



Supplement Review: Gaspari Anavite

It always amazes me that when talking to bodybuilders about supplementation, they always mention creatine powders, protein powders, and pre-workout energizers, testosterone boosters but often they take a multi-vitamin like Centrum and think they have their supplementation stack covered. Wrong, wrong, wrong! Your multivitamin is the base of your supplement pyramid, if you have nutrient deficiencies, why the hell good is a creatine powder. Centrum is a complete multivitamin and mineral supplement that contains **synthetic vitamins**. There have been studies where high doses of synthetic vitamins have been shown to have negative health effects. The stomach breaks things down, but the small intestine is where nutrients are absorbed.

There is

evidence to claim that synthetic multi-vitamin tablets take too long to break down and the nutrients aren't properly absorbed

. Moreover, according to a study done by the *Journal of the American Medical Association*

, in which 200,000 patients were exposed to large doses of synthetic vitamin supplements such as beta carotene and Vitamins A, C, E, and Selenium, results showed that Vitamin A increased the risk of death by 16%, while large doses of Vitamin E and beta carotene increased the risk for death by 4%

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. What the study shows is that taking a low grade multi-vitamin can do more harm than good.

Gaspari's Anavite: The Highly Bioavailable Multivitamin and Mineral Supplement

ANAVITE™ is the first multivitamin and mineral supplement for educated and serious athletes who know how to maximize their game while saving money. **ANAVITE** is actually three amazing supplements in one bottle. Containing the required amounts of Beta Alanine and a well studied, validated form of the amino acid, L-Carnitine (Lonza's Carnipure® branded and patented L-Carnitine L-Tartrate)

ANAVITE

contains the ingredients demonstrated to substantially increase aerobic and anaerobic endurance, nitric oxide release while drastically decreasing recovery time. Want more?

ANAVITE

is also your high potency multivitamin with the water and fat soluble vitamins, minerals and

co-factors required for optimal growth, performance and recovery. So why pay up to three times as much and have to use three different products to get the results you want? With

ANAVITE

, Gaspari Nutrition has made it convenient, easy and cost effective to help keep you at the top of the game every day. So let's examine the main ingredients in

ANAVITE

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Beta Alanine: Why every Bodybuilder should be taking Beta-Alanine!!

Many bodybuilders know that muscle growth is the sum accumulation of adding more tension to the muscle. High volume exercise seems to be an effective way of increasing both strength and muscle mass. Many of the greatest bodybuilders in the world were advocates of high volume training such as Arnold Schwarzenegger, Lee Haney, and Sergio Oliva all were believers in doing lots of sets. In the past Vince Gironda, as well as Dave Draper were believers in the "The 10 sets of 10 reps bodybuilding training method" in order to break through plateaus and gain new lean muscle mass. That sometimes equated to 40-plus sets, a workout that lasted over two hours. Although some trainers have advocated in the past that 1 set till failure is all that is needed, a comprehensive study published in *Journal of Strength and Conditioning Research*

analyzed 16 past studies and concluded that in the very short term, single set programs were adequate in untrained, but for experienced multi-set routines gave better strength gains

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. Becoming stronger is often mainly a result of muscle growth. Muscle growth also usually follows strength gains, due to adaptations the muscles must make, provided you eat enough calories to build the muscle up. So you want to be able to train with more volume which means increasing the amount of sets performed, is there any supplements that have been validated to increase the amount of work performed in the gym? The answer is yes...and only one supplement comes to my mind.

I would have to recommend ***Beta Alanine*** as the supplement of choice. ***Beta Alanine*** is the rate-limiting precursor of carnosine, which is to say carnosine levels are limited by the amount of available

Beta Alanine

. Supplementation with

Beta Alanine

has been shown to increase the concentration of carnosine in muscles, decrease fatigue in athletes and increase total muscular work done

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. Many bodybuilders have great better workouts while using testosterone which may be

because testosterone has the ability to increase carnosine in muscle. One study showed mice receiving testosterone demonstrated a 250% increase in intramuscular carnosine content

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. So how do you boost carnosine levels? There really is no other way to increase muscle carnosine levels thru diet or exercise; supplementation of Beta Alanine is really the only way to raise muscle carnosine levels. Here is a list of other reasons why bodybuilders should be using β -Alanine:

- ***Beta Alanine Reduces Fatigue***: Type II fibers have greater capacity for muscle growth and strength gains are more prone and resistant to acidic environments and, hence, demonstrate greater buffering capacity in comparison to type I fibers. Being able to go past the burn in a set depends of having high concentrations of carnosine in muscle. One study reported that body-builders present up to two times higher carnosine concentration than untrained subject. In these athletes, the contribution of carnosine for total buffering capacity was estimated to be ~20%, whereas in the control group the contribution was only 10%. Given that bodybuilding training elicits a relatively high muscular acidosis, elevated intramuscular carnosine concentration as a consequence of long-term training adaptations has been proposed. The exciting part is that taking ***Beta Alanine*** can increase carnosine levels and further increase buffering capacity of muscle. Researchers investigated whether β - alanine supplementation could increase intramuscular carnosine content in humans. The authors tested three different doses: 40 mg/kg, 20 mg/kg, and 10 mg/kg of body weight. It was verified that the highest dose elicited a peak in serum β -alanine levels but also elicited the highest dose of paresthesia. Paresthesia is a tingling sensation that you get from taking to much Beta Alanine; it's a harmless but feels like a niacin flush. These symptoms can be avoided by the use of controlled release capsules and by smaller dosing strategies. The intermediate dose resulted in a lower peak in serum β -alanine but also accompanied by symptoms of paresthesia, which were less frequent and intense. On the other hand, 10 mg·kg⁻¹ resulted in no significant symptoms of paresthesia and a discrete peak of serum

β -alanine

. This demonstrates that the maximum tolerated single dose is 10 mg·kg⁻¹, which corresponds to an average of 800 mg of β -alanine.

- ***Beta Alanine Increases Total Work Volume***: One of the promising effects of ***Beta Alanine*** is its ability to increase the amount of exercise performed in a session. For example, when an

exercise protocol eliciting an extreme acidosis (i.e. highly anaerobic exercise) was used, a significant improvement in performance was observed when

Beta Alanine

was administered. The researchers investigated the effects of four and 10 weeks of β -alanine supplementation upon cycling performance at 110% VO_{2peak} and muscle carnosine content. At the end of the 4th week, muscle carnosine was significantly increased by ~60%, which was accompanied by a significant 13% increase in total work done during cycling test. An additional six weeks of supplementation yielded a nearly significant further 20% increase in muscle carnosine, which was followed by a 16.2% increase in total work done when compared to pre-supplementation values

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. These results clearly indicate the ergogenic effect of β -alanine supplementation on high-intensity performance. Another study showed that β -alanine supplementation, despite not enhancing maximal strength performance, resulted in a ~20% increase in total work volume in strength training sessions in well trained resistance athletes

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Taken together, these data suggest that β -alanine supplementation is capable of improving performance in exercises resulting in an extreme intramuscular acidotic environment, such as multiple bouts of high-intensity short-term exercises, single bouts of high-intensity exercises and single bouts undertaken when fatigue is already present.

L-Carnitine-L-Tartrate (LCLT) Increases Muscle Recuperation and Enhances the Androgen Receptor

L-Carnitine L-Tartrate (LCLT) is an essential nutrient that has shown many benefits in those who exercise or weight train. It is most often found in meat, and is known to increase energy production and properly metabolize fat. L-Carnitine L-Tartrate creates lean muscles and is essential for good cardio health as well. Research have shown that carnosine is an efficient free radical quencher which gives rise to oxidative DNA damage. their biological targets from

oxidative stress is the chelation of transition metals such as copper and iron, preventing them from participating in the deleterious Fenton reaction with peroxides. Carnosine and anserine have been shown to be very efficient copper-chelating agents (18). Because of its antioxidant, antiglycator and metal chelator properties, carnosine supplements have been proposed as a general [anti-aging](#) therapy. [12] Carnosine is a small molecule composed of the amino acids histidine and alanine. Carnosine is found in relatively high concentrations in several body tissues —most notably in skeletal muscle, heart muscle, nerve tissue and brain. The exact biological role of carnosine is not well understood, but many studies indicate that carnosine has potent antioxidant activity. One other beneficial effect of LCLT is that it favorably increases the androgen receptor. The androgen receptor and associated signaling pathways that modulate its biological activities are excellent candidates for regulating gene expressions that influences skeletal muscle mass. So everyone knows that testosterone can increase androgen receptor concentration but now a supplement can increase androgen receptors as well. Hot off the press, resistance training guru William Kraemer and colleagues just published a paper in *Medicine & Science in Sports and Exercise* that reported the use of LCLT (500mg a day taken two times a day- 2 at breakfast and 2 at lunch. The total dose for the training study was 2 grams per day for 21 days.) caused a significant increase in resting androgen concentration compared to the placebo group. Previous research from their laboratory provided the first evidence to support the theoretical potential for the use of LCLT supplementation in exercise recovery. These studies demonstrated that 2 g of L-carnitine L-LCLT per day attenuated the effect of hypoxia after resistance exercise, resulting in less tissue damage, reduced muscle soreness, and quicker recovery. They also reported that 2 g of elemental carnitine being supplied by LCLT increased androgen receptor content at rest and enhanced testosterone levels after resistance exercise

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. Other researchers have demonstrated the effectiveness of both 1 and 2 g of LCLT doses in reducing muscle fiber damage after workouts by reducing metabolic stress leading to reduced muscle damage and soreness after resistance exercise. In a recent study published this month in the journal of *Metabolism*

: *Clinical and Experimental*

, researchers reported again another favorable study for bodybuilders. After 3 weeks of LCLT supplementation, 2 grams of LCLT supplementation reduced markers of oxidative stress markers such as purine metabolism (ie, hypoxanthine, xanthine oxidase), free radical formation (malondialdehyde), muscle tissue disruption (myoglobin, creatine kinase), and muscle soreness after intense resistance exercise. These findings support that LCLT supplementation in younger people can reduce chemical damage to tissues after exercise and optimize the processes of muscle tissue repair and remodeling.

Gaspari's new **Anavite** is a new class of multivitamins that has all your vitamin and mineral needs covered. Don't be fooled into buying a cheaper multivitamin, don't sacrifice the

quality of your muscles dietary needs with an inferior multivitamin. Anavite also has beta-alanine and LCLT which provides potent muscle recuperation.

Gaspari's

Anavite will change the way you feel from workouts with the highest biochemical vitamin and mineral supplement on the market.

For more information about Anavite, please go to: <http://www.gasparinutrition.com/>

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