

LIPOIC ACID PROTECTS CENTRAL NERVOUS SYSTEM

Lipoic acid inhibits inflammatory mediators associated with multiple sclerosis in adults, according to a recent report.* A potent antioxidant, lipoic acid has been found to both suppress and treat an experimental animal model of multiple sclerosis.

Researchers investigated the effects of varying oral doses of lipoic acid on two markers of inflammation and tissue damage: soluble intercellular adhesion molecule-1 and matrix metalloproteinase-9. Thirty-seven adults diagnosed with multiple sclerosis were randomly assigned to one of four groups that received: 1) placebo twice daily; 2) 600 mg of lipoic acid twice daily; 3) 1200 mg of lipoic acid in the morning and placebo in the evening; and 4) 1200 mg of lipoic acid twice daily. Blood samples were taken at the study's onset and then 24 hours, one week, and two weeks after the first dose of placebo or lipoic acid was administered.

Lipoic acid decreased the two inflammatory mediators in a dose-dependent fashion. In animal studies, such changes have been associated with decreased progression of multiple sclerosis. Investigators believe that this decrease in inflammatory compounds may help protect the central nervous system against neurodegenerative processes that contribute to multiple sclerosis. Lipoic acid was well tolerated, and the reported side effects did not differ from those noted in the placebo group.

Lipoic acid may thus protect against neurodegenerative processes through a novel mechanism. Since neurodegenerative conditions such as multiple sclerosis are associated with significant disability and mortality, effective nutritional interventions are greatly needed.

—Linda M. Smith, RN

Reference

* Yadav V, Marracci G, Lovera J, et al. Lipoic acid in multiple sclerosis: a pilot study. *Mult Scler*. 2005 Apr;11(2):159-65.

Psyllium Supports Healthy Blood Sugar, Lipids

Psyllium-derived fiber lowers fasting blood sugar and improves long-term blood sugar control in patients with type II diabetes, according to a recent study conducted by scientists in Iran.* A rich source of soluble fiber, psyllium is best known as a bulk-forming laxative.

This double-blind, placebo-controlled study enrolled 36 patients with type II diabetes mellitus. Before enrollment, all patients were managing their diabetes with diet or oral medications, which were continued without change throughout the study. The participants were randomly assigned to either an experimental group that received 5.1 grams of psyllium twice daily or a control group that received cellulose.

The investigators measured fasting blood sugar at the beginning of treatment and every two weeks thereafter for the duration of the eight-week study. Total cholesterol, high-density lipoprotein (HDL), low-density lipoprotein (LDL), insulin, and triglycerides were measured at the beginning of the study and after four and eight weeks of treatment. Glycosylated hemoglobin (HbA1c), a marker of long-term blood sugar control, was measured at the beginning and end of the study.

After eight weeks of treatment, fasting blood sugar dropped by an average of 52.77 mg/dL in the psyllium group and rose by an average of 31.36 mg/dL in the cellulose group compared to baseline values. Similarly, HbA1c fell 1.6% in the psyllium group and increased 1.4% in the cellulose group. The psyllium group also

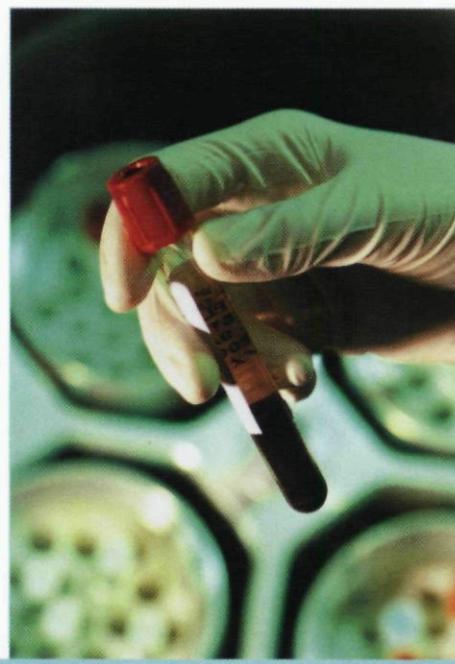
recorded a small but significant increase in beneficial HDL. The study authors speculated that psyllium supplementation of longer duration may produce an even more favorable impact on lipid profile, as has been shown in other investigations. Psyllium was well tolerated in this study.

Psyllium fiber thus appears to be a safe, effective agent in improving short- and long-term measures of blood sugar control in individuals with type II diabetes. Maintaining optimal blood sugar is an important strategy in preventing complications associated with type II diabetes.

—Linda M. Smith, RN

Reference

* Ziai SA, Larijani B, Akhoondzadeh S, et al. Psyllium decreased serum glucose and glycosylated hemoglobin significantly in diabetic outpatients. *J Ethnopharmacol*. 2005 Nov 14;102(2):202-7.



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