ZINC+

Chelated zinc with nutrient cofactors for superior absorption

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WHAT IS ZINC+?

Zinc+ contains a highly absorbable form of zinc bound to two glycine molecules, resulting in a highly stable chelate structure. Vitamins B2 and B6, molybdenum, taurine, and malic acid work with zinc to facilitate vital functions and enzymatic reactions.* Zinc is an essential mineral that plays a critical role in hundreds of enzymatic reactions, supporting athletes in various ways.* These enzymes are necessary for the proper functioning of the lungs, muscles, immune system, skin, reproduction, and brain health, along with healthy glucose and insulin metabolism and normal vision, taste, and smell.* Zinc bisglycinate, the form offered in Zinc+, may be superior to other forms of zinc due to better absorption.[1,2]

FORMULA HIGHLIGHTS

- Zinc+ offers chelated minerals by Albion® Minerals, the leader in mineral technology
- Features zinc bisglycinate chelate, a highly absorbable and bioavailable form of zinc
- Combines zinc with other key nutrients, such as vitamin B6 and malic acid, to provide superior results*
- Gluten-free, dairy-free, soy-free; non-GMO
- NSF Certified for Sport®

SUPPORTS ZINC STATUS*

Zinc status in the general population may be lower than what would be expected based on the availability and prevalence of this mineral in the U.S. diet, indicating that supplementation may be beneficial for many individuals.[3] Zinc cannot be stored in significant amounts in the body; thus, regular intake or supplementation is needed to maintain optimal status. Zinc status may be of special importance for athletes due to its role in supporting antioxidant status, the elimination and breakdown of carbon dioxide and lactic acid from the body, and energy metabolism.[4,5] As a result, athletes may have a higher requirement for zinc.[6,7] A systematic review and meta-analysis of 926 athletes found serum zinc status to be significantly lower in the athletic populations despite their higher zinc intake compared to the control populations.[6] Another systemic review of 184 athletic participants found that serum zinc status declined specifically during recovery from aerobic exercise, compared to serum status before exercising.[7]

SUPPORTS A HEALTHY IMMUNE STATUS*

Zinc is most well-known for its role in the immune system, as it is involved in virtually every aspect of immune health.* For athletes, its role as a cofactor in oxidative and inflammatory status may be of interest since intense exercise can contribute to the overproduction of oxidative damage beyond the body's antioxidant system capacity.[8-12]

A placebo-controlled trial studied the effects of zinc supplementation (45 mg/day) for eight weeks on the inflammatory and oxidative status in 20 healthy men and women. Participants who received zinc supplementation showed mitigations in oxidative stress markers, such as lipid peroxide and DNA damage, and attenuation of inflammatory cytokines, including tumor necrosis factor-alpha (TNF-*α*) and interleukin (IL)-1β, along with lowered levels of nuclear factor-kappa beta (NF-kβ).[10] Another randomized, double-blind trial evaluated 45 mg/day of zinc supplementation on 40 healthy adults over the age of 56. Findings showed that the participants supplementing with zinc exhibited significant reductions in C-reactive protein (CRP), lipid peroxidation, and inflammatory cytokines such as IL-6 and TNF-*α*.[9]

MAY SUPPORT HEALTHY HORMONE STATUS*

Zinc is important for many hormones, such as testosterone, thyroid hormones, estrogen, progesterone, insulin, and cortisol, which, if out of balance, can impact various aspects of health.[13,14] Healthy testosterone and thyroid status are connected to zinc status and are important for healthy energy metabolism and athletic performance.[13,15-18] A systematic review of eight clinical human studies and 30 animal studies concluded that zinc deficiency leads to

reductions in testosterone and that zinc supplementation improves testosterone status.[13] Zinc appears to play a role in the production and regulation of thyroid hormones and testosterone, as some small human clinical research shows that exhaustive exercise lowers the levels of thyroid hormones (T3, T4, and free T3) and testosterone.[13, 17-19] Healthy adults who supplement with zinc have experienced favorable improvements in response to this exercise-induced hormone decrease.[13,18,19] A small clinical study evaluated the effect of four weeks of zinc supplementation (3 mg/kg/day) on the hormone status of ten male wrestlers. The authors assessed thyroid and testosterone status to be lower after exercise compared to before. After the four-week supplementation period of zinc, both pre- and post-exercise serum thyroid and testosterone levels increased significantly.[19]

MAY SUPPORT OXYGEN CAPACITY AND ATHLETIC PERFORMANCE*

Zinc plays a role in managing carbon dioxide (CO_2) status in the body, supporting the transport of CO_2 from tissue to the lungs for expulsion.[4] A double-blind, randomized trial on 14 young active men examined the impact low dietary zinc would have on cardio respiration during exercise. During the study, dietary zinc intake was reduced to 3.5 mg/day for nine weeks, which led to the participants experiencing impairments in their ability to dispel carbon dioxide and increased lactic acid buildup in their muscle cells. When the participants resumed an adequate zinc intake of 15 mg/day, they experienced a return to normal cardiorespiratory function.[4]

BENEFITS*

- Supports zinc status in the body[1,2]
- Supports normal glucose metabolism[1,14]
- May support athletic performance[4,5,19]
- Promotes immune health[9,10]
- May support antioxidant status[11,12]
- May support normal hormone status[13-19]

HOW TO TAKE

Take 1 capsule per day with a meal.

CHELATED FOR BETTER ABSORPTION & BIOAVAILABILITY*

COMBINED WITH B-VITAMINS, TAURINE & MALIC ACID

FORMULATED USING ALBION® MINERALS, THE LEADER IN MINERAL TECHNOLOGY

Supplement Facts

Serving Size 1 capsule

Amount Per Serving		% Daily Value
Riboflavin (Vitamin B-2)	2.8 mg	215%
Vitamin B-6 (as Pyridoxal-5-Phosphate)	5.2 mg	306%
Zinc (as Zinc Bisglycinate Chelate)	30 mg	273%
Molybdenum (as TRAACS® Molybdenum Glycinate Chelate)	50 mcg	111%
Malic Acid	200 mg	*

*Daily Value not established.

Other Ingredients: Microcrystalline cellulose, cellulose (capsule), vegetable stearate, silicon dioxide.

NSF CERTIFIED SPORT

SOY-FREE · GLUTEN-FREE · DAIRY-FREE · 0 GRAMS SUGAR · NON-GMO · HIGHLY ABSORBABLE*

*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.

ZNP090-DS

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