

Wonderful Alpha Lipoic Acid

By Dr. Marcel



People think because we practice naturopathic medicine we are open to all things natural in helping restore health and balance. Yes, and no. **We are open-minded, yes, but we depend on our knowledge of biochemistry and study of medical literature for evidence-based therapies to address our patients' needs.** We do not buy into the latest natural health fads until we are certain the product is both safe and efficacious.

We have used alpha lipoic acid (ALA) on occasion for many years as an antioxidant and to address blood sugar abnormalities and diabetic neuropathy. But **an influx of new studies has caused us to expand our usage of ALA in clinical practice. Here are some facts about ALA:**

-- **What is ALA?** Alpha lipoic acid is an organic compound made in the mitochondria of all human cells, where it acts as a co-factor with mitochondrial enzymes to power the cells to turn nutrients into energy. Because ALA is both water and fat soluble, it works in every cell or tissue in the body.

-- **Where does ALA come from?** Humans only produce alpha lipoic acid in small amounts. That's why many people eat certain foods or take supplements to optimize their ALA intake. Animal products like red meat and organ meats are great sources of alpha-lipoic acid, but plant foods like broccoli, tomatoes, spinach, and Brussels sprouts also contain it. That said, supplements can pack up to 1,000 times more alpha-lipoic acid than food sources.

-- **Diabetes.** For diabetes care, ALA has been shown in a number of studies to lower blood sugar in both animals and humans. Other studies in adults with metabolic syndrome have shown that it may reduce insulin resistance and lower fasting blood glucose and HbA1c levels. ALA is proven to ease symptoms of diabetic nerve damage and lower the risk of diabetic retinopathy (eye damage) that can occur with uncontrolled diabetes.

-- **Skin care.** Research has shown that alpha-lipoic acid may help fight signs of skin aging. In one human study, scientists found that applying a cream containing alpha lipoic acid to the skin reduced fine lines, wrinkles, and skin roughness with no side effects.

-- **Brain and memory.** As a powerful antioxidant, ALA plays a critical role in brain health by protecting the brain from damage from oxidative stress, slowing the progression of disorders characterized by memory loss, like senile dementia and Alzheimer's disease.

-- **Inflammation.** Alpha-lipoic acid has been shown to lower several markers of inflammation. Chronic inflammation is linked to several diseases, including cancer and diabetes. In an analysis of 11 studies, alpha-lipoic acid significantly lowered levels of the inflammatory marker C-reactive protein (CRP) in adults with high levels of CRP.

-- **Heart disease.** Research from a combination of lab, animal, and human studies has shown that the antioxidant properties of alpha-lipoic acid may lower several heart disease risk factors. First, the ALA antioxidant properties allow it to neutralize free radicals and reduce oxidative stress, which is linked to damage that can increase heart disease risk. Second, it's been shown to improve endothelial dysfunction — a condition in which blood vessels cannot dilate properly, which also raises the risks of heart attack and stroke. What's more, a review of studies found that taking an alpha-lipoic acid supplement lowered triglyceride and LDL (bad) cholesterol levels in adults with metabolic disease.

-- **Use in cancer care.** Recent studies show that ALA can cause cancer cell apoptosis (breaking apart). It is useful with all cancers, but has been especially studied with pancreatic cancer. Latest studies also show something extremely important – ALA can cause cancer cells to be more susceptible to intravenous vitamin C. ALA also can relieve the peripheral neuropathy caused by chemotherapy.

-- **Metal chelation.** ALA functions as a direct reactive oxygen species (ROS) scavenger in chelating redox-active metals including free iron, copper, manganese and zinc. Chelation of free metal ions prevents them from inducing oxidative damage by catalyzing reactions, generating highly reactive free radicals that can lead to a multitude of chronic diseases within the body.

-- **Side effects.** Alpha-lipoic acid is generally considered safe with little to no side effects. In some cases, people may experience mild symptoms like nausea, rashes, or itching. However, research shows that adults can take up to 2,400 mg/day without harmful side effects. Though there is no set dosage, most evidence suggests that 300–600 mg/day is sufficient and safe. Alpha-lipoic supplements are best taken on an empty stomach, as certain foods can lower the acid's bioavailability.

*Alpha lipoic acid is available both in capsule form and
via intravenous therapy (IV) in our clinic.*