Coenzyme Q10 Levels Reduced in Chronic Fatigue Syndrome

In an article published in *Neuroendocrinology Letters*, researchers from Belgium and Poland report that plasma coenzyme Q10 levels are significantly lower in individuals with myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS), a chronic disease characterized by extreme fatigue and inflammatory, autonomic and neuropsychiatric symptoms.*

The study compared plasma CoQ10 levels of 58 men and women diagnosed with ME/CFS to 22 healthy control patients. A significant reduction in CoQ10 levels was observed among ME/CFS patients compared with the control group. As many as 44.8% of these patients had levels that were less than the lowest CoQ10 value detected in healthy controls. Increased CoQ10 levels predicted a reduction in CFS symptoms.

“This is the first study which shows that ME/CFS is accompanied by significantly reduced plasma concentrations of CoQ10 and that lowered plasma CoQ10 is related to specific symptoms of ME/CFS, such as fatigue, autonomic and neurocognitive symptoms,” the authors announce.

**Editor’s note:** As coenzyme Q10 is involved in the production of energy, the finding is not surprising. Life Extension has long suggested CoQ10 supplements to those with CFS.

—Dayna Dye

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Reference


Multinutrient Supplement Protects Age-related Decline in Activity

An article published in *Experimental Biology and Medicine* reveals that administering a combination of nutrients to mice delays the decline in activity that occurs with aging.*

C. David Rollo and colleagues used a formula consisting of vitamins B1, B3, B6, B12, C, D, and E, folic acid, beta-carotene, acetyl-L-carnitine, alpha-lipoic acid, bioflavonoids, chromium picolinate, garlic, ginger root extract, Ginkgo biloba, ginseng, green tea extract, L-glutathione, magnesium, manganese, melatonin, N-acetyl cysteine, potassium, rutin, selenium, cod liver oil, CoQ10, and flax seed oil. While mice that did not receive the nutrients experienced a greater than 50% reduction in daily movement by 24 months of age, those that received the supplements maintained youthful levels of activity. Unsupplemented mice experienced increased declines in mitochondrial function and in brain signaling chemicals related to movement.

“Dietary cocktails can powerfully ameliorate biomarkers of aging and modulate mechanisms considered ultimate goals for aging interventions,” the authors conclude.

**Editor’s note:** Long time Life Extension members who use Life Extension Mix have been reaping the benefits of multinutrient supplementation for years. The formula is continually updated in light of new research findings, so that those who choose to use it have the best opportunity to attain optimal health and longevity.

—Dayna Dye

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Reference


Vitamin D Supplements May Protect Against Crohn’s Disease