



# Zinc Plus

Bioactive Synergistic Mineral Supplement

*Contains a fully reacted chelated amino acid form of zinc plus synergistic nutrients including activated B6 (pyridoxal 5-phosphate) and the amino acid methionine.*

*Maintains healthy immune system function, energy levels, vision, skin integrity, hair and nails. Supports preconception health and cognitive function in healthy adults and maintains energy levels.*

## Nutritional Therapy

Bioactive Bioavailable Quality Ingredients

This formula contains zinc in a fully reacted chelated amino acid form plus synergistic nutrients including activated B6 (pyridoxal 5-phosphate) and the amino acid methionine.

## What you need to know about this supplement

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- Maintaining healthy immune system function (Zinc)
- Supporting cognitive function in healthy adults (Zinc)
- Supporting preconception health in healthy males and females (Zinc)
- Maintaining testosterone levels (Zinc)
- Maintaining skin integrity and structure (Zinc)
- Maintaining bone health (Zinc)
- Maintaining and supporting healthy vision (Zinc)
- Supporting healthy hair and nails (Zinc)
- Helping reduce free radical damage to body cells (Zinc)
- Supporting nervous system function (Zinc, Pyridoxine)
- Maintaining and supporting energy levels (Pyridoxine)
- Aiding healthy red blood cell production (Pyridoxine)
- Assisting the synthesis of neurotransmitters (Pyridoxine)
- Helping prevent dietary zinc deficiency
- Supporting general health and wellbeing (Zinc, Pyridoxine)

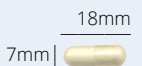
For Practitioner Dispensing Only



## Specifications



90 Vegetarian Capsules



Description: Capsule

Dosage Adults: 1 capsule, once daily with water, or as directed by your healthcare professional.

Vegan friendly

Blended, encapsulated and packaged in Australia



## Allergen & Free From

Ingredients in this product have been formulated without gluten, wheat, yeast, soy, egg, gelatin, fish, molluscs, crustaceans, milk products, peanuts, tree nuts, sesame, bee products, artificial preservatives, colours or flavours.

## Each Tablet Contains:

Zinc (as Zinc glycinate monohydrate)	25 mg
Pyridoxal 5-phosphate	4.38 mg
Equiv. Pyridoxine	3 mg
Methionine	5 mg

**Excipients Calcium hydrogen phosphate dihydrate, colloidal anhydrous silica, hypromellose, magnesium stearate, microcrystalline cellulose**

Vitamins and minerals can only be of assistance if dietary intake is inadequate.

### REFERENCES

1. Read SA, Obeid S, Ahlenstiel C, Ahlenstiel G. The Role of Zinc in Antiviral Immunity. *Advances in Nutrition* 2019;10(4):696-710.
2. Lassi ZS, Kurji J, Oliveira CS, Moin A, Bhutta ZA. Zinc supplementation for the promotion of growth and prevention of infections in infants less than six months of age. *Cochrane Database Syst Rev* 2020;4(4):Cd010205.
3. Wessels I, Maywald M, Rink L. Zinc as a Gatekeeper of Immune Function. *Nutrients* 2017;9(12):1286.
4. Norouzi S, Adulcikas J, Sohal SS, Myers S. Zinc transporters and insulin resistance: therapeutic implications for type 2 diabetes and metabolic disease. *Journal of Biomedical Science* 2017;24(1):87.
5. Fernández-Cao JC, Warthon-Medina M, V HM, Arijia V, Doepking C, Serra-Majem L, et al. Zinc Intake and Status and Risk of Type 2 Diabetes Mellitus: A Systematic Review and Meta-Analysis. *Nutrients* 2019;11(5).
6. Allouche-Fitoussi D, Breitbart H. The Role of Zinc in Male Fertility. *International journal of molecular sciences* 2020;21(20):7796.
7. Maares M, Haase H. A Guide to Human Zinc Absorption: General Overview and Recent Advances of In Vitro Intestinal Models. *Nutrients* 2020;12(3):762.
8. Mohn ES, Kern HJ, Saltzman E, Mitmesser SH, McKay DL. Evidence of Drug-Nutrient Interactions with Chronic Use of Commonly Prescribed Medications: An Update. *Pharmaceutics* 2018;10(1):36.
9. Kerns K, Zigo M, Sutovsky P. Zinc: A Necessary Ion for Mammalian Sperm Fertilization Competency. *International journal of molecular sciences* 2018;19(12):4097.
10. Huang L, Yao G, Huang G, Jiang C, Li L, Liao L, et al. Association of Zinc deficiency, oxidative stress and increased double-stranded DNA breaks in globozoospermic infertile patients and its implication for the assisted reproductive technique. *Translational andrology and urology* 2021;10(3):1088-101.
11. Maares M, Keil C, Straubing S, Robbe-Masselot C, Haase H. Zinc Deficiency Disturbs Mucin Expression, O-Glycosylation and Secretion by Intestinal Goblet Cells. *International journal of molecular sciences* 2020;21(17):6149.
12. Ohashi W, Fukada T. Contribution of Zinc and Zinc Transporters in the Pathogenesis of Inflammatory Bowel Diseases. *Journal of Immunology Research* 2019;2019:8396878.
13. Name JJ, Vasconcelos AR, Valzachi Rocha Maluf MC. Iron Bisglycinate Chelate and Polymaltose Iron for the Treatment of Iron Deficiency Anemia: A Pilot Randomized Trial. *Current pediatric reviews* 2018;14(4):261-8.
14. Parra M, Stahl S, Hellmann H. Vitamin B6 and Its Role in Cell Metabolism and Physiology. *Cells* 2018;7(7):84.
15. Mascolo E, Verni F. Vitamin B6 and Diabetes: Relationship and Molecular Mechanisms. *Int J Mol Sci* 2020;21(10).
16. Aledo JC. Methionine in proteins: The Cinderella of the proteinogenic amino acids. *Protein Sci* 2019;28(10):1785-96.
17. Martínez Y, Li X, Liu G, Bin P, Yan W, Más D, et al. The role of methionine on metabolism, oxidative stress, and diseases. *Amino Acids* 2017;49(12):2091-8.
18. Patrick L. Toxic metals and antioxidants: Part II. The role of antioxidants in arsenic and cadmium toxicity. *Altern Med Rev* 2003;8(2):106-28.

## PEER NOTES

## FOR PROFESSIONAL REFERENCE ONLY

### ROLE OF ZINC

Zinc exerts an influence on all organs and cell types and is an integral part of approximately 10% of the human proteome, where it is an essential component of protein structure and function. It is crucial for hundreds of key enzymes and transcription factors. (1,2) Zinc ions are involved in the regulation of intracellular signalling pathways in innate and adaptive immune cells, and zinc homeostasis is important in immunological reactions such as the inflammatory and oxidative stress responses. (3) Zinc also plays a dynamic role in the control of insulin uptake in glucose-dependent tissues and reproductive health. (4,5,6)

### ZINC DEFICIENCY

Zinc is a dietary micronutrient required on a daily basis. (7) Deficiency via dietary insufficiency, disease mediated factors, and/or compromised uptake is common in industrialised countries, especially in the elderly (up to 30%), vegetarians and vegans, and patients with liver and inflammatory bowel disease. (1,3) Long term use of ACE inhibitors at higher dosages may also increase risk of zinc deficiency. (8)

Zinc deficiency may worsen chronic inflammation and trigger oxidative stress. (3) This in turn may contribute to multiple chronic diseases including rheumatoid arthritis, Type 2 diabetes, atherosclerosis, impaired cognitive function, and age-related macular degeneration. (3) In adult males a nutritional zinc deficiency may cause low sperm count and infertility. (6,9,10) Zinc deficiency may also disrupt the integrity of the intestinal epithelium, increasing intestinal permeability. (11,12) This is associated with the pathogenesis of intestinal inflammatory disease. (12)

The zinc glycinate monohydrate in Zinc Plus is a fully reacted amino acid chelate. The structure of the molecule protects the mineral from chemical reactivity as it passes through the stomach, enhancing its stability, absorption, bioavailability, and digestibility. (13)

### VITAMIN B6 and METHIONINE - SYNERGISTIC NUTRIENTS

Pyridoxal-5-phosphate (PLP), the active form of Vitamin B6, acts in synergy with zinc in many of its roles in DNA, RNA and protein synthesis, normal fertility and reproduction, and nervous and immune system functions. (14,15) PLP supports the antioxidant action of zinc by counteracting the formation of reactive oxygen species. (15)

Methionine is a unique proteinogenic amino acid which complements the role of zinc in protein and DNA synthesis and stabilisation of protein structure. (16) It is also involved in the activation of endogenous antioxidant enzymes and the biosynthesis of glutathione to counteract oxidative stress. (17) Zinc and methionine, when used together, may facilitate the excretion of heavy metals. (18)

# Work with the Specialists!

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