Statins can cause serious adverse effects, such as muscle or hepatic toxicity—or even worse, dementia. Once armed with the information that lowering serum cholesterol levels will cause harm, patients who continue statin therapy have a cardiovascular event (death, stroke, or myocardial infarction), compared with 13.9% of those who discontinued treatment. This 1.7% difference translates to a number needed to harm of 1 excess event for every 59 patients who stopped statin therapy.

All these studies, including the recent one by Zhang and colleagues, have important limitations. The studies are observational and retrospective, and generally use administrative data to assess the extent and effect of statin withdrawal. Most thoughtful observers consider the reliability of epidemiologic research to be relatively low unless the observed relative risk or odds ratio is less than 0.5 or greater than 2.0. Observational studies, no matter how large, invariably have unmeasured confounders that may significantly influence the findings and interpretation. Despite these limitations, the current article is reasonably convincing: Discontinuing statin treatment has serious negative consequences.

How did the problem of statin nonpersistence arise, and how do we combat this threat to public health? The widespread advocacy of unproven alternative cholesterol-lowering therapies traces its origins to the passage of the Dietary Supplement Health and Education Act of 1994 (DSHEA). Incredibly, this law places the responsibility for ensuring the truthfulness of dietary supplement advertising with the Federal Trade Commission, not the U.S. Food and Drug Administration. The bill’s principal sponsors were congressional representatives from states where many of the companies selling supplements are headquartered. Nearly 2 decades after the DSHEA was passed, the array of worthless or harmful dietary supplements on the market is staggering, amounting to more than $30 billion in yearly sales. Manufacturers of these products commonly imply benefits that have never been confirmed in formal clinical studies. An Internet search of the term...
dietary supplements to lower cholesterol yields 889 000 results advocating such products as garlic capsules, policosanol, lavender oil, green tea capsules, artichoke leaf extract, and many others.

Contributing to the confusion, a series of fad diets offer patients the promise of nearly miraculous reversal of heart disease by dietary means. An Internet search yields 1 220 000 results for the term diet to reverse heart disease. One of the top-listed results links to the Web site for the Dr. Oz television show and an article titled “Reverse Your Heart Disease in 28 Days” (10). No-where in the article are statins mentioned. Patients are easily seduced by these wonder diets. In many cases, the advocates aggressively promote their dietary approach as an alternative to statins, promising all of the benefits with none of the risks.

What can thoughtful physicians do to counter these dangerous cults? We must work together to educate the public and enlist media support, and we must take the time to explain to our patients that discontinuing statin treatment may be a life-threatening mistake. Passive acceptance of harmful pseudoscience is not an option.

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