

Minerals

If the life force behind everything that makes you live and function is a light, then minerals are the spark of electricity that charge and maintain that light. Minerals are the essential catalysts that keep our light shining brightly. They compose approximately 4 percent of our body and minerals are fundamental to our health and vitality.

Understand that all information on this site comes from authorities on the subject who based on their research, use words and phrases, like "may improve", "studies suggest", "studies have not yet shown", "is thought to", "still questionable", etc. I can tell you that there are minerals in the body that science does in fact know about, yet they don't know why they are there and what their function in our body and for our health "may be".....yet.

The truth is, the truth as we know it, is ever changing. As science evolves, so do the tools those we consider 'authorities' use to study and learn. What I can tell you for sure is that we are made up of the same elements that comprise everything in the Universe. And there's a little bit of 'everything that is out there', inside of you as well. I can also tell you that minerals, like all things, in the right balance, work magnificently to create and maintain our abundant health and vitality. And that in the wrong balance, whether too much or not enough, "may" harm or even kill us. Balance and moderation are key.

Here are a few interesting facts about minerals:

- ✚ There are 103 known minerals, 98 that science knows about living in our bodies.....but science has yet to learn the reason they are there as well as the way they may function in our body; currently science is aware of at least 18 minerals which are essential for human life, function and health;
- ✚ Minerals are what remain as ash when animal and plant tissues are burned (approximately 5 pounds from a cremated body). Minerals come from the earth and ultimately return to the earth;

- ✚ We cannot produce minerals. They must be consumed through our food.
- ✚ Minerals come from the earth. Good soil contains about 45 percent mineral density. Currently, the soil in the US contain 86 percent less than it did 100 years ago;
- ✚ We are all mineral deficient; and there is no such thing as a single mineral deficiency. They all must be maintained in balance in the body;
- ✚ Minerals are required for enzymatic reactions to occur. In other words, it doesn't matter how much great and organic food you eat. Without minerals, your body will not be able to produce enzymes to serve your body's health and function. Minerals are absolutely essential for our vitality! Also, minerals:
 - ✚ Maintain our pH balance;
 - ✚ facilitate the transfer of nutrients across cell membranes;
 - ✚ maintain proper nerve conduction;
 - ✚ contract and relax muscles
 - ✚ regulate the body's tissue growth;
 - ✚ provide structural and functional support for the body.

In other words, minerals are everything!!!

There are two categories of essential minerals within the body, macro-minerals & micro-minerals.

Macro-minerals

- ◇ Calcium
- ◇ Phosphorous
- ◇ Potassium
- ◇ Magnesium
- ◇ Sulfur
- ◇ Sodium
- ◇ Chloride

Micro-minerals (or Trace Minerals)

- ◇ Iron
- ◇ Boron
- ◇ Chromium
- ◇ Iodine
- ◇ Manganese
- ◇ Molybdenum
- ◇ Selenium
- ◇ Silicon
- ◇ Vanadium
- ◇ Zinc
- ◇ Lithium
- ◇ Germanium
- ◇ Rubidium
- ◇ Cobalt
- ◇ Copper

And the amazing truth is that SanoBe Peanut Butter Superfoods contain over 33 naturally occurring ionic trace minerals in varying trace amounts. Here is a sampling of some of the magic contained in these peanut butter superfoods!

Boron

- ✚ a vital trace mineral that is required for the normal growth and health of the body; studies suggest that Boron's benefits include:
- ✚ may support healthy growth and maintenance of bones and joints;
- ✚ recent clinical studies indicate that boron interacts with calcium and magnesium to promote optimal bone metabolism and health;
- ✚ may support normal brain function;
- ✚ many dangerous conditions like arthritis and osteoporosis are naturally managed by Boron;
- ✚ help to reduce menopausal symptoms;
- ✚ may regulate estriol and testosterone;
- ✚ help embryo development

- ✚ maintain proper cellular and organ functions;
- ✚ it is believed that boron improves the natural ability of the human body to absorb calcium and magnesium;
- ✚ may significantly alleviate difficulties caused by conditions associated with congestive heart failure
- ✚ aid in wound healing
- ✚ protect the body from a host of parasitic attacks and fungal infections;
- ✚ prevent vitamin C deficiency;
- ✚ boost the absorption of magnesium;
- ✚ reduce all inflammation;
- ✚ reduce arthritis;
- ✚ reduce the toxic effect of heavy metals;
- ✚ serves as an anti-cancer mineral, including lung, cervical, prostate, multiple myeloma, non-Hodgkin's Lymphoma;
- ✚ reduce the toxicity of chemotherapy;
- ✚ increase antioxidant capacity;
- ✚ enhance memory and cognition

Calcium

- ✚ the most abundant mineral in the human body;
- ✚ comprises approximately 1.5 – 2 % of your body weight, the overwhelming proportion in the bones and teeth, while the rest is located throughout the body in muscle, blood and interstitial fluid;
- ✚ helps muscles and blood vessels contract and expand;
- ✚ secretes hormones and enzymes;
- ✚ sends messages throughout the nervous system
- ✚ plays an important role metabolically as a cofactor to ATP, which is instrumental in the release of energy for muscle contractions;
- ✚ acts as an essential cofactor in various enzymatic conversions which occur during blood clotting;
- ✚ essential for nerve transmission and the release of neurotransmitters and neuromuscular junctions;
- ✚ instrumental in ion permeability across membranes;
- ✚ influences the effects of protein hormones;

- ✚ necessary for myocardial function;
- ✚ helps preserve the integrity intracellular substances
- ✚ although excessive calcium intake has not been shown to be toxic, high intake of vitamin D along with a high intake of calcium can induce hypercalcemia. This condition can result in excessive calcification of bone and soft tissue (i.e. the kidney), or in the formation of kidney stones.

Chromium

- ✚ responsible for stimulating insulin activity in the body, making it an important dietary need for those who are either prediabetic or who have Type II Diabetes;
- ✚ without this vital mineral, there would be nothing to control insulin and, as a result, the body would not be able to keep its blood sugars in balance;
- ✚ helps control blood cholesterol levels;
- ✚ helps control body fat and is being studied for its role in reducing heart-related conditions;
- ✚ assists in the conversion of fat, protein and carbohydrate into energy for the body;
- ✚ promotes muscle tone;
- ✚ because chromium activates several enzymes in the body, it is also important for healthy brain function and a number of chemical processes necessary for life.

Cobalt

- ✚ necessary for full health of plants, animals and humans;
- ✚ the main constituent of vitamin B12;
- ✚ the association between vitamin B12 and cobalt helps in the overall vitamin B12 is one of the B vitamins that aids in the performance of the nervous system, affects the function of other body systems and the metabolic processes of the body – essential!;
- ✚ important in the formation of hemoglobin and healthy red blood cells;
- ✚ necessary cofactor for making the thyroid hormone thyroxine;

- ✚ the body requires a small amount of cobalt to conduct its daily maintenance and growth;
- ✚ the link between cobalt and vitamin C helps prevent conditions such as scurvy;
- ✚ cobalt, together with other elements plays a vital role in the absorption of iron;
- ✚ may provide heart health and stability to cardiovascular processes – current research is being done to evaluate the important role of cobalt on the vascular system and cariological function

Copper

- ✚ copper is crucial for an overall healthy existence, as this mineral enables normal metabolic process in association with amino acids and vitamins;
- ✚ cannot be produced by the body and therefore must be consumed through external food sources; interestingly, it's the third most prevalent mineral in the body; other benefits include;
- ✚ essential for normal growth of the body;
- ✚ helpful in protecting the skeletal, nervous and cardiovascular systems
- ✚ efficient utilization of iron;
- ✚ proper enzymatic reactions;
- ✚ a vital component of the natural, dark pigment melatonin which imparts coloration to and improves eye, hair, skin and connective tissue health;
- ✚ an essential mineral in that it prevents premature aging;
- ✚ increases energy production
- ✚ regulates heart rhythm;
- ✚ balances thyroid gland;
- ✚ provides anti-inflammatory actions that assist in reducing symptoms of arthritis;
- ✚ accelerates wound healing;
- ✚ increases red blood cell formation;
- ✚ reduces cholesterol;
- ✚ should be consumed daily as it is used up supporting daily bodily processes.

Iron

- ✚ found in every cell of the body
- ✚ used to make the oxygen-carrying proteins hemoglobin, part of our red blood cells; and
- ✚ myoglobin, which is found in muscles;
- ✚ an essential component of various enzymes actions and reactions
- ✚ As a component of the respiratory pigments and enzymes concerned in tissue oxidation, iron is essential for oxygen and electron transport within the body.
- ✚ Promotes proper growth, metabolism, DNA synthesis, immunity and healing.

Magnesium

- ✚ 4th most abundant mineral in the human body;
- ✚ Responsible for over 10,000 body functions and more than 300 enzymatic reactions in the body;
- ✚ Most magnesium is found in our bones and muscles;
- ✚ Helps the body form protein;
- ✚ Forms bones and teeth;
- ✚ Replicates cells;
- ✚ Relaxes blood vessels;
- ✚ Produces energy (ATP);
- ✚ Regulates blood pressure;
- ✚ Improves heart function;
- ✚ Controls blood glucose;
- ✚ Contributes to the structure of our DNA and RNA;
- ✚ Transports calcium and potassium across cell membranes, a process important to nerve impulse conduction, muscle contraction and normal heart rhythm.

Manganese

- ✚ Containing a maximum of 20 mgs of this essential mineral, manganese is essential for every form of life;
- ✚ Concentrated in our kidney, liver and bones;
- ✚ Important for normal functioning of the brain and nervous system;
- ✚ Manganese is an actual component of manganese super oxide dismutase enzyme, a powerful antioxidant that seeks out free radicals in the body and neutralizes these damaging particles, thereby preventing many of the dangers they threaten;
- ✚ Is one of the most essential minerals for the maintenance of healthy bone structure;
- ✚ Assists metabolic activity;
- ✚ Forms healthy connective tissues;
- ✚ Supports proper functioning of the thyroid gland;
- ✚ Supports healthy sex hormones;
- ✚ Regulates blood sugar;
- ✚ Regulates the metabolism of fats and carbohydrates;

Molybdenum

- ✚ an essential mineral which plays an important role in the body's biological functions and in achieving optimal health;
- ✚ a necessary component of soil to prevent the growth of cancer-producing agents, known as nitrosamines, in plant foods;
- ✚ participates in the development of the nervous system, waste processing in the kidneys and the activation of enzymes that take part in food decomposition to produce energy;
- ✚ essential for the control and release of iron;
- ✚ helps 'jump start' four vital enzymes: sulfite oxidase, which is necessary for metabolism of sulfur-containing amino acids; xanthine oxidase, which contributes to antioxidant capacity of the blood; aldehyde oxidase, which joins xanthine oxidase in the metabolism of drugs and toxins; and mitochondrial amidoxime-reducing component, which accelerates the removal of certain toxic substances;
- ✚ effective in reducing fibrotic, inflammatory and autoimmune diseases;

- ✚ helps prevent liver damage from acetaminophen;
- ✚ reduces heart damage from doxorubicin, a bacterial antibiotic;
- ✚ shown to be partially effective against diabetes;
- ✚ encourages normal cell function;
- ✚ essential cofactor for numerous enzymes that play a crucial role in protein synthesis, carbohydrate metabolism, and uric acid formation;
- ✚ enables the body to use nitrogen;
- ✚ is used for sulfite sensitivity treatment, and acting as a sulfite detoxifier, it helps to relieve asthma and allergies related to sulfite sensitivity;
- ✚ important for prevention of anemia and adds to the general feeling of well-being.

Nickel

- ✚ though science is still uncertain about the full importance of nickel in the body; they have learned a few important factors:
- ✚ recognized only as recently as the 1970s, the body requires very little of this trace mineral but reaps many rewards because of it, including:
- ✚ humans are estimated to consume an average of 170 mcg of nickel every 24 hours;
- ✚ because it's present in both DNA and particularly in RNA, this means that it's found in every cell of the body;
- ✚ believed to be involved in protein structure and/or function;
- ✚ plays a major role in absorbing adequate amounts of iron the body needs;
- ✚ helps prevent certain conditions such as anemia;
- ✚ helps build strong skeletal frames by strengthening bone;
- ✚ may activate certain enzymes related to the breakdown and utilization of glucose;
- ✚ assists in breaking down glucose, creating fuel for daily functioning;
- ✚ may activate certain enzymes related to the production of prolactin, and therefore may be related to breast milk production;
- ✚ contributes to the production of certain enzymes that initiate important reactions such as the development of nucleic acids.

Phosphorus

- ✚ an important cofactor in healthy bone formation;
- ✚ improves digestion and regulates healthy excretion;
- ✚ assists in the formation of proteins;
- ✚ increases energy production and cellular repair;
- ✚ optimizes biochemical reactions in the body;
- ✚ assists in proper nutrient utilization;
- ✚ along with providing strength for bones and teeth, phosphorus is essential in the performance of the brain, kidneys, heart and blood;
- ✚ allows proper digestion of riboflavin and niacin
- ✚ aids in transmission of nerve impulses;
- ✚ helps kidneys effectively excrete waste;
- ✚ provides stable and plentiful energy;
- ✚ form the proteins that aid in reproduction;
- ✚ may help block cancer

Potassium

- ✚ a vital mineral found in abundance in the body;
- ✚ sufficient quantities in the body represent good health;
- ✚ neutralizes body acids and restores alkaline blood salts into the blood stream;
- ✚ works with sodium to help maintain cells and at nerve synapses to maintain membrane potentials;
- ✚ assists and enhances various metabolic processes in the body;
- ✚ prevents the occurrence of stroke in the brain;
- ✚ helps maintain blood sugar;
- ✚ prevents muscle cramps;
- ✚ improves brain function;
- ✚ helps lessen psychological stress;
- ✚ maintains water balance;
- ✚ provides strength to muscles;
- ✚ alleviates blood pressure, heart and kidney disorders;
- ✚ 3rd most abundant mineral in the body;

Selenium

- ✚ Important for maintaining overall health and wellness;
- ✚ Essential for certain cellular functions;
- ✚ Wide variety of health benefits including;
- ✚ Fights against certain heart diseases;
- ✚ Powerful immune system booster;
- ✚ Maximizes thyroid function;
- ✚ Reduces inflammation;
- ✚ Prevents cancer;
- ✚ Reduces signs of premature aging;
- ✚ Protects against antibodies;
- ✚ Boosts hair health;
- ✚ Balances hormones;

Strontium

- ✚ though virtually unheard of as a nutrient, Strontium exists in substantial amounts in healthy bones and teeth. In a 1959 Mayo Clinic study, 85% of osteoporosis sufferers who increased Strontium in their diets reported a marked reduction of pain; also,
- ✚ early research indicates Strontium to be a protector of life-energy production within the cell. Despite its proven safety and important benefits, research and supplementation of Strontium has been inexplicably neglected;
- ✚ your body contains about 300–350 mg. of Strontium, nearly 99 percent of it in the bones and teeth. It closely resembles calcium chemically and can actually displace it. It forms strontium bone salts, which may actually be slightly stronger than those of calcium;
- ✚ may help improve the cell structure and mineral matrix of the bones and teeth, adding strength and helping to prevent tooth decay or soft bones, though it is now known if low body levels of strontium causes these problems.

Zinc

- ✚ zinc is found throughout the body and is second only to iron in concentration in the body;
- ✚ during pregnancy, infancy and childhood the body requires zinc to grow and develop properly;
- ✚ though the amount of zinc necessary to support the body is relatively small, its effects are astronomical;
- ✚ highest concentration is found in the liver, kidneys, pancreas and brain;
- ✚ essential for immune system function;
- ✚ plays a role in cell division, cell growth;
- ✚ aids in wound healing;
- ✚ assists in breaking down carbohydrates;
- ✚ important for our senses of smell and taste;
- ✚ enhances the action of insulin;
- ✚ stimulates the activity of approximately 100 enzyme reactions in the body;
- ✚ necessary to synthesize DNA;
- ✚ present in red blood cells and blood serum;
- ✚ stimulates white blood cell function