## **Product Technical Reports**

# **CLARK'S**

## **COLLOIDAL MINERALS™**

A Modern Supplement With Prehistoric Origins

# THE NUMBERS

- □ According to some experts, up to 99 % of all Americans are mineral deficient
- □ It is estimated that the average American consumes 10 pounds of chemical additives each year, and many of these block mineral absorption by the body
- □ The 1992 Earth Summit Report by the World Health Organization showed the amount of depletion of mineral in the soil in North America to be 85 %
- □ The average American eats 10-15 grams of fiber daily, far short of the recommended 20-35 grams
- Recent studies show most people eat a calcium-deficient diet, including 90 % of women

## THOMAS CLARK DRINKS FROM AN AMAZING SPRING

It was about 80 years ago that Thomas Clark, an ailing rancher, was led to a legendary spring held in high esteem by the Piute Indians of Central Utah for its extraordinary healing powers. Not long after his refreshing draught from the spring, Clark experienced an amazing recovery. He decided he needed to find out just what was in the water that produced such an incredible turnaround in his health. What Clark discovered was that the spring water flowed through a deposit of some unusual looking material.

It turns out the material was actually peat, the preserved remnants of an ancient rainforest 75 million years old! When the peat was tested, it was found to contain more than 70 different minerals and rare colloidal trace minerals. The water flowing through the mineral-rich peat carried those minerals right into the spring. Clark eventually developed a method for extracting and concentrating these minerals into a liquid colloidal form. His family has continued this process now into the third generation.

## ARE MINERALS REALLY THAT IMPORTANT?

The answer to that question is a resounding "Yes!" Minerals are inorganic substances our bodies need to complete a whole host of everyday functions, from thinking to growing strong teeth and bones, from breathing to metabolizing sugar. They help regulate our body fluids, they assist in the transmission of nerve impulses, and they often act as catalysts to get the other operations in the body jump-started. According to Nobel laureate Dr. Linus Pauling, "You can trace every sickness, every ailment, and every disease to a mineral deficiency."

Minerals can be divided into two major categories. Macrominerals, including calcium, magnesium, sodium, potassium, and phosphorus, are the ones perhaps most familiar to people. These minerals are required in larger quantities by the body than the other group, the trace minerals. Trace minerals include things like boron, chromium, copper, germanium, iodine, iron, manganese, molybdenum, selenium, silicon, sulfur, vanadium, and zinc. As their name implies, the amounts our bodies need of these essential elements are tiny.

## SO WHAT'S ALL THE EXCITEMENT SUR-ROUNDING CLARK'S?

Clark's Colloidal Minerals has been on the market since 1926. It's the only nutritional product on the market that has a legal consent decree from a federal court and approval of the U.S. Dept. of Health and Human Services to be harvested and sold as a nutritional supplement. All other supplements just follow the labeling requirements of the FDA.

The minerals in this product have been processed by plants to a form that is readily absorbable in the human body. Mass-marketed mineral supplements typically contain minerals in an elemental form that results in very little absorption. The term "colloidal" means the minerals are bound to plant substance and held in a suspension, a liquid in which particles are mixed but not dissolved.

This unique mix contains over 60 different colloidal minerals, including rare and trace minerals. Let's take a

look at some of them and how they help our bodies achieve optimal health:

#### Selenium

This mineral is an important part of antioxidant enzyme systems that help control the free radical damage that can result from normal oxidative metabolism. It is essential for normal functioning of the immune system and thyroid gland. There is strong evidence that selenium protects against several forms of cancer, including lung, colorectal, prostate and skin. It can help diminish the impact of cardiovascular disease, arthritis, asthma and macular degeneration.

#### Chromium

Chromium is an essential trace mineral that aids in sugar (or glucose) metabolism, regulation of insulin levels, and the maintenance of healthy cholesterol and triglyceride levels. Chromium deficiency disturbs normal insulin function.

#### Sulfur

Sulfur is most commonly found in the body as part of larger compounds, particularly the amino acids methionine, cystine, cysteine, and taurine. As a result, sulfur plays a role in enzyme function and protein synthesis. It helps with the formation of collagen, which is the structural protein in our connective tissues. Sulfur helps shore up the structural integrity of cells. It also helps the body resist bacteria and rid itself of toxins.

#### Boron

Boron is a metabolic regulator that is necessary for Vitamin D activity. This means it is important for proper calcium utilization, and it can help prevent osteoporosis. Boron plays an important role in cell membrane function. It helps improve mental alertness, memory, mineral metabolism and hemoglobin production.

#### Germanium

A trace mineral whose impact on healthy body functioning is still being explored, germanium appears to assist with proper cellular oxygenation. It also appears to play roles in ridding the body of toxins, helping maintain healthy cholesterol levels, and assisting with proper immune function.

#### Vanadium

Named for the Norse goddess of youth and beauty, Vanadium is a trace mineral that plays a role in the metabolism of carbohydrates, cholesterol, and blood lipids. Vanadium helps regulate blood sugar levels, as it mimics the effects of insulin in the body. Some studies suggest it also helps in the formation of bones, teeth, and cartilage.

#### Lithium

You've probably most often heard lithium mentioned in connection with the treatment of manic-depression, and, indeed, it has been used therapeutically in this area since about 1950. But lithium in general serves the body in several important ways. Since it is chemically similar to sodium, it often functions like sodium in many body reactions. Lithium helps stabilize serotonin transmission in the nervous system, and it also helps strengthen the immune system by stimulating white blood cell production.

#### Manganese

This is a trace mineral that supports healthy bones, joints and skin. Manganese is necessary for activation of superoxide dismutase, one of the body's most important antioxidants. It improves glucose metabolism and helps protect against osteoporosis. Manganese also facilitates the metabolism of Vitamin B-1 and Vitamin E, and it helps maintain healthy nervous and immune systems.

#### Copper

Copper is necessary for the absorption and utilization of iron. It is also necessary for the production of ATP, the source of energy at the cellular level. It has anti-inflammatory effects and can help reduce pain from all types of arthritis. Copper deficiency can result in anemia and lipid profile (cholesterol and triglyceride) abnormalities.

#### Zinc

Zinc plays a central role in the function of over 300 enzymes in the body. These are involved with such things as wound repair, immunity, fertility, protein synthesis, cellular reproduction, vision and free radical protection. Zinc helps reduce problems associated with prostate disease, diabetes, macular degeneration, peptic ulcer and common infections. Studies have shown zinc supplements to be beneficial in preventing growth impairment in children who are deficient.

#### Calcium

It's the most abundant mineral in the body, yet recent studies have shown that most people eat calcium deficient diets, especially women, 90% of whom have inadequate dietary intake of calcium. Good calcium intake throughout the lifetime has been shown to reduce bone loss as well as fracturing in the elderly. Calcium helps regulate the passage of nutrients through cell walls. It plays a role in normal blood clotting and healthy nerve and muscle function.

#### Phosphorus

Phosphorus is the second most abundant mineral in the body and is present in every cell. It is a major mineral that works with calcium to build and maintain strong bones and teeth -- about 85 % of the phosphorus in our bodies is concentrated there. It also plays a role in the proper functioning of muscles and nerves, and in energy metabolism.

#### Magnesium

Magnesium is a mineral that helps improve nerve and muscle function, and increases energy and metabolism. It is necessary for the secretion and action of insulin. It also helps regulate blood pressure. Low magnesium levels have been tied to Syndrome X. Magnesium also plays a role in regulating neuromuscular activity in the heart and helping maintain normal heart rhythm.

#### Sodium

Sodium can be viewed as the maintenance worker of the body. It is present in every cell, and, along with potassium, is constantly at work trying to balance fluid levels in the body. The passage of sodium and potassium back and forth across cell membranes generates an electrical charge that creates transmission paths for nerve impulses and for muscle contractions. In other words, it facilitates every action we take, from thinking a thought to hitting a tennis ball. Sodium also helps maintain the critical acid-base balance of blood, and it assists with hydrochloric acid production in the stomach.

#### Potassium

Helping to maintain a healthy nervous system and to regulate heart rhythm are two of the primary functions of potassium. Potassium works with sodium to regulate the water balance in the body. It is one of the main blood minerals (or electrolytes) along with sodium and chloride. This means it carries a small electrical charge, and, as a result, plays a crucial role in the transmission of nerve impulses throughout the body. In particular, potassium works in tandem with sodium to generate muscle contractions and regulate heartbeat. It also assists in carbohydrate metabolism and protein synthesis from amino acids.

## PUTTING IT ALL TOGETHER

Plants pull minerals from the soil as they grow. We eat the plants (or the animals that eat the plants), and thus get our needed levels of minerals in a great bioavailable form, one that the body can most easily utilize for good health and nutrition.

At least that's the way it's supposed to work. The trouble is, much of the naturally mineral-rich soil used for growing mass quantities of food is seriously mineral-depleted. There are several reasons. The earth periodically replenishes the soil through regular, natural flooding of streams and rivers, but modern methods of flood control in many cases keep that from happening. Soil erosion and over farming just add to the problem. And to make matters worse, the foods we have are often so over-processed that whatever small mineral content remains is stripped away.

Nutritional supplements, especially high-quality, natural supplements like Clark's Colloidal Minerals, help bring our bodies back into thenatural nutritional balance they were intended to have in order to maintain optimal health throughout our lifetimes.

With 2 quality mineral supplements available from Healing America, it is natural for people to wonder which is best for them. Clark's Colloidal Minerals is a good choice for those who eat plenty of fresh fruits and vegetables, and limit the acid-generating foods such as meats, dairy, refined carbohydrates and sodas. This supplement also offers the convenience of one capful daily as the recommended amount.

## CAUTIONS

These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease, but rather is a dietary supplement intended solely for nutritional support.

## SOURCES

Dreosoti IE. Recommended dietary intakes of iron, zinc, and other inorganic nutrients and their chemical form and bioavailability. Nutrition 1993 Nov-Dec;9(6):542-5.

Zeigler EE, Filer LJ, eds. Present Knowledge in Nutrition. Washington, DC; ILSI Press; 1996.

Naghii MR, Samman S. The role of boron in nutrition and metabolism. Prog Food Nutr Sci. 1993 Oct-Dec;17(4):331-49.

Prentice A. Maternal calcium metabolism and bone mineral status. Am J Clin Nutr. 2000 May;71(5 Suppl):1312S-6S.

Krebs NF. Bioavailability of dietary supplements and impact of physiologic state: infants, children and adolescents. J Nutr. 2001 Apr;131(4 Suppl):1351S-4S. Review.