

Reducing Dietary Saturated Fat will reduce the risk of cardiovascular events

Clinical Question	Does the reduction of dietary saturated fat by replacing it with carbohydrate (CHO), polyunsaturated (PUFA), monounsaturated fat (MUFA) and/or protein reduce the risk of death or cardiovascular disease (CVD) events?
Bottom Line	There was little or no effect of reducing saturated fat on all-cause mortality (RR 0.96; 95% CI 0.90 to 1.03) or cardiovascular mortality (RR 0.95; 95% CI 0.80 to 1.12). There was also little or no effect of reducing saturated fats on non-fatal myocardial infarction (RR 0.97, 95% CI 0.87 to 1.07) or CHD mortality (RR 0.97, 95% CI 0.82 to 1.16). But evidence showed that reducing dietary saturated fat reduced the risk of combined cardiovascular events by 21% (risk ratio (RR) 0.79; 95% confidence interval (CI) 0.66 to 0.93). The number needed to treat for an additional beneficial outcome (NNTB) was 56 in primary prevention trials, so 56 people need to reduce their saturated fat intake for ~four years for one person to avoid experiencing a cardiovascular disease (CVD) event. In secondary prevention trials, the NNTB was 32.
Caveat	The quality of evidence balances the uncertainty over allocation concealment, lack of blinding and presence of systematic differences in care and additional dietary differences between arms with the scale and consistency of the evidence across studies and across decades, despite very different designs and design flaws. For this reason, there is moderate-quality evidence that the interventions that reduce dietary saturated fat intake reduce the risk of cardiovascular events.
Context	Reducing saturated fat reduces serum cholesterol, but effects on other intermediate outcomes may be less clear. Additionally, it is unclear whether the energy from saturated fats eliminated from the diet are more helpfully replaced by polyunsaturated fats, monounsaturated fats, carbohydrate or protein.
Cochrane Systematic Review	Hooper L, Martin N, Jimoh OF, Kirk C, Foster E, Abdelhamid AS. Reduction in saturated fat intake for cardiovascular disease. Cochrane Database of Systematic Reviews 2020, Issue 5. Art. No.: CD011737. DOI: 10.1002/14651858.CD011737.pub2. This review contains 15 trials with a total of 15,509 participants.

Pearls No. 655, May 2020, written by Vanessa MB Jordan.

Systematic review link:

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD011737.pub2/full>