

# Dietary fat: at the heart of the matter.

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## SCIENCE'S COMPASS

and people who know, or think they know, what they should eat are likely to shade their reported intake toward what they consider desirable. Apparently, Americans have changed their diet little. Nevertheless, data from the Continuing Survey of Food Intake by Individuals by the U.S. Department of Agriculture indicate modest benefits by those who report eating lower fat diets and those who report consumption that approximates the Food

**"The article doesn't obscure the benefits; it simply questions whether they are sufficiently large for healthy individuals who eat reasonable diets...to be concerned."**

Guide Pyramid (4). The inadequacies of food intake data also compromise the conclusions of studies like the Nurses' Health Study and the Women's Health Initiative.

One expects research to modify dietary recommendations. In the last 25 years, we have learned more about the n-3 fatty acids, the glycemic index, and antioxidants, and there are additional data indicating the benefits of a high level of consumption of fruits and vegetables. The recent recommendations from the American Heart Association (5) include appropriate modifications. A reduction in saturated fat, however, remains at the core of an appropriate nutrition policy.

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**IN HIS ARTICLE, TAUBES FOCUSES ON** scientists who don't believe that dietary fat plays any important role for obesity and cardiovascular disease. The crucial evidence linking fat to obesity and coronary heart disease (CHD) is not discussed. The following are some examples.

The phenomenon that Americans have reduced dietary fat content slightly but are getting fatter is taken as evidence that it is easier to gain weight on low-fat, high-carbohydrate diets than on higher fat diets. What Taubes does not mention are the

meta-analyses of intervention studies comparing ad libitum intakes of higher fat diets with low-fat diets that clearly show reduced caloric intake and weight loss on the low-fat diets (1). In addition, it is well known that people underreport their energy and especially fat intake, which makes the observed fat intake reduction questionable. The obesity epidemic in the United States and other countries is predominantly due to an inactive life-style, which reduces the metabolic demand for fat as fuel.

In his discussion about the importance of dietary fat and CHD, Taubes focuses on the effect of fat on fasting blood lipids, but low-fat diets with plenty of fruit, vegetables, and fish predominantly exert their cardioprotective effect through other mediators such as blood pressure, thrombotic, fibrinolytic, and arrhythmic factors. Accordingly, an increase in dietary fat of 1% of energy intake is associated with an 8% increase in CHD (2). A Mediterranean, fat-reduced diet includes plenty of fruits, vegetables, and fish, and such a diet has been shown to reduce mortality by 45 to 60% in individuals with CHD (3).

The message in the article is misleading and counterproductive for public health policy to reduce dietary fat content and increase the consumption of fruit, vegetables, and fish, and to increase physical activity, advice based on robust scientific evidence.

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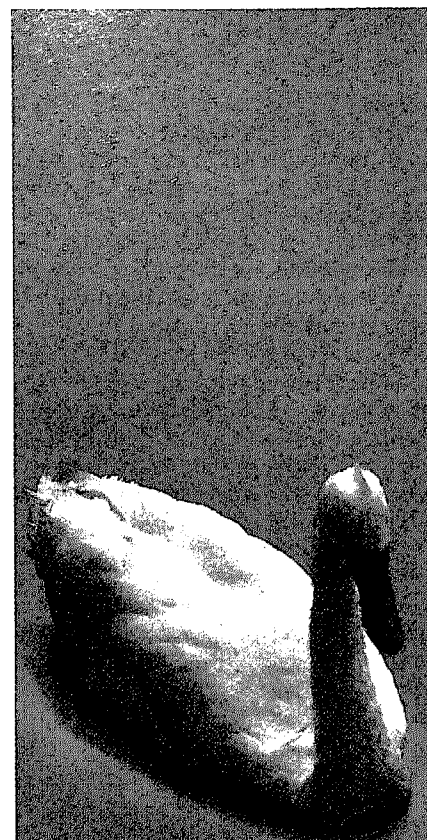
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## Response

**GRUNDY SAYS THAT MY ARTICLE OBSCURES** the potential for public health benefits of substituting unsaturated fatty acids for saturated fatty acids in the American diet. The article doesn't obscure the benefits; it simply questions whether they are sufficiently large for healthy individuals who



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