



***The Big Fat Surprise: Why Butter, Meat and Cheese Belong in a Healthy Diet***, by Nina Teicholz, 2014, 497 pages, Kindle edition, \$12.99, Simon & Schuster, New York.

In 1977, Philip Handler, the then-President of the National Academy of Sciences, stated, in his testimony to the US Senate Select Committee on Nutrition and Human Needs, “What right has the federal government to propose that the American people conduct a vast nutritional experiment, with themselves as subjects, on the strength of so very little evidence that it will do them any good?” Handler underestimated the scope of the experiment that eventually affected most of the world’s population. How this nutritional experiment came about, its unproven ability to prevent heart disease, and the potential negative consequences of the long-term dietary changes are reviewed in meticulous detail in Nina Teicholz’s book *The Big Fat Surprise: Why Butter, Meat and Cheese Belong in a Healthy Diet*. With the >50 y of research and debate on the diet-heart issue, Teicholz compiled a historical treatise on how scientific belief (vs. evidence), nongovernment organizations, food manufacturers, government agencies, and moneyed interests promised more than they could deliver and, in the process, quite possibly contributed to the current world-wide obesity epidemic.

Teicholz reviews all of the literature (as opposed to only the literature supporting one view or the other) on the diet-heart disease hypothesis and shows that the evidence in support of the hypothesis is limited and overly reliant on epidemiologic associations as opposed to clinical trials in support of a cause-and-effect relation. She also reviews how the stated “scientific consensus” on the role of dietary fat and cholesterol in heart-disease risk was achieved by excluding the skeptics from influential policy committees and, eventually, from funding opportunities. Nonbelievers were considered to be too out of date and subsequently unable to carry out studies that might validate or negate their skepticism. Their questions and doubts were effectively negated by accusations of “industry funded spokespersons” and a lack of correct thinking. Teicholz details one of the most regrettable aspects of the recommended dietary changes when scientists, nongovernment organizations, and the food industry promoted the shift from expensive animal fats to inexpensive hydrogenated vegetable oils and their injurious content of *trans*-fatty acids. Similar to the “take out the fat and replace it with sugar” dietary shift, the transition to hydrogenated vegetable oil was a significant dietary conversion without any evidence of its benefit or safety.

Two leading antagonists in the diet-heart debate were EH “Pete” Ahrens Jr. and David Kritchevsky, who wrote many articles questioning the benefits of the low-fat, low-cholesterol diet. I had the privilege of being a member of the laboratory of Ahrens at Rockefeller University from 1974 to 1985 as well as serving on multiple committees with Kritchevsky who I considered a good friend. I can attest that the historical aspects of that time presented by Teicholz are accurate and realistically describe the conflicts between diet-heart-disease believers and nonbelievers.

This book should be read by every nutritional science professional as a guide to risks of hubris and the unquestioning belief in whatever the conventional wisdom of the day is and to the con-

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sequences of basing public policy on belief as opposed to evidence of positive, beneficial effects. All scientists should read it as an example of how limited science can become federal policy, which may, in the long run, be harmful when the basic tenets of science, skepticism, and consistent questioning are set aside to appease the powerful voices convinced that we must do something (even if we do not have the proof that that something is the right something).

For almost 40 y, Americans, and much of the world, have lived with the consequences of decisions made by a multilayered conglomerate of invested parties defining a healthier dietary pattern. In 1977, when the US Senate Select Committee on Nutrition and Human Needs, which was headed by Senator George McGovern, published the *Dietary Goals for the United States*, Americans and the world were told that they could eliminate many of their health problems if they would simply eat less or decrease the consumption of fat and cholesterol. And since 1980, these goals have been echoed in one form or other every 5 y until now. The recent American College of Cardiology/American Heart Association (AHA/ACC) Task Force on Practice Guidelines (1) Guideline on Lifestyle Management to Reduce Cardiovascular Risk and the Scientific Report of the 2015 Dietary Guidelines Advisory Committee (2) document the beginning of changes in some of these long-standing recommendations. As stated by the AHA/ACC, “Previously, the Dietary Guidelines for Americans recommended that cholesterol intake be limited to  $\leq 300$  mg/d. The 2015 DGAC will not bring forward this recommendation because available evidence shows no appreciable relationship between consumption of dietary cholesterol and serum cholesterol, consistent with the conclusions of the AHA/ACC report.” (2). On the basis of data presented by Teicholz in her well-researched and clearly written book, other changes in the dietary guidelines might be expected in the near future.

The author was the executive director of the Egg Nutrition Center (1995–2008), which is a health education and research facility funded by the US egg industry, and the director of Eggs for Health Consulting (2009–2015), which provides services on egg nutrition to international egg-promotion programs.

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