

alpha-lipoic acid

This relatively recent

addition to the supplement scene has shown great promise in treating nerve damage in people with diabetes. It may also protect the liver and brain cells, prevent cataracts, and serve as a powerful general antioxidant.

COMMON USES

- *Helps treat numbness, tingling, and other symptoms of nerve damage in people with diabetes or other conditions.*
- *Protects the liver in hepatitis, alcohol abuse, or exposure to poisons or toxic chemicals.*
- *Aids in preventing cataracts.*
- *May help preserve memory in Alzheimer's disease.*
- *Serves as a high-potency antioxidant and possible immune booster, combating a wide range of disorders, including psoriasis, fibromyalgia, and AIDS.*

FORMS

- Tablet
- Capsule

CAUTION!

- **For people with diabetes, the use of alpha-lipoic acid may require a change in insulin or other medications.**
- **Reminder: If you have a medical condition, talk to your doctor before taking supplements.**

What it is

In the 1950s scientists discovered that versatile alpha-lipoic acid (also known as thioctic acid or simply lipoic acid) worked with enzymes throughout the body to speed the processes involved in energy production. More recently, in the late 1980s, researchers found that alpha-lipoic acid can be a powerful antioxidant as well, neutralizing naturally occurring, highly reactive molecules called free radicals that can damage cells. Although the body manufactures it in minute amounts, alpha-lipoic acid is mainly present in foods such as spinach, meats (especially liver), and brewer's yeast. It's difficult, however, to obtain therapeutic amounts of this vitaminlike substance through diet alone. Instead, many experts recommend using supplements to get the full benefits of alpha-lipoic acid.

What it does

Alpha-lipoic acid affects nearly every cell in the body. It assists all of the B vitamins—including thiamin, riboflavin, pantothenic acid, and niacin—in converting carbohydrates, protein, and fats found in foods into energy the body can store and later use. Alpha-lipoic acid is a cell-protecting antioxidant that may help the body recycle other antioxidants, such as vitamins C and E, boosting their potency. Thanks to its unique chemical properties, alpha-lipoic acid is easily absorbed by most tissues in the body, including the brain, nerves, and liver, making it valuable for treating a wide range of ailments.

★ **MAJOR BENEFITS:** One of alpha-lipoic acid's primary uses is to treat nerve damage, including diabetic neuropathy, a dangerous long-term complication of diabetes that causes pain and loss of feeling in the limbs. The nerve condition may be partly due to free-radical damage to nerve cells caused by runaway levels of sugar (glucose) in the blood. Alpha-lipoic acid may play a role in countering nerve damage through its antioxidant effects. In addition, it can help people with diabetes respond to insulin, the hormone that regulates glucose. In a study of 74 people with type 2 diabetes who were given 600 mg or more of alpha-lipoic acid daily,



all benefited from lowered glucose levels. Studies in animals also show that alpha-lipoic acid increases blood flow to the nerves and enhances the conduction of nerve impulses. These effects may make alpha-lipoic acid suitable for the treatment of numbness, tingling, and other symptoms of nerve damage from any cause, not just diabetes.

Alpha-lipoic acid also assists the liver, protecting it against damage from free radicals and helping it clear toxins from the body. It is therefore sometimes used to treat hepatitis, cirrhosis, and other liver ailments, as well as in cases of poisoning—by lead or other heavy metals, or by hazardous industrial chemicals such as carbon tetrachloride.

ADDITIONAL BENEFITS: Alpha-lipoic acid may have other potential uses, although more research is needed. Some compelling studies in animals show that it can prevent cataracts from forming. Additional animal experiments suggest that it may improve memory (making it potentially beneficial against Alzheimer's disease, for example) and protect brain cells against damage caused by an insufficient blood supply to the brain (the result of surgery or stroke, for example).

Some evidence indicates alpha-lipoic acid, through its antioxidant capacities, can suppress viral reproduction. In one study, alpha-lipoic acid supplements were shown to boost immune and liver function in a majority of patients infected with AIDS. It may also help in the fight against cancer, especially the forms of the disease thought to be related to free-radical damage. Finally, as part of a general high-potency antioxidant formula, alpha-lipoic acid may prove effective against disorders ranging from fibromyalgia to psoriasis, which may be aggravated, in part, by free-radical damage.

How to take it

DOSE: *To treat specific disorders:* Alpha-lipoic acid is usually taken in doses of 100 to 200 mg three times a day. *For general antioxidant support:* Lower doses of 50 to 150 mg a day may be used.

GUIDELINES FOR USE: Alpha-lipoic acid can be taken with or without food. No major adverse effects have been reported.

Possible side effects

Alpha-lipoic acid appears to be very safe, and there have been no reports of serious side effects in people taking it. Occasionally, the supplement may produce mild gastrointestinal upset, and in rare cases, allergic skin rashes have occurred. If side effects appear, lower the dose or discontinue using the supplement.

SHOPPING HINTS

- Alpha-lipoic acid can be purchased as an individual supplement or part of a general antioxidant booster, along with vitamins C, E, and other antioxidants. Look for it on the ingredients list; it may also be called thioctic acid.

LATEST FINDINGS

- In a trial at multiple medical centers, 328 people with diabetic nerve damage were given 100 mg, 600 mg, or 1,200 mg of alpha-lipoic acid a day over a three-week period. Patients receiving 600 mg reported the most significant reduction in pain and numbness, compared with the other groups.
- Alpha-lipoic acid may also benefit the 25% of diabetes sufferers who are at risk of sudden death from nerve-related heart damage. After four months of taking 800 mg of alpha-lipoic acid a day, these patients showed a notable improvement in their heart function tests.
- A study of aged mice indicated that alpha-lipoic acid improved long-term memory, possibly by preventing free-radical damage to brain cells.

Did You Know?

Doctors have used an injectable form of alpha-lipoic acid to save the lives of people who mistakenly ate poisonous amanita mushrooms picked in the wild.