Designs for Health®, Inc. Proudly Announces:

Complete Mineral Complex™

This iron-free mineral formula contains the finest chelated minerals from Albion Advanced Nutrition for optimal absorption and utilization. What is unique about this mineral formula is that it's made with 100% Albion Minerals - the leader in chelate technology. **Complete Mineral Complex** is ideal as a daily supplement for prevention of deficiency, or for use in mineral replenishment when there is known deficiencies or following medical treatments that may deplete mineral status such as chelation for heavy metals or heart disease.

Supplement Facts

Serving Size 3 capsules
Servings Per Container 30

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

*Daily Value not established.

Other Ingredients: Gelatin (capsule).

What Contributes to Mineral Deficiencies?

Besides chelation therapy; poor diet, vegetarianism, high acid diet, medications, and stress can all deplete minerals. To assess for mineral deficiencies DFH recommends: SpectraCell labs (800-227-5227), and Analytical Research Labs (800-528-4067).

Why are Minerals Important?

> *"Minerals are the basic spark-plugs in the chemistry of life, on which the exchanges of energy in the combustion of foods and the building of living tissues depend". -* **Dr. Henry Schroeder**

Minerals often act as coenzymes so metabolic conversions can happen. Several minerals feed into the Krebs Cycle so energy can be made from food. Minerals are also involved in the immune system, hormone metabolism, vitamin metabolism, bone metabolism and reproduction. Since magnesium is more difficult to obtain in the daily diet, a 1:1 ratio of calcium:magnesium was chosen for this formula.

Why Not Picolinates?

Picolinates are not needed by the body. The biggest concern with picolinates is that they have been shown in research to increase excretion of other minerals. Here is a quote from a study published in the journal, Toxicology, performed at Creighton University School of Pharmacy and Health Professions, "Recently, 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."

How to Take Complete Mineral Complex:

- *Children*: take 2 capsules per day, preferably with meals.
- *Adults:* take 3 capsules per day, preferably with meals.

What Will Interfere With the Absorption of These Minerals?

Nothing. Albion Minerals are made to withstand any interference including phytates, fiber, ionic minerals or even medications. They are extremely well tolerated so should not cause GI distress or affect the bowels. 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 mineral, in its ionic state. All of the following can interfere with absorption of non-chelated minerals: phosphates, phytates, oxalates, fats, amino acids, other ionic minerals, and non-ideal pH. 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).

How Can Albion Prove Their Minerals are Truly Chelates?

Albion uses sophisticated FT-IR Spectral comparison that can absolutely prove its mineral chelates post-manufacturing are indeed chelates. Incorrect peaks in this wave graph easily show when competitors' minerals are not chelates at all. Some competitors' ligands separate from the mineral when simply placed in water.

Aren't Minerals Susceptible to Heavy Metal Contamination?

Yes. Many on the market are problematic. Designs for Health can show proof of heavy metal testing via a Certificate of Analysis on all of our minerals where we make sure heavy metals such as lead are always below the accepted value. Zinc and calcium are particularly susceptible to lead contamination. This is another reason DFH trusts Albion minerals.

References

1. Heaney RP. J Bone Miner Res. 1989 Oct;4(5):795-6. Calcium absorption
2. Seal CJ. Ann Nutr Metab. 1988;32(4):186-91. Influence of dietary picolinic acid on mineral metabolism in the rat.
3. 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.
4. Recker RR, Bammi A, Barger-Lux MJ, Heaney RP. Am J Clin Nutr. 1988 Jan;47(1):93-5. Calcium absorbability from milk products, an imitation milk, and calcium carbonate.
5. Touyz RM. Front Biosci 2004 May 1;9:1278-1293. Magnesium in Clinical Medicine.

Supportive Research Studies

PROTECTIVE EFFECTS OF HIGH DIETARY POTASSIUM: NUTRITIONAL AND METABOLIC ASPECTS.
Demigne C, et al. J Nutr 134:2903-2906, 2004.

The presence of potassium is so prevalent in foods that severe deficiencies are not common. It has been observed that the changeover to the modern diet has led to a substantial decrease in potassium intake, when compared to traditional diets. This has resulted in a large fraction of the population receiving suboptimal potassium in their diet. High potassium intake has a protective effect against a variety of pathologies which affect the cardiovascular system, kidney, and bones. Organic potassium (potassium malate and citrate) are found in fruits and vegetables, and these organic potassium compounds cause alkalinizing effects that neutralizes the fixed acidity of the urine. Catabolic processes (decreasing bone mass and muscle mass) are exacerbated by low grade metabolic acidosis, especially in the elderly. The nutrition scientists state from this that there is a need to ensure the intake of 2.5 - 3.5 grams of potassium (as organic anion salts) per day. Since fruits and vegetables are a good source of this, there is good rationale to recommend 5-10 servings of these substances per day.

LIVER CIRRHOSIS AND "LIVER" DIABETES MELLITUS ARE LINKED TO ZINC DEFICIENCY (IN PROCESS CITATION). Grungreiff K; Reinhold D. Med Hypotheses 2005;64(2):316-317.

There is extensive documentation concerning the association between liver cirrhosis and variations of glucose tolerance. Zinc is an essential trace element that is needed for more than 200 zinc metalloenzymes, normal protein metabolism, and many other physiologic functions. It is common to find poor zinc status in liver cirrhosis and diabetes mellitus. Zinc deficiency has been linked to many of the clinical features of liver cirrhosis and diabetes mellitus. **The neurological symptoms and signs of liver cirrhosis and hepatic encephalopathy have shown improvement from zinc supplementation (with and without diabetes mellitus), as well as better glucose utilization. The authors use these findings to hypothesize that zinc deficiency is a link between liver cirrhosis and "liver" diabetes mellitus.**