



MONTIFF INC

Don Tyson's Advanced Nutraceuticals



ULTRA CARNITINE

Active L-Carnitine Formula



A combination of pure, Elemental (active) L-Carnitine Fumarate *plus* Acetyl-Carnitine for healthy heart & brain tissue, lipid metabolism, and the athlete.

Each capsule contains Elemental L-Carnitine Fumarate 165 mg., Acetyl-Carnitine 135mg., for a total of 300 mg. of **active** Carnitine.

RECOMMENDED TO ENHANCE STRUCTURE & FUNCTION RELATING TO NUTRITIONAL NEEDS AND DEFICIENCIES PERTAINING TO:

- **Heart function and health**
- **Healthy brain tissue and neurological function.**
- **Lipid Metabolism and reduction of Triglycerides**
- **Muscle function and increased athletic performance**

WHAT IS CARNITINE?

Carnitine is a naturally occurring amino acid metabolized from Lysine and Methionine (with Vitamins B-6 and C) and synthesized in the liver and kidneys. The food source is meat and milk and it is absent in strict vegetarian diets. Carnitine is a necessary component of heart and skeletal muscle tissue. It is involved in lipid metabolism, and it functions to transport fatty acids across the inner mitochondrial membranes. This amino acid is also essential for brain cells and healthy neurological function, and it promotes longevity by helping to provide cells with the necessary energy to function. Carnitine deficiencies are common, and are evident in two types of conditions. Those, in which Myopathy is involved, note Carnitine deficiencies in muscles, whereas systemic deficiencies are results of long term diseases, such as renal failure, and Reye's syndrome. Low levels of Carnitine have been also noted in patients with diabetes, myocardial ischemia, cancer and alcoholism. There are different types of Carnitine. Elemental (active) L-Carnitine Fumarate has an extra molecule of fumaric acid, that helps maintain Krebs' Cycle function, and Acetyl-Carnitine crosses the blood brain barrier quickly and aids in neurological function. Carnitine supplementation results in increased plasma and tissue levels of Carnitine.

CARNITINE AND HEART FUNCTION

- In healthy heart tissue, Carnitine has adequate amounts to provide sufficient fatty acids, which are the principal energy substrate of the heart.
- Carnitine levels decrease in patients with acute and chronic ischemic cardiopathy, including angina pectoris, myocardial infarction, chronic coronary insufficiency, as well as heart failure. This causes the heart to shift to Glucose metabolism to supply energy, resulting in over-utilization of glycogen, thus depleting glycogen stores, which are necessary to supply emergency energy to the heart.
- Carnitine supplementation enables the facilitation of fatty acid oxidation, preserving glycogen stores and restoring normal metabolic conditions to the heart.
- Supplementation of Carnitine to patients with angina pectoris may improve exercise tolerance, help prevent arrhythmias, and may be beneficial in patients with congestive heart failure as well.
- Carnitine supplementation may improve tachycardia and reduce signs and symptoms of ischemia in patients with coronary artery disease.

**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.*

CARNITINE, ACETYL-CARNITINE AND BRAIN & NEUROLOGICAL FUNCTION

- Carnitine and Acetyl-Carnitine are present in the grey matter of the central nervous system.
- Acetyl-Carnitine, the Ester form of Carnitine, is quickly absorbed into the brain and has significant effect on healthy neurological function, especially on age-related changes on dopamine receptors and amino acid levels in the brain. Acetyl-Carnitine protects neurons against oxidative damage and may slow the progression of dementia in Alzheimer's patients.
- Acetyl-Carnitine has a role in neuronal metabolism and increases neurotrophic factors, and it may be beneficial with patients who have peripheral neuropathies with pain.

LIPID METABOLISM

- Carnitine is involved in fat metabolism, and is the only known substance that can lower harmful Triglycerides, which can cause poor circulation, myocardial infarction and kidney disease.
- Carnitine transfers long chain fatty acids across the mitochondrial membranes of cells, where they can be used as an energy source. By mobilizing the fatty acids, it stimulates fat metabolism resulting in fat reduction.
- Acetyl-Carnitine is also involved in lipid activity, and has a positive effect on lowering cholesterol.

ATHLETIC PERFORMANCE

- Carnitine supplementation increases lipid metabolism in muscles during physical activity, which leads to saving glycogen stores. This helps prevent the breakdown of muscle tissue during prolonged & vigorous workouts and general athletic activities.
- Carnitine increases energy, but without supplementation, Carnitine pools become depleted due to strenuous activity. Acetyl-Carnitine also has a beneficial effect on muscles, which is important for athletic performance.
- Athletes administered Carnitine supplementation showed increased performance in sports activities.

ADDITIONAL INFORMATION REGARDING CARNITINE

- Low levels of Acetyl-Carnitine have been documented in infertile sperm.
- Carnitine enhances liver function and the immune system.
- It naturally increases mental and physical energy.
- Some benefits have been noted in symptoms of Parkinson's Disease and degenerative muscle conditions.

SOME BENEFITS OF ULTRA CARNITINE

- Montiff provides the **purest, active** L-Carnitine to insure effectiveness.
- Many Carnitine products only state total molecular weight of ingredients, without providing the actual activity of the Carnitine. Montiff provides all pure, Elemental (active) L-Carnitine, as well as important Elemental (active) Acetyl-Carnitine.
- **Acetyl-Carnitine** is included for maximum effectiveness for beneficial heart and brain activity, as well as for increased muscle function.
- **L-Carnitine Fumarate** has an extra fumaric acid molecule to help Krebs' Cycle function.

DIRECTIONS: 1-2 Capsules a day, or as needed.

REFERENCES:

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- Heurtes, et al "Respiratory Chain Enzymes in Muscle of Endurance Athletes, Effect of L-Carnitine", *Biochem. Biophys. Res. C.*1992.
- Spagnoli A. et al "Long-term Acetyl-Carnitine Treatment in Alzheimer's Disease". *Neurology* 1991.
- Bruno, g et al, "Acetyl-L-Carnitine in Alzheimer Disease: A Short Term Study on CSF Neurotransmitters and Neuropeptides", *Alzheimer Disease and Associated Disorders*, 1995.
- Pepine, Carl J, "The Therapeutic Potential of Carnitine in Cardiovascular Disease", *Clinical Therapeutics*, Feb. 1991.
- Crayhon, Robert M.S., The Carnitine Miracle, 1998.