



Cellular Energy*

Support for Mitochondrial Energy*

NutriDyn Cellular Energy is a potent formula that contains research-backed ingredients for supporting energy production in mitochondria, as well as many other benefits.* Mitochondria are organelles that act as the “powerhouse” of cells. The nutrients found in Cellular Energy help these organelles efficiently carry out their role in producing ATP—the energy currency of cells.*

How Cellular Energy Works

Cellular Energy is formulated with efficacious amounts of several energy-supporting ingredients, including coenzyme Q10 (CoQ10), acetyl L-carnitine (ALCAR), N-acetyl L-cysteine (NAC), alpha-lipoic acid (ALA), and grape seed extract.*

Findings indicate that low levels of CoQ10 are associated with several cardiovascular and energy-related cell disturbances.¹ As an integral part of the electron transport chain (which takes place in mitochondria), CoQ10 assists in the synthesis of ATP. As part of that process, CoQ10 converts between ubiquinone and biologically-active ubiquinol while acting as an antioxidant and effectively “trapping” free radicals.*

Research has also demonstrated that CoQ10, NAC, ALA, and grape seed extract promote proper blood flow throughout the cardiovascular system by preserving the activity of nitric oxide—a molecule that expands blood vessels.*^{2,3,4,5} Proper blood flow is imperative for cells to help the body produce energy as blood carries oxygen and nutrients, as well as remove waste products.

Furthermore, Cellular Energy contains ALCAR, a highly-bioavailable form of L-carnitine. Sufficient carnitine is important in fat metabolism; carnitine helps transport long-chain fatty acids into the mitochondria for their breakdown to occur, enabling your body to use them for energy.*⁶

Cellular Energy is rounded out with two key minerals—magnesium and manganese. Supplementation with magnesium and manganese can help support hydration status and healthy levels of oxidative stress, both of which are imperative for keeping energy production normal.*^{7,8}

Cellular Energy Supplementation

Given the role of the ingredients in Cellular Energy for supporting energy production and overall health, supplementation can assist users in a multitude of ways.* These evidence-based benefits may include:

- Supports energy production*
- Supports cardiovascular function*
- Supports blood flow and nitric oxide production*
- Provides antioxidant support throughout the body*
- Supports body tissues including epithelial, muscle, connective, and nervous tissues*



Form: 60/180 Capsules

Serving Size: 2 Capsules

Ingredients	Amount	%DV
Magnesium (as magnesium malate)	35 mg	8%
Manganese (as manganese sulfate)	2 mg	87%
Acetyl L-Carnitine HCl	300 mg	**
N-Acetyl L-Cysteine	300 mg	**
Coenzyme Q10	200 mg	**
Alpha-Lipoic Acid	150 mg	**
Grape Seed Extract	150 mg	**

Other Ingredients:

Hydroxypropyl methylcellulose, vegetable magnesium stearate.

Directions:

Take two capsules daily as a dietary supplement, or as directed by your healthcare practitioner.

Caution: If you are pregnant, nursing, or taking medication, consult your healthcare practitioner before use. Keep out of reach of children.



GLUTEN-FREE



DAIRY-FREE



VEGETARIAN



NON-GMO



PRODUCED IN A
cGMP FACILITY

* 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.

For more information, visit: www.nutridyn.com

References:

1. Angelini, C. (2014). Coenzyme Q10 Deficiency. In *Genetic Neuromuscular Disorders* (pp. 247-250). Springer International Publishing.
2. Moncada, S. R. M. J., Palmer, R. M. L., & Higgs, E. (1991). Nitric oxide: physiology, pathophysiology, and pharmacology. *Pharmacological reviews*, 43(2), 109-142.
3. Clementi, E., Brown, G. C., Feelisch, M., & Moncada, S. (1998). Persistent inhibition of cell respiration by nitric oxide: crucial role of S-nitrosylation of mitochondrial complex I and protective action of glutathione. *Proceedings of the National Academy of Sciences*, 95(13), 7631-7636.
4. Heitzer, T., Finckh, B., Albers, S., Krohn, K., Kohlschütter, A., & Meinertz, T. (2001). Beneficial effects of α -lipoic acid and ascorbic acid on endothelium-dependent, nitric oxide-mediated vasodilation in diabetic patients: relation to parameters of oxidative stress. *Free Radical Biology and Medicine*, 31(1), 53-61.
5. Clifton, P. M. (2004). Effect of grape seed extract and quercetin on cardiovascular and endothelial parameters in high-risk subjects. *BioMed Research International*, 2004(5), 272-278.
6. Hagen, T. M., Liu, J., Lykkesfeldt, J., Wehr, C. M., Ingersoll, R. T., Vinarsky, V., ... & Ames, B. N. (2002). Feeding acetyl-L-carnitine and lipoic acid to old rats significantly improves metabolic function while decreasing oxidative stress. *Proceedings of the National Academy of Sciences*, 99(4), 1870-1875.
7. Aguirre, J. D., & Culotta, V. C. (2012). Battles with iron: manganese in oxidative stress protection. *Journal of Biological Chemistry*, 287(17), 13541-13548.
8. Lukaski, H. C. (2001). Magnesium, zinc, and chromium nutrition and athletic performance. *Canadian Journal of Applied Physiology*, 26(S1), S13-S22.