**Alpha-Lipoic Acid Reduces Triglycerides in Model of Obesity/Diabetes**

An article published in the *Archives of Biochemistry and Biophysics* reports the benefits of the antioxidant compound alpha-lipoic acid in lowering triglycerides. High triglyceride levels often occur in obesity, and are a predictor of atherosclerosis, non-alcoholic fatty liver disease, and even premature mortality.

For the current research, Regis Moreau and colleagues at Oregon State University's Linus Pauling Institute used rats bred to become obese and diabetic. Beginning at five weeks of age, the animals were given 200 mg R-alpha-lipoic acid per kilogram of body weight each day for five weeks. While triglyceride levels doubled among those that received alpha-lipoic acid, they increased by over 400% in the control group.

"The potential is good that this could become another way to lower blood triglycerides and help reduce the risk of atherosclerosis," Dr. Moreau remarked. "It's pretty exciting."

—Dayna Dye

*Arch Biochem Biophys. 2009 Feb 20*

**DHA Reduces Tumor Growth**

In an article published in *Cell Division*, Egyptian researchers report that the omega-3 fatty acid docosahexaenoic acid (DHA) not only offers its own protection against tumor growth, but improves the chemotherapeutic effects of cisplatin while reducing its toxicity.

Professor A. M. El-Mowafy of Mansoura University and associates administered 125 mg/kg of DHA, 250 mg/kg of DHA, cisplatin alone, cisplatin combined with DHA, or a control substance to groups of mice implanted with mammary carcinoma cells. "DHA elicited prominent chemopreventive effects on its own, and appreciably augmented those of cisplatin as well," Prof. El-Mowafy observed.

In another experiment with rats treated with cisplatin, the addition of 250 mg/kg DHA prevented lethal kidney toxicity in 88% of the animals that received it, while none of the rats that received cisplatin alone survived.

"This study is the first to reveal that DHA can obliterate lethal cisplatin-induced nephrotoxicity and renal tissue injury," Prof. El-Mowafy remarked.

—Dayna Dye


**Green Tea Helps Prevent Periodontal Disease**

Daily intake of green tea helps reduce the risk of periodontal (gum) disease, according to a study conducted in middle-aged Japanese men.

Participants were 940 men aged 49 to 59 years. The men underwent periodontal examinations to determine gum probing depth, attachment loss, and bleeding, and they completed questionnaires about toothbrushing habits and green tea intake. Higher intake of green tea reduced the risk of periodontal disease, such that each increase of one cup per day was associated with a significant decrease in gum probing depth, attachment loss, and bleeding, regardless of smoking status or frequency of toothbrushing.

Previous research indicates that green tea catechins inhibit periodontal bacterial growth and/or exert an antioxidant effect that inhibits inflammation, although more study is needed.

—Laura J. Ninger, ELS
