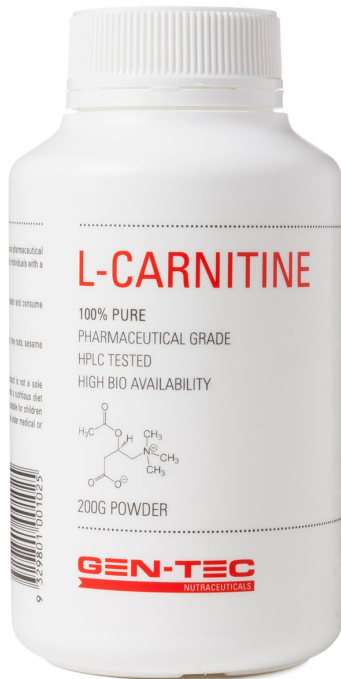


PRODUCT INFORMATION



L-CARNITINE

BASIC FUNCTIONS

Metabolise bodyfat, Improve endurance performance

L-Carnitine (LC) is a non-essential amino acid that plays an integral role in fatty acid metabolism and energy production. The successful metabolism of fats requires LC to collect available fatty acids and transport them to the muscle cells for beta-oxidation (energy). Without LC the fatty acids wouldn't effectively make it into the muscle cells to be broken down into energy.

LC plays a critical role in not only lipid and energy metabolism but also within nerve cells of the central nervous system (CNS) (Rebouche, 2012). Research shows that in the periphery skeletal muscle sites, LC is a co-factor for beta-oxidation (metabolism of fatty acids) whereby it mops up available fats to be sent to the muscle cells for metabolism (Stephens et al., 2007, Kido et al., 2001). More specifically it translocates long chain fatty acids (LCFA) to the mitochondrial matrix where it can undergo beta-oxidation and enter the Krebs cycle for fat derived ATP re-synthesis (Stephens et al., 2007). This involvement in fat metabolism is also one way by which LC assists with energy levels during exercise. Therefore LC is commonly used to enhance fat loss and support the rate of energy production from fat. Moreover LC can reduce the amount of muscle damage experienced from hard training due to its antioxidant properties that cleanse the mitochondria (maintenance) (Stephens et al., 2007).

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REBOUCHE, C. J. 2012. *L-Carnitine. Present Knowledge in Nutrition*. Wiley-Blackwell.

STEPHENS, F. B., CONSTANTIN-TEODOSIU, D. & GREENHAFF, P. L. 2007. New insights concerning the role of carnitine in the regulation of fuel metabolism in skeletal muscle. *The Journal of Physiology*, 581, 431-444.

SIZE: 200 grams powder
FLAVOUR: Natural



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