



ITEM #123

CoQuinone® 30 •• 19

An optimal combination of coenzyme Q10 and alpha lipoic acid

The energy that every cell needs to function is produced through a complex process in the mitochondria, organelles within the cell. Within the mitochondria cells store energy in a molecule called adenosine-5-triphosphate, or ATP, which is synthesized and used by every cell in the body. Coenzyme Q10 (CoQ10) is an essential part of the electron transport chain the mitochondria use to make ATP. **CoQuinone 30** dietary supplement was developed to deliver high-quality, highly bioavailable CoQ10 to the cells to support the production of ATP.*

Cells with the highest energy demands, such as in the heart, have the highest levels of CoQ10, which has been studied for years in the United States, Europe, and Japan for its role in producing cellular energy for the heart and other muscles. Several human clinical trials demonstrate CoQ10's effectiveness in maintenance of good heart function.*

Antioxidant Protection

A byproduct of energy production in the mitochondria is the formation of damaging free radicals. Nature has designed a molecule in CoQ10 that is remarkable because it not only assists in ATP production, it also works in concert with other antioxidants to clean up the free radicals that are produced during that process and protect against their damaging effects. As an antioxidant, it rivals vitamins E and C. In addition, CoQ10 helps to regenerate and recycle vitamin E.*

Alpha Lipoic Acid

Alpha lipoic acid is another component involved in mitochondrial energy metabolism and recycling oxidized CoQ10. This system also helps to regenerate and recycle other antioxidants, including vitamins E and C and glutathione.*

Do You Need CoQ10?

As we age, the ability to absorb and synthesize CoQ10 diminishes and the amount of CoQ10 retained in tissues decreases. In addition, CoQ10 may be depleted by several other factors, including overall nutritional status and inadequate levels of the B vitamins, vitamin C, and selenium. Excessive exercise or environmental stresses such as illness and extreme weather may also lower CoQ10 levels in tissue.*

Why CoQuinone® 30?

CoQuinone 30 contains a full 30 mg of CoQ10 and 12.5 mg of alpha lipoic acid per soft gel capsule. USANA's unique formulation provides these important antioxidants in a natural mixture of lecithin and vegetable-derived glycerin monooleate in a base of medium chain triglycerides. Clinical tests performed in USANA's laboratories show that **CoQuinone 30** delivers CoQ10 in much higher quantities than from solid formulations or from competitive liquid formulations, making **CoQuinone 30** more bioavailable than other CoQ10 products.*



References

- Bhagavan HN, Chopra RK. Plasma coenzyme Q10 response to oral ingestion of coenzyme Q10 formulations. 2007. Mitochondrion 7 Suppl:S78-88.
- Crane FL. Biochemical functions of coenzyme Q10, 2001, J Am Coll Nutr 20(6):591-8.
- Cuomo J. Rabovsky A. Clinical Research Bulletin 2001, USANA Health Sciences.
- Ito T, Takahashi K, Shimizu R, Numata H, Ebihara S, Kazuhiro M, Inagaki M, Yasue M, Palmer H, Watanabe Y, Yamamoto Y. Potentiated Effects of Coenzyme Q10 complex supplement on Endurance and Stamina of Middle-aged Men. 2006. Pharmacometrics 71(1-2):29-35.
- Kagan VE, Fabisak JP, Tyurina YY. Independent and concerted antioxidant functions of coenzyme Q. In: Kagan VE, Quinn PJ,eds. Coenzyme 0: Molecular Mechanisms in Health and Disease. 2001. Boca Raton: CRC Press 119-130.

Optimizers CoQuinone 30

- Kaikkonen J, Tuomainen TP, Nyyssonen K, Salonen JT. Coenzyme Q10: absorption, antioxidative properties, determinants, and plasma levels. 2002. Free Radic Res 36(A):390-97
- Mohr D, Bowry VW, Stocker R. Dietary supplementation with coenzyme Q10 results in increased levels of biliquinol-10 within circulating lipoproteins and increased resistance of human low-density lipoprotein to the initiation of lipid peroxidation. 1992. Biochim Biophys Acta 1126(3):247-254.
- Rosenfeldt FL, Pepe S, Linnane A, Nagley P, Rowland M, Du R, Marasco S, Lyon W, Esmore D. Coenzyme 010 protects the aging heart against stress: studies in rats, human tissues, and patients. 2002. Ann N Y Acad Sci 959:355-9, 463-5.
- Sarter B. Coenzyme Q10 and cardiovascular disease: a review. 2002. J Cardiovasc Nurs 16(4):9-20.
- Singh RB, Niaz MA, Kumar A, Sindberg CD, Moesgaard S, Littarru GP. Effect on absorption and oxidative stress of different oral Coenzyme.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.