

Complete Mineral Complex



Highly bioavailable mineral formula

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Complete Mineral Complex is an iron-free formula containing superior forms of minerals for optimal absorption and utilization. This product is ideal as a daily maintenance supplement to help support proper mineral status. It can also be used as a targeted mineral replenishment in cases of known deficiencies, or following medical treatments that may deplete mineral status, such as heavy metal chelation therapy.

Minerals act as enzyme cofactors in biochemical reactions and physiological processes throughout the body. Whether it is the magnesium, chromium and vanadium required for proper gluco-regulation and carbohydrate metabolism; the copper, zinc and manganese cofactors for the antioxidant enzyme, superoxide dismutase; the boron, potassium and calcium for bone health; iodine and selenium for the production of thyroid hormones; or molybdenum's role in hepatic detoxification reactions, there is virtually no body system that functions optimally without an adequate supply of essential minerals.

What Contributes to Mineral Deficiencies?

Apart from chelation therapy, mineral insufficiency or depletion may result from a poor diet, improperly formulated vegetarian or vegan diets, high net acid load diets, certain medications, poor digestive function, and chronic stress. Moreover, factors of modern food production and processing techniques, such as soil nutrient depletion and the removal of ruminant animals from pasture (replaced by grain-based feed) may mean that even among individuals consuming whole, unprocessed foods, total mineral intake may be lower than is optimal, and mineral status may be even further compromised in those who struggle to follow a wholesome diet. Additionally, the refinement of processed foods coupled with the unrelenting stress of modern life may mean that many individuals' need for minerals is increased, while these nutrients are in shorter supply. Complete Mineral Complex, featuring highly bioavailable minerals, may be a simple and easy intervention for improving mineral status.

Issues with Specific Minerals

- **Calcium and Magnesium:** Since magnesium is more difficult to obtain in the daily diet, and magnesium deficiencies are fairly common, a 1:1 ratio of calcium to magnesium was chosen for this formula, unlike many commercially available supplements in which the balance is skewed heavily toward calcium.
- **Chromium:** Why chromium nicotinate, and not picolinate? Mineral picolinate is rapidly absorbed, but may have an increased urinary excretion as well as reducing endogenous stores, as has been demonstrated for zinc.^{1,2} Moreover, researchers have raised questions about the safety of chromium picolinate after rat studies revealed that this form of the mineral may cause oxidative damage to lipids and DNA.³ According to one study, "chromium picolinate has been shown to be mutagenic and picolinic acid moiety appears to be responsible as studies show that picolinic acid alone is clastogenic. Niacin-bound chromium (III) has been demonstrated to be more bioavailable and efficacious and no toxicity has been reported."⁴

Superior Bioavailability

Albion chelated minerals are designed to bypass obstacles to absorption and assimilation, such as food phytates, oxalates, fiber, ionic minerals or even medications that interfere with mineral absorption.⁵ They are extremely well tolerated and should not cause GI or bowel distress. Mineral salts, such as calcium citrate, split apart in the gut (because they aren't fully reacted like a true chelate). This leaves the calcium, or other loosely bound minerals, in their ionic state. When Albion amino acid chelates (AAC) were compared against mineral salts, 1-5 times as much AAC was found in body tissue (mg metal per kg body tissue).

References

1. Seal CJ. Influence of dietary picolinic acid on mineral metabolism in the rat. *Ann Nutr Metab.* 1988;32(4):186-91.
2. Seal CJ, Heaton FW. Effect of dietary picolinic acid on the metabolism of exogenous and endogenous zinc in the rat. *J Nutr.* 1985 Aug;115(8):986-93.
3. Vincent JB. The potential value and toxicity of chromium picolinate as a nutritional supplement, weight loss agent and muscle development agent. *Sports Med.* 2003;33(3):213-30.
4. Bagchi D, Stohs SJ, Downs BW, Bagchi M, Preuss HG. Cytotoxicity and oxidative mechanisms of different forms of chromium. *Toxicology.* 2002 Oct 30;180(1):5-22.
5. Torre M, Rodriguez AR, Saura-Calixto F. Effects of dietary fiber and phytic acid on mineral availability. *Crit Rev Food Sci Nutr.* 1991;30(1):1-22.

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Supplement Facts

Serving Size 3 capsules
Servings Per Container 30

Amount Per Serving		% Daily Value
Calcium (as DimaCal® Di-Calcium Malate)	200 mg	20%
Iodine (as Potassium Iodide)	150 mcg	100%
Magnesium (as Di-Magnesium Malate)	200 mg	50%
Zinc (TRAACS® Zinc Bisglycinate Chelate)	20 mg	133%
Selenium (as Selenium Glycinate Complex)	150 mcg	214%
Copper (TRAACS® Copper Bisglycinate Chelate)	2 mg	100%
Manganese (TRAACS® Manganese Bisglycinate Chelate)	2 mg	100%
Chromium (TRAACS® Chromium Nicotinate Glycinate Chelate)	200 mcg	167%
Molybdenum (TRAACS® Molybdenum Glycinate Chelate)	150 mcg	200%
Potassium (as Potassium Glycinate Complex)	150 mg	4%
Boron (as Bororganic Glycine)	2 mg	*
Vanadium (TRAACS® Vanadium Nicotinate Glycinate Chelate)	100 mcg	*

*Daily Value not established.

Other Ingredients: Cellulose (capsule), microcrystalline cellulose, vegetable stearate.



How to Use:

As a dietary supplement, take three capsules per day, or as directed by a health care practitioner.

To contact Designs for Health, please call us at (800) 847-8302, or visit us on the web at www.designsforhealth.com.