MD Custom Rx
Quality Matters

LIPOIC ACID 300mg

CLINICAL APPLICATIONS

- Provides Fat-Soluble and Water-Soluble Antioxidant Protection
- Protects the Neurovascular System from Free Radical Damage
- Supports Blood Sugar Balance Already Within Normal Levels
- Regenerates Vitamins C and E
- Increases Intracellular Glutathione Levels

Alpha lipoic acid (ALA), also known as thioctic acid, is one of the most versatile antioxidants available. Supportive of a wide variety of health-related issues, ALA recharges vitamin E, vitamin C, glutathione and CoQ_{10}, and it directly quenches reactive oxygen species (ROS). Since it has water-soluble, fat-soluble and sulfhydryl properties, it can be utilized by many different bodily tissues in a variety of ways. Its unique chemical properties allow ALA to support blood sugar balance already within normal levels. This formulation of Lipoic Acid contains 300 mg of ALA and 300 mcg of biotin to protect against loss of biotin as a result of competition between the two.[1]

Overview

With its potent antioxidant properties, research has shown ALA strongly supports the neurovascular system and overall circulatory and blood vessel health. As a short-chain fatty acid, ALA can both be absorbed by fatty tissues and maintain its solubility in water, allowing it to be easily excreted from the body when not needed. In addition, orally supplemented ALA readily crosses the blood-brain barrier after absorption in the small intestine. It then undergoes distribution via systemic circulation. Once inside the tissues, ALA can exert its antioxidant benefits both inside and outside the cells, including the cellular powerhouse, the mitochondria, where it functions as a coenzyme in several different biochemical pathways. ALA also serves as a sulfur donor, which allows it to support detoxification pathways that require this nutrient. Studies have shown that ALA also modulates the expression of genes, which allows it to support blood sugar balance already within normal levels, blood pressure balance and cardiometabolic health.[2]

Blood Sugar Balance†

In Germany, ALA has long been used to support neurovascular function. One of the many health benefits of lipoic acid is its ability to support insulin sensitivity by preventing oxidative damage resulting from dips in blood sugar. A randomized, controlled trial that looked at the effect of ALA on a measure of blood circulation showed that supplementing with 300 mg of ALA a day for four weeks improved blood flow by 44%.[3] ALA is also required for the cellular breakdown of carbohydrates and fatty acids. It supports blood vessel and circulatory health via its role in antioxidant regeneration.

At the molecular level, ALA supports blood sugar balance by activating a protein called adenosine mono-phosphate kinase (AMPK), a regulator of cellular energy.[4] AMPK coordinates both long-term and short-term metabolic changes, improving energy production and reducing energy storage. The compound activates cellular metabolism by improving insulin sensitivity, down-regulating genes involved in fat storage and activating genes involved with burning fat. A three-month study using a dose of 600 mg/day of ALA demonstrated a 36% reduction in blood fats and a 38% improvement in oxidative stress.[5] An additional placebo-controlled trial on the effects of ALA on 74 subjects found that 600 mg of ALA per day significantly enhanced glucose transport and utilization.[6]

Eye Health†

Lipoic acid has also been used to support eye health. Lipoic acid, at 150 mg per day for one month, was found to improve visual function in patients with severe free radical stress of the eyes.[7]

Directions

1 capsule per day or as recommended by your health care professional.

Does Not Contain

Gluten, corn, yeast, artificial colors or flavors.

Cautions

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

Supplement Facts V2

Serving Size 1 Capsule
Servings Per Container 60

	Amount Per Serving	% Daily Value
Biotin	300 mcg	1,000%
Alpha Lipoic Acid	300 mg	*

* Daily Value not established.

Other Ingredients: Hypromellose (Natural Vegetable Capsule), Microcrystalline Cellulose and Magnesium Stearate.

References

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2. Pershadsingh HA. Alpha-lipoic acid: physiologic mechanisms and indications for the treatment of metabolic syndrome. *Expert Opin Investig Drugs*. 2007 Mar;16(3):291-302 [PMID: 17302524].
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4. Lee, WJ, Song KH, Koh EH, Won JC, Kim HS, Park HS, Kim MS, Kim SW, Lee KU, Park JY. Alpha-lipoic acid increases insulin sensitivity by activating AMPK in skeletal muscle. *Biochem Biophys Res Commun*. 2005; 332: 885-891.
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7. Filina AA, Davydova NG, Endrikhovskii SN, Shamshinova AM. [Lipoic acid as a means of metabolic therapy of open-angle glaucoma] In Russian. *Vestn Oftalmol*. 1995; 111(4):6-8.