Who Should Take Cholesterol-lowering Statins? Everyone or No One?

By John McDougall, MD
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Should cholesterol-lowering statins be added to our drinking water in order to prevent atherosclerosis, like fluoride is added to prevent tooth decay? Some medical doctors and scientists have recommended this public health measure because heart disease and strokes threaten the lives of more than half of all people following the Western diet. Apparently, even healthy people are now being told to take statins, with recommendations that over the age of 50, regardless of their health history, people should take these medications daily.

Statins Lower Cholesterol but Do Little for Better Health

In my practice over the past decade I have limited my prescriptions for cholesterol-lowering medications to people who are at high risk for future troubles. Unless there is a contraindication, I have recommended statins to patients with a history of heart surgery, heart disease, TIAs, or strokes, with a goal to take a dosage sufficient to lower their blood cholesterol levels to 150 mg/dL (4 mmol/L) or less. Furthermore, based on the recommendations of the highly respected Cochrane Collaboration and others, I have adviced that otherwise healthy people, even those with high cholesterol, not take cholesterol-lowering statins. Of course, I have strongly recommended that everyone eat a healthy diet.

Statins effectively lower blood cholesterol by inhibiting an enzyme (HMG-CoA reductase) involved in the production of cholesterol in the liver. The cholesterol numbers, revealed by simple blood tests, are dramatically reduced with this commonly prescribed treatment. Unfortunately, the reduction in blood cholesterol translates into only very small improvements in the health of the arteries, as seen by tiny (but statistically significant) reductions in heart disease. These weak benefits can be appreciated in very sick people who are at high risk for future health problems. This strategy is called *secondary prevention*. They have already had a serious problem.

However, the benefits from statins are very difficult to demonstrate in healthy people because their risk of future troubles is very low, and remember I wrote, the real-life benefits from statins are very small. This strategy is called *primary prevention*. Nothing serious has happened, yet. Intervention is being recommended in hopes of preventing a serious event in the future.

There is an ongoing controversy as to whether or not statins should be more widely prescribed. The doctors and scientists working for pharmaceutical companies think they should be. But, consider the influence of money on their findings and opinions. Annually, $37 billion is spent on cholesterol-lowering medications worldwide.

My Recommendations for Statins Are Changing*

The most recent review (January 2013) by the Cochrane Collaboration has concluded that there is, "…strong evidence to support their use in people at low risk of cardiovascular disease." This is a reversal from their previous conclusions, which recommended against such treatment for people without a history of heart disease (for primary prevention). As a result, I am changing the way I present information to people on the use of statins. For practical purposes, choosing whether or not to take these kinds of medication should be based on an understanding of the actual benefits and risks as assessed by various experts. Currently, the data is based on the study of people who eat the Western diet. I believe the benefits will be found to be far less in people who consume a starch-based McDougall-type diet.

A recent analysis, published in the medical journal, the *Lancet,* by John Abramson, MD, a guest speaker at two previous McDougall Advanced Study weekends, summarizes the effects of statin therapy: "Our analysis suggests that lipid-lowering statins should not be prescribed for true primary prevention in women of any age or for men older than 69 years. High-risk men aged 30–69 years should be advised that about 50 patients need to be treated for 5 years to prevent one event. In

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our experience, many men presented with this evidence do not choose to take a statin, especially when informed of the potential benefits of lifestyle modification on cardiovascular risk and overall health."

https://www.youtube.com/watch?v=F2GcHqE8wjs

John Abramson, MD, Author of Overdo$ed America
Recorded at the March 2013 McDougall Advanced Study Weekend

Cholesterol-lowering statin therapy is based on the observation that high cholesterol levels in a person's blood are associated with more heart attacks and stroke. **The organic substance cholesterol is found in large amounts in all animal foods. When people eat meat, poultry, fish, eggs, and dairy products their blood cholesterol levels rise.** The rationale is that lowering these levels with medication will fix the problem. As discussed above, the real-life benefits have been minimal. Not surprisingly, this failure has led researchers to look into other mechanisms to explain how eating animal products and other unhealthy foods cause artery damage.

Here is another practical way of looking at the benefits and risks of statin therapy.

Benefits for those who took statins for 5 years:

Primary prevention (without known heart disease):

98% saw no benefit
0% were helped by being saved from death
1.6% were helped by preventing a heart attack
0.4% were helped by preventing a stroke

Antibiotics May Be the Next Blockbuster Drugs to Treat Heart Disease

In April of 2013, an article in *Nature Medicine* and one in the *New England Journal of Medicine* found that a diet of meat, dairy products, and eggs caused damage to the arteries by increasing the production of trimethylamine-N-oxide (TMAO). Carnitine and choline, found in these animal foods in high concentrations, are metabolized by gut microbes (bacteria) into trimethylamine (TMA), which in turn is absorbed into the bloodstream and then metabolized by the liver into TMAO. This organic compound has been shown to cause artery damage in animal experiments and is strongly associated with heart disease in people.

Meat, dairy products, eggs, and other animal foods favor the growth of bacteria that readily convert carnitine and choline to TMA. Vegans and vegetarians grow few of these kinds of bacteria and as a result produce very little artery-damaging TMAO. This research may lead to medical treatments, including the use of probiotics (bacteria supplied in pills and fermented foods), medications to limit the synthesis of trimethylamine from carnitine and choline, and/or antibiotics to suppress specific TMA-producing bacteria in the intestine. In all three pharmacologic approaches the medications would need to be taken for a lifetime. Great profits will be generated as a result, just like with statins.

Who Should Take Statins? A Starch-based Diet Is the Non-profit Solution

Starches, vegetables, and fruits are essentially cholesterol-free and discourage the growth of intestinal bacteria that lead to the synthesis of artery-damaging TMAO; and these foods contain very little carnitine and choline (the precursors of TMAO). Unarguably,—whether blaming cholesterol, carnitine, choline, or bad-bowel-bacteria—diseases of atherosclerosis (heart attacks, strokes, kidney failure, etc.) are due to consuming meat, dairy products, and eggs. Therefore I recommend the McDougall Diet to prevent and treat heart and other artery diseases. In other words, fix the problem.

Lack of profit is the primary reason for lack of acceptance of this simple, safe approach. Consider that the most popular brand name statin, Crestor, purchased at a discount pharmacy like Costco or CVS, costs about $6 a day. Comparatively, a starch-based diet costs $3 a day for all of the food (2500 calories). The rivers of profits from a drug-over-diet approach extend to the food and medical industries. (Generic statins are much less expensive.)

Our research shows that the cholesterol-lowering benefits of the McDougall Diet are comparable to statins. We have analyzed the results of 1700 people who have been through the McDougall residential program in Santa Rosa. In seven days people starting with total cholesterol of 200 mg/dL or more experience a reduction of 34.2 mg/dL on average. If the starting number is 240 mg/dL or more, the average reduction is 42.1 mg/dL. (If LDL is initially 100 mg/dL or greater, the average reduction is 21.1 mg/dL; if 160 mg/dL or greater, the average reduction is 31.5 mg/dL.)

To answer the question, "Who Should Take Cholesterol-lowering Statins? Everyone or No One?" My response is slightly more complex than all or none. The decisions

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made primarily depend upon what a person chooses to eat. Eat meat, dairy products, eggs, and other unhealthy foods and you may benefit from taking statins (a little). Eat a starch-based McDougall Diet and any benefits from statins for an otherwise healthy person vanish, and all that is left are side effects and costs. However, as a medical doctor trained in traditional drug therapy, I want to take advantage of both worlds: diet and drugs. For most patients with serious existing disease, such as those with a history of heart surgery, heart disease, TIAs, or stroke, in addition to my diet I recommend sufficient cholesterol-lowering statin medications to lower their blood cholesterol to 150 mg/dL or less.

Commonly prescribed cholesterol-lowering statins:

atorvastatin (Lipitor and Torvast)
fluvastatin (Lescol)
lovastatin (Mevacor, Altocor, Altoprev)
pitavastatin (Livalo, Pitava)
pravastatin (Pravachol, Selektine, Lipostat)
rosuvastatin (Crestor)
simvastatin (Zocor, Lipex).

Understand also that these medications need to be taken indefinitely. The blood cholesterol goes back up when they are stopped—unless, of course, the patient changes his or her diet. High dosages do not reduce the risk of death more than standard dosages (such as pravastatin 40 mg daily). High dosages do reduce the risk of non-fatal heart attacks compared to standard dosages. High dosages increase the risk of death in women compared to standard dosages and have more side effects for both men and women. Therefore, whenever possible, a standard dosage or lower is preferred.

*I reserve my right to change my opinion on medications and surgeries because the foundations—the scientific research—for my recommendations are incomplete, inaccurate, and constantly changing. However, in case you are wondering, my advice on what you should eat (a starch-based diet) will not waiver because the scientific underpinnings are rock solid.

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