

NutriSorb A™

Bioavailable Liquid Vitamin A Supplement

Supports normal cellular development, healthy vision, tissue integrity, and optimal immune function*

NutriSorb A provides pure vitamin A in a highly bioavailable micellized form, in a base of purified water and glycerin with vitamin E (d-alpha tocopherol), citric acid, and rosemary extract as natural preservatives.

How does NutriSorb A work?

NutriSorb A provides highly bioavailable Vitamin A, a nutrient essential for cellular development, vision, tissue integrity, and immune function.*

NutriSorb A is a micellized liquid preparation of vitamin A that readily and fully disperses in water. Vitamin A is carried into intestinal mucosal cells via submicroscopic micellized droplets small enough to ensure optimal contact and maximal absorption.

Vitamin E (d-alpha tocopherol), rosemary, and citric acid are natural antioxidants that help prevent rancidity, ensuring product stability while extending shelf life.^{1,2}

Rosemary also contains natural anti-bacterial and anti-microbial essential oils to help preserve the vitamin A and prevent microbial growth.³



Supplementation with NutriSorb A:

- Enhances immune function and resistance to infection*
- Promotes integrity of epithelial tissues*
- Helps maintain normal vision and retinal health*
- Supports health of skin and mucous membranes, including gastrointestinal tract, conjunctiva, and respiratory tract*



Dairy Free



Egg Free



Gluten Free



Vegetarian

*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

For educational purposes only. Consult your physician for any health concerns.

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NutriSorb A contains micellized vitamin A, vitamin E, citric acid, and rosemary extract.

What the research shows:

Vitamin A is a fat-soluble vitamin involved in regulating the growth and differentiation of virtually all cells in the body. Most notably, vitamin A plays crucial roles in eye development and vision, epithelial cell integrity, and immune function.

In embryonic development, adequate vitamin A is critical for organ formation, including the eyes, ears, heart, and lungs. In retinal cells vitamin A forms the basis of the visual pigment rhodopsin. Vitamin A is essential for visual signal processing and normal functioning of the retina, for both dim light vision and color vision. Vitamin A is also essential for maintaining overall health of the eye, including the cornea and conjunctiva.⁴

Vitamin A is essential in the development and maintenance of epithelial tissue. In epithelial cells, particularly mucous membranes, vitamin A regulates cell replication and promotes normal proliferation and differentiation of cells by binding to specific receptors controlling gene transcription. Vitamin A is known to interact with thyroid hormones, vitamin D, and steroid hormones (e.g. estrogen) to influence cellular proliferation and differentiation.^{4,5}

Vitamin A also promotes the normal functioning of immune cells in the mucous membranes lining the digestive tract, respiratory tract, and urinary tract. Vitamin A influences the immune response by regulating immune cell formation, differentiation, and migration, and modulating cytokine and immunoglobulin production. Vitamin A maintains the integrity of mucous membranes and is integral to the production of mucosal secretory IgA, a nonspecific host defense against viral, bacterial and parasitic infections. Vitamin A may also help to prevent the development of autoimmunity.^{4,6}

Individuals at risk of vitamin A deficiency include those with poor absorption of lipids due to impaired pancreatic or bile acid secretion and those with inflammatory bowel disease, liver disease, alcoholism, and diabetes. Low vitamin A levels may also occur with overuse of laxatives, chronic cortisone usage, cigarette smoking, zinc deficiency, vitamin D deficiency, excessive iron consumption, organophosphate exposure, nitrate ingestion, and over consumption of refined carbohydrates.^{5,6}

Vitamin A deficiency is widespread in developing countries and is responsible for one third of all mortality in infants and preschool-age children worldwide. When given to prevent deficiency, vitamin A significantly reduces childhood mortality in regions of the world at high risk of vitamin A deficiency.⁴

Severe vitamin A deficiency is a major cause of preventable blindness in the world. In addition, vitamin A deficiency has been linked to disorders caused by oxidative damage to retinal cells, including night blindness, age-related macular degeneration, retinitis pigmentosa, retinopathy, and xerophthalmia. Vitamin A deficiency is also associated with thyroid and skin disorders, as well as an increased susceptibility to infections, including measles, malaria, tuberculosis, and other respiratory and intestinal infectious diseases.^{4,5}

In the U.S., one-third of low income women aged 19-34 consume less than 50 percent of the RDA for vitamin A, and one-half of all children diagnosed with acute measles virus infection are vitamin A

deficient. Therapeutic use of vitamin A in treating measles has reduced mortality by at least 50 percent, and supplementation is widely recommended for children over six months of age when infected with measles while malnourished, immunodeficient, or at risk of measles complications. Infection with respiratory syncytial virus is also correlated with low vitamin A levels. In children with susceptibility to respiratory infections, vitamin A supplementation can reduce the incidence of such infections.^{4,5}

Animal food sources rich in vitamin A include whole-fat dairy products, eggs, liver, and fish oils. Sources of provitamin A carotenoids include dark green leafy vegetables (kale, spinach, collards) and yellow-orange vegetables (carrots, sweet potatoes, yams, squash).⁶

Summary:

NutriSorb A is a highly bioavailable liquid vitamin A supplement designed to support cellular development, vision, epithelial tissue integrity, and immune function.*

Pregnancy Warning:

If you are pregnant or trying to conceive, consult your healthcare provider before using this product. Overconsumption or supplementation with excess vitamin A ($\geq 10,000$ IU/day) can be highly toxic and is especially contraindicated prior to and during pregnancy as it can result in severe birth defects.⁷

Supplement Facts

Serving Size: 2 drops (0.05ml)

Servings per Container: 300

	Amount Per Serving	% DV
Vitamin A (as palmitate)	2,500 IU	50%

Other ingredients: purified water, glycerin, d-alpha tocopherol (preservative), citric acid, rosemary extract.

Dairy, Egg & Gluten Free. Vegetarian.

Suggested Use: Two drops a day or as directed by your physician.

Caution: If pregnant or nursing, consult your physician before using this or any other product.

Keep out of reach of children.

Store in a cool dry place.

Refrigerate after opening.

Manufactured in the USA in a GMP compliant facility.

References:

¹ Etter SC. *Journal of Herbs, Spices & Medicinal Plants*. 2005;11(1-2):121-59.

² Hraš AR, et al. *Food Chemistry*. 2000;71(2):229-33.

³ Bozin B, et al. *Journal of Agricultural and Food Chemistry*. 2007;55(19):7879-85.

⁴ Linus Pauling Institute, Micronutrient Information Center. Vitamin A. <https://lpi.oregonstate.edu/mic/vitamins/vitamin-A>. Accessed November 18, 2016.

⁵ Vitamin A. *Alternative Medicine Review Monographs*. 2002:448-454.

⁶ Murray MT. Vitamin A. In: Murray MT & Pizzorno JE, eds. *Textbook of Natural Medicine*. 4th ed. St. Louis, MO: Churchill Livingstone; 2013:1095-1101.

⁷ Natural Medicines. Vitamin A: Professional Monograph. <https://naturalmedicines-therapeuticresearch-com.proxy.heal-wa.org/databases/food-herbs-supplements/professional.aspx?productid=964>. Accessed November 18, 2016.

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