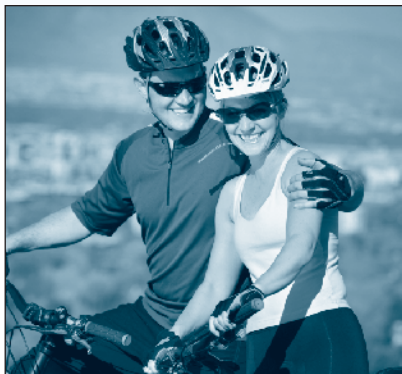


GLYCOCARN® GPLC

*Advanced Propionyl L-Carnitine
For Energy and Heart Health*



Roll stiffly out of bed. Drag yourself to work. Crawl back home and fall asleep in front of the television ...does it seem as though you're more tired lately?

Well, you're going through what most people do. One of the effects of aging is a decline in energy levels: the cells simply don't produce the energy they once did because they don't burn dietary fats for energy

as efficiently as they did in our youth. But the good news is that certain nutrients can help your cells maintain high energy production; one is a natural compound called carnitine.

Carnitine, also known as L-carnitine (levocarnitine), is a natural compound synthesized from the amino acids lysine and methionine. It is responsible for the transport of fatty acids into the mitochondria of the cell—one of the primary sources of energy for the cells. Propionyl L-carnitine is an advanced form of this important compound.

GPLC supports energy production for heart and cardiovascular function, musculo-skeletal health and muscular oxidation of fats. Source Naturals is pleased to bring you this profound tool for increasing energy and vitality.



Strategies for WellnessSM

How Carnitine Works

Carnitine refers to a number of natural compounds that are similar to amino acids but resemble vitamins in function. In our plasma and tissues, the “carnitine pool” is present, including L-carnitine, acetyl-L-carnitine, and propionyl-L-carnitine. The compounds are found either free or bound to fatty acids. Carnitine aids fatty acid metabolism by shuttling organic acids, both long-chain fatty acids as well as small acetyl and propionyl side groups, into the mitochondrial membrane, where fats are broken down as fuel for energy production in the cells.

Within the membrane, catabolic enzymes break the compounds into acetyl-CoA and propionyl-CoA, which enter the Krebs cycle to produce energy. Unused carnitine is returned back across the mitochondrial membrane, transported by another carnitine cousin, acyltransferase, and clears the mitochondria of buildup and accumulation of small, unused fatty acids.

Approximately 90 percent of the body's carnitine resides in the skeletal muscles, which is why it is a well known nutrient for athletes. Propionyl-L-carnitine has a high affinity for muscular carnitine transferase, which leads to an enhanced uptake by muscle fibers. Not only athletes are interested in enhanced muscle function; carnitine offers benefits to the most important muscle of all: the heart.

Glycine Energy

Using propionyl-L-carnitine with the amino acid glycine creates an additional source of energy from the breakdown of glycine. Glycine is a building block for many tissues and compounds, including protein and connective tissues such as collagen. Intake of Propionyl-L-carnitine with glycine supports increased muscle energy.

Benefits for the Entire Body

Carnitine benefits the heart and cardiovascular system as well as all of the body's muscles. It also has important benefits for everyone concerned about healthy aging:

- Supports cardiovascular health by improving cardiac metabolism of fatty acids, the heart's major oxidative fuel, and has been shown to protect and enhance numerous cardiac functions.
- Supports muscle endurance, increases exercise capacity.
- Improves mitochondrial function, an important aspect of healthy aging.
- Increases cellular energy by transporting fats into muscular mitochondria.

Of the 12 SystemiCare™ systems vital to good health, Source Naturals GPLC supports three: Energy, Metabolism/Hormones, and Circulation. By supporting your body at the cellular level with this important nutrient, you are enabling your body to maintain a healthy, happy, vigorous life.

References

Ferrari, et al.(2004) Therapeutic Effects of L-Carnitine and Propionyl-L-carnitine of Cardiovascular Diseases: A Review. *Annals New York Academy of Sciences*. 1033:70-91.

Kendler, B. (2006) Supplemental Conditionally Essential Nutrients in Cardiovascular Disease Therapy. *Journal of Cardiovascular Nursing*. 21:9-16.

Steiber, et al. (2004) Carnitine: a nutritional, biosynthetic, and functional perspective. *Molecular Aspects of Medicine*. 455-473.

Evans AM, Fornasini G. (2003) Pharmacokinetics of L-carnitine. *Clin Pharmacokinetics*. 42: 941-67.



Strategies for Wellnesssm

www.sourcenaturals.com



The above information has not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

© 2008 Source Naturals, Inc., P.O. Box 2118, Santa Cruz, CA 95062

REVA0808

LC3470