

CoQ10- 50

Stock #4109-8 (30 softgels)



Coenzyme Q₁₀ is a naturally occurring vitamin-like, lipid-soluble (fat-soluble) nutrient found in nearly every cell in the body, with highest concentrations in the brain, heart, kidney and liver tissues. CoQ₁₀ plays a fundamental role in cellular energy production and critical antioxidant activities throughout the body. CoQ₁₀ acts as a primary scavenger of free radicals, inhibiting oxidative damage to cell membranes, DNA, proteins, and low-density lipoproteins (LDL). CoQ₁₀ also regenerates other antioxidants such as vitamin E, stimulates cell growth, and inhibits cell death.¹⁻¹²

Research shows that CoQ₁₀ levels decline with age, which can lead to a deficiency state. CoQ₁₀ deficiency can also result from low dietary intake of CoQ₁₀, chronic malnutrition, chronic disease, or insufficient intake of essential nutrients required for CoQ₁₀ synthesis such as B₆, B₁₂, folate, pantothenic acid, vitamin C, and tyrosine, to name a few. In addition, CoQ₁₀ levels can be adversely affected by cholesterol-reducing drugs such as HMG-CoA reductase inhibitors (i.e. statin-like drugs), as well as certain beta-blockers, adriamycin (an anti-cancer drug), hormone replacement therapy, and psychotropic drugs, including phenothiazine and tricyclic antidepressants. CoQ₁₀ deficiency has been identified in several clinical disorders, including heart failure, hypertension, Parkinson's and other neurodegenerative diseases, type 2 diabetes, degenerative muscle diseases, male infertility, cystic fibrosis, and during aging. Low blood levels of CoQ₁₀ have also been exhibited in women with preeclampsia (a pregnancy-related condition that causes high blood pressure), and in athletes, most likely due to increased metabolic stress and free radical formation resulting from intense exercise and training.^{1,2,4,10,13-17}

CoQ₁₀ demonstrates multiple cardioprotective (heart-protecting) benefits, including anti-atherogenic, anti-inflammatory, hypotensive (blood pressure-lowering), and vasodilator effects. CoQ₁₀ has also been shown to decrease the incidence of preeclampsia in pregnancy, and has been identified as an independent predictor of survival in chronic heart failure—depletion of CoQ₁₀ is associated with worse outcomes in chronic heart failure. Thus, sufficient levels of CoQ₁₀ are essential for a healthy heart and critical for a failing heart.^{1,4,6,13,18-23}

CoQ₁₀ also demonstrates neuroprotective effects and has been shown to protect the brain in degenerative conditions such as Parkinson's and Alzheimer's diseases. Evidence suggests that CoQ₁₀ is a promising therapeutic agent for the treatment of neurodegenerative diseases such as Parkinson's and Huntington's diseases, amyotrophic lateral sclerosis, and Friedreich's ataxia. CoQ₁₀ may also provide neuroprotection in drug addiction, since CoQ₁₀ has been shown to inhibit the neurotoxic effects of cocaine and methamphetamine in mice brains.^{1,3,4,24-27}

Research indicates a number of other benefits from CoQ₁₀ supplementation. Clinical trials have shown that CoQ₁₀ exhibits anti-diabetic effects and can improve glycemic control and lower plasma insulin levels. CoQ₁₀ has also been found to effectively improve sperm count and motility in patients with asthenozoospermia—a type of male infertility characterized by reduced sperm motility. CoQ₁₀ has been shown to reduce exercise-induced muscular injury in athletes, and evidence suggests CoQ₁₀ may also be helpful for vertigo and for mitigating headache symptoms. In addition, CoQ₁₀ supplementation can provide anti-aging benefits and contribute to improved health and longevity. CoQ₁₀ protects the epidermis (the outer layer of the skin) against oxidative damage, enhances production of dermal and epidermal cell components, and positively influences age-affected cellular metabolism, thus combating the signs of aging beginning at the cellular level.^{1,4,6,13,16,19,20,22,28-32}

The absorption and bioavailability of CoQ₁₀ is markedly influenced by its delivery system. Research has shown that using a lipid-based (fat or oil-based) delivery formula improved the bioavailability of CoQ₁₀ compared to powdered (crystalline) forms. Intestinal absorption of CoQ₁₀ is also enhanced with food intake.^{1,3,33,34}

NSP's CoQ₁₀-50 is a crystal-free, liquid softgel supplement that utilizes a patent-pending lipid blend containing conjugated linoleic acid (CLA), flaxseed oil, and soy monoglycerides to provide maximum absorption and bioavailability, without the use of chemical additives or solvents.^{33,35}

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