

Almond-rich diets simultaneously improve plasma lipoproteins and alpha tocopherol levels in men and women.

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Recent epidemiological studies have reported substantial cardiovascular risk reduction with frequent intake of nuts. We assessed the effect of almonds on plasma lipoproteins and alpha tocopherol levels in 25 normocholesterolemic subjects (11 women, 14 men) in a crossover, metabolic feeding study. After a 2-week adaptation period, subjects were fed in random order a low-almond diet (10% energy from almonds), a high-almond diet (20% energy from almonds) and a diet free of nuts as control, each for 4 weeks. Dietary alpha tocopherol content of diets were: control (0.908 mg/100g); low (0.965 mg/100g); and, high (1.57 mg/100g). In comparison to the control diet, the high-almond diet significantly decreased mean total plasma cholesterol by 9.2 mg/dl (-4.4% change), LDL-cholesterol by 10.2 mg/dl (-7.0%), and apoB by 6.6 mg/dl (-6.6%). HDL-cholesterol increased significantly by 1 mg/dl (2.0%), plasma alpha tocopherol by 1.6 μ g/ml (14%) and the LDL/HDL ratio decreased by 9% on the high-almond diet. During the low-almond diet, values for total- and LDL-cholesterol and apoB were lower than during the control diet with a significant downward trend. Results were similar for men and women. Plasma alpha tocopherol to cholesterol ratio and alpha tocopherol to total blood lipid ratio increased significantly in both low and high almond diets. Thus, the incorporation of almonds in the diet simultaneously improves plasma serum lipid levels and antioxidant status.