



## Weekly Practice Builder

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*In response to increasing demand from our Practitioners, Biotics Research has implemented a new e-mail program to bring important, leading-edge information and literature to you, thereby helping facilitate the growth of your practice. Biotics Research products are available exclusively through Healthcare Providers.*

### Our featured supplement of the week is **L-Carnitine Powder**

**Why do your patients need L-Carnitine?** L-Carnitine is a naturally occurring amino acid that plays a vital role in fat metabolism. L-Carnitine is synthesised in the liver and kidney from the essential amino acids lysine and methionine but it is primarily stored in muscle tissue. One of L-carnitine's primary functions is that of fatty acid transport – it works to transport long chain fatty acids across the mitochondrial membrane so that it can be metabolised for energy. Adequate levels of L-carnitine are believed to be particularly important for supplying energy during periods of long term aerobic activity. Additional L-carnitine functions include muscle contraction, regulation of protein balance, countering adverse effects of aging, supporting cardiovascular health, etc. Research also suggests that an adequate supply of L-carnitine could be instrumental in supporting diabetic patients, those with chronic fatigue, those with kidney or liver impairment, or those with chronic degenerative status. The synthesis of L-carnitine requires adequate levels of niacin, vitamin B6, vitamin C, and iron, so vegetarians, seniors, and those with impaired digestion or known iron deficiencies may have increased need for L-carnitine supplementation. Lastly, since L-carnitine stimulates the burning of triglycerides for energy production, individuals with elevated triglyceride levels may benefit from increased intake of L-carnitine.

**Why choose L-Carnitine Powder from Biotics Research Corporation?** As the essential amino acid for optimal fat burning, there are innumerable forms and formulas of L-carnitine available. However, you need to assure yourself that you are getting what you pay for, since many unscrupulous manufacturers are mislabeling their supplements. When reading a supplement panel for L-carnitine, the elemental amount of carnitine should be stated in addition to the total used as a serving size, ie. Biotics Research Corporation's **L-Carnitine Powder** supplies 1.70 gm of L-carnitine per 3 gm serving, thus delivering a 56% potency of the amino acid. Some manufacturers omit labeling the amount of elemental carnitine from their label, thereby alluding that their products are 100% potency, however no such product is commercially available. For ease and flexibility of dosing, L-carnitine is available as **L-Carnitine Powder**, with each teaspoon supplying 1.70 gm of carnitine. Once again, Biotics Research Corporation brings you "The Best of Science & Nature".



Questions? Concerns?  
Comments? Nutri-Link  
wants to hear from you!



Email us at:  
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### Studies You Should Know About

**Supplementation with vitamin D may reverse statin induced myalgia in vitamin D deficient patients.** A recent study from researchers at the Cholesterol Center, Jewish Hospital of Cincinnati found that increasing serum vitamin D levels (25 (OH) vitamin D) saw a 92% resolution of myalgia in patients who had initial vitamin D levels of 20.4 +/- 7.3 ng/ml. Interestingly, serum D was low in 64% of patients with statin-induced myalgia versus only 43% of asymptomatic patients, suggesting that further study is needed to determine the interaction between vitamin D deficiency and statins on skeletal muscle.

Ahmed W, Khan N, Glueck CJ, Pandey S, Wang P, Goldenberg N, Uppal M, Khanal S. Low serum 25(OH) vitamin D levels (<32ng/mL) are associated with reversible myositis-myalgia in statin treated patients. *Translational Research*, 2009 Jan;153(1):11-6.