

## **ALPHA LIPOIC ACID**

Alpha Lipoic Acid (ALA) is a vitamin like substance produced in small amounts by the body, yet it has many benefits to nearly all cells in the body. Alpha-Lipoic Acid is found in just a few food sources, brewer's yeast, meats (especially liver) and spinach, and thus must be taken in supplement form to receive beneficial effects. Read on to find out how much you need each day and how it can help keep you healthy. Within the past 50 years, researchers have been discovering the amazing properties of alpha-lipoic acid, and it's benefits for a number of ailments. Alpha-Lipoic Acid assists the body's energy production and acts as a powerful antioxidant, helping to treat diabetic neuropathy (nerve damaged caused by the disease), protecting the liver, preventing cataracts, boosting immune function, and possibly helping to slow the progression of Alzheimer's disease.

Lipoic Acid serves as a SUPER ANTIOXIDANT to enhance the potency and life of both vitamins C and E. Lipoic acid is a key factor in the conversion of carbohydrates to energy. Therefore it may help improve energy metabolism, especially in people with Diabetes, Liver Cirrhosis and Heart Disease.

Alpha Lipoic Acid has been found to be a super anti-oxidant and is used to combat the effects of aging, is highly beneficial for diabetics and may help reduce the risks of many diseases. The University of Maryland Medical Center reports that studies indicate 600 mg of Alpha Lipoic Acid taken daily in divided doses has successfully improved nerve function in diabetics.

University of California at Berkeley Report states the body needs ALA to product energy. It plays a crucial role in the mitochondria, the energy-producing structures in cells. The body actually makes enough ALA for these basic metabolic functions. This compound acts as an antioxidant, however, only when there is an excess of it and it is in the "free" state in the cells. But there is little free ALA circulating in your body, unless you consume supplements or get it injected. Foods contain only tiny amounts of it. What makes ALA special as an antioxidant is it's versatility. It helps deactivate an unusually wide array of cell-damaging free radicals in many bodily systems.

In particular, ALA helps protect the mitochondria and the genetic material, DNA. As we age mitochondrial is impaired, and it's theorized that this may be an important contributor to some of the adverse effects of aging. ALA also works closely with Vitamin C and E and some other antioxidants, "recycling" them and thus making them much more effective.

Alpha Lipoic Acid is readily absorbed, distributed, and "reduced" to dihydrolipoic acid (DHLLA), this is part of it's crucial role in energy metabolism, acting as an essential cofactor in energy-generating systems. It's versatility is related to its love for watery environments (hydrophilic) and fatty tissue environments (lipophilic).