

MINERALS AND THEIR PROPERTIES

Boron is believed to potentiate estrogen's role in building and maintaining bones by helping convert vitamin D into the active form necessary for the absorption of calcium. Boron is essential to bone metabolism and calcification of bones, and helps prevent osteoporosis, arthritis, and tooth decay. Boron is necessary for cartilage formation and repair; it affects calcium, magnesium, and phosphorus levels. Memory and brain function can be improved with boron. Boron plays a role in regulating the hormones, especially estrogen, but testosterone as well. A boron deficiency can cause weak and fragile cell walls. Some research shows that boron improves the libido. Boron is stored in the parathyroid glands.

Calcium is needed in every organ of the body, including the brain. Calcium is called the "knitter" because it promotes healing or knitting everywhere in the body. It is valuable for tone, power, strength, longevity, vitality, endurance, healing of wounds, neutralizing of acids, and assisting in regulating metabolism. Because it is used in almost every function, calcium is commonly deficient in our diets. It is one of the first elements to go out of balance when the diet is inadequate. Calcium is stored in the blood and teeth, as well as in the nerves, muscles and tissues.

Magnesium and vitamin D increase calcium assimilation while sodium keeps calcium in a water soluble form in the body (it must be water-soluble to be usable). Calcium raises the body's resistance to viruses, parasites, bacteria and cancer. A lack of calcium leads to a host of diseases and degenerative conditions. Unlike compounded calcium (i.e. calcium carbonate), pure water-soluble calcium will not build-up into kidney or gall stones, or contribute to arthritis and high cholesterol. A high incidence of cavities, or white spots on fingernails may indicate a calcium deficiency. This element is necessary to regain the proper pH balance. Calcium is one of the most essential of the major elements needed in human nutrition.

Chromium supplementation has been used to successfully treat obesity and help control sugar cravings.

Chromium has a lesser known effect of promoting the production of the hormone DHEA (dehydroandrosterone) which is a powerful antioxidant that slows aging, improves mental and sexual function, increases muscle strength, maintains strong bones, and activates the immune system.

Some compounded forms like chromium picolinate cannot be used without causing damage to the chromosomes and should be avoided at all costs. Foods grown in North America are extremely deficient in chromium. The body cannot easily absorb chromium. Chromium helps the body lose weight by stimulating enzymes that metabolize glucose for energy. Chromium works best if taken before meals.

Refined sugar causes the body to deplete chromium more rapidly. The elderly are unable to store as much chromium in the body as are younger people.

Cobalt is stored in red blood cells with smaller amounts in the kidney, liver, pancreas and spleen. Cobalt helps with the repair of the myelin sheath, increases the effectiveness of glucose transport from the blood into body cells, and increases the assimilation of iron and the building of red blood cells.

Cobalt is an important agent of Vitamin B-12 (Cobalamine); it increases the body's ability to absorb it. Because of its low retention rate, cobalt toxicity is rare, but an excess can lead to enlargement of the thyroid gland.

Copper is most concentrated in the liver, heart, kidneys, brain, bones, and muscles and is essential in the blood. Trace amounts are present in all body tissues. Copper increases iron assimilation; iron and copper work together in the formation of hemoglobin and red blood cells. Anemia can be a copper deficiency symptom. Various enzyme reactions require copper. Copper influences protein metabolism and general healing, improves vitamin C oxidation and is integral in the formation of RNA*. Low or high copper levels can be found in those with mental and emotional problems. Copper helps rid the body of parasites, and is beneficial for graying and thinning hair.

Germanium is an element that has incredible effects on the immune system. It helps cells take up more oxygen energizing them and increasing electrical activity. It also defends against bacterial and fungal infections. Germanium is also an excellent free radical scavenger. It has also been a proven cancer fighter. Germanium is believed to be one of the chief active components of several well known medicinal plants and herbs such as ginseng, shiitake mushrooms, aloe vera, garlic, comfrey and chlorophyll. Germanium is quickly absorbed into the body and some of its effects are immediate such as warming of the extremities. Poor immune system, low energy and cancer indicate germanium deficiencies.

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Gold stimulates the pineal gland to increase production of the powerful neurotransmitting hormones melatonin and serotonin. Many notice how their attitude and personality improve; along with better emotional stability. Gold often brings a peaceful euphoria and allows a person to become more receptive and understanding to new concepts and experience improved learning ability. Gold is not an analgesic but may have anti-inflammatory effects.

Iodine ensures normal thyroid function-manufacturing hormones. Iodine is eliminated by the body rapidly and must be constantly replaced on a daily basis. Persons on a salt restricted diet, or those who use non-iodized table salt, may suffer from an iodine deficiency. Iodine is virtually absent from most soils. Persons whose diet is high in soybean products (soy) are at risk of iodine deficiency. Skin problems such as dry or scaly skin are indicative of an Iodine deficiency.

Indium is soft and silvery in its composition, Indium is a rare, ultra trace mineral. This mineral may normalize the master hormone producers, such as the pituitary-hypothalamus gland and the thyroid-endocrine hormones by providing a precise balance of proper minerals circulated throughout the body. The most common benefits reported by individuals using Indium correctly include a more youthful appearance, notable weight loss, decreased need for sleep; more energy and a sense of well-being. Indium is not found in food, or in water sources, and whatever is found in nature is difficult for the body to assimilate. Some of the short-term benefits reported by many indium users include: increased energy, an enhanced sense of well-being, the so-called "indium high", and a reduced need for sleep. Long-term benefits: When taking indium, one feels rejuvenated and energized because the hormonal system is working better. For maximum effectiveness, Indium should be taken orally only upon rising. Fluids, medication or food should not be consumed until at least fifteen minutes afterwards. Indium should not be used on broken skin or in the eyes.

Iron attracts oxygen and builds blood. Along with manganese and copper, it is necessary for healthy blood chemistry and is essential for recovery from illness. Without sufficient iron, the body cannot manufacture enough new hemoglobin, the red cell protein that transports oxygen in the blood. Iron helps the body rid itself of carbon dioxide and keeps liver tissue soft. Even a slight deficiency of iron can result in chills, shivers, cold hands and feet, and lower body temperature. Anemia is caused by iron deficiency. Up to 20% of women of childbearing age are anemic. Anemia is the most pervasive form of nutritional disorder in all cultures and societies around the world.

Lithium is an essential trace element that may be useful in treating alcoholism, manic depression, and mental instability. We do not recommend this concentration for long-term everyday use. Many public water supplies are adequate in lithium. Deficiencies tend to occur in areas where lithium is low or absent in the water supply or in those who drink distilled or demineralized water. Although the often prescribed lithium carbonate could have serious side effects, we believe that pure un-compounded water-soluble elemental lithium does not necessarily share these same side effects. However, we suggest that you take this mineral supplement under the supervision of your health care professional.

Magnesium is a natural tranquilizer and muscle relaxant. Called the "anti stress mineral", it aids in relaxing nerves, relieving tension, assisting digestion. Magnesium is also involved in the formation of proteins and DNA. Magnesium is important in the production and transfer of energy, muscle contraction and relaxation, and nerve conduction. It also aids regularity, is necessary to keep vertebrae in their proper position, induces restful sleep, purifies and purges body tissues (combats acids, toxins, gases, impurities, and neutralizes poisons), and lowers fever. Magnesium is stored in the bowel, nerves and ligaments. Magnesium is the most important mineral needed by your body. In order to function correctly and efficiently, your body needs many nutrients. But if it is deficient in magnesium, there are over 300 biochemical reactions that will occur very inefficiently, or won't occur at all.

Manganese aids memory and other brain and nerve faculties. Though only found in trace amounts in the body, good health is impossible without it. It increases resistance and recuperative ability and like iron, aids in oxygen transfer from lungs to cells. Manganese strengthens tendons, tissues, ligaments, and linings in and outside of organs. If the human body is well supplied with manganese, various tissues, cells and nerves become more tensile and elastic. Manganese has

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a positive effect on the libido by increasing energy levels and the brain's ability to receive and send messages. It also helps the reproductive organs to work properly because of its effect on tissues and nerves. Production of sex hormones is aided by manganese. It can help reduce menstrual cramps and PMS.

Molybdenum, the purifier, is vital to our health. Molybdenum can prevent some forms of cancer, prevent anemia, dental cavities, premature aging, clear up foggy-mindedness, reduce pain, relieve arthritis pain and regulate pH levels. Molybdenum is an excellent way to detoxify the body of sulphate build-up. Sulphates are commonly found in prescription drugs and foods as preservatives. Sulphite toxicity may result in allergies, hay fever, nausea, diarrhea, asthma attacks, loss of consciousness, coma or death. Sugar (fructose and glucose) and alcoholic drinks deplete other molybdenum based enzymes.

Oxygen kills virtually every harmful virus, bacteria, parasite, and fungus in about 60 seconds. The second benefit is when oxygen enters the stomach and kills the germs residing there. Stabilized oxygen aids the bowels because it gives an additional supply of oxygen to the beneficial aerobic bacteria that break down food and remove toxins. Unlike some oxygen drinks which allow oxygen to escape once the bottle is opened, stabilized oxygen maintains its oxygen levels until ingested. S.O can be added to contaminated water (20-30 drops per liter) and left to stand for 24 hours to completely neutralize any potentially harmful water-borne pathogens that may be present.

Platinum has shown ability to halt the reproduction of harmful bacteria and may also be effective against fungus, and viruses.

Potassium neutralizes acids and restores alkaline salts to the blood stream. Potassium works with sodium in all cells including nerve synapses to maintain and restore membrane potentials and assist in metabolic processes. Potassium is critical to cardiovascular and nerve function, through regulating the transfer of nutrients into cells, and for muscle energy. Potassium also regulates water balance, assists recuperative powers, aids rheumatic or arthritic conditions (causes acids to leave joints and ease stiffness), is vital for elimination of wastes, is a natural pain desensitizer, helps control convulsions, headaches and migraines, promotes faster healing of cuts, bruises & other injuries, and generally contributes to a sense of well being. Potassium is stored in the muscles.

Selenium is an essential trace mineral that works with vitamin E in metabolic functions. It promotes normal body growth, fertility, encourages tissue elasticity and is a potent antioxidant that naturally reduces the retention of toxic metals in the body. Selenium is crucial for the proper functioning of the heart muscle and there is evidence that it can help the body fight cancer. In Norfolk England, the people are said to be among the longest-living people in their country. Scientists believe it is due to high concentrations of selenium in their soil. Low soil levels of selenium have long been associated with higher cancer rates.

Silica, a trace element, is critical for healthy bone cartilage, organ and connective tissue (aorta, trachea, artery walls, ligaments and tendons). Studies conducted in Finland demonstrated that silica supplements could greatly improve the quality and appearance of hair, skin and nails. Silica plays an important role in many body functions and has a direct relationship to mineral absorption. Silica influences the calcification process and the rate at which calcium is deposited in the bones. Osteoporosis is a symptom of the aging process. As calcium is leached in our bodies, our bones become brittle and weak. Taking only a calcium supplement cannot correct or stop this threatening and crippling disease because the body cannot assimilate and /or make use of the calcium without the presence of silica. For osteoporosis, silica can stop the pain and even restore the body's self-repair process.

Silver is the perfect mineral for fighting colds, and building the immune system. Silver kills over 700 various kinds of harmful bacteria, viruses, yeasts and fungi. Aquatomic™ silver has no harmful effect on aerobic (oxygen breathing) microbes, animals or humans. There has never been a single reported harmful side effect, illness or death from the medicinal use of water-soluble silver- which makes it not only the world's most powerful antibiotic, but also the world's safest! Today's pharmaceutical antibiotics are dangerous and all but ineffective against mutating germs and completely

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useless against viruses like influenza. Vaccines contain many harmful substances and have never been proven to protect against viral infection. Mutant strains of disease are not immune to the antiseptic effects of silver. Silver will work today and just the same centuries from now. Water-soluble aquatomic silver can be applied externally to open wounds, armpits, eyes and ears without any irritation. There is no established toxic level for water-soluble silver. Silver also neutralizes harmful sodium-fluoride found in drinking water and toothpastes. MODERN SILVER USES: • Silver-sulfadiazine is now used in every hospital to treat burn victims against infection. • It is also replacing poisonous mercury tooth fillings. • In the U.K., it is added to public water in order to destroy waterborne Legionnaire's Disease. • Silver-thiosulfate is now used in plastics to keep public telephones more sanitary. • A popular water filter uses silver-impregnated carbon. • It is also used by farmers in livestock drinking water to prevent infectious diseases. • Silver disks are used in washing machines to sanitize laundry. • Silver oxides are beginning to replace chlorine for purifying swimming pools. • NASA and all major airlines now use silver element air and water purifiers.

Strontium has been safely used as a medicinal substance for more than a hundred years. Strontium is a metallic element, in the same chemical family as calcium and magnesium. Research is revealing how important strontium is for bone health, helping to prevent osteoporosis, preventing dental cavities and reducing bone pain in certain types of cancer. Strontium was studied in both animals and humans from the early 50's until the early 60's and was shown to have strong bone-building properties. We used to obtain the strontium mineral from the food we ate and the water we drank, since it was present in the soil. However, due to the mass commercialization of agriculture, minerals in the soil have come severely depleted over the last few decades, making it difficult to get these important minerals unless we take supplements.

Sulfur aids every cell in the elimination of toxic substances through agitation. Sulfur aids functions in enzyme reactions and protein synthesis and is important in cellular respiration. Sulfur is the flexible bond that connects cells; it is the lubricant found between joints. A deficiency of water-soluble sulfur can lead to a variety of conditions ranging from skin irritations and rashes to total breakdown of cellular regeneration. Pain and inflammation associated with various muscle and skeletal disorders indicate a deficiency of sulfur. It is believed that sulfur can repair the myelin sheath, the protector on the end of every nerve in the body. Damage to the myelin sheath causes the shaking condition in palsy, MS, Lorenzo's Disease and many other disease conditions where motor functions are uncontrollable. Chronic or severe allergies to materials such as dust, pollen, wool, animal hair, feathers, etc., with symptoms ranging from respiratory congestion to inflammation, itching, and general discomfort, can be relieved with sulfur. It increases blood circulation, reduces back pain, relieves migraine headaches, promotes muscle healing, scavenges free radicals, beautifies the skin, relieves allergies to food, controls acidity in stomach ulcers, is important for carbohydrate metabolism and speeds wound healing.

Vanadium - Increased vanadium reduces the rate of heart disease. Lower levels of Vanadium result in increased triglycerides and LDL cholesterol. One of Vanadium's most promising effects is its ability to control elevated blood glucose levels in both Type I and Type II diabetics.

Zeolites - Natural non-toxic volcanic ash Zeolites preloaded with Potassium. This product may help pull toxins and heavy metals from the body. May help support a healthy immune system.

Zinc is a potent anti-oxidant, anti-fungal and anti-bacterial. It is excellent for heavy metal detox, as it pulls cadmium from the system. It is especially important for pregnant women to supplement with zinc, as zinc deficiencies can lead to Down's Syndrome, clubbed limbs and spina bifida. It improves white blood cell function, promotes healthy teeth and gums, stimulates one's sense of taste and smell, improves visual acuity, aids the thymus gland, helps produce keratin for healthy hair, nails, and skin. Zinc protects the prostate from infection and promotes proper sexual function. Zinc is anti-viral and is found in all the body fluids, including the moisture in the eyes, lungs, nose, urine and saliva.

All above minerals are available through Quench Essentials www.quench.ca