



PHARMACIST FORMULATIONS

SerenImmune Jr

CLINICAL APPLICATIONS

- Provides Support for Immune Challenges
- Strengthens Immune Function in Children
- Maintains Normal Inflammatory Balance

This product is a children's chewable formula that boosts immune function and provides support for immune challenges. This product contains elderberry and astragalus along with key nutrients necessary for optimal immune function, such as zinc, vitamin C and vitamin A. Elderberry has been shown to provide effective, immediate immune support, and the distinct purple color creates a fun element for kids. Be on the lookout for purple tongues!

Overview

Our body's immune system is a complex and dynamic defense system that comes to our rescue at the first sign of exposure to an outside invader. The dynamic nature of the immune system means that all factors that affect health need to be addressed for it to function at peak performance. In most cases, the immune system does a great job of keeping people healthy, but it is very sensitive to nutrient deficiencies and may at times require additional support. While vitamin deficiencies can challenge the immune system, consuming immune enhancing nutrients and botanicals supports and strengthens the body's immune response. This product's synergistic formula significantly boosts immune cell function by enhancing barrier function, activating the antibody response and speeding up natural killer (NK) cell and T-cell activation.

Immune Nutrition Base[†]

This product contains zinc, vitamin C and vitamin A, key immune micronutrients that play a major role in maintaining a strong, healthy immune response.

Zinc[†]

Zinc is a mineral that works synergistically with vitamin A in activating thymic factor, a thymus hormone with vital immune supporting properties.¹ Maintaining optimal zinc levels also helps maintain helper T-cell lymphocyte function, NK cell activity, macrophage function and antibody production.²

Vitamin C[†]

Vitamin C is well known for its ability to support the immune response. Vitamin C concentrations decline rapidly in the body during periods of stress. Dietary intake is therefore crucial during immune challenges. Vitamin C has been found to be helpful in supporting specific components of the immune system, including NK cell activity and lymphocyte function. Vitamin C also provides antioxidant support by protecting cells against reactive oxygen species that are generated during normal inflammatory response.³

Vitamin A[†]

Vitamin A helps support mucous membranes. When vitamin A is lacking, mucus-producing cells are replaced by keratin-producing cells, and the membranes become tough and more vulnerable to unwanted organisms. Vitamin A is a critical immune-supporting nutrient. Vitamin A also supports the immune system by stimulating white blood cell function and increasing antibody response.⁴

Black Elderberry Extract[†]

Black elderberry (*Sambucus nigra*) has a long history of traditional use among herbalists and is native to Europe,

Northern Africa, and Western and Central Asia. Elderberry preparations range from expressed juice to syrup, tea decoction, powdered extract and powdered extract in the form of lozenges or capsules.⁵ The bioactive components of elderberry include the flavonoid anthocyanin.⁶ This product is standardized to include black elderberry extract with 13% anthocyanins. Black elderberry preparations have also been shown to enhance immune cell killing potential by supporting healthy cytokine production, including IL-8 and IL-10, which are the cellular pathways used to eliminate unwanted organisms.⁷

Astragalus membranaceus Root Extract†

Astragalus (*Astragalus membranaceus*) is native to northern China and has been traditionally used to strengthen the immune system.⁸ The root of astragalus is one of the two commonly used species in traditional Chinese medicine. Research has demonstrated the immune-regulating effects of astragalus, which include boosting T-dependent antigens, lymphokine-activated killer (LAK) cells and macrophage activity.⁹ Additional studies have demonstrated that astragalus root extract supports immune response by boosting T3, T4 and T4/T8 cell ratios.¹⁰

Directions

Chew 2 tablets per day or as recommended by your health care professional.

Does Not Contain

Gluten, yeast, artificial colors or flavors.

Cautions

If you are pregnant or nursing, consult your physician before taking this product.

Supplement Facts ^{V1}		
Serving Size 2 Chewable Tablets		
Servings Per Container 30		
	Amount Per Serving	% Daily Value for Adults and Children 4 or more years of Age
Calories	15	
Total Carbohydrate	3 g	1%*
Total Sugars	2 g	**
Includes 2 g Added Sugars		4%*
Vitamin A (from 667 IU Natural Beta Carotene)	200 mcg	22%
Vitamin C (as Ascorbic Acid USP)	200 mg	222%
Zinc (as TRAACS™ Zinc Bisglycinate Chelate)	2 mg	18%
European Elder (<i>Sambucus nigra</i>) Berry Extract (Standardized to contain 13% Anthocyanins)	300 mg	**
<i>Astragalus membranaceus</i> Root Extract	125 mg	**
* Percent Daily Values are based on a 2,000 calorie diet.		
** Daily Value not established.		

Other Ingredients: Natural Cane Sugar, Xylitol, Natural Flavors, Luo Han Guo Extract (Fruit), Sodium Stearyl Fumarate, Citric Acid and Malic Acid.

References

1. Dardenne M, Pleau J, Nabarra B, et al. Contribution of zinc and other metals to the biological activity of the serum thymic factor. *Proc Natl Acad Sci.* 1982;5370-3.
2. PDR Health: Zinc. www.pdrhealth.com.
3. Wintergerst ES, Maggini S, Hornig DH. Immune enhancing role of vitamin C and zinc and effect on clinical conditions. *Ann Nutr Metab.* 2006;50(2):85-94.
4. Vitamin A. Integrative Medicine: Integrative Medicine Communications; 2000.
5. The ABC Clinical Guide to Elder Berry. The American Botanical Council; 2004. <https://www.herbalgram.org/media/13131/elderberry-scr.pdf?docID=165>
6. Monograph. *Sambucus nigra* (elderberry). *Altern Med Rev.* Mar 2005;10(1):51-54.
7. Barak V, Birkenfeld S, Halperin T, Kalickman I. The effect of herbal remedies on the production of human inflammatory and anti-inflammatory cytokines. *Isr Med Assoc J.* 2002;4(11 Suppl):919-22.
8. Tan BK, Vanitha J. Immunomodulatory and antimicrobial effects of some traditional Chinese medicinal herbs: a review. *Curr Med Chem.* 2004;11(11):1423-1430.
9. Kemper K, Small R. *Astragalus (Astragalus membranaceus)* Longwood Herbal Task Force. 1999;3:1–18.
10. Sinclair S. Chinese herbs: a clinical review of *Astragalus*, *Ligusticum*, and *Schizandrae*. *Altern Med Rev.* 1998;3(5):338-344.