

ImmunoBerry™ Liquid



— Pleasant Tasting Liquid Immune Support for Children and Adults —

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Research suggests that certain herbs, mushrooms and other natural compounds have potential antiviral and antibacterial ability, as well as the ability to stimulate natural killer (NK) cell activity, cytokine synthesis and the T-cell and B-cell mediated responses necessary for a strong immune defense. The research below on compounds found in nature, and in ImmunoBerry Liquid, show significant improvement in an array of conditions such as influenza, respiratory tract infections, sinusitis, cancer prevention, viral hepatitis, and various bacterial infections.¹⁻¹⁵

Elderberry (*Sambucus nigra*)

European elder grows up to 30 feet tall, is native to Europe, but has been naturalized to the Americas. The flowers and berries of *Sambucus nigra* are used most often medicinally and contain a variety of flavonoids which have been found to possess a variety of biochemical and pharmacological actions, including antioxidant and immunologic properties. According to ethnobotanical surveys, *Sambucus nigra* is one of the plants most commonly used for medicinal purposes in the world. In addition to its medicinal properties it has a pleasant taste, which makes it useful in creating a pleasant tasting liquid herbal extract suitable for children.⁹⁻¹⁵

“Symptoms were relieved on average 4 days earlier and use of rescue medication was significantly less in those receiving elderberry extract compared with placebo. Elderberry extract seems to offer an efficient, safe and cost-effective treatment for influenza.”⁹

Astragalus (*Astragalus membranaceus*)

Astragalus products are derived from the roots of *Astragalus membranaceus* or related species, which are native to China. In traditional Chinese medicine, astragalus is commonly found in mixtures with other herbs, and is used in the treatment of numerous ailments, including heart, liver, and kidney diseases, as well as cancer, viral infections, and immune system disorders. Western herbalists began using astragalus in the 1800s as an ingredient in various immune tonics. Antiviral activity has been reported with the use of astragalus in laboratory and animal studies.

“Astragalus extract improved the memory, raised SOD activity in brain and liver, decreased the malonyldialdehyde (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.”³ “Astragalus has demonstrated a wide range of immunopotentiating effects and has proven efficacious as an adjunct cancer therapy.”⁴

Wild Cherry Bark (*Prunus serotina*)

Cherry includes members of the *Prunus* genus, which contains several species that have been used both as food and medicine. Cherries have been found to contain extensive polyphenolic compounds that may have a number of beneficial biological activities, including antioxidant, anticancer, and anti-inflammatory properties. The main active ingredient is thought to be the cyanogenetic glycoside, prunasin. Due to its powerful sedative action on the cough reflex, wild cherry bark finds its main use in the treatment of irritating coughs and thus has a role in the treatment of bronchitis. It is also used to soothe sore throats, while also imparting a pleasant taste into an herbal extract, syrup or elixir. This makes it particularly useful in children.¹⁶⁻¹⁸

Supplement Facts

Serving Size 35 drops (1 mL)
Servings Per Container 118

Amount Per Serving	% Daily Value
Elderberry (<i>Sambucus nigra</i>)	200 mg *
Astragalus Root (<i>Astragalus membranaceus</i>)	100 mg *
Shiitake Mushroom (<i>Lentinula edodes</i>)	75 mg *
Maitake Mushroom (<i>Grifola frondosa</i>)	75 mg *
Wild Cherry Bark (<i>Prunus serotina</i>)	50 mg *
Beta 1,3 Glucan	25 mg *

*Daily Value not established.

Other Ingredients: Vegetable glycerin, deionized water, raspberry and berry natural flavor.

Shiitake (*Lentinula edodes*)

Shiitake mushrooms (*Lentinula edodes*) are thought to have originated in Japan and China. The mushrooms are large and black-brown with an earthy rich flavor. Shiitake mushrooms are commonly eaten in stir-fries, soups, and as a meat substitute. Shiitake mushrooms have been cultivated for over 1,000 years and can be traced to the Song Dynasty (960-1127 A.D.). The uncultivated mushroom may have been eaten as early as 199 A.D. Shiitake is traditionally taken orally for immune system stimulation, cholesterol lowering, and antiaging. Lentinan, the polysaccharide derived from shiitake, has been injected intravenously, intramuscularly, and intraperitoneally as an adjunct treatment for cancer and HIV infection. Lentinan also modulates the immune system in human studies. The antimicrobial activity of lentinan suggests other uses may develop in the future.

*“The production of IL-2 and TNF-alpha were augmented in the treated human peripheral blood mononuclear cells. These results suggest that LE (*Lentinus edodes* = shiitake mushroom) may induce T helper cell Type 1 immune responses.”⁸*

Maitake (*Grifola frondosa*)

Polysaccharide constituents of maitake have been associated in animal and human studies with multiple bioactive properties. Extracts of maitake mushroom, and particularly the beta-glucan polysaccharide constituent, have been associated with immune modulation in pre-clinical studies, and are hypothesized to exert anti-tumor effects as a result of these immune properties.

“Edible mushrooms such as shiitake may have important salutary effects on health or even in treating disease. It is estimated that approximately 50% of the annual 5 million metric tons of cultivated edible mushrooms contain functional “nutraceutical” or medicinal properties. Because of their potential usefulness in preventing or treating serious health conditions such as cancer, acquired immune deficiency syndrome (AIDS), and hypercholesterolemia, functional mushrooms deserve further serious investigation.”⁶

Beta 1,3 Glucan

Beta-glucan is a soluble fiber derived from the cell walls of algae, bacteria, fungi, yeast, and plants. It is commonly used for its immunomodulating and cholesterol-lowering effects. Beta-glucans have also been used to treat diabetes and for weight loss. *“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.”¹ “It was found that the function of NK cells was potentiated by preincubation with beta-glucan.”²*

Recommended Use

Take 35 drops (1 ml) one to three times daily for immune health and prevention, and up to six times daily during illness, or as directed by your health care practitioner.

References

1. Brown GD, Gordon S. Fungal beta-glucans and mammalian immunity. *Immunity*. 2003 Sep; 19(3): 311-5
2. Di Renzo L, Yefenof E. The function of human NK cells is enhanced by beta- glucan, a ligand of CR3 (CD11b/CD18). *Eur J Immunol*. 1991 Jul;21(7):1755-8.
3. Rehman J, Dillow JM. Increased production of antigen-specific immunoglobulins G and M following in vivo treatment with the medicinal plants *Echinacea augustifolia* and *Hydrastis canadensis* (Goldenseal). *Immunol Lett*. 1999 Jun 1; 68(2-3): 391-5
4. Jin R, Zhang X. Studies on pharmacological junctions of hairy root of *Astragalus membranaceus*. *Zhongguo Zhong Yao Za Zhi*. 1999 Oct; 24(10): 619-21, 639.
5. Sinclair S. Chinese herbs: a clinical review of *Astragalus*, *Ligusticum*, and *Schizandrae*. *Altern Med Rev*. 1998 Oct; 3(5): 338-44.
6. Kodama N, Komuta K. Effects of D-Fraction, a polysaccharide from *Grifola frondosa* on tumor growth involve activation of NK cells. *Biol Pharm Bull*. 2002 Dec;25(12):1647-50.
7. Kodama N, Yamada M. Addition of Maitake D-fraction reduces the effective dosage of vancomycin for the treatment of *Listeria*-infected mice. *Jpn J Pharmacol*. 2001 Dec;87(4):327-32.,
8. Chang HM, Pui-Hay But P. *Pharmacology And Applications Of Chinese Materia Medica*. Vol.1. 1986. Singapore: World Scientific.
9. Liu M, Li J, Kong F. Induction of immunomodulating cytokines by a new polysaccharide-peptide complex from culture mycelia of *Lentinus edodes* (shiitake mushroom). *Immunopharmacology*. 1998 Nov;40(3):187-98.
10. Tan BK, Vanitha J. Immunomodulatory and antimicrobial effects of some traditional Chinese medicinal herbs: a review. *Curr.Med.Chem*. 2004;11(11):1423-1430.
11. Roy, S., Khanna, S., Alessio, H. M., Vider, J., Bagchi, D., Bagchi, M., and Sen, C. K. Anti-angiogenic property of edible berries. *Free Radic.Res*. 2002;36(9):1023-1031.
12. Harokopakis, E., Albrecht, M. H., Haase, E. M., Scannapieco, F. A., and Hajishengallis, G. Inhibition of proinflammatory activities of major periodontal pathogens by aqueous extracts from elder flower (*Sambucus nigra*). *J Periodontol*. 2006;77(2):271-279.
13. Cao, G. and Prior, R. L. Anthocyanins are detected in human plasma after oral administration of an elderberry extract. *Clin Chem* 1999;45(4):574-576.
14. Kaack, K. and Austed, T. Interaction of vitamin C and flavonoids in elderberry (*Sambucus nigra* L.) during juice processing. *Plant Foods Hum.Nutr* 1998;52(3):187-198.
15. Roxas, M. and Jurenka, J. Colds and influenza: a review of diagnosis and conventional, botanical, and nutritional considerations. *Altern Med Rev* 2007;12(1):25-48.
16. Fetrow CW, Avila JR. *Complimentary & Alternative Medicines: Professional's Handbook*. Springhouse, Springhouse, PA, 1999.
17. Werbach MR, Murray, MT. *Botanical Influences on Illness: A sourcebook of clinical research*. Third Line Press, Tarzana, California, 1994.
18. PDR for Herbal Medicines, 1st Ed. Medical Economics/Thompson Healthcare, 1998.