

# Tri-Zinc Supreme



  
1 Vegetarian  
Hard Capsule

Unique formula containing three different types of highly bioavailable zinc to support the health and function of the immune system

## OVERVIEW

- > Contains 25 mg total elemental zinc for dosing flexibility
- > Curated excipient profile to further facilitate absorption
- > Supports the health and function of the immune system
- > Maintains the health of skin and supports wound healing processes
- > Supports eye health and maintains healthy vision
- > Maintains bone health
- > Supports testosterone levels

Active Ingredients per hard capsule	
Zinc citrate dihydrate	31.15 mg
Equiv. to Zinc	10 mg
Zinc amino acid chelate (Zinc bisglycinate chelate)	50 mg
Equiv. to Zinc glycinate	32.65 mg
Equiv. to Zinc	10 mg
Polaprezinc (Zinc carnosine)	23.26 mg
Equiv. to Zinc	5 mg
<b>Total Zinc</b>	<b>25 mg</b>

<b>Pack Size</b>	30
<b>Serving Per Pack</b>	15 - 30 serves

Excipients	
Methionine	Colloidal anhydrous silica
Malic acid	Magnesium stearate
Citric acid	Hypromellose
Silicon dioxide	Purified water
Microcrystalline cellulose	

**Directions for Use**  
Adults, take 1-2 capsules daily with a large glass of water or as directed by your healthcare professional. Take with food.

**Allergen Information**  
No added: Gluten, dairy, lactose, nuts, soy.

**Prescribing Information:**

- Zinc can reduce the absorption of copper and supplementation can cause copper deficiency.
- Iron and zinc can interfere with each other's absorption.
- Both quinolone antibiotics and tetracycline antibiotics interact with zinc in the gastrointestinal tract, inhibiting the absorption of both zinc and the antibiotic. Taking the antibiotic at least 2 hours before or 4-6 hours after taking a zinc supplement minimises this interaction.

**Warnings:**  
If symptoms persist, talk to your health professional. Vitamins and minerals should not replace a balanced diet. Contains zinc which may be dangerous if taken in large amounts or for a long period.

Designed and packed in Australia from imported ingredients.



No Added  
Gluten



No Added  
Dairy



No Added  
Nuts



No Added  
Soy



Vegan Friendly



## EDUCATION

### Zinc

Zinc is a vital trace nutrient that displays activity in every human cell. The body contains around 2g zinc, 55-60% of which can be found in skeletal muscle, 25-30% in bone and the remaining distributed throughout other bodily fluids and tissues.<sup>1,2</sup>

Zinc belongs to the class of type 2 nutrients which are considered to be the building blocks of all cells. The synthesis of any new tissue requires type 2 nutrients, and zinc's main biological functions are therefore catalytic, structural, or regulatory in nature.<sup>1,2</sup>

The human body holds around 2-3g of zinc which is distributed throughout the body. Intracellular levels are tightly controlled. An estimated 0.1% of zinc is found in serum, 60% is stored in skeletal muscle, 30% in bone and 5% in the skin. Zinc is also distributed in small amounts among other tissues, including the brain, kidneys, liver, and heart.<sup>3</sup>

Zinc metalloenzymes are the most abundant of all trace mineral dependent enzymes in the body and as a result, zinc is involved in many cellular reactions required for normal biological activity of the immune system, skin and bone.<sup>1</sup>

### Immune Function

Being innately involved in the normal development and function of all cells, Zinc is vital for optimal functioning of the immune system. Zinc presides over the effective commission of both innate and adaptive immunity, assisting with the health and functioning of neutrophils, monocytes and NK cells as well as the development of T & B-lymphocytes, macrophages and NK cells, as well as the generation of acquisitional immunity.<sup>1,4</sup>

Zinc's involvement in immune processes is also intricately tied with inflammation and the wound healing process.

### Wound Healing & Skin health

The skin contains around 5% of the total body store of zinc (50-70µg/g dry weight) which is mostly sequestered in the epidermis.<sup>5</sup>

Zinc is essential for the production of zinc finger motifs and biomembranes in DNA transcription factors and is therefore required for the building of all new body tissues.<sup>1</sup> It is required for the proliferation and differentiation of keratinocytes, stratum corneum formation and metabolism and epidermal tight junction function. Any imbalance of epidermal zinc stores affects enzyme and transcriptional activity and zinc finger protein function, ultimately resulting in epidermal barrier dysfunction and sub-optimal skin health.<sup>6</sup>

Zinc deficiency can also hamper wound healing, and supplementation and topical application can be used to restore zinc levels, enhance re-epithelialisation and collagen synthesis, reduce inflammation, and enable optimal wound healing.<sup>1,7</sup>

### Eye health & vision

Zinc is present in high concentrations in the retina and choroid of the eye.<sup>7,8</sup> It functions as both a tissue protectant having antioxidant activity in the retina and retinal pigment epithelium (RPE) and a visual function aid in that it modulates synaptic transmission, modifies plasma membranes in the photoreceptors and regulates the light-rhodopsin reaction.<sup>7,9</sup> It is also involved in the enzymatic conversion of retinol to retinal which is a critical step in the visual cycle.<sup>10</sup>

### Bone health

Around 30% of the total body zinc store resides in skeletal tissue and adequate dietary intake is vital to ensure bone quality.<sup>11</sup>

Zinc is a vital cofactor for several enzymes involved in the production of bone matrix components and oversees the cycle of bone deposition and resorption. It is also complexed with fluoride in hydroxyapatite crystals.<sup>10</sup>

### Testosterone levels

The steroid receptor superfamily of transcription factors is zinc dependent. These zinc finger transcription factors are responsible for arbitrating the physiological response to numerous hormonal and metabolic signals.<sup>12</sup>

Inadequate zinc intake has been linked to low serum concentrations of several hormones including testosterone.<sup>12,13</sup>

*References supplied on request.*

## Designs for Health Quality Guarantee

Designs for Health medicines that are listed on the Australian Register of Therapeutic Goods will display an AUSTL number on the label. Listed medicines in Australia need to be manufactured according to legislated standards set out in Therapeutic Goods Order 101. TGO101 legislation sets out minimum quality standards for medicines supplied in Australia that display an AUSTL number. It mandates testing for:

- Impurities such as heavy metals (including lead, mercury, cadmium and arsenic), pesticides and residual solvents
- Dissolution (to ensure the capsule will dissolve once taken)
- Uniformity (to ensure that every capsule is the same)

Final assay testing is also performed to ensure that what we have on the label is in each capsule, and microbiological testing is performed to ensure that no microbial contamination has occurred during the encapsulation and packing process.