



for your best health

You do not need to stop cholesterol reducing drugs - CoQ10 can help

Ask Your Pharmacist

Statin drugs have become very popular and are being widely prescribed in recent years to lower high blood cholesterol and thus reduce the risk for heart disease. These drugs block cholesterol production in the body by inhibiting the enzyme called HMG-CoA reductase. However, thousands of people have had to stop taking their statin medications because of the drug's side effects, such as pain and muscle weakness.

In the new study, published in *Nature Biotechnology*, 2008; 26: 343-5, three statin drugs – fluvastatin, lovastatin, and simvastatin – interfered with the body's energy production, and the problem was magnified if the patient was also taking propranolol, a hypertensive. As a result, around 2.3 per cent of patients taking a statin stop their medication.

At the same time, the depletion of the key nutrient in the body called coenzyme Q10 or CoQ10 for short by statins has continued to gain credibility. Experts believe that the same biosynthesis pathway that is blocked in order to reduce cholesterol also reduces the production of CoQ10. Studies have shown that blood levels of CoQ10 drop by 25% to 50% after statin treatment. To date there are at least 15 published trials on statin-induced CoQ10 depletion in humans. Of these 15 trials, nine were controlled trials, eight of which documented significant CoQ10 depletion. With an estimated 36 million Americans on statin drug therapy, the prevalence and severity of CoQ10 deficiency is increasing noticeably.

CoQ10 is a key component in energy production that takes place in the mitochondria.

Mitochondria are known as the powerhouses of the cell and are key to life. CoQ10 deficiency resulting from statin treatment may impair muscle energy production and contribute to the muscle symptoms and more serious conditions in patients using statins.

A study published in the May 2007 issue of *The American Journal of Cardiology* considered the use of CoQ10 to improve muscle symptoms in patients being treated with statins. This controlled, double-blind study provided half of 32 patients 100 milligrams (mgs) of CoQ10 a day for a month and the other half 400 IU of vitamin E. At the end of the month the patients who were reporting statin related muscle pain that received CoQ10 showed “decreased muscle pain by 40% and improved the interference of pain with daily life activities by 38%”. In contrast, the vitamin E group showed no improvement in muscle pain. The authors noted that, “these findings suggest the coenzyme Q10 may be beneficial for patients using statins by ameliorating myopathic [related to muscle disease] symptoms and improving subjects' well-being and functioning in daily life activities.”

Therefore, if you are taking a statin drug, (*especially for an extended period of time*), you may want to consider discussing CoQ10 supplementation with your health care professional.

Every living thing that depends on respiration to produce energy requires CoQ10, which supplies the energy for this function. This naturally occurring element of life is found in several types of foods, from beef to eggs. As we age, our bodies diminish in ability to produce CoQ10. The cells of the body must be fed, and require the conversion of nutrients from food to a form of cellular en-

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CoQ10 can help (Continued)

ergy known as ATP energy. To produce ATP, the body uses an orchestra of substances, including CoQ10 to make the fuel. You could use the analogy that, if the body were a car, and the cells were the engines, then CoQ10 is the sparkplug! As a sparkplug, or catalyst, the nutrient is required for all the engines to ignite. Studies indicate that, if CoQ10 levels decrease in the cells, various organs of the body do not function as effectively.

CoQ10's abilities do not stop at the cellular energy level. Organs and systems in the body require the proper functioning of cells in order to operate properly, in particular the heart. The heart beats more than 100,000 times a day, pumping over 4300 gallons of blood through thousands of miles of blood vessels. Can you imagine how much cellular energy is necessary to keep the pump running properly? It should be no surprise that CoQ10 stores are found in the highest stores in the heart.

Other benefits of CoQ10

CoQ10, is a chemical produced in the body, and it exists in every cell in the body. It has a number of purposes in the body and is becoming quite a popular nutritional supplement. Scientific and clinical studies worldwide have shown CoQ10 can perform a variety of support functions. CoQ10 is a key nutrient responsible for producing cellular energy. That alone merits the understanding of this nutrient.

CoQ10 also plays an important role in inhibiting the build-up of LDL fats, the "bad ones" in our cholesterol metabolism. This is also important for the heart.

Immune cells also need a great deal of energy since they grow very rapidly and move around the body quite extensively. Studies show that maintaining adequate levels of CoQ10 will allow the body's natural defense systems to function optimally. Studies with the nutrient are extensive, and also indicate that CoQ10 helps to maintain healthy gum tissue.

Along with the process of cellular energy, CoQ10 is well studied as an antioxidant. This important process aids against the damage from free radical factors, which destroy the cells and cause aging. As a fat-soluble antioxidant, similar to vitamin E, CoQ10 provides this invaluable service. You might take the analogy further and suggest that, while CoQ10 is performing its duties as a sparkplug, it is also the oil that prevents the engine from rusting! That is how important this nutrient is to the body! In 1978, a Nobel Prize in Medicine was awarded to Dr. Peter Mitchell for his work with CoQ10 and cellular (ATP) energy production. Since then, the research into the benefits of CoQ10 continues and the results are very encouraging.

When purchasing CoQ10, make sure you are getting products that are guaranteed to be at least 95% pure. Many products are bulked with grain meal, yeast, eggs and milk derivatives. The best advice is to read the labels carefully and ask for help from your physician or pharmacist.

CoQ10 has a long history of safety and is easily absorbed into the body. As a fat-soluble nutrient, it is best taken when the presence of some form of fat or oil is in the diet. Remember, good fats and bad fats exist, so pay attention to the diet, particularly when supporting your heart. CoQ10 performs such a myriad of functions; it is a logical dietary supplement to consider that can provide good dietary value, especially when combined with a good nutritional regimen and exercise.

We suggest you discuss all your nutritional concerns with a knowledgeable physician or pharmacist, or stop by our Pharmacy for more data.