

A Word from Dr. Pfenninger CoQ10 for muscle aches from statins |

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Statin medications [atorvastatin (Lipitor), fluvastatin (Lescol), lovastatin (Mevacor), pravastatin (Pravachol), rosuvastatin (Crestor), and simvastatin (Zocor)] are a godsend for many conditions. Some in Europe have suggested adding a statin as a regular supplement to foods, just like folic acid and vitamin D. This class of drugs is most commonly used to lower cholesterol with extensive data showing the reduction in heart attacks, strokes, and death, when statins are used. They are one of the first drugs started after a heart attack and, if available, should be taken along with an aspirin at the first sign of a possible heart attack. They are recommended for all diabetics, whether or not they have elevated cholesterol. Some research suggests a reduction in various cancers, especially colon cancer.

Along with their wide range of benefits, they are extremely safe and have few side effects. One of the most troubling, however, and often the cause for patients to stop taking them, is that they can cause muscle aches (statin myalgia). Many people complain of muscle and joint pain. Estimates are that 10-11% of statin users will experience it and some say it is as high as 30%. Blood tests for muscle damage are generally normal. This condition is not to be confused with the very rare one where muscle is rapidly broken down (rhabdomyolysis) which occurs in 1 in 15 million cases. This is a life-threatening condition.

One of the potential explanations for statin myalgia is that it depletes coenzyme Q10 (CoQ10) within the body. CoQ10 is a fat-soluble antioxidant which is needed to produce energy in the mitochondria. It is present in almost every single cell in the body. The statins reduce this enzyme with the result of reducing energy production within the cell leading to the muscle aches.

Although not 100% conclusive, it now appears that supplementing CoQ10 may decrease the incidence and severity of the muscle aches. Even without the statins it would appear that CoQ10 improves blood flow and decreases bad cholesterol. Of and by itself, then, CoQ10 may reduce atherosclerosis and subsequent stroke or heart attack. Thus, it may have the dual effect of reducing muscle aches from the statins as well as its own effect on heart disease.

There are numerous risk factors which increase the likelihood of developing statin myalgia. CoQ10 may help with some of the conditions, but not all. The following increase the risk of developing muscle aches:

- A high statin dose.
- Interacting medicines (very common).
- Small body frame.
- Physical exertion.
- Elderly.
- Kidney insufficiency.
- Liver impairment.

- High blood pressure.
- Diabetes.
- Low thyroid.
- Low potassium.
- Certain genetic mutations.
- Low vitamin D.
- Low vitamin B12.
- Others.

In addition to the above conditions which increase the likelihood of muscle aches, the chemical structure of the statin drugs themselves may cause some of the problem. There are basically two different classes of statins: fat-soluble and water soluble. The fat-soluble statins include the commonly used Lipitor and Zocor, while the water-soluble ones include Pravachol and Crestor. Since the fat-soluble statins more easily enter inside the muscle cells, they theoretically can cause more damage and more aches. Thus, if one develops muscle aches while using a statin, one of the most common things to do is try a different statin in a different class, most likely a water-soluble type. Pravastatin (Pravachol) appears to have the least effect in reducing CoQ10 levels in the body.

Many commonly used medications interact with the statins. It is important that the physician and pharmacist help the patient work around these interactions.

Even simple things like grapefruit juice and pomegranate juice can inhibit enzymes that break down the statins. Thus, as the drug levels increase so do the aches. Atorvastatin (Lipitor) is one of the drugs affected this way. In one study, rosuvastatin (Crestor) levels were increased when a patient consumed only 6 oz. of pomegranate juice twice weekly. Other tropical fruit juices may do the same.

Many take red yeast rice to reduce their cholesterol levels. Red yeast rice contains a natural statin and thus can exacerbate problems with the statin drugs or cause muscle aches on its own.

Considering everything, what should people do when they experience intolerable muscle aches from the statin drugs? There are some basics. Have vitamin D, B12, potassium, and thyroid levels checked. Consider switching from a fat-soluble to a water-soluble statin. Lower the dose of drug being used as much as possible but not so much that it is ineffective. Supplement the diet with CoQ10, at least 100 mg per day. A recent study concluded that. "CoQ10 seems to be a reasonable approach for treating statin-induced muscle pains." Whether higher doses of CoQ10 might be more beneficial is unknown. (One other supplement that might be tried is L-carnitine. Muscle biopsies in those who experience statin myalgia are often low in L-carnitine. Studies are just beginning to look at this connection.) Be sure there are no drug interactions. Do not use statins before exercise, but rather afterwards. Statins do appear to increase exercise-related muscle injury. Those taking statins should be cautious about consuming grapefruit and pomegranate juice.

Interestingly, genetic tests are being developed to determine which statin might be best for each individual person based on multiple factors.

One thing not to do is to stop the statin – especially without talking to your doctor. There are so many benefits to these medications that everything else should be tried first. Statins save lives. If they are indicated, a patient will live healthier and longer with them, as opposed to without them.

Dr. John L. Pfenninger's column appears on Sundays. His office, Medical Procedures Center, is located in Midland.