Evolve Immune



Educate. Empower. Evolve.





Product Overview*

- · Convenient 3 capsule formula
- · Contains the Bacillus subtilis HU58™ Probiotic Strain
- · N-Acetyl Cysteine for respiratory and immune support
- · Standardized organic elderberry juice concentrate
- · Standardized herbal extracts: Astragalus, Andrographis, Echinacea
- · Immune-supporting micronutrients: Vitamin C, Zinc, Copper
- · Vegetarian friendly
- · 3rd party potency tested

Product Summary*

One's immune system is critical to everyday health and wellness. When it suffers, you suffer. For this reason, Evolve Wellness created Evolve Immune, an immune support formula containing vitamin C, minerals, organic elderberry, standardized herbal plant extracts as well N-Acetyl Cysteine. Evolve Immune can be used proactively on a daily basis, or simply during times of increased stress.

Target Market/Population*

A wide range of individuals may use Evolve Immune including for general daily maintenance and/or immediate immune support.

Suggested Use*

For immunity maintenance, take three capsules per day with 8-10 oz of water or preferred beverage. For immediate immune support, take 1-3 capsules six times per day with 8-10 oz of water/beverage or as directed by a healthcare professional.

The Science

N-Acetyl Cysteine*

N-Acetyl Cysteine (NAC) is a unique sulfur containing amino acid that supports immune function in a variety of

ways. Along with boosting systemic levels of Glutathione, one of the most powerful antioxidants within the human body, NAC may also act as a mucolytic agent, improving the body's ability to clear mucus congestion.¹⁻³

Additionally, in a 2008 study, researchers found daily intake of NAC improved lymphocyte, neutrophil, and natural killer cell function in post-menopausal women; partially reversing the normal age-related decrease in immune cell activity seen in this popularion.⁴ In a separate study, daily NAC consumption was shown to provide respiratory support as well as reduce head and body aches in older adults during the winter months.⁵

Vitamin C*

During times of physical stress, the human body may require additional vitamin C. Compared to healthy individuals, those experiencing immune challenges have been shown to have depleted vitamin C stores.⁶ In addition to supporting one's antioxidant defense system, vitamin C assists the immune system by enhancing neutrophil motility, natural killer cell activity, along with T and B cell function.^{7,8}

Various human studies have shown vitamin C to support respiratory function during times of intense physical stress.^{9,10}

Zinc & Copper Amino Acid Chelates*

Both zinc and copper are essential nutrients for maintaining a properly functioning immune system.¹¹ More specifically, zinc influences monocyte and macrophage function as well as potentially alters metabolic pathways within various pathogens.¹¹⁻¹² Acute use of zinc has been shown to support immune function during times of stress.¹³ Copper appears to influence immune activity in a variety of ways as well; this includes enhanced oxidative burst potential by phagocytes and assisting leukocyte differentiation.¹¹

High-dose zinc supplementation has been shown to induce copper deficiency.¹⁴ Thus, in addition to supporting a healthy immune system, the addition of copper to Evolve Immune may also help maintain mineral balance within the body.

Organic Elderberry Concentrate*

Elderberry has long been recognized for its immune supporting benefits. These effects may stem from specific polyphenols, anthocyanins, flavonoids and other phytonutrients present within the berry. In addition to supporting immune function, research also suggests that elderberry extract may also reduce inflammatory pathways.

Evolve Immune uses a very specific elderberry concentrate, Organic ElderMune™ Elderberry Complex which combines a highly concentrated form of elderberry juice powder (65:1), with an organic prebiotic fiber.

ElderMune™ is a trademark of Innovative Natural Solutions, LLC (INS Farms). Sunfiber® is a registered trademark of Taiyo International, Inc

Astragalus membranaceus Root Extract*

Astragalus membranaceus has been used as an immune support agent for over 2000 years.¹⁷ Bioactive ingredients in Astragalus include polysaccharides, saponins, flavonoids, and astragalosides. Astragalus may support immune function through its ability to increase circulating levels of monocytes, neutrophils, and lymphocytes, as well as influence cytokine levels.¹⁷ Additionally, in-vitro research completed by Adesso et al. suggests that Astragalus extract, standardized for 70% polysaccharides, is capable of reducing inflammation in intestinal cells.¹⁸

Andrographis paniculata Leaf Extract*

Andrographis paniculata, also known as "king of the bitters", is a herbaceous plant native to southeast Asia and India which has shown various immune-supporting properties.¹⁹ The primary phytonutrient responsible for these benefits is believed to be andrographolide, which, amongst other benefits, has been shown to increase CD4+ lymphocyte count.²⁰ In a recent meta-analysis, involving thirty-three trials & 7175 participants, it was found that Andrographis was significantly more effective at supporting normal respiratory tract function versus placebo during times of stress.²¹ One particular trial indicated that consuming 200 mg of a standardized Andrographis extract (30% andrographolide) per day was 2x more effective than placebo at supporting normal respiratory function.²²

Echinacea purpurea Extract*

Echinacea purpurea, a popular immune-supporting herb, contains a variety of polyphenols and other phytonutrients which are believed to help maintain a normally functioning respiratory system during times of stress.²³ These benefits may be the result of enhanced macrophage activity as well as natural killer cell activity.²⁴⁻²⁶

Bacillus subtilis HU58™

Bacillus subtilis HU58™ is a clinically researched spore based probiotic strain which has been shown to support immune function and overall intestinal function.^{27,28}

Servings Per Container: 30 Amount Per Serving	% Daily	Value
Vitamin C (Ascorbic Acid) Zinc (as Zinc Bisglycinate Chelate) (Albion®) Copper (as Copper Bisglycinate Chelate) (Albion	300 mg 11 mg	
N-Acetyl-L-Cysteine Organic Eldermune™ Organic ElderMuneTM Elderberry Complex European Elder Fruit Concentrate (65:1), Standardized to contain > 3% Polyphenols	300 mg 250 mg	†
Astragalus Root Extract (Standardized to contain 70% Polysaccharides)	250 mg	†
Andrographis Leaf Extract (Standardized to contain 30% andrographolides)	225 mg	†
Echinacea purpurea Herb Extract (Standardized to contain 4% Polyphenols)	100 mg	†
Bacillus subtilis, HU58™	10 mg Billion CFU	†

Other Ingredients: Vegetable Capsule (HPMC), Organic Sunfiber® Partially Hydrolyzed Guar Fiber, Rice Flour, Silicon Dioxide

References

- Kasperczyk S, Dobrakowski M, Kasperczyk A, Ostałowska A, Birkner E. The administration of N-acetylcysteine reduces oxidative stress and regulates glutathione metabolism in the blood cells of workers exposed to lead. Clin Toxicol (Phila). 2013 Jul;51(6):480-6.
- Atkuri KR, Mantovani JJ, Herzenberg LA, Herzenberg LA. N-Acetylcysteine--a safe antidote for cysteine/glutathione deficiency. Curr Opin Pharmacol. 2007 Aug;7(4):355-9.
- Sadowska AM. N-Acetylcysteine mucolysis in the management of chronic obstructive pulmonary disease. Ther Adv Respir Dis. 2012 Jun;6(3):127-35.
- Arranz L, Fernández C, Rodríguez A, Ribera JM, De la Fuente M. The glutathione precursor N-acetylcysteine improves immune function in postmenopausal women. Free Radic Biol Med. 2008 Nov 1;45(9):1252-62.
- De Flora S, Grassi C, Carati L. Attenuation of influenza-like symptomatology and improvement of cell-mediated immunity with long-term N-acetylcysteine treatment. Eur Respir J. 1997 Jul;10(7):1535-41.
- Carr AC, Spencer E, Dixon L, Chambers ST. Patients with Community Acquired Pneumonia Exhibit Depleted Vitamin C Status and Elevated Oxidative Stress. Nutrients. 2020 May 6;12(5):1318.
- 7. Anderson R, Oosthuizen R, Maritz R, Theron A, Van Rensburg AJ. The effects of increasing weekly doses of ascorbate on certain cellular and humoral immune functions in normal volunteers. Am J Clin Nutr. 1980 Jan;33(1):71-6.
- Heuser G, Vojdani A. Enhancement of natural killer cell activity and T and B cell function by buffered vitamin C in patients exposed to toxic chemicals: the role of protein kinase-C. Immunopharmacol Immunotoxicol. 1997 Aug;19(3):291-312.
- Hunt C, Chakravorty NK, Annan G, Habibzadeh N, Schorah CJ.
 The clinical effects of vitamin C supplementation in elderly
 hospitalised patients with acute respiratory infections. Int J
 Vitam Nutr Res. 1994;64(3):212-9.
- 10. Hemilä H, Chalker E. Vitamin C for preventing and treating the common cold. Cochrane Database Syst Rev. 2013 Jan 31;(1):CD000980
- 11. Djoko KY, Ong CL, Walker MJ, McEwan AG. The Role of Copper and Zinc Toxicity in Innate Immune Defense against Bacterial Pathogens. J Biol Chem. 2015 Jul 31;290(31):18954-61.
- Ong CL, Walker MJ, McEwan AG. Zinc disrupts central carbon metabolism and capsule biosynthesis in Streptococcus pyogenes. Sci Rep. 2015 Jun 1;5:10799.
- 13. Singh M, Das RR. Zinc for the common cold. Cochrane Database Syst Rev. 2013 Jun 18;(6):CD001364. doi: 10.1002/14651858.CD001364.pub4. Update in: Cochrane Database Syst Rev. 2015;(4):CD001364.
- 14. Institute of Medicine (US) Panel on Micronutrients. Dietary Reference Intakes for Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium, and Zinc. Washington (DC): National Academies Press (US); 2001. 12, Zinc.

- Młynarczyk K, Walkowiak-Tomczak D, Łysiak GP. Bioactive properties of Sambucus nigra L. as a functional ingredient for food and pharmaceutical industry. J Funct Foods. 2018 Jan;40:377-390.
- 16. Thole JM, Kraft TF, Sueiro LA, Kang YH, Gills JJ, Cuendet M, Pezzuto JM, Seigler DS, Lila MA. A comparative evaluation of the anticancer properties of European and American elderberry fruits. J Med Food. 2006 Winter;9(4):498-504.
- 17. Denzler K, Moore J, Harrington H, Morrill K, Huynh T, Jacobs B, Waters R, Langland J. Characterization of the Physiological Response following In Vivo Administration of Astragalus membranaceus. Evid Based Complement Alternat Med. 2016;2016;6861078.
- 18. Adesso S, Russo R, Quaroni A, Autore G, Marzocco S. Astragalus membranaceus Extract Attenuates Inflammation and Oxidative Stress in Intestinal Epithelial Cells via NF-кВ Activation and Nrf2 Response. Int J Mol Sci. 2018 Mar 10;19(3):800.
- Jayakumar T, Hsieh CY, Lee JJ, Sheu JR. Experimental and Clinical Pharmacology of Andrographis paniculata and Its Major Bioactive Phytoconstituent Andrographolide. Evid Based Complement Alternat Med. 2013;2013:846740.
- 20. Calabrese C, Berman SH, Babish JG, Ma X, Shinto L, Dorr M, Wells K, Wenner CA, Standish LJ. A phase I trial of andrographolide in HIV positive patients and normal volunteers. Phytother Res. 2000 Aug;14(5):333-8.
- 21. Hu XY, Wu RH, Logue M, Blondel C, Lai LYW, Stuart B, Flower A, Fei YT, Moore M, Shepherd J, Liu JP, Lewith G. Andrographis paniculata (Chuān Xīn Lián) for symptomatic relief of acute respiratory tract infections in adults and children: A systematic review and meta-analysis. PLoS One. 2017 Aug 4;12(8):e0181780.
- 22. Saxena RC, Singh R, Kumar P, Yadav SC, Negi MP, Saxena VS, Joshua AJ, Vijayabalaji V, Goudar KS, Venkateshwarlu K, Amit A. A randomized double blind placebo controlled clinical evaluation of extract of Andrographis paniculata (KalmCold) in patients with uncomplicated upper respiratory tract infection. Phytomedicine. 2010 Mar;17(3-4):178-85.
- 23. Senica M, Mlinsek G, Veberic R, Mikulic-Petkovsek M. Which Plant Part of Purple Coneflower (Echinacea purpurea (L.) Moench) Should be Used for Tea and Which for Tincture? J Med Food. 2019 Jan;22(1):102-108.
- 24. Goel V, Chang C, Slama J, Barton R, Bauer R, Gahler R, Basu T. Echinacea stimulates macrophage function in the lung and spleen of normal rats. J Nutr Biochem. 2002 Aug;13(8):487.
- 25. Currier NL, Miller SC. Echinacea purpurea and melatonin augment natural-killer cells in leukemic mice and prolong life span. J Altern Complement Med. 2001 Jun;7(3):241-51.
- 26. Block KI, Mead MN. Immune system effects of echinacea, ginseng, and astragalus: a review. Integr Cancer Ther. 2003 Sep;2(3):247-67.
- 27. Dound YA, Jadhav SS, Devale M, Tom Bayne, Kiran Krishnan, Mehta DS. (2019). The effect of Probiotic Bacillus subtilis HU58 on Immune function in Healthy Human. The Indian Practitioner, 70(9), 15-20.
- Dr Dilip Mehta, de Souza A, Jadhav SS, Devale M. (2020). A Study of Probiotic Bacillus subtilis HU58 for the Management of Antibiotic-Associated Diarrhoea in Adults. The Indian Practitioner, 73(4),