

The Western Pistachio Association funds some of the most promising health and nutrition research in the country surrounding the health benefits of incorporating pistachios into America's daily diets. These studies suggest that pistachios, as well as other mixed nuts, have numerous health benefits including lowering risk of heart disease, creating a lower than expected blood sugar level, decreasing risk of diabetes, supporting weight management and being a source of health-boosting antioxidants.

RESEARCH FACT SHEET

PISTACHIOS AND HEART DISEASE

Pistachios are one of the nuts included in the nut qualified health claim approved by the FDA in July 2003 that stated:

“Scientific evidence suggests but does not prove that eating 1.5 ounces per day of most nuts, such as pistachios, as part of a diet low in saturated fat and cholesterol may lower the risk of heart disease.”

Four clinical trials have looked at the effects of eating pistachios on many risk factors for cardiovascular disease including blood lipids, blood pressure, inflammation and oxidative stress. These studies found eating pistachios daily (1 to 3 ounces or as 10%- 20% of calories) reduced total cholesterol, LDL cholesterol, non-HDL cholesterol, blood pressure and/or oxidized LDL in healthy people and those with moderately high total cholesterol.

Gebauer SK, West SG, Kay CD, Alaupovic P, Bagshaw D, Kris-Etherton PM. Effects of pistachios on cardiovascular disease risk factors and potential mechanisms of action: a dose-response study. Amer J Clin Nutr. 2008;88:651-9.

Kocyigit A, Koylu AA, Keles H. Effects of pistachio nuts consumption on plasma lipid profile and oxidative status in healthy volunteers. Nutrition, Metabolism & Cardiovascular Diseases. 2006;16:202-9.

Sheridan MJ, Cooper JN, Erario M, Cheifetz CE. Pistachio nut consumption and serum lipid levels. J Am Coll Nutr. 2007;26(2):141-8.

Edwards K, Kwaw I, Matud J, Kurtz I. Effect of pistachio nuts on serum lipid levels in patients with moderate hypercholesterolemia. J of Amer Coll Nutr. 1999;18:229-32.

Kris-Etherton, PM, Hu FB, Ros E, Sabaté J. The role of tree nuts and peanuts in the prevention of coronary heart disease: multiple potential mechanisms. J Nutr. 2008;138: 1746S-1751.

NUTS AND WEIGHT MANAGEMENT

Results from recent studies suggest that U.S. adults who consume nuts versus those who do not may have a lower body weight and a lower risk of obesity.

Fulgoni III VL, O'Neil CE, Keast DR, Nicklas TA. Nutritional contribution and health impact of tree nut consumption in US adults (19+ years): NHANES 1999-2004. ADA FNCE, Denver, CO. October 18, 2009.

Bes-Rastrollo M, Wedick NM, Martinez-Gonzalez MA, Li TY, Sampson L, Hu FBH. Prospective study of nut consumption, long-term weight change, and obesity risk in women. Am J Clin Nutr. 2009;89:1-7.

PISTACHIOS AND BLOOD GLUCOSE

Since the 2003 FDA-approved health claim, there has also been a dramatic increase in the number of studies showing not only the positive role of nuts in reducing the risk of cardiovascular disease, but also the potential benefits of nut consumption on blood glucose, diabetes and a healthy body weight.

- Two short-term studies examined the effects of pistachio consumption on postprandial glucose. Pistachios when fed alone at 1, 2 or 3 ounces have little effect on blood sugar levels.
- Pistachios when fed with a carbohydrate rich meal lowered the blood glucose response in a dose-dependent manner, e.g., the higher the dose of pistachios, the more the blood sugar level was lowered.
- Pistachios added to different common carbohydrate foods, such as mashed potatoes and white bread, significantly reduced the relative blood sugar response of the carbohydrate meals with which they were eaten.

Josse AR, Kendall CW, Jenkins DJA. Glycemic response of pistachios - a dose response study. FASEB J. 2007; 21:832.1.

Kendall CWC, Josse AR, Jenkins DJA. Effect of pistachios consumed with different common carbohydrate foods on postprandial glycemia. FASEB J. 2007; 21:832.2.

Recently, two additional Mixed Nut studies have been conducted on individuals with diabetes.

- The preliminary results from the randomized clinical trial showed a significant reduction in HbA_{1c}, a long-term marker of blood sugar control, and a significant reduction in LDL cholesterol.
- The results of the epidemiologic cohort study suggested that frequent nut and peanut butter consumption (5 times/wk) is associated with a significantly lower CVD risk in women with type 2 diabetes.

Kendall CWC, Jenkins DJA, Josse RG, Vidgen E, Mitchell S, Banach M, Parker T. Dose response effect of mixed nut intake on blood lipids and glycemic control in type 2 diabetes. International Diabetes Federation Meeting, Montreal, Canada, October 2009.

Li TY, Brennan AM, Wedick NM, Mantzoros C, Rifai N, Hu FB. Regular consumption of nuts is associated with a lower risk of cardiovascular disease in women with type 2 diabetes. J Nutr. 2009; 139:1333-8. Epub 2009 May 6.

NUTS AND ANTIOXIDANTS

The green color in pistachios comes from a compound called lutein. In a recent analysis from USDA, the pistachio nut is placed in the highest group of nuts for antioxidants.

Wu X, Beecher GR, Holden JM, Haytowitz JM, Gebhardt Se, Prior RL. Lipophilic and hydrophilic antioxidant capacities of common foods in the United States. J Agric Food Chem. 2004.52:4026-4037.