The effect of daily consumption of coconut fat and soya-bean fat on plasma lipids and lipoproteins of young normolipidaemic men.

Mendis S, Kumarasunderam R.

Abstract

The present paper reports the influence on plasma lipids of isoenergetic diets containing 30% of energy as fat, with a polyunsaturated: saturated fat ratio of 4.00 or 0.25, consumed for 8 weeks by twenty-five young normolipidaemic males. Approximately 70% of the fat energy was provided by the test fats: soya-bean fat and coconut fat. During the soya-bean-fat-eating period the total plasma cholesterol level fell significantly compared with baseline values (P less than 0.001) and during the coconut-fat-eating phase total plasma cholesterol level increased significantly compared with the soya-bean-eating period (P less than 0.001). On the soya-bean-fat diet, high-density-lipoprotein (HDL)-cholesterol decreased by 15% (range 6-35%) and plasma triacylglycerols decreased by 25% (range 13-37%). Results of the present study show that even when the proportion of total fat in the diet is low, a high intake of linoleic acid lowers both total plasma cholesterol and HDL-cholesterol, while a high intake of saturated fat elevates both these lipid fractions. Application of regression formulas to the present findings indicates that short-chain saturated fatty acids have a neutral effect on serum cholesterol.

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