

Dietary cholesterol, eggs and coronary heart

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Dietary cholesterol, eggs and coronary heart disease risk in perspective

Lee and B. Griffin (2006) [Dietary cholesterol, eggs and coronary heart disease risk in perspective](#). Nutrition Bulletin, 31:1, 21–27.

The idea that dietary cholesterol increases risk of coronary heart disease (CHD) by turning into blood cholesterol is compelling in much the same way that fish oil improves arthritis by lubricating our joints! Dietary cholesterol, chiefly in the form of eggs, has long been outlawed as a causative agent in CHD through its association with serum cholesterol.

However, the scientific evidence to support a role for dietary cholesterol in CHD is relatively insubstantial in comparison with the incontrovertible link between its circulating blood relative in low density lipoprotein (LDL) cholesterol and CHD.

Interpretation of the relationship between dietary cholesterol and CHD has been repeatedly confounded by an often inseparable relationship between dietary cholesterol and saturated fat. It has also been exaggerated by the feeding of unphysiologically high intakes of eggs.

Nonetheless, numerous studies have shown that dietary cholesterol can increase serum LDL-cholesterol, but the size of this effect is highly variable between individuals and, according to over 30 years of prospective epidemiology, has no clinically significant impact on CHD risk. Variation in response to dietary cholesterol is a real phenomenon and we can now identify nutrient-gene interactions that give rise to this variation through differences in cholesterol homeostasis.

More importantly, to view eggs solely in terms of the effects of their dietary cholesterol on serum cholesterol is to ignore the potential benefits of egg consumption on coronary risk factors, including obesity, diabetes and metabolic syndrome. Cardiovascular risk in these conditions is largely independent of LDL-cholesterol.

These conditions are also relatively unresponsive to any LDL-cholesterol raising effects of dietary cholesterol. Treatment is focused primarily on weight loss, and it is in this respect that eggs may have a new and emerging role in facilitating weight loss through increased satiety.

Dietary cholesterol, eggs and coronary heart disease risk in perspective, Nutrition Bulletin, March 2006. British Egg Industry Council website.

Link to full article <http://www.nutritionandeggs.co.uk/research/dietary-cholesterol-eggs-and-coronary-heart>