

EFFECT OF PECAN RICH DIET ON SERUM LIPIDS AND LIPOPROTEINS IN HEALTHY MEN AND WOMEN. S. Rajaram, T. Myint, B. Connell, K. Burke, J. Sabate.
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Frequent consumption of nuts have been associated with decreased risk of CHD. In this study we investigated the effects of MUFA-rich pecans on serum lipids and lipoproteins on healthy men and women in a randomized, controlled study. Following a two week run-in period on a typical American diet, NCEP Step 1 diet and Pecan diet (isocaloric replacement of 20% energy on Step 1 diet with pecans) were fed to 23 subjects (14 men, 9 women) for 4 weeks each in a cross-over design. The total calories from fat in the Step 1 and Pecan diets were 30% and 42% with S:M:P ratio of 8:15:7 and 8:24:10 respectively. Serum lipids, lipoproteins and apoproteins were analyzed on all subjects at the end of the initial run-in period (total cholesterol 195±32 mg/dl) and each of the diet periods.

Results*	Control diet	Pecan diet	Difference	% Change
Triglyceride	115±68	102±61	-12.7	-11.1
Total cholesterol	185±29	173±27	-12.4	-6.7
HDL	44±9	47±10	2.5	5.6
LDL	118±22	106±20	-12.3	-10.4
Apo-A1	130±20	133±21	2.9	2.2
Apo-B	85±21	75±19	-9.9	-11.6
Lp(a)	25±22	21±18	-3.7	-15.1

* mg/dl, Mean ± SD, = p<0.05, = p<0.001

Pecan diet significantly decreased serum cholesterol, LDL-C, triglycerides, apo B and Lp (a) levels and increased HDL-C and apo A1 levels compared to the Step 1 diet. These findings were similar in both men and women. Pecans can be incorporated into cholesterol lowering diets to bring about favorable changes in lipid profile. Funded by National Pecan Shellers Association.