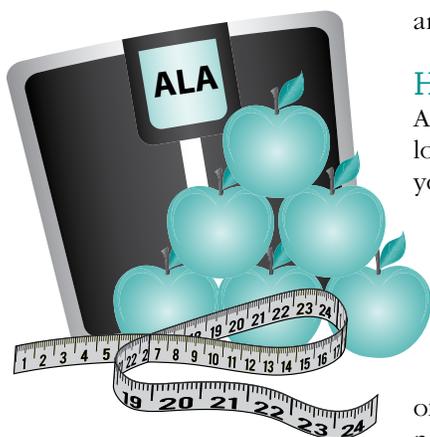


Alpha Lipoic Acid & Weight Loss

by Michael Smith PhD., MDsc.

Alpha lipoic acid (ALA) is an antioxidant with many health giving properties. Recent research suggests **ALA may help with weight loss, offering yet another benefit, given the epidemic of obesity and overweight individuals in the U.S.** With 38% of Americans considered obese, their risk for heart disease, cancer and especially type 2 diabetes increases, too. Many people with fibromyalgia (FM) cannot properly exercise and are at risk for the many ill-effects of overweight and obesity.

How does ALA help and what can you expect?



What is alpha lipoic acid?

Also termed α -lipoic acid, ALA or simply LA, this naturally occurring compound can be found in small amounts in food and is also biosynthesized by the human body. After the age of 40 years, people do not biosynthesize ALA, so it should be considered an “acquired” vitamin and supplementation becomes necessary.¹

How does ALA help weight loss?

ALA is a key catalyst for the breakdown of the fatty and amino acid metabolites pyruvate and α -ketoglutarate. Pyruvate is a form of lactic acid which accumulates during exercise and α -ketoglutarate is a breakdown product from the common amino acids glutamate and glutamine. Without ALA, lactic acid and α -ketoglutarate concentrations build up in the liver and tissues and block fatty acid breakdown, thus inhibiting fatty acid breakdown which retards weight loss.



Does ALA help with blood sugar?

ALA influences a more important marker, hemoglobin A1c. The A1c is hemoglobin with blood sugar attached and is a marker of a person’s *average* blood glucose over the previous 3 months. It’s the primary test for diabetes management and research. The normal A1c level is no more than 5.7% and A1c levels higher than this means the patient is a pre- or clinical diabetic. A normal A1c level indicates good glucose control. This marker dropped significantly in studies of obese diabetics taking a daily dose of 600 mg ALA, with multivitamins, for 3 months.²

Health Benefits of Weight Loss

Losing 22 pounds improves many risk markers of metabolic syndrome.

◆ Blood Pressure	-10 mmHg
◆ Fasting Glucose	-50%
◆ Total Cholesterol	-10%
◆ LDL Cholesterol	-15%
◆ Triglycerides	-30%
◆ HDL (good) Cholesterol	+8%

Source: Pagotto U et al

Does ALA help lower triglycerides (TG)?

Absolutely, 600 mgs/day have been shown to spur dramatic drops of blood TG in a clinical study of obese adults.³ Lowering your triglycerides is important because these are a lipid type stored in fat cells but also circulating in the bloodstream. Eating more calories than you burn results in more stored and circulating triglycerides, leading to weight gain and high TG levels, a marker for circulatory disease.

How about cholesterol?

ALA has been shown to lower cholesterol levels in obese patients as well as LDL and very low density lipoproteins (VLDL), both of which are synthesized from cholesterol.⁴ Keeping your cholesterol in a normal range decreases your heart disease risk.

How does ALA differ from “anti-obesity” drugs?

ALA is a natural compound which is required for human life, especially for several steps during fat metabolism. Some obesity drugs work by suppressing appetite but still must be combined with diet and exercise for significant weight loss. Other drugs work by interrupting the biosynthesis of cholesterol but also interrupt the critical biosynthesis of human CoQ10.⁵ Why not go with a nutrient that both helps you lose weight and does not rob your metabolism?

Continued

Alpha Lipoic Acid & Weight Loss

continued

Is ALA safe for diabetics to take?

Yes. A meta-study of 15 clinical trials where diabetics were treated with various daily doses of ALA reported the most common complaint was stomach upset with no serious side-effects noted.⁶

Can ALA help older individuals lose weight?

Yes. ALA is not biosynthesized by older humans so supplementation is required for better health.¹ The bioavailability of ALA seems to be both age-related and different for each individual. Your dosage will be best determined by you and your health professional.

Will ALA lower the risk of metabolic syndrome?

The signs for metabolic syndrome are typically overweight, high blood pressure, high hemoglobin A1c and TG with low blood HDL cholesterol. Many physicians consider metabolic syndrome to be the pre-diabetic state. The key here seems to be overweight; the other clinical signs often improve after noticeable weight loss. Losing even 10 kg (22 pounds) improves many risk markers: blood pressure -10 mmHg, total cholesterol -10%, LDL cholesterol -15%, triglycerides -30%, fasting glucose -50%, and HDL (good) cholesterol +8%.⁷



What is the recommended dose of ALA?

Many clinical trials prescribed ALA from 600 to 800 mg/day. Some trials dosed ALA at 1200 mg/day, tops.⁸ As with any supplement, taking more than the label directs is not wise. Again, a reminder to share the supplements you take, especially for weight loss, with your health care professional.

How long must one take ALA to see results?

In most studies, weight loss was observed over a period of a few months. Think of it in terms of improving your health and not only in pounds off the scale. Taking daily ALA will not only support weight loss efforts but add other health benefits too.

Anything else I should know about ALA?

ALA is a good antioxidant, exerting protection for all cells in your body. A reminder – obesity promotes an overproduction of oxidants and inflammatory mediators which leads one towards ill-health. Combining ALA with an anti-inflammatory nutrient such as omega-3 EPA helps the body regain non-inflammatory homeostasis.⁸ Alpha lipoic is a well-studied supplement that can be taken without prescription and has been shown in clinical studies to be a good adjunct to a weight-loss diet.

Health Risks of Overweight & Obesity

- ◆ type 2 diabetes
- ◆ heart disease
- ◆ high blood pressure
- ◆ nonalcoholic fatty liver disease
- ◆ osteoarthritis
- ◆ some types of cancer: breast, colon, endometrial & kidney
- ◆ stroke

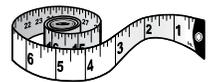
Source: NIH "Health Risks of Being Overweight"

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