



MONTIFF INC

Don Tyson's Advanced Nutraceuticals

L-CARNITINE

Lipid Metabolism and Weight Management

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

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, and it is involved in lipid metabolism functioning to transport fatty acids across the inner mitochondrial membranes where they can be broken down and used for the production of energy.

HOW DOES CARNITINE EFFECT WEIGHT LOSS?

In order to lose weight, it is necessary to burn excessive fat in a process, which converts long chain fatty acids into energy (β -oxidation). Those who "diet" may lose at least 25-30% of the weight from water loss and lean muscle tissue instead of fat. Carnitine is the only element that can transport the long chain fatty acids across the mitochondria, where they can be turned into energy in this process of β -oxidation. Since low caloric diets decrease the amount of Carnitine available from food sources, the body then uses glycogen stores for energy instead of burning up fat. Carnitine, by stimulating β -oxidation, reduces the utilization of the branch chain amino acids, which if decreased result in reducing lean body mass rather than fat. By preventing the utilization of the glucogenic amino acids for energy, there is a higher amount available to supply the brain with energy and help induce appetite suppression. Supplementation with Carnitine can increase the β -oxidation process, thus burning fat while maintaining lean muscle, as well as increasing the resting metabolic rate. For those wishing to lose fat, Carnitine is an important adjunct along with a program of reduced calories and increased exercise.

OBESITY IS A PROBLEM IN OUR CULTURE

Obesity occurs when caloric intake exceeds the amount of energy a person burns. This is a significant problem in America, effecting 40 - 50% of the general population by measuring the **BMI** (body mass index). The dependence of fast foods, abundance of junk foods, with the mass advertising of these products, plus more sedentary life styles has had an affect on the increase of obesity in our culture. With the conveniences of automobiles people walk less, and with the advent of technology there has been a decrease in strenuous activity, preventing the burning off of calories. People watch television or sit in front of computers for hours, including our nation's children, who are developing poor eating habits and becoming obese with the health disorders related to this problem. Obesity leads to increased cholesterol with high levels of LDL's, clogging veins and arteries with plaque, which can lead to cardiovascular problems and strokes. Excessive weight also can lead to diabetes, gallstones, respiratory disorders and poor general health. Supplementing with Carnitine, along with a responsible food program and exercise can stimulate the burning of fat for energy resulting in weight loss in a healthy natural way.

STUDIES RE: OBESITY AND CARNITINE SUPPLEMENTATION

- In a controlled group study in 1990 adolescence were given 2 grams of L-Carnitine supplementation along with restricted calorie intake and general weight management program. Those who were given Carnitine had a significantly higher weight loss, as well as a decreased BMI and body fat content than those given a placebo.

- A study conducted in 1992 evaluated 40 obese individuals from 19-68 years old over an 8-week period. They were given 200 mg. of Carnitine as well as 600 mcg. of chromium picolinate. They showed a reduction in weight, body fat, LDL cholesterol and total cholesterol. They also noted feeling more energy, less hungry and fewer cravings for sugar allowing them to stay on the diet more easily.
- Another study completed in 1998 on 100 obese people compared those given Carnitine, along with reduced calories (1200 calories per day) and moderated exercise, with those in the control group. Those taking 4 grams of L-Carnitine per day for 4 weeks had a 25% greater loss in body weight, and their BMI dropped by 1.2. The L-Carnitine group had lower total cholesterol levels, as well as lower LDLs, and the blood sugar and blood pressure levels were lower also.



CARNITINE AND EXERCISE

Exercise is an important part of a weight reduction program, and often those trying to reduce fat are interested in developing muscle tissue and toning up. L-Carnitine is involved in the conversion of fatty acids into energy and thus preserving glycogen stores. This helps prevent the breakdown of muscle tissue during exercise, while increasing energy. Because this aids the anabolic effect on muscle tissue, supplementation with Carnitine is helpful to athletes as well as those on weight reduction regimens.

WHAT ARE THE BENEFITS OF MONTIFF ULTRA CARNITINE?

- Montiff supplies the highest quality, purist active Carnitine to insure effectiveness.
- Ultra Carnitine contains both Elemental Carnitine Fumarate and Elemental AcetylCarnitine.
- Acetyl-Carnitine, the ester form of Carnitine, is quickly absorbed into the brain, is involved in lipid metabolism and has an effect on lowering cholesterol.
- Opaque white bottles are provided to preserve the activity of the Carnitine.
- Desiccant pads are included to insure maximum freshness.

DIRECTIONS: Take 1 - 6 capsules per day, in divided doses, with water or fruit juice.

Do not take with milk or dairy products. For proper metabolism, take with Vitamin B-6 and Vitamin C and Montiff B-Complete or B-Long and Pure C Plus are suggested.

REFERENCES:

- Di Pasquale, M, Amino Acids and Proteins for the Athlete, the Anabolic Edge, 1997.
- Sufeng, Z et al., Acta Nutr. Sin. 1997.
- Lurz R, Fishcer, R. Aerztezeitschrift fur Naturheilverfahren, 1998.
- Kaats, F. R. , Current Therapy Research, 1992.
- Leibovitz, BE, L-Carnitine, Lonza Press 1993.
- Jacob, Belleville, "L-Carnitine: "Metabolism, Function and Value in Pathology", Path. Biol., 1992.
- Paul, Adibi,: "Effect of Carnitine on Branched-Chain Amino Acid Oxidation by Liver and Skeletal Muscle:, Am. J. Path., 1992.

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