

Center for Integrative Medicine

Dietary Supplements: Co-enzyme Q10 (CoQ10)

Dr. Kathi Kemper's Tips

Coenzyme Q10 (CoQ10) is a vitamin-like, antioxidant supplement related to vitamin K. It is used by the mitochondria – the cell's energy factories. Our bodies make it in the heart, liver, kidney and pancreas, and it is used by muscles, including the heart muscle and diaphragm. Aging, liver disease, and some medications (e.g., statins, beta-blockers, and some antidepressants) make it harder for humans to convert CoQ10 into its active form in the body, CoQH2-10. Smoking depletes CoQ10 levels.

Dietary sources: Meat and seafood.

Uses. It has mostly been used to help patients suffering from heart failure, recent heart attacks, angina, high blood pressure, pre-eclampsia, Parkinson's disease, and with certain types of muscular dystrophy. It is also used by some patients to reduce the risk of heart problems from some chemotherapeutic medicine. Because statin medications can block the body's production of CoQ10, some doctors recommend that anyone taking a statin medication also take CoQ10 supplements. CoQ10 is also used to help prevent migraine headaches and to help those with chronic fatigue feel more energetic.

Dose. The doses used in most positive studies in adults ranged from 100 - 300 milligrams daily.

Take it with food. Absorption is improved when CoQ10 is taken with fat-containing foods like olive oil or milk. So, take it with a meal. Look for brands that contain polysorbate-80 or Q-Gel, which also helps improve absorption.

Safety: Because it can lower blood pressure, it should be used with caution by patients taking blood pressure medicine and those about to undergo surgery. Pregnancy has not been evaluated in pregnant or breastfeeding women. Stop using it two weeks before any scheduled surgery.

Duration: It can take up to three months of daily use before benefits are noticeable.

Cost: CoQ10 is a relatively costly supplement. In 2011, prices for 100 mg varied from 11 cents to \$3.35 per dose. Read labels carefully.

See **patient information** from the US **National Library of Medicine:**

<http://www.nlm.nih.gov/medlineplus/druginfo/natural/938.html>

Quality: No government agency routinely tests CoQ10 products. Dietary supplements like CoQ10 are regulated more like food than like drugs. There is variability in the quality of CoQ10 products, and you cannot always tell what is in a product from reading the label, even the fine print. We recommend using brands that have the USP stamp of approval or are approved by ConsumerLab in their independent testing.

Selected Products Approved by ConsumerLabs:

- Carlson CoQ10 100 mg softgel
- CVS Pharmacy Coenzyme Q10 200 mg softgel
- Kirkland Signature CoQ10 300 mg softgels. (Costco)
- Member's Mark CoQ10 100 mg softgel (Sam's Club)
- NSI CoQ10 100 mg capsules (Vitacost)
- Whole Foods CoQ10 60 mg capsule