

Pistachios May Reduce Risk of Lung Cancer

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11 Dec 2009 --- A diet that incorporates a daily dose of pistachios may help reduce the risk of lung and other cancers, according to data presented at the American Association for Cancer Research Frontiers in Cancer Prevention Research Conference, held Dec. 6-9.

"It is known that vitamin E provides a degree of protection against certain forms of cancer. Higher intakes of gamma-tocopherol, which is a form of vitamin E, may reduce the risk of lung cancer," said Ladia M. Hernandez, M.S., R.D., L.D., senior research dietitian in the Department of Epidemiology at the University of Texas M. D. Anderson Cancer Center, and doctoral candidate at Texas Woman's University -- Houston Center.

"Pistachios are a good source of gamma-tocopherol. Eating them increases intake of gamma-tocopherol so pistachios may help to decrease lung cancer risk," she said.

Pistachios are known to provide a heart-healthy benefit by producing a cholesterol-lowering effect and providing the antioxidants that are typically found in food products of plant origin. Hernandez and colleagues conducted a six-week, controlled clinical trial to evaluate if the consumption of pistachios would increase dietary intake and serum levels of gamma-tocopherol. A pistachio-rich diet could potentially help reduce the risk of other cancers from developing as well, according to Hernandez.

"Because epidemiologic studies suggest gamma-tocopherol is protective against prostate cancer, pistachio intake may help," she said. "Other food sources that are a rich source of gamma-tocopherol include nuts such as peanuts, pecans, walnuts, soybean and corn oils."

The study, conducted at Texas Woman's University -- Houston Center, included 36 healthy participants who were randomized into either a control group or the intervention group consisting of a pistachio diet. There were 18 participants in the control group and 18 in the intervention group. There was a two-week baseline period, followed by a four-week intervention period in which the intervention group was provided with 68 grams (about 2 ounces or 117 kernels) of pistachios per day; the control group continued with their normal diet.

The effect on the intake and serum cholesterol-adjusted gamma-tocopherol was investigated. Intake was calculated using the Nutrition Data System for Research Version 2007, and consumption was monitored using diet diaries and by measuring the weights of the returned pistachios.

Hernandez and colleagues found a significant increase in energy-adjusted dietary intake of gamma-tocopherol at weeks three and four in those on the pistachio diet compared with those on the control diet. The similar effect was seen at weeks five and six among those on the pistachio diet compared with those on the control diet. For those on the pistachio diet, cholesterol-adjusted serum gamma-tocopherol was significantly higher at the end of the intervention period compared to baseline.

"Pistachios are one of those 'good-for-you' nuts, and 2 ounces per day could be incorporated into dietary strategies designed to reduce the risk of lung cancer without significant changes in body mass index," said Hernandez.