



BETAPOWER YOUR WORKOUTS FOR GREAT GAINS

Q I recently purchased BSN HyperFX, and I've noticed my strength, pump and energy levels are up. There's an ingredient on the label called betaine (BetaPower). Is that the same as beta-alanine?

A No, beta-alanine and betaine are much different. Beta-alanine is a nonessential amino acid (nonessential amino acids can be made by the body, so they don't have to be provided by food) that is extremely effective for helping to enhance athletic performance, exercise capacity and muscle mass.

Betaine (BetaPower) is a new cutting-edge sports-nutrition ingredient that is found to be very effective in both pre- and postworkout products. Betaine is a 100% natural edible plant compound known as trimethylglycine, developed primarily from the sugar beet.

The principal physiological role of betaine is as an osmolyte and methyl donor (transmethylation).

■ **As an osmolyte**, betaine protects cells, proteins and enzymes from environmental stress (e.g., low water, high salinity or extreme temperature).

■ **As a methyl donor**, betaine participates in the methionine cycle in the human liver and kidneys. Betaine has been shown to protect internal organs, improve vascular function, and enhance strength, performance and recovery.

Betaine can be found as a standalone product or in a preworkout matrix like HyperFX. Betaine (BetaPower) has quickly become highly recognized and endorsed by many professional athletes and trainers because it works so well.

THE SURPRISING ANABOLIC ACTION OF ZMA

Q I use to do strongman competitions, but now I'm bodybuilding. Is ZMA a good supplement to improve muscle growth?

A I've personally used ZMA and can't say enough good things about it. ZMA (zinc magnesium aspartate) is a natural supplement that increases anabolic hormone levels while reducing cortisol levels. On the one hand it helps build muscle, and on the other it helps prevent muscle wasting. ZMA naturally aids the overall metabolic process that improves muscle energy support.

Authentic ZMA products state "ZMA" on the label and are formulated with highly bioavailable zinc mono-L-methionine sulfate (L-OpiZinc), zinc/magnesium aspartate and vitamin B6. You can find ZMA in many top brands as a standalone powder or part of a supplement matrix.

For any strength-training or muscle-building athlete, ZMA will help improve training, energy and lean mass gains as well as support greater recovery. ZMA has been clinically proven to boost anabolic

hormone levels (both testosterone and IGF-1), which improves muscle strength, power and performance. When taken during the day, ZMA aids lean muscle growth, and when taken at night before bed, it has been found to enhance sleep and recovery.

Researchers at Western Washington University tested ZMA on 12 football players over the course of two months of intensive spring training, including resistance exercise. Their usable free testosterone levels increased by 33.5% in those taking ZMA, whereas it dropped in the placebo group. The players taking ZMA also maintained higher IGF-1 levels, and had twice the rate of strength improvement over the two-month period.

Look only for brands that carry the initialed ZMA trademark; if the words are spelled out or its listed as "Zinc-XYZ" or other wording, it's not the clinically tested ZMA formula.



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