U.S. Dietary Guidelines

TO THE EDITOR: Nissen (1) is inaccurate in attributing any state of confusion in nutritional knowledge to Ancel Keys. His famous Seven Countries Study, following an ecological design, found a strong correlation (*r* = 0.84) between mean intake of saturated lipids (as a percentage of total energy intake) and coronary mortality in 16 regions. These results, with the inherent limitations of an ecological design, are in agreement with subsequent stronger evidence and with the U.S. DGAC in limiting saturated lipids (and their main sources, whole-fat dairy and red and processed meats) but not total lipids.

In the Seven Countries Study **<<AU: Correct that you mean the study and not the book?, YES, correct>>**, the percentage of energy from total lipids had a negligible association with coronary heart disease (2–3). Keys showed that total cholesterol levels were increased by saturated fatty acid intake but not by total fat intake, stating, “In almost all natural human diets the effect of fat on the serum cholesterol level seems to be dominated by palmitic acid which makes up the bulk of the saturated fatty acid which affects serum cholesterol” (4).

Keys was positively impressed by the dramatically low rates of heart disease in Crete and other Mediterranean areas despite a high intake of total fat (mainly from olive oil in the 1950s). The low content of saturated lipids could explain this low incidence of coronary heart disease. Keys consequently was also a pioneer in attributing this benefit to a “good Mediterranean diet,” and—in stark contrast to Nissen’s unsubstantiated affirmations—was anticipatory in observing “low all-causes death rates in populations whose diets were high in total fats with oleic acid dominating the picture” (3). This perceptive and insightful view was later confirmed by large prospective cohort studies with good control of potential confounding; long-term follow-up; and appropriate ascertainment of hard clinical events, including large cohort studies done in Mediterranean areas where a high total lipid intake is accompanied by olive oil consumed in great amounts. The hypotheses defended by Keys are also in agreement with the subsequent results of the Lyon Diet Heart study, a randomized clinical trial **<<AU: Is Lyon the only author of this trial? Our policy is to cite “and colleagues” if more than 3 authors were involved and the 2 author names if 2 authors were involved. Lyon is a city, not an author, and it is well known as the name of the trial; however, I’ve clarified it using the full name of the trial. Also, please include a citation for this reference and delete 1 current reference and renumber accordingly (unless both PREDIMED and the Lyons trial are referenced in citation 5?) Both PREDIMED and Lyon trial are referenced in citation 5, I think this is enough.>>** and the PREDIMED randomized trial (5). Therefore, there is consensus and consistency, not controversy, in guidelines that promote a reduction in saturated fat intake but do not establish an upper limit for total lipid intake if it comes from healthy natural vegetable sources, such as olive oil or tree nuts **<<AU: Deleted because you already mention vegetable sources.>>**. There is also consensus that the Mediterranean diet is an optimal dietary model for a healthy life.

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