

L-ARGININE/L-CITRULLINE COMPLEX

Supports Peak Performance



Photo by Borislav Dopudja

Are you concerned about improved performance in the workplace or at the gym? Many people share these concerns but regular supplementation of L-ARGININE/L-CITRULLINE COMPLEX can help turn this condition around. This potent amino acid complex can help restore energy and relieve muscle fatigue through increased recovery after exercise.

L-ARGININE/L-CITRULLINE COMPLEX, brought to you by Source Naturals, is a powerful new supplement combination which supports four of the twelve SystemiCare™ deep metabolic systems: Liver Detoxification and Cleansing; Metabolism and Protein Synthesis; Healthy Circulation and Heart Function; and ATP Synthesis for Energy Production.



*Strategies for Wellness*SM

L-Arginine: Powerful Amino Acid

Both L-citrulline and L-arginine are key intermediates in the Krebs urea cycle where they participate in the detoxification of ammonia in the liver. L-Arginine is produced in the liver but is predominantly synthesized in the kidneys. Any L-arginine not converted to urea enters general circulation where it is distributed to various tissues and metabolized for other uses such as protein synthesis.

L-Arginine Easily Converts into Nitric Oxide

L-Arginine is perhaps best known for its role in the formation of nitric oxide (NO). NO is a messenger molecule that regulates blood vessel dilation. Many nerve cells use NO as a signaling molecule. Erectile function, for example, is mediated by the release of nitric oxide from the autonomic nerves in the penis.

L-Arginine Supports Heart and Circulation

Nitric oxide is formed from L-arginine, which functions as a substrate for the enzyme, nitric oxide synthase (NOS). The formation of NO mediates smooth muscle relaxation in the blood vessel wall, and thus reduces the workload of the heart.

L-Arginine/L-Citrulline Complex Supports Muscle Metabolism and Energy

During intense exercise there is an increased production of ammonia and IMP (inosinemonophosphate) in the exercised muscle. Supplementation with L-ARGININE/L-CITRULLINE COMPLEX may allow for increased ammonia elimination in the urea cycle and may relieve

muscle fatigue. Also, studies have indicated an increase of oxidative ATP synthesis to energy production during exercise and increased recovery after exercise.

L-ARGININE/L-CITRULLINE COMPLEX is a powerful combination which supports metabolism, protein synthesis, and liver detoxification. The L-arginine in the product supports nitric oxide (NO) production, which is beneficial to the heart and blood vessels. This is a combination supplement designed to enhance peak performance naturally and support exercise and workouts.

Source Naturals encourages its customers to embrace a holistic approach to wellness through education, exercise, and attention to healthy lifestyle, including diet and moderation. Dietary sources for arginine come from numerous healthy foods: nuts, raisins, coconuts, and whole grain cereals, red meat, brown rice and dairy products. Source Naturals is your primary source for natural supplements which are proven by scientific research to maintain all of the 12 SystemiCare™ deep metabolic systems.

References:

1. Yi Zhang, W., Takiguchi, M., Koshiyama, Y. Gotoh, T., Nagasaki, A., Iwase, K., Yamamoto, K., Takeshima, HI Negi, a., Mori, M. 1999. Expression of citrulline-nitric oxide cycle in lipopolysaccharide and cytokine-stimulated ras astrogloma C6 cells. *Brain Research*, 849; 78-84.
2. Koga, T., Yi Zhang, W., Gotoh, T., Oyadomari, S., Tanihara, H. Mori, M. 2003. Induction of citrulline-nitric oxide (NO) cycle enzymes and NO production in immunostimulated rat RPE-J cells. *Experimental Eye Research*, 76: 15-21.
3. Wu, G. Brosnan, J.T. 1992. Macrophages can convert citrulline into arginine. *Biochem. J.*, 281: 45-48
4. Miller, S.M., Jr. 2002. Regulation of enzymes of the Urea Cycle and Arginine metabolism. *Annu. Rev. Nutr.*, 22: 87-105.



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.

© 2007 Source Naturals, Inc., P.O. Box 2118, Santa Cruz, CA 95063

REV A0704 LC3376

