



NATURAL PRODUCTS
INSIDER[®]

Vol. 6, No. 26
November 2016
naturalproductsinsider.com
US\$20.75



Sports Nutrition
**PERFORMANCE
& ENERGY**

Ingredients and product marketing
for active consumers



INGREDIENT MARKETPLACE

Orlando Florida 2017 **April 18-20**
Orlando World Center Marriott Expo Hall April 19 & 20

The Importance of Blood Flow

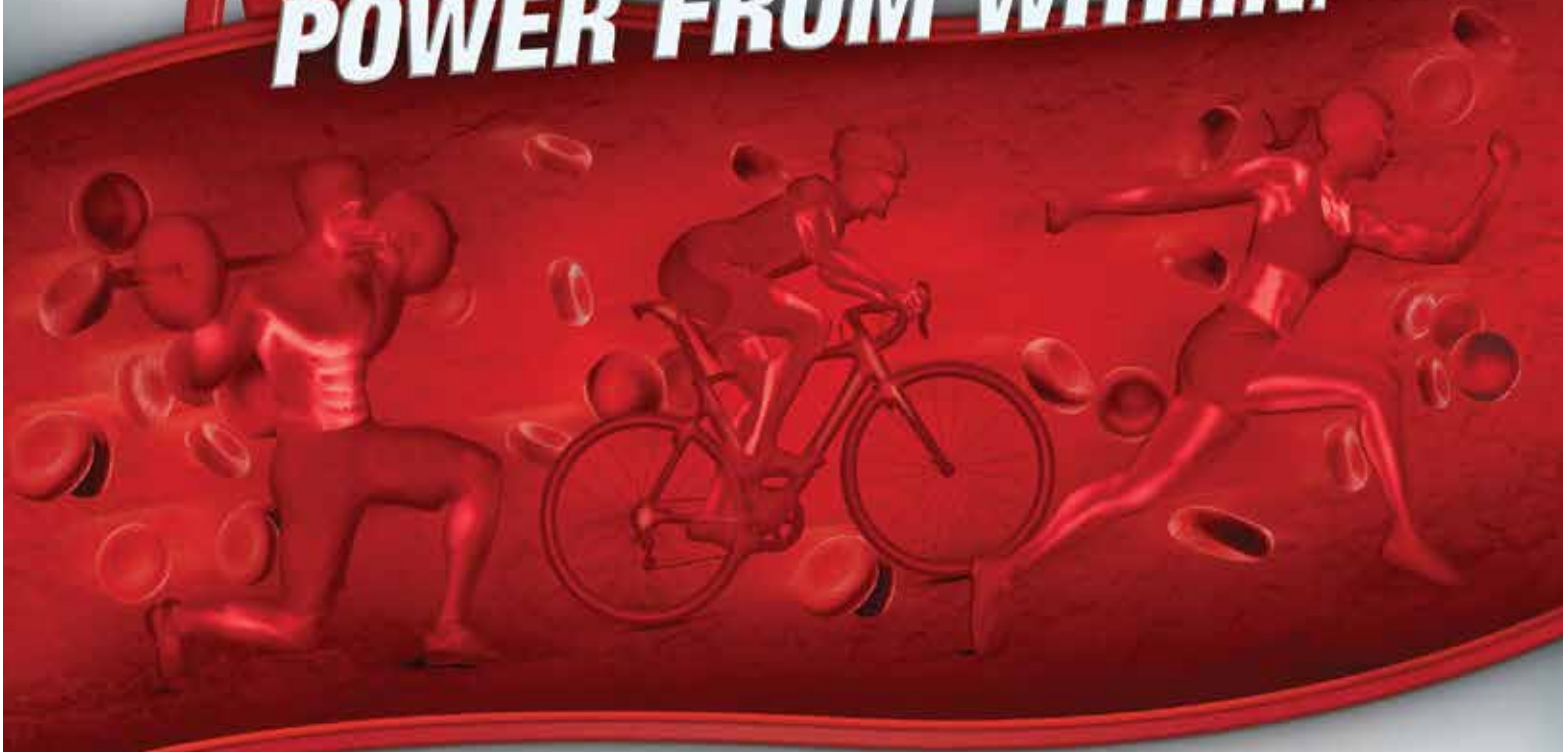
Creatine is often combined with other sports performance ingredients such as **nitrates**. Found in a number of different foods—mostly vegetables—and formed in the body as a result of certain oxidation reactions, nitrates have often been considered negative for health. However, these compounds have become popular in sports nutrition due to an ability to increase body levels of nitric oxide (NO), a vasodilator that increases blood flow. The idea is that improved blood flow increases the delivery of important energy- and performance-related compounds, such as glucose, to the muscles and reduces oxygen demands during exercise, thereby lowering energy demands. But the research on nitrate supplementation's benefit to energy and performance has not been definitive.

A high-nitrate diet was shown to increase plasma nitrate and nitrite concentrations, and provide some performance and oxygen demand benefits during various levels of cycling exercises.⁹

NO is produced in the body from its precursor **L-arginine**, an amino acid. Supplementation with arginine bonded with silicon (as Nitrosigine®, from Nutrition 21) may increase blood arginine and NO levels.¹⁰ Recent research showed Nitrosigine supplementation may increase blood flow to the muscles and the brain, resulting in improved muscle health and cognitive functioning.^{11,12} However, a 2013 trial found arginine did not offer any benefit to hormonal, metabolic or cardio-respiratory responses during exercise.¹³



NITROSIGINE® POWER FROM WITHIN.™



Nitrosigine® from Nutrition 21—enhances performance to give your sports nutrition product the competitive edge.

- Elevates arginine levels for up to 6 hours*¹
- Increases energy quickly and safely*^{2,6}
- Improves mental acuity and focus within 15 minutes*³
- Increases muscle volume*⁴⁻⁶
- Reduces muscle damage from exercise*^{1,2,6}

Our integrated co-promotion program communicates the powerful benefits of Nitrosigine to your customers, generating millions of consumer impressions!

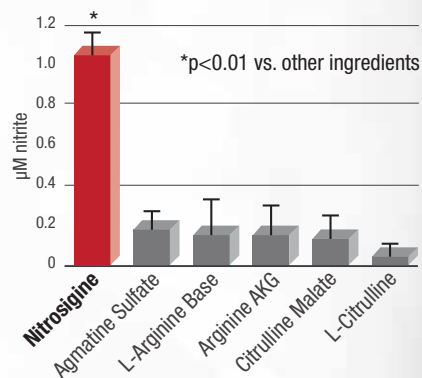
Pump up sales with Nitrosigine!
Visit Nutrition21.com or call (855) 648-7674 for details.

*Results compared to baseline.

©2016 Nutrition 21, LLC Nitrosigine® is a registered trademark of Nutrition 21, LLC U.S. Patents: 5,707,970; 6,156,735; 6,344,444; 6,803,456; 7,576,132 1. Komorowski J, Perez Ojalvo S. A pharmacokinetic evaluation of the duration of effect of inositol-stabilized arginine silicate and arginine hydrochloride in healthy adult males. *The FASEB Journal*. 2016; 30(1) Supplement 690.17. 2. Rood-Ojalvo S, Sandler D, Veledar E, Komorowski J. The benefits of inositol-stabilized arginine silicate as a workout ingredient. *Journal of the International Society of Sports Nutrition*. 2015;12(Suppl 1):P14. 3. Harvey P, Rood-Ojalvo S, Komorowski J. The effects of inositol-stabilized arginine silicate on cognitive function. *Journal of the American College of Nutrition*. 2015;34(6):544. 4. Kalman D, Feldman S, Samson A, Krieger D. A clinical evaluation to determine the safety, pharmacokinetics and pharmacodynamics of an inositol-stabilized arginine silicate dietary supplement in healthy adult males. *Clinical Pharmacology*. 2015;7:103-109. 5. Komorowski J, Rood-Ojalvo S, and El-Soehy A. Arginine silicate supplementation decreases markers of cardiovascular, renal and metabolic dysfunction and increases markers of vasodilation and cardiovascular health in healthy adult males. *The FASEB Journal*. 2015;29(1):748.2. 6. Data on file 2016, Nutrition 21, LLC. DRA683050316

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

SUPERIOR NITRIC OXIDE BOOST— Key Factor for Increasing Blood Flow*⁶ *Nitrosigine vs. Other Ingredients—In Vitro Study*



Nitrosigine®
Bonded Arginine Silicate
POWER FROM WITHIN.™



INTRODUCING



UNLEASH THE POWER

OF PROTEIN

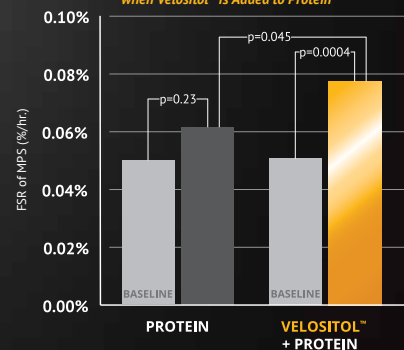
ADD VELOSITOL™ AND
DOUBLE THE POWER OF
YOUR PROTEIN PRODUCTS.*

New Velositol™, a revolutionary ingredient from the makers of Nitrosigine® that doubles the power of protein – increasing muscle protein synthesis, the key to muscle growth*. Velositol is clinically shown to work in a single dose. A flavorless, water-dispersible powder, Velositol can be easily incorporated into powder, pill, bar, or ready-to-drink protein products.

Our integrated co-promotion program communicates the powerful benefits of Velositol, generating millions of consumer impressions. Power up sales with Velositol!

INCREASE IN MUSCLE PROTEIN SYNTHESIS— THE KEY TO MUSCLE GROWTH*

*Increase in Muscle Protein Synthesis (MPS)
when Velositol™ is Added to Protein*



VISIT NUTRITION21.COM OR CALL (855) 648-7674 FOR DETAILS.

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