

The Benefits Of L-Carnitine Continues To Grow

Research continues to mount evidence that l-carnitine can help boost energy and quality of life. Carnitine comes from the Latin word for flesh: caro or carnis. L-carnitine was discovered and isolated from meat in the early 1900s. At that time, scientists thought that l-carnitine played a role in muscle function; this was many years before technology would advance so that this theory could be proved. Today, we know that this amino acid is found mostly in tissue of the body that requires lots of energy such as the heart, skeletal muscles, and liver.

L-carnitine is considered a non-essential amino acid since the body manufactures it from l-methionine and l-lysine. Depending on one's diet, the body manufactures most of, not all, the l-carnitine it needs every day. There are circumstances where a rare genetic disease can cause the body to not manufacture its own l-carnitine resulting in a deficiency which can cause secondary diseases such as cirrhosis of the liver, chronic renal failure, diabetes, heart failure or Alzheimer's disease. Some medications can cause a deficiency as well, check with your doctor about prescriptions.

The primary energy source for the body is long-chain fatty acids. L-carnitine plays an essential role in energy production process. This amino acid transports long-chain fatty acids into the mitochondria, where it is used to produce energy for each cell in the body. l-carnitine then removes the "acyl" group by products out of the mitochondria as they accumulate. Both the transporting in and out of the cells mitochondria is vital for continued muscle function to occur.

Researchers suggest that the limiting factor in high intensity exercise is from the availability of l-carnitine in the muscle tissue. Studies conducted with this amino acid suggest that athletes experience improved performance when supplementing with l-carnitine by reducing post exercise lactate acid levels and improving recovery from exercise stress.

Some research suggests that l-carnitine can help chronic fatigue individuals by shuttling long-chain fatty acids into the mitochondria where the body manufactures energy. The bulk of this research was done on chronic fatigue patients who consumed 2 grams per day of l-carnitine. Additional research was performed on individuals over 100 years of age and the results were these individuals experiences increase physical endurance and improved cognitive activity.

L-carnitine can help cardiovascular conditions including angina, congestive heart failure, and peripheral artery disease. Recent studies showed male fertility improvement when l-carnitine was consumed on a regular basis. Men participating had better sperm motility which increases the chances of one reaching an egg and improving the odds of fertilization.

Research also demonstrated that 1 gram of this amino acid daily over three months can help one reduce weight by improving fat metabolism. This holds consistent with the findings that l-carnitine transports long-chain fatty acids (fat) into cellular mitochondria so it can be burned as energy. With a good diet and exercise plan, reports suggest that even more weight loss can be achieved.

Safety is of particular concern when adding extra supplements to one's diet such as l-carnitine. Good news, l-carnitine is very safe at 1 – 3 grams each day, even higher doses are safe with no side effects. With the mounting evidence on the benefits of l-carnitine consumption, what is stopping you from adding l-carnitine today to your supplement diet to improve health and wellness?

About the Author

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