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HEART HEALTH	MIND & MOOD	PAIN	STAYING HEALTHY	CANCER	DISEASES & CONDITIONS	MEN'S HEALTH	WOMEN'S HEALTH
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Harvard Heart Letter

Ask the doctor: What's the connection between statins and coenzyme Q10?

Ask the doctor

What's the connection between statins and coenzyme Q₁₀?

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Q. Why don't you ever tell your readers that everyone who takes a statin to lower cholesterol should be taking coenzyme Q₁₀, too?


A. Coenzyme Q₁₀, sometimes called CoQ₁₀, is a vitamin-like substance present in most cells. It helps mitochondria, the powerhouses of the cell, turn sugar and other fuels into energy. Taking a statin lowers coenzyme Q₁₀ because it is carried through the bloodstream in LDL. Lowering LDL "" the main job of a statin "" means less coenzyme Q₁₀ in circulation. It has been hypothesized that statins' effects on coenzyme Q₁₀ might account for the muscle aches and pains these drugs sometimes cause. However, statins don't appear to affect coenzyme Q₁₀ inside cells or mitochondria.

Taking a supplement increases blood levels of coenzyme Q₁₀, but the effect inside muscles is inconsistent "" one study showed an increase of coenzyme Q₁₀ after supplementation, another a decrease. More to the point, the only two trials of coenzyme Q₁₀ for statin-induced muscle problems contradict each other. In one, supplementation had no effect on muscle pain. The other showed a modest benefit.

It is possible that coenzyme Q₁₀ supplements may prevent statin-associated muscle problems in people who don't make enough coenzyme Q₁₀ or who are at risk for muscle damage due to hypothyroidism or pre-existing muscle disorders. I hope that clinical trials will be conducted to explore this. For now, though, there is no credible evidence that everyone who takes a statin should also take coenzyme Q₁₀ (at an added yearly cost of \$200 to \$500).

"" Yiannis S. Chatzizisis, M.D. George Behrakis Research Fellow Harvard Medical School

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