

Replacing saturated fat with polyunsaturated fatty acids is good for the heart

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A study in this week's *PLoS Medicine* shows that the replacement of dietary saturated fatty acids with polyunsaturated fatty acids reduces coronary heart disease events, bringing much needed scientific evidence to an issue debated by experts and clinical guidelines.

Dariusz Mozaffarian and colleagues from Harvard Medical School and Harvard School of Public Health conducted a systematic review and meta-analysis of randomized controlled trials studying the effects on [coronary heart disease](#) of increasing polyunsaturated fat in place of [saturated fat](#).

They reviewed 8 trials involving over 13,000 participants and found that among those substituting SFA for PUFA (the intervention group), there was a 19% reduced risk of CHD risk compared to participants in the control groups. The consumption of PUFA accounted for 15% of total energy intake in the intervention groups on average but only 5% of total energy intake in the control groups. As such, the researchers report that each 5% increase in the proportion of energy obtained from PUFA reduced the CHD risk by 10%.

Furthermore, they found that the benefits associated with PUFA consumption increased with greater duration of the trials.

While reducing consumption of saturated fat (contained in meat, cheese, and butter, for example) is recommended as a way to prevent CHD, recent large meta-analyses of observational studies have suggested no

overall benefits of reducing SFA consumption on CHD events. Few clinical studies have investigated the effects on CHD events of replacing saturated fat in the diet with specific alternative energy sources like carbohydrate, protein, or other types of fat such as polyunsaturated fats, which include vegetable oils. In fact, some experts argue that eating PUFA actually increases CHD risk and some guidelines recommend PUFA consumption should be limited. As a result, there has been a strong need for more scientific study.

"Rather than trying to lower PUFA consumption," the authors say, "a shift toward greater population PUFA consumption in place of SFA could significantly reduce rates of CHD."

More information: Mozaffarian D, Micha R, Wallace S (2010) Effects on Coronary Heart Disease of Increasing Polyunsaturated Fat in Place of Saturated Fat: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. PLoS Med 7(3): e1000252.
[doi:10.1371/journal.pmed.1000252](https://doi.org/10.1371/journal.pmed.1000252)

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