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PRODUCTS

The Life Extension Foundation regularly profiles and evaluates important new products on the market, often making them available directly to you, as well as to Foundation members at a discount via the Life Extension Buyers Club.

Alpha-lipoic acid inhibits free radicals... better than vitamin E

Alpha-lipoic acid is a prescription drug approved in Europe to treat diabetic neuropathy. It is also being used as a potential therapeutic agent to treat diseases related to intercellular depletion of glutathione including HIV infection, congestive heart failure and cataract. According to researchers at University of Texas at Southwestern Medical Center at Dallas, it also functions as an antioxidant in humans.

It is well known that alpha-lipoic acid is used by the body to aid in mitochondrial energy metabolism, but this new study, published in the November 1999 issue of *Free Radical Biology & Medicine* showed that it specifically inhibits the oxidation of protein, LDL cholesterol and cellular DNA.

This 16-week randomized trial involved 31 healthy patients who took daily supplements of either 400 IU of vitamin E or 600 milligrams of alpha-lipoic acid for eight weeks, alone and then in combination. Urine tests showed that both vitamin E and alpha-lipoic acid reduced levels of overall oxidative stress-and blood tests showed that they also reduced LDL oxidation. However, only alpha-lipoic acid decreased levels of protein carbonyls, which are present after damage from free-radical oxidation to proteins.

"This is exciting because it may have important implications for aging," said Dr. Ishwarlal Jialal, the study's senior investigator. "Alpha-lipoic acid is better than vitamin E at inhibiting protein oxidation," he added.

Protein oxidation has been implicated in aging and heart disease. Since alpha-lipoic acid is both fat- and water- soluble, it could prove to be more potent than other antioxidants. Besides preventing neuropathy, alpha-lipoic acid is especially important for diabetics because it may improve blood-glucose control by improving insulin action while also inhibiting the oxidation of LDL cholesterol, which contributes to heart disease, said the researchers. Diabetics are at increased risk of heart disease and have increased oxidative stress. Previous studies have shown that alpha-lipoic acid can interact with other antioxidants such as vitamin C to enhance their antioxidant activity, they added.



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treatment. You should consult with a healthcare professional before starting any diet, exercise or supplementation program, before taking any medication, or if you have or suspect you might have a health problem. You should not stop taking any medication without first consulting your physician.