-3 (60 capsules)



Colostrum with Immune Factors is a unique immune-building supplement containing some of the most powerful natural immune-enhancing nutrients yet discovered. Colostrum with Immune Factors can be utilized to restore and enhance immune system function in individuals suffering from weakened immunity. This powerful supplement is also beneficial as a preventative measure to ensure optimum immune function and maintain health and vitality. Colostrum with Immune Factors is safe for use by both adults and children.

Colostrum is provided by the mammary glands of mammals, including humans, during the first 24 to 48 hours following birth. Colostrum contains essential immune factors that are vital to a newborn's underdeveloped immune system, as well as certain growth factors to ensure proper development of all body cells. Colostrum also promotes the development of bifidobacteria colonies, which create an environment within the body that is inhospitable for harmful bacteria. Researchers have determined that immune and growth factors in

bovine (cow) colostrum are identical to the substances provided in human colostrum. However, bovine colostrum contains significantly higher levels of these nutrients. Bovine colostrum also provides a special hormone that prevents the calf from developing a sensitivity to its mother's immune factors. Research indicates that bovine colostrum is biologically transferable to all mammals, including humans, which benefit from its immune-enhancing properties, with no reported allergic or anaphylactic (hypersensitive) reactions to-date.¹⁻⁷

Many pharmaceutical companies have endeavored to genetically engineer, patent and market several of the immune and growth factors found in colostrum. Consequently, conventional medical specialists utilize colostrum components (i.e. interferon, gamma globulin, growth hormone, IgF-1 and protease inhibitors) in the treatment of autoimmune disorders, cancer and chronic viral infections such as HIV.¹⁻⁴

Colostrum contains 37 different immune factors that are essential for the healthy development and maintenance of immune functions, including:

Immunoglobulins, which effectively neutralize bacteria, viruses, yeast and toxins in the lymph and circulatory systems; *Lactoferrin*, an iron-binding protein providing antibacterial, antiviral and anti-inflammatory properties; *Proline-rich polypeptide (PRP)*, a hormone that regulates the thymus gland to balancing under- and over-active immune function; *Trypsin* and *protease inhibitors*, which protect colostrum immune and growth factors from being destroyed in the gastrointestinal tract and prevent *H. pylori* bacterium (which cause ulcers) from attaching to the stomach walls; *Oligo polysaccharides* and *glycoconjugates*, which attract and attach to pathogens (disease-causing organisms) to prevent them from adhering to or entering the mucous membranes; and *Cytokines*, which are interleukins that regulate immune responses and increase T-cell activity and the production of immunoglobulins^{1-4,7-10}

Colostrum growth factors have been shown to increase cell and tissue growth by stimulating DNA/RNA formation. Research shows colostrum growth factors enhance levels of T-cells, speed the healing process, balance blood sugar levels and decrease insulin dependence, enhance muscle and bone growth and repair, and even burn fat. Colostrum growth factors have also been shown to promote the repair and regeneration of heart muscle tissue, as well as facilitate the regeneration of new blood vessels, thus helping to prevent and reverse heart disease.^{1-4,8,11,12}

In healthy individuals, colostrum can help maintain well-being and vitality. Colostrum provides a rich source of nutrients, improves digestion and cellular metabolism, increases endurance and speeds recovery time following exercise, and encourages lean muscle growth and fat metabolism. Colostrum may even help reverse signs of aging. Protection against infectious agents, systemic immune enhancement, and improved overall health and healing of the body are benefits available to anyone using colostrum as a dietary supplement, especially the young and elderly.^{1,3,4,8}

Adults with serious immune system disorders are often prescribed 1,000 to 2,000mg of colostrum to be taken twice daily on an empty stomach with 8-12 ounces of water. Although preventive doses have not been established, individuals may want to begin supplementation with 500mg per day, gradually increasing the dosage if desired. Children's dosages should be proportionately less. Herxheimer reactions (primarily flu-like symptoms) can occur in approximately 40% of individuals, as part of the body's natural healing response—symptoms typically disappear within 3-5 days with continued use at the same dosage level. Furthermore, after hundreds of years of use and more

than 1,000 clinical studies, colostrum has been shown to be completely safe, providing no drug interactions or side effects at any level of ingestion.^{1,2,4}

NSP's Colostrum with Immune Factors contains 100% bovine concentrate, which provides 25% immunoglobulins (high level IgG), specific immune factors and broad-based immune enhancers. Colostrum with Immune Factors also contains:

IP-6 (inositol hexaphosphate), derived from the bran portion of brown rice, has been studied for its ability to inhibit cancer by enhancing the activity of natural killer (NK) cells and reducing the rate of cancer cell proliferation. Both *in vivo* and *in vitro* studies confirm that IP6 provides striking anticancer potential (preventative and therapeutic). Research on human cancer cells has shown that IP6 causes a statistically significant reduction in cancers affecting various tissues and organs, including the breast, colon, liver and prostate. In addition, IP-6 stimulates the function of p53, a tumor suppressor gene that inhibits cancer cells' resistance to chemotherapeutic agents; thus, IP-6 may also function as an effective adjunctive cancer treatment during chemotherapy. Furthermore, IP-6 has exhibited potential for preventing fatty liver and kidney stone formation, reducing serum cholesterol and triglycerides and inhibiting platelet aggregation (key risk factors for heart disease), and preventing damage to heart muscle tissue during a heart attack.¹³⁻¹⁷

Astragalus is a Chinese herb that demonstrates significant therapeutic potential. Research on astragalus has focused primarily on its immunostimulatory activity and ability to restore the activity of a suppressed immune system. Studies show that astragalus increases the production of interferon, an immune factor that inhibits viral growth, which makes astragalus particularly useful in treating chronic or recurrent infections. Astragalus is also indicated in patients who have impaired immunity due to chronic disease states. In addition, clinical trials and pharmacological data provide evidence for astragalus' potential as an adjunctive cancer treatment during chemotherapy and radiation therapy, as well as its benefit in the treatment of immune deficiency syndromes. In patients undergoing chemotherapy and radiation, astragalus' adaptogenic properties have been shown to improve tolerance and minimize toxic effects, as well as improve survival rates. For example, a clinical study involving 115 patients receiving various forms of chemotherapy found that astragalus was effective in preventing the depletion of white blood cells (82% of treated patients exhibited higher white blood cells counts when given astragalus). Furthermore, astragalus appears to offer therapeutic potential for the treatment of ischemic heart disease, myocardial infarction (stroke), heart failure and relief of anginal pain (severe chest pain), perhaps due to its antioxidant activity.¹⁸⁻²²

Maitake and Shiitake mushrooms have been used in traditional Asian medicine to stimulate the immune system and treat cancer and other chronic wasting diseases. These medicinal mushrooms contain numerous phytochemicals that have been shown to slow, reverse or even prevent the growth of tumors in both animal and human clinical trials. Mushroom extracts appear to prevent tumor growth by increasing the activity of immune cells, rather than by killing cancer cells directly.²³

Maitake mushroom has been shown to increase the activity of immune cells such as macrophages, natural killer (NK) cells and T-cells, as well as enhance production of interleukin-1 (IL-1), which activates T-cells. Maitake has been shown to inhibit tumor growth in animal studies, with evidence suggesting it is also effective against human tumors. In addition, a recent *in vitro* study confirmed that a beta glucan extract of maitake may have great potential as an alternative therapy for prostate cancer. Researchers have also identified hepatoprotective (liver-protecting), hypoglycemic (blood sugar-lowering), and hypotensive (blood pressure-lowering) effects from maitake.²³⁻³⁰

Shiitake mushroom has been studied since the 1960's for its anti-tumor and immune-potentiating properties. Shiitake is the source of *lentinan*, a substance that exhibits proven pharmacological effects—it stimulates the activity of T-cells and natural killer (NK) cells and increases production of interferon, interleukin-1 and 2, and tumor necrosis factor (TNF)—substances that play a critical role in the destruction of tumor cells. In human clinical trials, lentinan demonstrated antitumor activity and increased the survival time of patients with inoperable gastric cancer and women with recurrent breast cancer who had undergone surgery—women receiving lentinan following surgery experienced far greater tumor growth regression than what surgery alone provides. Shiitake has also been studied for its cholesterol-lowering and anti-viral properties.³¹⁻³⁴

References:

- ¹Rona MD, Z. "Bovine colostrum emerges as immune system modulator." *American Journal of Natural Medicine*; 1998, 5(2):19-23.
- ²—. "Bovine colostrum, immunity and the aging process." *Nature's Impact*; August/September 1998.

- ³Ley, B. *Colostrum: Nature's Gift to the Immune System*. Aliso Viejo, CA: BL Publications, 1997.
- ⁴Jensen PhD, B. *Colostrum: Life's First Food*. Escondido, CA: Bernard Jensen, 1993.
- ⁵Trenev, N. *Probiotics: Nature's Internal Healers*. Garden City Park, NY: Avery Publishing, 1998.
- ⁶Hanson, L.A., et. al. "Mucosal immunity." *Annals of New York Academy of Sciences*; 1983, 409:1-21.
- ⁷Ho, P.C. & Lawton, J.W. "Human colostrum cells: phagocytosis and killing of *E. coli* and *C. albicans*." *Journal of Pediatrics*; 1978, 93(6):910-915.
- ⁸Burke PhD, E. "Colostrum As An Athletic Enhancer And Help For AIDS." *Nutrition Science News*; May 1996:1-5.
- ⁹Bitzan, M.M., et. al. "Inhibition of *Helicobacter pylori* and *Helicobacter mustelae* binding to lipid receptors by bovine colostrum." *Journal of Infectious Disease*; 1998, 177(4):955-961.
- ¹⁰Ebina, T., et. al. "Treatment of multiple sclerosis with anti-measles cow colostrum." *Medical Microbiology and Immunology*; 1984, 173(2):87-93.
- ¹¹Francis, G.L., et. al. "Purification and partial sequence analysis of insulin-like growth factor-from bovine colostrum." *Biochemical Journal*; 1986, 233(1):207-213.
- ¹²—. "Insulin-like growth factors 1 and 2 in bovine colostrum. Sequences and biological activities compared with those of a potent truncated form." *Biochemical Journal*; 1988, 251(1):95-103.
- ¹³Shamsuddin PhD, A. *IP6: Nature's Revolutionary Cancer-Fighter*. NY, NY: Kensington Books, 1998.
- ¹⁴Reddy, B.S. "Prevention of colon carcinogenesis by components of dietary fiber." *Anticancer Research*; 1999, 19(5A):3681-3683.
- ¹⁵Saied, I.T. & Shamsuddin, A.M. "Up-regulation of the tumor suppressor gene p53 and WAF1 gene expression by IP6 in HT-29 human colon carcinoma cell line." *Anticancer Research*; 1998, 18(3A):1479-1484.
- ¹⁶Katayama, T. "Hypolipidemic action of phytic acid (IP6): prevention of fatty liver." *Anticancer Research*; 1999, 19(5A):3695-368.
- ¹⁷Vucenic, I., et. al. "Antiplatelet activity of inositol hexaphosphate (IP6)." *Anticancer Research*; 1999, 19(5A):3689-3693.
- ¹⁸"Astragalus Asserts Immunity." *Nutrition Science News*; October, 2000.
- ¹⁹Wassef RPh, F. "Astragalus: Spanning Eastern and Western medicine." *American Journal of Natural Medicine*; 1998, 5(5):26-29.
- ²⁰Weng XS. [Treatment of leucopenia with pure Astragalus preparation--an analysis of 115 leucopenic cases]. *Zhongguo Zhong Xi Yi Jie He Za Zhi*; 1995, 15(8):462-464.
- ²¹Miller, A.L. "Botanical influences on cardiovascular disease." *Alternative Medicine Review*; 1998, 3(6):422-431.
- ²²Li, S.Q., et. al. [Clinical observation on the treatment of ischemic heart disease with *Astragalus membranaceus*]. *Zhongguo Zhong Xi Yi Jie He Za Zhi*; 1995, 15(2):77-80.
- ²³Broadhurst PhD, C. & Duke PhD, J. "Inside Plants." *Herbs For Health*; 1999, 3(6):24.
- ²⁴Lieberman PhD, L. & Babal CN, K. *Maitake: King of Mushrooms*. New Canaan, CT: Keats, 1997.
- ²⁵Hobbs, LAc, C. *Medicinal Mushrooms*. Loveland, CO: Interweave Press Inc., 1996.
- ²⁶—. "Medicinal mushrooms." *Herbs For Health*; 1997, 1(4):53-53.
- ²⁷Nanba, H., et. al. "The chemical structure of an antitumor polysaccharide in fruit bodies of *Grifola frondosa* (Maitake)." *Chemical and Pharmacological Bulletin*; 1987, 35.
- ²⁸Fremmerman, S. "13 Ways to Prevent Breast Cancer." *Natural Health*; January-February, 1999.
- ²⁹"Maitake Extract Shows Promise Against Prostate Cancer." *Alternative & Complementary Therapies*; August, 2000.
- ³⁰Fullerton, S.A., et. al. "Induction of apoptosis in human prostatic cancer cells with beta-glucan (Maitake mushroom polysaccharide)." *Molecular Urology*; 2000, 4(1):7-13.
- ³¹Wallace ND, E. "Adaptogenic Herbs: Nature's Solution To Stress." *Nutrition Science News*; May 1998.
- ³²Stamets, P. *Mycomedicinals*. Olympia, WA: MycoMedia Publications, 1998.
- ³³Jones, K. *Shiitake*. Rochester, VT: Healing Arts Press, 1995.
- ³⁴Hobbs, LAc, C. *Medicinal Mushrooms*. Loveland, CO: Interweave Press Inc., 1996.