

The Dangers of Statin Drugs: What You Haven't Been Told About Cholesterol-Lowering Medication

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Hypercholesterolemia is the health issue of the 21st century. It is actually an invented disease, a "problem" that emerged when health professionals learned how to measure cholesterol levels in the blood. High cholesterol exhibits no outward signs--unlike other conditions of the blood, such as diabetes or anemia, diseases that manifest telltale symptoms like thirst or weakness--hypercholesterolemia requires the services of a physician to detect its presence. Many people who feel perfectly healthy suffer from high cholesterol--in fact, feeling good is actually a symptom of high cholesterol!

Doctors who treat this new disease must first convince their patients that they are sick and need to take one or more expensive drugs for the rest of their lives, drugs that require regular checkups and blood tests. But such doctors do not work in a vacuum--their efforts to convert healthy people into patients are bolstered by the full weight of the U.S. government, the media and the medical establishment, agencies that have worked in concert to disseminate the cholesterol dogma and convince the population that high cholesterol is the forerunner of heart disease and possibly other diseases as well.

Who suffers from hypercholesterolemia? Peruse the medical literature of 25 or 30 years ago and you'll get the following answer: any middle-aged man whose cholesterol is over 240 with other risk factors, such as smoking or overweight.

After the Cholesterol Consensus Conference in 1984, the parameters changed; anyone (male or female) with cholesterol

over 200 could receive the dreaded diagnosis and a prescription for pills. Recently that number has been moved down to 180. If you have had a heart attack, you get to take cholesterol-lowering medicines even if your cholesterol is already very low--after all, you have committed the sin of having a heart attack so your cholesterol must therefore be too high. The penance is a lifetime of cholesterol-lowering medications along with a boring low-fat diet. But why wait until you have a heart attack? Since we all labor under the stigma of original sin, we are all candidates for treatment. Current edicts stipulate cholesterol testing and treatment for young adults and even children.

The drugs that doctors use to treat the new disease are called statins--sold under a variety of names including:

- Lipitor (atorvastatin)
- Zocor (simvastatin)
- Mevacor (lovastatin)
- Pravachol (pravastatin)

How Statins Work

The process begins with acetyl-CoA, a two-carbon molecule sometimes referred to as the "building block of life." Three acetyl-CoA molecules combine to form six-carbon hydroxymethyl glutaric acid (HMG). The step from HMG to mevalonate requires an enzyme, HMG-CoA reductase. Statin drugs work by inhibiting this enzyme--hence the formal name of HMG-CoA reductase inhibitors. Herein lies the potential for numerous side effects, because statin drugs inhibit not just the production of cholesterol, but a whole family of intermediary substances, many if not all of which have important biochemical functions in their own right.

Consider the findings of pediatricians at the University of California, San Diego who published a description of a child with a

hereditary defect of mevalonic kinase, the enzyme that facilitates the next step beyond HMG-CoA reductase.¹ The child was mentally retarded, microcephalic (very small head), small for his age, profoundly anemic, acidotic and febrile. He also had cataracts. Predictably, his cholesterol was consistently low--70-79 mg/dl. He died at the age of 24 months. The child represents an extreme example of cholesterol inhibition, but his case illuminates the possible consequences of taking statins in strong doses or for a lengthy period of time:

- Depression of mental acuity
- Anemia
- Acidosis
- Frequent fevers
- Cataracts

Cholesterol is one of three end products in the mevalonate chain. The two others are ubiquinone and diolchol. Ubiquinone or Co-Enzyme Q10 is a critical cellular nutrient biosynthesized in the mitochondria. It plays a role in ATP production in the cells and functions as an electron carrier to cytochrome oxidase, our main respiratory enzyme. The heart requires high levels of Co-Q10. A form of Co-Q10 called ubiquinone is found in all cell membranes where it plays a role in maintaining membrane integrity so critical to nerve conduction and muscle integrity. Co-Q10 is also vital to the formation of elastin and collagen. Side effects of Co-Q10 deficiency include muscle wasting leading to weakness and severe back pain, heart failure (the heart is a muscle!), neuropathy and inflammation of the tendons and ligaments, often leading to rupture.

Dolichols also play a role of immense importance. In the cells they direct various proteins manufactured in response to DNA directives to their proper targets, ensuring that the cells respond correctly to genetically programmed instruction. Thus statin drugs can lead to unpredictable chaos on the cellular level, much like a computer virus that wipes out certain pathways or files.

Squalene, the immediate precursor to cholesterol, has anti-cancer effects, according to research.

The fact that some studies have shown that statins can prevent heart disease, at least in the short term, is most likely explained not by the inhibition of cholesterol production but because they block the creation of mevalonate. Reduced amounts of mevalonate seem to make smooth muscle cells less active, and platelets less able to produce thromboxane. Atherosclerosis begins with the growth of smooth muscle cells in side artery walls and thromboxane is necessary for blood clotting.

Cholesterol

Of course, statins inhibit the production of cholesterol--they do this very well. Nowhere is the failing of our medical system more evident than in the wholesale acceptance of cholesterol reduction as a way to prevent disease--have all these doctors forgotten what they learned in biochemistry 101 about the many roles of cholesterol in the human biochemistry?

Every cell membrane in our body contains cholesterol because cholesterol is what makes our cells waterproof--without cholesterol we could not have a different biochemistry on the inside and the outside of the cell. When cholesterol levels are not adequate, the cell membrane becomes leaky or porous, a situation the body interprets as an emergency, releasing a flood of corticoid hormones that work by sequestering cholesterol from one part of the body and transporting it to areas where it is lacking. Cholesterol is the body's repair substance: scar tissue contains high levels of cholesterol, including scar tissue in the arteries.

Cholesterol is the precursor to vitamin D, necessary for numerous biochemical processes including mineral metabolism. The bile salts, required for the digestion of fat, are made of cholesterol.

Those who suffer from low cholesterol often have trouble digesting fats. Cholesterol also functions as a powerful antioxidant, thus protecting us against cancer and aging.

Cholesterol is vital to proper neurological function. It plays a key role in the formation of memory and the uptake of hormones in the brain, including serotonin, the body's feel-good chemical. When cholesterol levels drop too low, the serotonin receptors cannot work. Cholesterol is the main organic molecule in the brain, constituting over half the dry weight of the cerebral cortex.

Finally, cholesterol is the precursor to all the hormones produced in the adrenal cortex including glucocorticoids, which regulate blood sugar levels, and mineralocorticoids, which regulate mineral balance. Corticoids are the cholesterol-based adrenal hormones that the body uses in response to stress of various types; it promotes healing and balances the tendency to inflammation. The adrenal cortex also produces sex hormones, including testosterone, estrogen and progesterone, out of cholesterol. Thus, low cholesterol--whether due to an innate error of metabolism or induced by cholesterol-lowering diets and drugs--can be expected to disrupt the production of adrenal hormones and lead to:

- Blood sugar problems
- Edema
- Mineral deficiencies
- Chronic inflammation
- Difficulty in healing
- Allergies
- Asthma
- Reduced libido
- Infertility
- Various reproductive problems

Enter the Statins

Statin drugs entered the market with great promise. They replaced a class of pharmaceuticals that lowered cholesterol by preventing its absorption from the gut. These drugs often had immediate and unpleasant side effects, including nausea, indigestion and constipation, and in the typical patient they lowered cholesterol levels only slightly. Patient compliance was low: the benefit did not seem worth the side effects and the potential for use very limited. By contrast, statin drugs had no immediate side effects: they did not cause nausea or indigestion and they were consistently effective, often lowering cholesterol levels by 50 points or more.

During the last 20 years, the industry has mounted an incredible promotional campaign--enlisting scientists, advertising agencies, the media and the medical profession in a blitz that turned the statins into one of the bestselling pharmaceuticals of all time. Sixteen million Americans now take Lipitor, the most popular statin, and drug company officials claim that 36 million Americans are candidates for statin drug therapy.

What bedevils the industry is growing reports of side effects that manifest many months after the commencement of therapy; the November 2003 issue of Smart Money magazine reports on a 1999 study at St. Thomas' Hospital in London (apparently unpublished), which found that 36 percent of patients on Lipitor's highest dose reported side effects; even at the lowest dose, 10 percent reported side effects.

Muscle Pain and Weakness

The most common side effect is muscle pain and weakness, a condition called rhabdomyolysis, most likely due to the depletion of Co-Q10, a nutrient that supports muscle function. Dr. Beatrice Golomb of San Diego, California is currently conducting a series

of studies on statin side effects. The industry insists that only 2-3 percent of patients get muscle aches and cramps but in one study, Golomb found that 98 percent of patients taking Lipitor and one-third of the patients taking Mevacor (a lower-dose statin) suffered from muscle problems.³ A message board devoted to Lipitor at forum.ditonline.com contains more than 800 posts, many detailing severe side effects. The Lipitor board at www.rxlist.com contains more than 2,600 posts.

The test for muscle wasting or rhabdomyolysis is elevated levels of a chemical called creatine kinase (CK). But many people experience pain and fatigue even though they have normal CK levels.

Tahoe City resident Doug Peterson developed slurred speech, balance problems and severe fatigue after three years on Lipitor--for two and a half years, he had no side effects at all.⁵ It began with restless sleep patterns--twitching and flailing his arms. Loss of balance followed and the beginning of what Doug calls the "statin shuffle"--a slow, wobbly walk across the room. Fine motor skills suffered next. It took him five minutes to write four words, much of which was illegible. Cognitive function also declined. It was hard to convince his doctors that Lipitor could be the culprit, but when he finally stopped taking it, his coordination and memory improved.

John Altrocchi took Mevacor for three years without side effects; then he developed calf pain so severe he could hardly walk. He also experienced episodes of temporary memory loss.

For some, however, muscle problems show up shortly after treatment begins. Ed Ontiveros began having muscle problems within 30 days of taking Lipitor. He fell in the bathroom and had trouble getting up. The weakness subsided when he went off Lipitor. In another case, reported in the medical journal *Heart*, a patient developed rhabdomyolysis after a single dose of a statin.⁶

Heel pain from plantar fasciitis (heel spurs) is another common complaint among those taking statin drugs. One correspondent reported the onset of pain in the feet shortly after beginning statin treatment. She had visited an evangelist, requesting that he pray for her sore feet. He enquired whether she was taking Lipitor. When she said yes, he told her that his feet had also hurt when he took Lipitor.⁷

Active people are much more likely to develop problems from statin use than those who are sedentary. In a study carried out in Austria, only six out of 22 athletes with familial hypercholesterolemia were able to endure statin treatment.⁸ The others discontinued treatment because of muscle pain.

By the way, other cholesterol-lowering agents besides statin drugs can cause joint pain and muscle weakness. A report in Southern Medical Journal described muscle pains and weakness in a man who took Chinese red rice, an herbal preparation that lowers cholesterol.⁹ Anyone suffering from myopathy, fibromyalgia, coordination problems and fatigue needs to look at low cholesterol plus Co-Q10 deficiency as a possible cause.

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