

Coenzyme Q10

60 mg

Softgels



Product Summary:

Imagine an automobile engine without spark plugs. In human biochemistry, coenzyme Q10 (also called ubiquinone) a fat-soluble molecule, acts like a cellular spark plug, igniting a series of biochemical reactions that produce energy. Found in the mitochondria of every cell, where it is involved in the manufacture of adenosine triphosphate or (ATP), Coenzyme Q10 helps to produce 95 percent of the energy we require to breathe. Coenzyme Q10 is essential to cell respiration, electron transfer and oxidation reactions. As it is synthesized in the cells, it cannot be considered a true vitamin, even though the health benefits of this nutrient are wide-ranging.

As we age we can become deficient in Coenzyme Q10. Supplementing once daily with a high quality Coenzyme Q10 may be helpful to maintain ideal coenzyme Q10 levels.

Properties/Uses:

3The claim as approved by the *Natural Health Product Directorate* (NHPD): Coenzyme Q10 is used to help support and maintain cardiovascular health.



CARDIOVASCULAR



Pharmacology:

Coenzyme Q10 is a vitamin-like compound that is fat-soluble and present in virtually all cells and in especially high concentrations in the heart, liver, kidney, and pancreas. Its primary functions include activity as an antioxidant, a membrane stabilizer, and as a cofactor in many metabolic pathways, particularly in the production of adenosine triphosphate (ATP) in oxidative respiration. It's also ingested in small amounts from dietary sources, including meats and seafood. Many of the therapeutic benefits of coenzyme Q10 are primarily attributed to its antioxidant effects and its role in the generation of ATP. Coenzyme Q10 may be helpful for people with diseases for which coenzyme Q10 levels are often lower, including congestive heart failure (CHF), hypertension, periodontal disease, certain muscular diseases, and AIDS.³





Manufactured product information:

Manufacturer:

WN Pharmaceuticals® Ltd.

Size/UPC:

60's 7 77747 10278 5

NPN:

380006674

Expiry Date:

48 months from date of manufacture

Active Ingredient:

Each softgel contains:

Coenzyme Q10 (bacteria or yeast) 60 mg

Non-Medicinal Ingredients (in descending order):

Microcrystalline cellulose, gelatin capsule (gelatin, purified water), magnesium stearate

Appearance:

Orange powder in a hard gelatin capsule.

Packaging:

175 cc white round bottle with safety seal under a 38 mm white induction sealed cap with vented interior seal and a label applied to the bottle. Lot number and expiry date are printed on the label applied to the exterior of the bottle.

Storage:

Store in tightly sealed, light-resistant containers at temperature 15 – 25°C.





Dose:

The NHPD Monograph for CoEnzyme Q10 indicates that when used as an Antioxidant or cardiovascular health: 30 - 100 mg, 1 - 3 times per day.

The usual dosage of CoQ10 is 50 to 150 mg/day. Although most studies used a dosage of 100 mg per day, larger doses (up to 300 mg/day) may be needed in cases of severe heart disease. Perhaps a more accurate dosage recommendation is based upon the person's weight. Some of the studies used a dosage of 2 mg CoQ10 for each kilogram (2.2 pounds) body weight.⁴

A recent study on the quality of life based on the ingestion of two different doses (30 mg/daily or 100 mg/daily) of coenzyme Q10 determined that supplementation of 100 mg of Coenzyme Q10 per day may improve several parameters of significance for quality of life in ordinary adults.⁵

Refer to Drug Interaction/Contraindications section for dosage recommended for those with prescription drug depletion of Coenzyme Q10.

Directions:

(Adults): 1 softgel, 2 times daily preferably with meals, or as directed by a recommended by a physician.

Caution:

The caution as approved by the *Natural Health Product Directorate* (NHPD): KEEP OUT OF THE REACH OF CHILDREN. Consult a physician prior to use if you are pregnant or breastfeeding, or if you are taking blood thinners or blood pressure medication. STORE AT ROOM TEMPERATURE IN A DARK, DRY PLACE. DO NOT USE IF SEAL UNDER CAP IS BROKEN OR MISSING.

Deficiency Symptoms:

Taking coenzyme Q-10 orally seems to improve symptoms of coenzyme Q10 deficiency. Rare cases of documented coenzyme Q10 deficiency with symptoms of weakness, fatigue, and seizures have been reported.⁶



Drug Interactions/Contraindications:

WARFARIN (Coumadin): Concomitant use might reduce the anticoagulation effects of warfarin. However, there is some preliminary clinical research that suggests coenzyme Q10 might not significantly decrease the effects of warfarin in patients that have a stable INR. Closely monitor patients taking warfarin and coenzyme Q-10. Dose adjustment may be necessary.⁷

Many experts recommend supplementing coenzyme Q10 at dosages ranging from 30 to 100 mg per day in people taking the following drugs to prevent side effects or the depletion of Coenzyme Q10 in body tissues⁸:

Cholesterol lowering drugs such as atorvastatin (Lipitor®); gemfibrozil (Lopid®); lovastatin (Mevacor®); pravastatin (Pravachol®); simvastatin (Zocor®), etc.

Beta-blocker drugs used in angina, high blood pressure, and heart arrhythmias such as acebutolol (Sectral®); atenolol (Tenormin®); carteolol (Cartrol®); metoprolol (Lopressor®, Toprol XL®); penbutolol (Levatol®); propranolol (Inderal®); timolol (Blocarden®), etc.

Phenothiazine drugs used in various psychiatric disorders such as chlorpromazine (Thorazine®); fluphenazine (Permitil®, Prolixin®); mesoridazine (Serentil®); trifluoperazine (Stelazine®); etc.

Tricyclic antidepressants such as amitriptyline (Elavil®, Endep®); desipramine (Norpramin®, Pertofrane®); doxepin (Adapin®, Sinequan®); imipramine (Imavate®, Presamine®, Trofinil®); nortriptyline (Aventyl®, Pamelor®); protriptyline (Vivactil®); etc.

Of Note: "The depletion of the essential nutrient CoQ10 by the increasingly popular cholesterol lowering drugs, HMG CoA reductase inhibitors (statins) has grown from a level of concern to one of alarm...Statin-induced CoQ10 depletion is well documented in animal and human studies with detrimental cardiac consequences in both animal models and human trials. This drug-induced nutrient deficiency is dose related and more notable in settings of pre-existing CoQ10 deficiency such as in the elderly and in heart failure. Statin-induced CoQ10 deficiency is completely preventable with supplemental CoQ10 with no adverse impact on the cholesterol lowering or anti-inflammatory properties of the statin drugs. We are currently in the midst of a congestive heart failure epidemic in the United States, the cause or causes of which are unclear. As physicians, it is our duty to be absolutely certain that we are not inadvertently doing harm to our patients by creating a wide-spread deficiency of a nutrient critically important for normal heart function."⁹

Toxicity/Adverse Reactions:

Oral Coenzyme Q10 is generally well tolerated. Clinical studies show no reports of significant adverse effects.⁷



Allergen Content/Ingredient Sensitivity:

NO	YES
Artificial Colours	Sulphites (<10 ppm)
Artificial Flavours	Yeast
Artificial Sweeteners	
Corn Products	
Egg Products	
Fish	
Gluten	
Hydrolyzed Plant Protein	
Lecithin	
Milk Products	
Peanuts	
Preservatives	
Sesame Products	
Shellfish	
Soy Products	
Starch/Modified Starch	
Tartrazine	
Tree Nuts	
Wheat Products	

NOT ACCEPTABLE FOR THE FOLLOWING DIETARY RESTRICTIONS:

Free of animal products

Kosher





References:

1. Murray, Michael, N.D. *The Pill Book Guide to Natural Medicines*. 2002. Bantam.
2. Murray, Michael, N.D. *The Pill Book Guide to Natural Medicines*. 2002.
3. Bantam.www.naturaldatabase.com.
4. Murray, Michael, N.D. *The Pill Book Guide to Natural Medicines*. 2002.
5. Nylander, Magnus et al. A double blind dose-response study on effects of coenzyme Q10 on quality of life. Unit for Applied Biochemistry, Clinical Research Center, Karolinska Institute and Institute for Biomedical Research, The University of Texas at Austin. *First Conference of the International Coenzyme Q10 Association*.
6. www.naturaldatabase.com.
7. www.naturaldatabase.com.
8. Murray, Michael, N.D. *The Pill Book Guide to Natural Medicines*. 2002. Bantam.
9. Langsjoen, Peter H and Alena M. Langsjoen. The clinical use of HMG CoA-reductase inhibitors and the associated depletion of coenzyme Q10. A review of animal and human publications. *The Third Conference of the International CoQ10 Association. BioFactors*. Vol 18, numbers 1-4/2003: 101-111.

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