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The series coordinator for *AFP* is Kenneth W. Lin, MD, Department of Family Medicine, Georgetown University School of Medicine, Washington, DC.

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Dietary Fat Modification and the Risk of Future Cardiovascular Events and Mortality

QUYNH BUI, MD, MPH
*University of California—San Francisco
San Francisco, California*

Clinical Question

Would reducing or modifying dietary fat intake decrease the risk of future cardiovascular events or mortality?

Evidence-Based Answer

According to the authors of this Cochrane review, reducing or modifying a patient's dietary fat intake did not lower the rates of either total or cardiovascular-related mortality when compared with usual or control diets. Reducing the intake of total or saturated fats decreased the risk of cardiovascular events by 22 percent in those patients who were able to sustain the modified diet for at least two years. Replacing saturated fat with monounsaturated and polyunsaturated fats reduced the risk of cardiovascular events, whereas replacing saturated fat with a protein or a carbohydrate (i.e., a low-fat diet) did not. (Strength of Recommendation: B, based on inconsistent or limited-quality patient-oriented evidence.)

Practice Pointers

National nutrition guidelines have advised limiting saturated fat intake to maintain cardiovascular health.¹ However, prospective studies have produced mixed findings about whether reducing total or saturated fat intake, or replacing saturated fats with unsaturated fats, lowers rates of morbidity and mortality.²

This Cochrane review included 48 randomized controlled trials that had at least six months of follow-up. In each study, the intervention group received a dietary intervention (that is, dietary counseling with or without the provision of reduced-fat meals, polyunsaturated fat supplements,

or monounsaturated fat supplements), whereas patients in the control group continued their usual diets or received a control diet. These trials measured total and cardiovascular-related mortality, as well as combined cardiovascular events, such as nonfatal myocardial infarction, angina, stroke, heart failure, atrial fibrillation, peripheral vascular disease, and coronary bypass surgery or angioplasty.

In this review, the authors noted that adherence to a reduced- or modified-fat diet for at least six months resulted in a significant 14 percent decrease in the number of cardiovascular events. This risk reduction increased to 22 percent in those who followed the diet for two years or more. However, the benefits to cardiovascular risk associated with a reduced- or modified-fat diet were significant only in the analysis that included studies that involved either a more comprehensive dietary plan or care intervention. This suggests that altering dietary fat intake alone may be insufficient to bring about cardiovascular benefits.

Recent observational studies have suggested that saturated fat derived from dairy products may not be associated with cardiovascular risk in the same way that saturated fat derived from meat is.³ In one recent study, replacing saturated fat derived from meat with that derived from dairy products was associated with improved cardiovascular outcomes.⁴ Consequently, some authors believe that future dietary recommendations may need to promote types of foods rather than regulating the intake of particular nutrients.⁵

In practice, the most effective intervention should include not only advice and support for implementing a modified- and reduced-fat diet, but also supplementation with more healthful, unsaturated fats. Ultimately, dietary counseling will fall short of the goal of improved cardiovascular health if it is not combined with broader support for sustained, healthful lifestyle choices.

For example, the U.S. Preventive Services Task Force recommends that clinicians who choose to counsel their adult patients about a healthful diet promote physical activity as well.⁶

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SOURCE: Hooper L, Summerbell CD, Thompson R, et al. Reduced or modified dietary fat for preventing cardiovascular disease. *Cochrane Database Syst Rev*. 2012;5:CD002137.

The practice recommendations in this activity are available at <http://summaries.cochrane.org/CD002137>.

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