# Zinc Chelate



 Stin Chelate is bioavailable and readily absorbed as an intact chelate. It differs from other forms of zinc supplements in that it does not get ionized in the gut before it is absorbed. This totally-reacted, nutritionally functional zinc amino acid chelate appears to be metabolized in the body right at the target tissue.

All 360º Medicine Formulas Meet or Exceed cGMP Quality Standards

#### Discussion

Generally, zinc is relatively poorly absorbed (10-40%). It is ionized in the gut and then absorbed by both active and passive diffusion. The degree of absorption of ionized zinc is influenced by various factors. Unlike supplements that are ionized, 360° Medicine's formula containing Albion Laboratories®'zinc bisglycinate does not have competition for absorption from selenium, calcium and the other minerals because it does not depend upon these metal cations for transport across the brush membranes. Furthermore, phytates present in dietary whole grains and fiber have less interference with absorption of this form of zinc than other forms.

Zinc is a co-factor in more than 120 enzymes involved in protein, carbohydrate and DNA/RNA metabolism. Adequate zinc is especially important during periods of growth and development, such as pregnancy and childhood. It is critical to the production of growth and sex steroid hormones, as well as a structural component of many kinds of proteins, hormone receptors, neuropeptides, and polynucleotides. Zinc is critical to thyroid, adrenal, and ovarian tissue function. Double-blind, placebo - controlled trials using various forms of zinc have shown that it is safe and efficacious in reducing the severity and duration of the common cold, as well as a variety of other more serious infections. The bonebuilding effect of estrogen is enhanced by zinc. This mineral might play an important role in the development of alterations in keratinocytes with aging. Zinc is needed for the conversion of pre-formed vitamin A into its active form.

During periods of dietary zinc deficiency the body mobilizes the mineral from a very small pool in the liver that has a half-life of only two weeks. Thus, clinically relevant zinc depletion can occur within a week. The introduction of copper tubing in plumbing applications has caused increased copper in water supply. Since excess copper can depress zinc levels, this has been a major contributor to zinc deficiency, especially in areas of hard water. The prevalence of copper in water as well as its inclusion in most multi vitamin formulas profoundly reduces the risk of over supplementation of zinc.



Zinc bis-glycinate Courtesy of Albion Laboratories, Inc.®



# **Supplement Facts**

Serving Size: 1 Capsule Servings Per Container: 120

## Amount Per Serving %Daily Value

Zinc (TRAACS<sup>®</sup> Zinc Glycinate Chelate) 20 mg 133%

#### \*Percent Daily Values are based on a 2,000 calorie diet

**Other Ingredients:** HPMC(capsule), microcrystalline cellulose, rice flour, stearic acid, silica and magnesium stearate.

#### Dosage

Take one capsule daily or as directed by your healthcare practitioner.

### References

2. Cuevas LE, Koyanagi A. Zinc and infection: a review. Ann Trop Paediatr. 2005 Sep; 25(3): 149-60. [PMID: 161569792].

3. Molls RR, Ahluwalia N, Mastro AM, Smiciklas-Wright H, Handte GC. Nutritional status predicts primary subclasses of T cells and the lymphocyte proliferation response in healthy older women. *J Nutr.* 2005 Nov; 135(11): 2644-50 [PMID: 16251624]

4. Schwartz JR, Marsh RG, Draelos ZD. Zinc and skin health: overview of physiology and pharmacology. *Dermatol Surg.* 2005 Jul; 31(7 Pt 2): 837-47; discussion 847. [PMID: 16029676]

5. Dreno B, Trossaert M, Boiteau HL, Litoux P. [Changes in cutaneous zinc during skin aging] Ann Dermatol Venereol. 1992; 119(4): 263-6. [PMID: 1530238]

6. Costello LC, Franklin RB, Feng P, Tan M, Bagasra O Zinc and prostate cancer: a critical scientific, medical, and public interest issue (United States). *Cancer Causes Control.* 2005 Oct;16(8):901-15 [PMID: 16132800]

7. Ibrahim SA, Abd el-Maksoud A, Nassar MF. Nutritional stunting in Egypt: which nutrient is responsible? *East Mediterr Health J.* 2002 Mar-May;8(2-3):272-80 [PMID: 15339114]

8. Slootweg, MCet al. Estrogen enhances growth hormone receptor expression and growth hormone action in rat osteosarcoma cells and human osteoblast-like cells. *J Endocrinol* 1997 155(1): 159-164 [PMID: 9390018]

9. Ganss B, Jheon A Zinc finger transcription factors in skeletal development. *Crit Rev Oral Biol Med.* 2004 Sep 1; 15(5): 282-97 [PMID:15470266] 10. Patel GK. The role of nutrition in the management of lower extremity wounds. *Int J Low Extrem Wounds.* 2005 Mar;4(1):12-22 [PMID: 15860449]

11. Jones PW, Williams DR. The use and role of zinc and its compounds in wound healing. *Met Ions Biol Syst.* 2004;41:139-83. [PMID: 15206116]

12. Stewart-Knox BJ, Simpson EE, Parr H, Rae G, Polito A, Intorre F, Meunier N, Andriollo-Sanchez M, O'Connor JM, Coudray C, Strain JJ. Zinc status and taste acuity in older Europeans: the ZENITH study. *Eur J Clin Nutr.* 2005 Nov;59 Suppl 2:S31-6 [PMID: 16254578]

13. Ripamonti C, Zecca E, Brunelli C, Fulfaro F, Villa S, Balzarini A, Bombardieri E, De Conno F. A randomized, controlled clinical trial to evaluate the effects of zinc sulfate on cancer patients with taste alterations caused by head and neck irradiation. *Cancer.* 1998 May 15;82(10):1938-45 [PMID: 9587128]

14. Albion Research Notes, 2004 Mar;13(1):1-3 [www.albionlabs.com] {accessed 1.15.06}

15. Pelton, R, LaValle, J., Hawkins, E., Krinsky, D. Drug-Induced Nutrient Depletion Handbook 1999-2000 Lexi-Comp & Natural Health Resources, Inc. Ohio. 305-307.

#### Cautions

Keep out of reach of children.

\*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.



ORI.REV.042811 DRS-213 REV. 02/13/12

<sup>1.</sup> Silk R, LeFante C.Safety of zinc gluconate glycine (Cold-Eeze) in a geriatric population: a randomized, placebo-controlled, double blind trial. *Am J Ther.* 2005 Nov-Dec;12(6):612-7 [PMID: 16280656]