

In the next couple of issues of the eNewsletter, I want to pass along some very exciting research that was presented during the International Society of Sports Nutrition (ISSN) conference last month. The ISSN is the leading professional organization in the field of sports nutrition and dedicated to promoting and supporting the science and application of sports nutrition. For this issue I want to discuss the benefits of Beta-alanine.

Yours In Health,
Dr. Harvey

Highlights from the Recent International Society of Sports Nutrition (ISSN) Conference: Focus on Beta-Alanine

What is beta-alanine?

Beta-alanine is a non-essential amino acid and is one of the few “beta” amino acids. Beta-alanine exists mainly in protein foods, like meats, chicken and fish and is not involved in structural proteins in the body as the non-essential amino acid, L-alanine. Although the body can synthesize beta-alanine, its synthesis is quite limited, so supplementation is very beneficial. Once it enters the muscle cell, beta-alanine is used in the synthesis of something called carnosine. Histidine is the other amino acid that makes up carnosine, but beta-alanine clearly is the main stimulus of carnosine production. Studies have shown that beta-alanine can increase carnosine levels up to 80%!

What is carnosine and how does it work?

Now that you know that beta-alanine makes carnosine in muscles, how does carnosine work? Carnosine is a dipeptide composed of the two amino acids, beta-alanine and L-histidine. Carnosine is commonly found in muscles and levels are generally higher in the “fast-twitch” (Type II) fibers. These specific muscle fibers are used for high intensity exercise like sprinting, ice hockey, spinning, etc. Carnosine functions as a powerful buffer to neutralize the accumulation hydrogen ions (H+) released from the build-up of lactic acid in those specific muscles used. As H+ ions accumulate, this causes a drop in the pH resulting in the subjective sensation of intense muscle burning (“feel the burn”), pain, fatigue, inhibition of energy (ATP) production and exhaustion. As you can see, this can have a significant effect on exercise performance. Many scientists, including myself, feel that carnosine is the most powerful and effective buffer in muscles. So to quickly summarize, beta-alanine produces carnosine and results in a normalizing the H+ or pH of the muscle thus reducing the “burn” so your muscles can perform at much higher levels.

Does Max Muscle Sports Nutrition have a product with beta-alanine?

Yes, Xtinguisher. Xtinguisher also contains ingredients that work synergistically with beta-alanine like creatine, citrulline malate, ribose, and aspartic acid.

Who should use Xtinguisher?

Athletes, both male and female, who actively participate in strength, high-intensity and endurance sports like bodybuilders, aerobics, spin classes, hockey, football, cycling, etc. wanting explosive muscular strength along with an anti-fatigue formula will benefit from Xtinguisher. Xtinguisher will allow you to train harder and longer before fatigue sets in and help you recover faster. Xtinguisher supports explosive power, speed, intensity, endurance and recovery†

How should Xtinguisher be used to obtain the maximum benefits?

The published research supports supplementation of 4 to 6 grams of beta-alanine per day (2 servings of Xtinguisher) with significant benefits observed at least 2 weeks of use. Full metabolic benefits should be observed after 1 month of use. There is no need to do a “loading phase” as with creatine alone.

Does Xtinguisher need to be cycled?

We have no data suggesting that you would need to discontinue beta-alanine or Xtinguisher, thus making cycling unnecessary.

Are there any side effects to taking beta-alanine?

It is safe to take beta-alanine. The only side effect observed is that beta-alanine may produce a mild tingling effect (parasthesia) or flushing sensation of the skin on initial use. This is similar to the niacin flush and most people are not bothered by this effect. This is resolved by taking ½ serving (1 scoop) servings and gradually increasing to the 2 scoop serving. Smaller and more frequent dosing may also help resolve this. Taking Xtinguisher with a small amount of food or carbohydrate powder like Max ACM or Carbo Max may also reduce this effect.

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



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