

Increased dietary cholesterol

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Increased dietary cholesterol does not increase plasma low density lipoprotein when accompanied by an energy-restricted diet and weight loss

Griffin Dr. BA, Harman NL, Leeds AR (2008) [Increased dietary cholesterol does not increase plasma low density lipoprotein when accompanied by an energy-restricted diet and weight loss.](#) European Journal of Nutrition, 47(7):408

Background

Diets enriched with dietary cholesterol, frequently from eggs, have been shown to produce a small but variable increase in plasma low density lipoprotein (LDL) cholesterol. There is evidence to suggest that energy-restricted diets, that may contain a relatively high proportion of fat and cholesterol, can attenuate the cholesterol-raising effect of dietary cholesterol on plasma LDL.

Aim of the study

To determine the combined effects of increased dietary cholesterol and weight loss produced by energy, restriction on plasma LDL cholesterol and lipoproteins.

Methods

A randomized, controlled, parallel study was performed in two groups of free-living volunteers on an energy-restricted diet for 12 weeks, one group was instructed to consume two eggs a day (n = 24), the other, to exclude eggs (n = 21). Dietary advice on energy restriction was based on the British Heart Foundation guidelines on how to lose weight for men and women. Results Energy intake fell by 25 and 29% in the egg-fed and non-egg-fed groups, resulting in a moderate weight loss of 3.4 kg (P < 0.05) and 4.4 kg (P < 0.05), respectively. The daily intake of dietary cholesterol increased significantly in the egg-fed group from 278 to 582 mg after 6 weeks. The concentration of plasma LDL cholesterol decreased in the non-egg-fed groups after 6 weeks (P < 0.01) and in the egg-fed and non-eggfed at 12 weeks relative to baseline. There were no other significant changes in plasma lipoproteins or LDL particle size.

Conclusions

An increased intake of dietary cholesterol from two eggs a day, does not increase total plasma or LDL cholesterol when accompanied by moderate weight loss. These findings suggest that cholesterol-rich foods should not be excluded from dietary advice to lose weight on account of an unfavorable influence on plasma LDL cholesterol.

Increased dietary cholesterol does not increase plasma low density lipoprotein when accompanied by an energy-restricted diet and weight loss, European Journal of Nutrition, August 2008. British Egg Industry Council website.

Link to full article <http://www.nutritionandeggs.co.uk/research/increased-dietary-cholesterol>