

Dietary polyunsaturated fatty acids linked to smaller risk of coronary heart disease

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A recent study completed at the University of Eastern Finland shows that dietary polyunsaturated fatty acids may reduce the risk of coronary heart disease. The sources of polyunsaturated fatty acids include fish, vegetable oils, and nuts. The findings were published in *Arteriosclerosis, Thrombosis & Vascular Biology*, an esteemed journal of the American Heart Association.

Recent studies have not found an association between the consumption of saturated fats and the risk of cardiovascular diseases. It seems that the mere reduction of saturated fats from the diet does not reduce the risk of cardiovascular diseases. In fact, what is added to the plate in place of saturated fat seems to be more important. Earlier research has found that the risk of cardiovascular diseases reduces when saturated fats are replaced with polyunsaturated fats. However, this has not been observed when replacing saturated fats with carbohydrates. For example, the new Nordic Nutrition Recommendations that were published in early 2014 now recommend that saturated fats should be replaced with polyunsaturated fats.

The dietary habits of 1,981 men aged between 42 and 60 were assessed at the baseline of the Kuopio Ischaemic Heart Disease Risk Factor Study (KIHD) at the University of Eastern Finland in 1984–1989. During a follow-up of 21.4 years, 565 men were diagnosed with a [coronary heart disease](#). Out of these, 183 were cardiac events resulting in the death of the patient.

The study used computational replacement models to study how the replacement of fatty acids with other types of fatty acids or carbohydrates affects the risk of coronary heart disease. These models showed that the consumption of [polyunsaturated fatty acids](#) was especially linked to reduced risk of dying of heart disease, no matter whether they replaced saturated fats, trans fats, or carbohydrates in the diet. However, replacing

saturated fats with carbohydrates did not affect the risk of heart disease. Furthermore, the quality of carbohydrates, measured by the glycemic index, was irrelevant in these replacement models. A surprising observation was that the consumption of monounsaturated fatty acids was linked to a higher risk.

Similar links as those of cardiovascular disease mortality were observed also when studying the relationship of different fatty acids with carotid atherosclerosis.

The study gives new insight into how different fatty acids affect the risk of coronary heart disease, as the amount of [saturated fat](#) in the diets of the participants in the present study, i.e. men living in eastern Finland, was higher than in most other study populations. Furthermore, only a few of the similar studies have taken the quality of carbohydrates into consideration. The present study shows, in line with earlier research, that the risk of cardiovascular diseases can be reduced by replacing saturated fats with [polyunsaturated fats](#).

More information: "Dietary Fatty Acids and Risk of Coronary Heart Disease in Men: the Kuopio Ischaemic Heart Disease Risk Factor Study." Jyrki K. Virtanen, Jaakko Mursu, Tomi-Pekka Tuomainen, Sari Voutilainen. *Arteriosclerosis, Thrombosis & Vascular Biology*. Published online 25 September 2014. atvb.ahajournals.org/content/.../114.304082.abstract

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