

MILK ENRICHED WITH PHYTOSTEROLS REDUCES CHOLESTEROL LEVELS IN ADULTS

Enriching foods, such as margarine, with plant sterols and stanols enhances the cholesterol-lowering ability of food products. Although the mechanism of action is not yet clear, phytosterols may reduce blood cholesterol levels by competing with cholesterol for absorption, thus limiting the amount that is absorbed. This randomized trial, conducted in Portugal, investigated the effect of phytosterols added to milk on plasma concentrations of total, HDL- and LDL-cholesterol both in healthy adults (defined as LDL cholesterol less than 125 mg/dL) and in those with high blood cholesterol (defined as LDL cholesterol greater than 130 mg/dL). A group of 22 healthy men and women (27-50 years) and a group of 19 men and women (40-72 years) with high blood cholesterol were fed milk enriched with phytosterols (2 g/day) for 30 days. A control group of 15 adults with high blood cholesterol were given milk without phytosterols. Those with high blood cholesterol continued taking their cholesterol-lowering medication. After consuming milk enriched with phytosterols for 15 days, the healthy subjects experienced a decrease in total cholesterol from baseline of 8.3% and an 11% decrease in LDL-cholesterol. At 30 days there were no additional changes. In the high cholesterol treatment group, consuming milk enriched with phytosterols for 15 days reduced total cholesterol from baseline by 9.6% and at 30 days by 6.7%. LDL-cholesterol was reduced by 12.2% after 15 days and by 8.7% after 30 days of treatment. The control group had no changes in blood cholesterol throughout the study. The authors say, "The main result of the current study is that a phytosterol-enriched milk reduced plasma levels of total cholesterol and LDL-cholesterol in healthy and hypercholesterolemic subjects." An evaluation of biochemical and blood clotting factors indicated that the "combination of a drug therapy and phytosterol-enriched milk was safe in people with elevated cholesterol levels." [Goncalves S, et al., *Nutr Res*, 27: 200-205, 2007]