Cashew Consumption Reduces Total and LDL Cholesterol: A Randomized, Crossover, Controlled-Feeding Trial

**Background:** Cashews are the third most-consumed tree nut in the United States and are abundant with monounsaturated fatty acids and polyunsaturated fatty acids, which are associated with reduced cardiovascular disease risk. Although a qualified Food and Drug Administration health claim exists for nuts and heart health, cashews have been exempt from its use because cashews exceed the disqualifying amount of saturated fatty acids. Approximately one-third of the saturated fat in cashews is stearic acid, which is relatively neutral on blood lipids, thereby suggesting that cashews could have effects that are similar to those of other nuts. However, clinical data on cashews and blood lipids have been limited.

**Objective:** We investigated the effect of reasonable intakes of cashews on serum lipids in adults with or at risk of high LDL cholesterol.

**Design:** In a randomized, crossover, isocaloric, controlled-feeding study, 51 men and women (aged 21-73 y) with a median LDL-cholesterol concentration of 159 mg/dL (95% CI: 146, 165 mg/dL) at screening consumed typical American diets with cashews (28-64 g/d; 50% of kilocalories from carbohydrate, 18% of kilocalories from protein, and 32% of kilocalories from total fat) or potato chips (control; 54% of kilocalories from carbohydrate, 18% of kilocalories from protein, and 29% of kilocalories from total fat) for 28 d with a ≥2-wk washout period.

**Results:** Consumption of the cashew diet resulted in a significantly greater median change from baseline (compared with the control, all P < 0.05) in total cholesterol [-3.9% (95% CI: -9.3%, 1.7%) compared with 0.8% (95% CI: -1.5%, 4.5%), respectively], LDL cholesterol [-4.8% (95% CI: -12.6%, 3.1%) compared with 1.2% (95% CI: -2.3%, 7.8%), respectively], non-HDL cholesterol [-5.3% (95% CI: -8.6%, 2.1%) compared with 1.7% (95% CI: -0.9%, 5.6%), respectively], and the total-cholesterol:HDL-cholesterol ratio [-0.0% (95% CI: -4.3%, 4.8%) compared with 3.4% (95% CI: 0.6%, 5.2%), respectively]. There were no significant differences between diets for HDL cholesterol and triglyceride.

**Conclusions:** In comparison with a control diet, the incorporation of cashews into typical American diets decreases total cholesterol and LDL cholesterol. Results from this study provide support that the daily consumption of cashews, when substituted for a high-carbohydrate snack, may be a simple dietary strategy to help manage total cholesterol and LDL cholesterol. This study was registered at clinicaltrials.gov as NCT02769741.

**Keywords:** cardiovascular; cashew; cholesterol; clinical trial; hypercholesterolemia.