

Supplement Review - ZMA

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Introduction

Testosterone is perhaps the most awesome substance in our bodies. This hormone has been offered as an explanation for all the infamies of mankind. For why they start street fights and civil wars, throw chairs across the room during sporting events, drive too fast, grunt, yell and essentially conquer whatever is in their reach. Hey, what's not to like?

However as bodybuilders we are mainly concerned with its anabolic properties. Without it, all our efforts in the gym would be an exercise in futility! You could pound away in the weight room for hours daily and not gain a thing without this hormone. However the reverse is also quite true--the more testosterone our body produces the greater our gains will be in the gym. When we are not producing an optimal amount our gains will without a doubt suffer the consequences. With this in mind a bodybuilder must do everything in his or her power to keep their t-levels peaked. This way we can be leaner, meaner and all around closer to our goal of being finely tuned bodybuilding machines!

Optimized Testosterone Levels

Its a plain fact, if you are deficient in one area, whether that be protein intake, vitamin intake, mineral intake or sleep something is going to suffer! Period! Whether that be your growth hormone or testosterone levels. There are two particular trace minerals in particular that I will discuss today. I do this because they have such a profound effect on our ability to get gains from training. The first is:

Zinc

If you are deficient in this mineral you are seriously sabotaging your efforts! A deficiency will noticeably decrease muscle strength and endurance! Zinc literally promotes healing, tissue repair, and muscle growth. And as I was discussing earlier it helps to optimize and increase Insulin-Like Growth Factor 1, Growth Hormone, and the all mighty Testosterone! In addition, many of the enzymes that prevent the buildup of lactic acid (the "fatigue acids") require zinc. Doesn't sound like something you want to mess with does it? Exactly!

The second trace mineral is:

Magnesium

A deficiency in this mineral will decrease oxygen delivery to your muscle tissue.

Magnesium promotes muscle strength and endurance. What is really exciting is that it also is proven to promote relaxation. Magnesium also activates enzymes necessary for the metabolism of carbohydrates and amino acids. This is also something you do not want to find yourself deficient in.

The Facts!

That being said, several studies conducted by the USDA show that 68% of self-selected diets contain less than two thirds of the RDA for zinc and 39% contain less than two thirds of the RDA for magnesium! Those are studies that have been run on average people who do not lead active lives. To compound this stat an athlete has been shown to deplete zinc and magnesium levels at a much higher rate than the non active person. For example, there was a study conducted called "Strenuous Running." The runner's daily losses of zinc were 50% greater on a run day compared to a non-run day. (2) In addition, in a study called "Biochemical Indices of Selected Trace Minerals in Men: Effect of Stress," blood levels of zinc and other trace minerals were determined in 66 men before and after a five-day period of sustained physical and psychological stress. Zinc levels decreased by 33%!

A Solution

An easy solution would be to simply supplement with these two minerals. However there are some rules to the procedure.

a. take it 30 minutes before bed on an empty stomach (you should digest at least 1-2 hours before taking this supplement)

The reason why I say to take it 30 minutes before bedtime is because zinc's effect on healing, tissue repair, and muscle growth is maximized during sleep. The largest daily burst of natural growth hormone occurs during stage 3 and 4 sleep (about an hour and a half after going to sleep). Insulin, testosterone, zinc, and magnesium increase the effect of growth hormone. So, this is the time you want zinc and magnesium at a peak level in the bloodstream.

b. The dosage should consist of: Magnesium: 450mg, Zinc: 30mg

c. Do not take anything that has calcium in it with zma! Calcium competes ferociously with the absorption of it!

Studies

There have been quite a few studies showing increased test and growth hormone levels thru the supplementation of ZMA. I have taken the liberty of including one of those studies in our archives. You can view it by [clicking here](#)

Overview Of Supplementation

1. Increased muscle strength and endurance.

2. A decrease in muscle cramps and pulls.
3. Faster healing and recovery from injuries.
4. Improved concentration and alertness.
5. Decreased water retention.
6. Deeper relaxation during sleep

Conclusion

There is only one way to train! And that is to go 200 percent every time you hit the gym, Period! However with this attitude comes a responsibility to optimize recovery. We need to pay attention to areas that lack in our diets! Today I discussed just one of them. An area that if neglected, will noticeably slow our gains. Which for any serious athlete is unacceptable!

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