

# Clinical Update

## **CoQ10 may boost heart health of diabetics on statins**

Supplements of coenzyme Q10 may increase the vascular health of diabetics receiving statins, according to a new study from Australia.

**(*Diabetes Care*, February 2009)**

Following 12 weeks of supplementation with CoQ10 (200mg per day) an improvement in the blood flow was observed, according to findings published in the journal *Diabetes Care*. It is well known that statins deplete the body's natural stores of CoQ10, and this has boosted use of CoQ10, particularly in the US, where the popularity of statins has increased.

The new findings indicate that, in addition to redressing the balance of CoQ10, supplementation may also improve endothelial dysfunction in statin-treated type 2 diabetic patients.

According to the International Diabetes Federation, there are over 245 million people with diabetes worldwide. If current trends continue, this number will rise to a staggering 380 million by 2030. Current costs of diabetic complications are estimated to account for 5 to 10% of total global healthcare spending.

### **Study details**

In order to test their hypothesis that oral CoQ10 supplementation would improve the vascular health in statin-treated diabetics, researchers recruited 23 statin-treated type 2 diabetic patients with endothelial dysfunction (and LDL-cholesterol levels less than 2.5mmol per litre). The volunteers were randomly assigned to receive either CoQ10 or placebo for 12 weeks.

The randomized, double-blind, crossover study analyzed by brachial artery flow-mediated dilatation (FMD), a measure of endothelial dysfunction since a low value is indicative of a blood vessel's inability to relax, and nitrate-mediated dilation (NMD), which relates to nitric oxide, a potent endothelium-derived relaxing factor.

The researchers report a 2.7-fold increase in blood levels of CoQ10 following supplementation, and an increase in FMD of 1%. However, no changes in NMD were recorded, nor were any changes in levels of oxidative stress observed, assessed by measuring levels of compounds called F2-isoprostanes in the blood and urine.

The CoQ10 used in this study was provided by Blackmores (Balgowlah, Australia), and the study was funded by a CardioVascular Lipid Research grant from Pfizer.

Source: [www.nutraingredients.com](http://www.nutraingredients.com)