InterClinical Professional

Minerals

Vitamins

Manganese Plus

Bioactive Synergistic Mineral Supplement

This specialty formula supports collagen formation and reduces free radical damage to the body.

Assists connective tissue formation, muscle function, healthy bone development and neurotransmitter synthesis.

Also aids in carbohydrate metabolism and heart health.

For Practitioner Dispensing Only

Nutritional Therapy

Bioactive Bioavailable Quality Ingredients

This formula contains manganese as a fully reacted amino acid chelate (manganese glycinate) and the synergistic nutrient vitamin B1 (thiamine).

What you need to know about this supplement

AUST L 313702

- Supporting collagen formation (Manganese)
- Assisting connective tissue formation (Manganese)
- Supporting nerve conduction (Thiamine)
- Helping reduce free radical damage to body cells (Manganese)
- Assisting neurotransmitter synthesis (Thiamine)
- Maintaining muscle function (Thiamine)
- Aiding carbohydrate metabolism (Manganese and Thiamine)
- Assisting healthy bone development (Manganese)
- Maintaining heart health (Thiamine)
- Helping prevent dietary manganese and thiamine deficiency.

Specifications

Vegan Friendly

90 Vegetarian Hard Capsules 7mm | 18mm

Description: Capsule

Dosage Adults: 1-2 tablets, once daily, or as directed by your healthcare professional.

Vegan friendly

Blended, tableted 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 Capsule Contains:

Manganese (as Manganese (II) glycinate)	15 mg
Thiamine nitrate	1.23 mg

Excipients Calcium hydrogen phosphate dihydrate, citric acid, colloidal anhydrous silica, hypromellose, magnesium stearate, microcrystalline cellulose.

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

1. Tuschl K, Mills PB, Clayton PT. Disorders of Manganese Metabolism. In: Blau N, Dionisi Vici C, Ferreira CR, Vianey-Saban C, van Karnebeek CDM, editors. Physician's Guide to the Diagnosis, Treatment, and Follow-Up of Inherited Metabolic Diseases. Cham: Springer International Publishing; 2022. p. 637-45.
2. Chen P, Bornhorst J, Aschner M. Manganese metabolism in humans. Front Biosci (Landmark Ed). 2018;23:1655-79.
3. Budinger D, Barral S, Soo AKS, Kurian MA. The role of manganese dysregulation in neurological disease: emerging evidence. The Lancet Neurology. 2021;20(11):956-68.
4. Li L, Yang X. The Essential Element Manganese, Oxidative Stress, and Metabolic Diseases: Links and Interactions. Oxid Med Cell Longev. 2018;2018:7580707.
5. Balachandran RC, Mukhopadhyay S, McBride D, Veevers J, Harrison FE, Aschner M, et al. Brain manganese and the balance between essential roles and neurotoxicity. Journal of Biological Chemistry. 2020;295(19):6312-29.
6. Rondanelli M, Faliva MA, Peroni G, Infantino V, Gasparri C, Iannello G, et al. Essentiality of Manganese for Bone Health: An Overview and Update. Natural Product Communications. 2021;16(5):1934578X211016649.
7. 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. Curr Pediatr Rev. 2018;14(4):261-8.
8. Calderón-Ospina CA, Nava-Mesa MO. B Vitamins in the nervous system: Current knowledge of the biochemical modes of action and synergies of thiamine, pyridoxine, and cobalamin. CNS Neurosci Ther. 2020;26(1):5-13.
9. Smith TJ, Johnson CR, Koshy R, Hess SY, Qureshi UA, Mynak ML, et al. Thiamine deficiency disorders: a clinical perspective. Ann N Y Acad Sci. 2021;1498(1):9-28.

MANGANESE

Adequate manganese levels are critical for the regulation of a diverse range of functions essential for healthy reproduction, development, metabolism, nervous system function, connective tissue formation, and immune and antioxidant defences. (1, 2)

Manganese is essential for the synthesis and activation of many enzymes and for the regulation of lipid and glucose metabolism in humans, including maintenance of the synthesis and secretion of insulin. Importantly, it is a necessary component of manganese superoxide dismutase (MnSOD) which scavenges reactive oxygen species (ROS) in mitochondrial oxidative stress. (1, 3) Since manganese is mainly obtained from food and water, inadequate dietary intake could result in increased generation of ROS, thereby causing further oxidative stress. ROS generation and oxidative stress are critical factors in the pathogenesis of metabolic disease, therefore availability of manganese plays an important role in its prevention. (3, 4)

Manganese is required for nerve and brain development, and for normal neuronal and cognitive function. It is neuroprotective and is a key co-factor for astrocytic glutamine synthetase which regulates normal synaptic function. (3) The unique role played by manganese -dependent enzymes in the nervous system mean that a lack of this essential micronutrient can lead to cognitive deficit. (3, 5)

Research studies show that osteoporotic women have lower serum manganese levels than women with normal bone mineral density, thus confirming the essential role of manganese in the synthesis of cartilage and bone collagen, as well as in bone mineralization. (6)

Manganese Plus contains manganese glycinate, 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. (7)

THIAMINE

Thiamine is essential for many physiological functions including glucose metabolism, the maintenance of nerve membrane function, and the synthesis of myelin and several types of neurotransmitters. The most important function of thiamine is its contribution to cellular energy metabolism and its role as an essential cofactor in the conversion of carbohydrates, providing the energy required by neurons that they are unable to store themselves. (8, 9)

Work with the Specialists!

InterClinical Laboratories
6/10 Bradford St
Alexandria NSW 2015
Ph: +612 9693 2888
Email: info@interclinical.com.au

InterClinical Laboratories