

## **THE LONG-TERM EFFECTS OF WALNUT CONSUMPTION ON THE BLOOD LIPID COMPONENTS.**

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**AIM:** Tightly controlled feeding studies have consistently shown that walnut-rich diets have cholesterol lowering effect. The aim of this study is to determine if such effects exist in long-term walnut consumption by free –living subjects on self-selected diets.

**METHODOLOGY AND RESULTS:** Ninety adults participated in a 12-month randomized cross-over intervention study, which consisted of two phases, treatment and control. They were randomly assigned to either of these two phases for the first six months and then switched to the next phase for the second six months. During the treatment phase, participants volunteered to incorporate walnuts (28-56 g/d) equal to 12% of daily energy intake into their habitual diet. During the control phase, they just followed their habitual diet. No other dietary advice was given to either group. The effect of time sequence was observed in interpreting the results. 5.8% decrease in total cholesterol (P=0.01), 4.4% decrease in LDL cholesterol (P=0.32), and 6.6% decrease in total cholesterol to HDL cholesterol ratio (P=0.04) were found in the sequence of control to treatment group. However, no change was detected in the sequence of treatment to control group.

**CONCLUSIONS:** While incorporating moderate quantities of walnuts into the average American diet decreases serum total cholesterol concentrations and favorably modifies the lipoprotein profile, removing them from participants' diet did not show any favorable change.