

Effects of Daily Almond Consumption on Cardiometabolic Risk and Abdominal Adiposity in Healthy Adults With Elevated LDL-Cholesterol: A Randomized Controlled Trial.

Berryman, CE 2015

Journal Of The American Heart Association

DOI: 10.1161/JAHA.114.000993.

Abstract:

Background: Evidence consistently shows that almond consumption beneficially affects lipids and lipoproteins. Almonds, however, have not been evaluated in a controlled-feeding setting using a diet design with only a single, calorie-matched food substitution to assess their specific effects on cardiometabolic risk factors. Methods and Results: In a randomized, 2-period (6 week/period), crossover, controlled-feeding study of 48 individuals with elevated LDL-C (149 \pm 3 mg/dL), a cholesterol-lowering diet with almonds (1.5 oz. of almonds/day) was compared to an identical diet with an isocaloric muffin substitution (no almonds/day). Differences in the nutrient profiles of the control (58% CHO, 15% PRO, 26% total fat) and almond (51% CHO, 16% PRO, 32% total fat) diets were due to nutrients inherent to each snack; diets did not differ in saturated fat or cholesterol. The almond diet, compared with the control diet, decreased non-HDL-C (\square 6.9 \pm 2.4 mg/dL; P=0.01) and LDL-C (\square 5.3 \pm 1.9 mg/dL; P=0.01); furthermore, the control diet decreased HDL-C (\square 1.7 \pm 0.6 mg/dL; P<0.01). Almond consumption also reduced abdominal fat (\square 0.07 \pm 0.03 kg; P=0.02) and leg fat (\square 0.12 \pm 0.05 kg; P=0.02), despite no differences in total body weight. Conclusions: Almonds reduced non-HDL-C, LDL-C, and central adiposity, important risk factors for cardiometabolic dysfunction, while maintaining HDL-C concentrations. Therefore, daily consumption of almonds (1.5 oz.), substituted for a high-carbohydrate snack, may be a simple dietary strategy to prevent the onset of cardiometabolic diseases in healthy individuals.

Available Via Open Access

<http://jaha.ahajournals.org/content/4/1/e000993.full.pdf+html?maxtoshow=&HITS=10&hits=1&RESULTFORMAT=&andorexacttitle=and&andorexactitleabs=and&fulltext=Almond+Board+of+California&andorexactfulltext=and&searchid=1&usestrictdates=yes&resourcetype=HWCIT&ct>