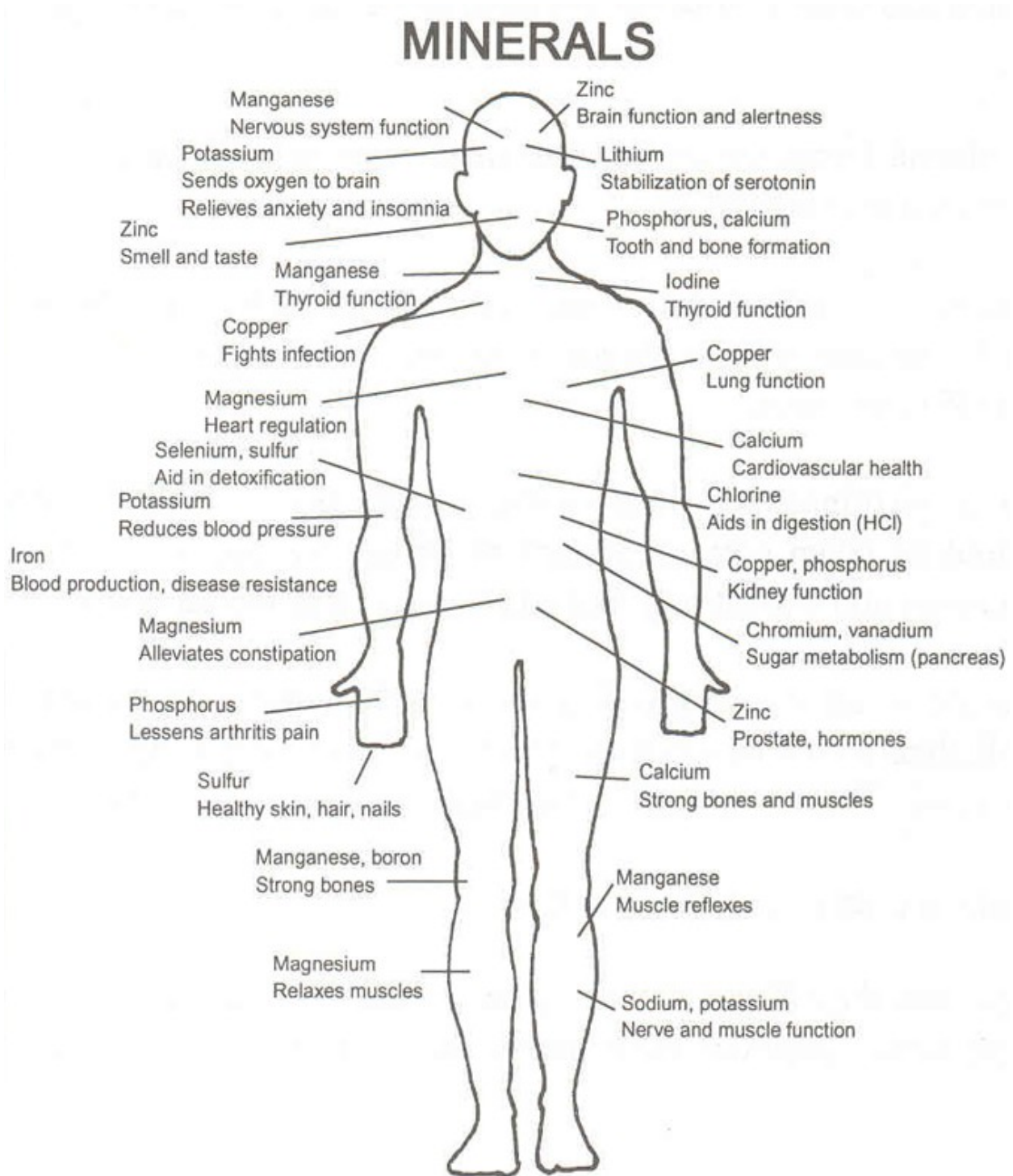


ROLE OF MINERALS IN OUR BODY



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Type of Minerals	Importance	Deficiency Symptoms	Sources
Boron	<ul style="list-style-type: none"> • Build and maintain healthy bones. • It is also necessary for the metabolism of calcium, phosphorus, and magnesium. • Elevates levels of serum estrogen and ionized calcium. • Boron benefits include proper brain functioning. 	<ul style="list-style-type: none"> • Osteoporosis, • Decreased blood levels of ionized calcium and calcitonin, • Depress mental alertness, • Decreased level of magnesium and phosphorous, • Nausea, • Diarrhea, • Skin rashes, • Arthritis and • Fatigue. 	<ul style="list-style-type: none"> • Fresh fruits, • Apples, • Carrots, • Grapes, • Pears, • Leafy vegetables and • Nuts & Grains.
Calcium	<ul style="list-style-type: none"> • Formation of bones and teeth. • Coagulation of blood. • Contraction of muscles, Cardiac action, Milk production. • Transformation of light to electrical impulses in the retina. • Young mothers during pregnancy and the nursing period. • Children and young people for rapid growth of bones. 	<ul style="list-style-type: none"> • Cramp pains in legs, • Delay in sitting up, Crawling and Walking of babies, • Heart becomes irregular, • Nerves become extremely irritable, • Poor sleep disorder, • Weakness in the bones, • Depression, • Hypertension, • Tooth decay, • Osteoporosis, • Rickets, • Insomnia, • Nervousness and • High Blood pressure. 	<ul style="list-style-type: none"> • Dairy Products, such as Milk, Cheese, and Yogurt, • Canned Salmon and Sardines with Bones, • Leafy Green Vegetables, such as Broccoli, Spinach, • Calcium Fortified foods from Orange juice to Cereals & Crackers and • Ice Cream, Kale, Oysters, Ricotta.

Chromium	<ul style="list-style-type: none"> • Regulates hunger. • Reduces cravings. • Helps protect DNA and RNA. • Important to heart function. • Helps control fat and cholesterol levels in the blood. 	<ul style="list-style-type: none"> • Cold sweats, dizziness or irritability after six hours without any food, • Frequent hunger, • Cold hands, • Need for excessive sleep or drowsiness during the day, • Addiction to sweet foods, • Frequent urination and • Excessive thirst. 	<ul style="list-style-type: none"> • Brewer's yeast, • Whole wheat bread, • Rye bread, • Oysters, • Peas, • Shredded Wheat breakfast cereal, • Potatoes and • Wheat germ.
Copper	<ul style="list-style-type: none"> • Necessary for the growth, development, and maintenance of bone, connective tissue, brain, heart, and many other body organs. • Involved in the formation of red blood cells, the absorption and utilization of iron, and the synthesis and release of life-sustaining proteins and enzymes. • Involved in the healing process, energy production, hair and skin coloring, and taste sensitivity. • Essential to catecholamine synthesis. • Copper is a component of the antioxidant enzyme: super oxide dismutase, and might protect cell membranes from potential damage by highly reactive oxygen fragments. In this antioxidant role, copper might function to prevent the development of cancer. • It is also essential for the utilization of vitamin C. 	<ul style="list-style-type: none"> • Chronic diarrhea, • Burning sensation in throat and tonsils, • Malabsorption problems, or iron-deficiency anemia, • Loss of color from skin, • Hair baldness, • Heart disease, • Menkes' Syndrome, • Nervous system impairment, • Low resistance to infections coliosis, • Poor tissue formation, • Impaired respiration, • Skin sores, • Retardation, • Liver Cirrhosis, • Depression and • Fatigue. 	<ul style="list-style-type: none"> • Dark green leafy vegetables, • Raisins, • Radishes, • Nuts (especially almonds), • Oranges, • Blacks Trap Molasses, • Avocados and • Broccoli.

Cobalt	<ul style="list-style-type: none"> • Aids in normal growth and appetite, pancreas. • The only known function of cobalt is as a constituent of vitamin B12. • In this capacity, cobalt aids in the formation of normal red blood cells, maintenance of nerve tissue, and normal formation of cells. 	<ul style="list-style-type: none"> • Anemia, • Nerve Disorders, • Abnormalities in cell formation, • Scaly skin and • Atrophy. 	<ul style="list-style-type: none"> • Green leafy vegetables, • Fruits and • Herbs.
Chlorine	<ul style="list-style-type: none"> • Chlorine is the major extra cellular anion and contributes to many body functions including the maintenance of osmotic pressure, acid-base balance, muscular activity, and the movement of water between fluid compartments. • An electrolyte, along with sodium and potassium. • Affects blood, nerves, epithelium. Aids digestion and elimination, normalizes osmotic pressure in blood and tissues. • Helps maintain normal heart function, acid-base balance and water balance. • Increases capacity of blood to carry carbon dioxide to lungs for excretion. • Helps to cleanse both the intestines and body of toxins. • Produces the normal acid environment in stomach. (This aids in absorption of iron and vitamin B12.) 	<ul style="list-style-type: none"> • Disturbed digestion, • Water retention issues, • Loss of hair and • Weight loss. 	<ul style="list-style-type: none"> • Coconut, • Avocados, • Dates, • Turnips, • Lettuces, • Kale, • Tomatoes, • Potatoes, • Apricots, • Orange juice, • Pineapple, • Watercress, • Raw white cabbage, • Spinach, • Asparagus, • Cucumbers, • Parsnips, • Carrots and • Onions.

Fluorine	<ul style="list-style-type: none"> • Stronger tooth enamel and bones. • Fewer cavities. • Fewer bone fractures. • Less osteoporosis in older women. • Higher birth weights and higher rates of growth in children. • Reduces loss of hearing if caused by otospongiosis of the inner ear. • Also needed for blood, skin, hair and nails. 	<ul style="list-style-type: none"> • Decay of teeth, • Curvature of the spine and • Weak eyesight. 	<ul style="list-style-type: none"> • Carrots, • Turnip and beet greens, • Dandelion, sunflower seeds, • Garlic, • Spinach, • Green leafy vegetables, • Nuts (especially almonds) and • Turnip greens.
Germanium	<ul style="list-style-type: none"> • It empowers the immune system. • Improves cellular oxygenation. • Removes low toxins and poisons from the body. • Decreases blood pressure. • It has antibacterial properties. • Reduces cholesterol level. • It has antioxidant properties. • Used in cancer treatment. • Useful in treating HIV and AIDS. 	<ul style="list-style-type: none"> • Diabetes, • Arthritis, • Lack of energy • Asthma, • Leukemia, • Cardiac diseases, • Problems in the joints, • Neuralgia, • Hypertension, • Poor immune system, • Reduced resistance power and • Osteoporosis. 	<ul style="list-style-type: none"> • Meat, • Fish, • Bran, • Dairy products, • Onions, • Seeds, • Whole Wheat and • Vegetables.

Iodine	<ul style="list-style-type: none"> • It influences the functioning of the thyroid gland, thereby increasing the production of the hormone. • It influences the heart rate, blood pressure, body weight and temperature and also helps in protein synthesis. • Helps in optimum utilization of calories without allowing deposit of excessive fats, thereby raising the energy levels. • Helps in maintaining shiny skin, teeth and hair. • Essential to allow normal growth and maturity of reproductive organs. • Iodine also determines proper movement and growth, along with speech and hearing, in babies. • Right iodine levels in body can curb the condition of fibrosis, turgidity and breast tenderness. It acts as a relief for fibrocystic diseases. • Iodine has anti-cancer properties. It is believed that cancer cells tend to shrink, when administered with iodine. • Iodine is also believed to remove toxic elements from the body. 	<ul style="list-style-type: none"> • Muscle cramps, • Swelling of the legs, • Depression, • Excessive sleepiness, • Dry skin and hair, • Rise in the cholesterol levels, • Reduced concentration, • Excessive sleepiness, • Fatigue and tiredness, • Intolerance towards cold, • Constipation, • Aches and pain in the body, • Cramps in muscles, • Mild weight gain and • Goiter. 	<ul style="list-style-type: none"> • Eggs, • Meat, • Fish, • Seaweed, • Strawberries, • Milk, • Mozzarella Cheese and • Yogurt.
Manganese	<ul style="list-style-type: none"> • It is used as a remedy for cuts, sprains and strains. • Controls heavy menstruation in women. • It helps in the proper digestion process. • It aids in proper bone structure. • It is beneficial for maintaining healthy immune system and nervous system. • Aids in preserving a healthy 	<ul style="list-style-type: none"> • Confusion, memory loss and muscle contractions, • Rapid pulse rates and high level of cholesterol, • Hypertension and memory loss, • Irritability, • Excess perspiration, • Pancreatic damage, 	<ul style="list-style-type: none"> • Nuts, • Tea, • Raisins, • Avocados, • Spinach, • Broccoli, • Seeds, • Egg yolks, • Blueberries, • Spinach, • Whole grains,

	<p>reproductive system.</p> <ul style="list-style-type: none"> • It regulates blood sugar. • Optimum functioning of thyroid gland. • It is involved in the process of blood clotting to prevent loss of blood. • Prevents cartilage damage. • It promote the absorption of vitamins B1 and vitamin E to fight anxiety, depression etc. 	<ul style="list-style-type: none"> • Difficulty in digestion, • Infertility, • Tremors, • Osteoporosis, • Tooth grinding, • Eye problems, • Convulsions, • Seizures and weakness, • Malformation of bones, • Atherosclerosis and • Hypoglycemia. 	<ul style="list-style-type: none"> • Beans, • Dried peas, • Green leafy vegetables, • Oranges and • Beans.
Magnesium	<ul style="list-style-type: none"> • Known as anti- stress mineral. • Needed for the proper growth, formation and function of our bones and muscles. • Magnesium prevents some heart disorders. • Regulates blood pressure. • Magnesium is essential in allowing your body to control insulin levels in your blood. • Helps prevent calcium deposits. • Magnesium is effective in treating numerous heart and lung diseases. 	<ul style="list-style-type: none"> • Kidney damage and kidney stones, • Muscle cramps, • Arteriosclerosis, • Heart attack, • Epileptic seizures, • Nervous irritability, • Depression& confusion, • Impaired protein metabolism and • Premature wrinkles. 	<ul style="list-style-type: none"> • Chlorophyll, in green vegetables, • Nuts, • Soybeans, • Alfalfa, • Apples, • Figs, • Lemons, • Peaches, • Almonds, • Whole grains, • Brown rice, • Sunflower seeds and • Sesame seeds.

Phosphorous	<ul style="list-style-type: none"> • Phosphorus is essential for calcification of bone (85% of your body's pH is in your skeletal system). • Used in many enzyme processes including metabolism. • Controls the activities of most hormones and many vitamins. • A factor in carbohydrate, fat and protein metabolism. • Phosphorus is needed for blood clotting, bone and tooth formation, cell growth, contraction of the heart muscle, normal heart rhythm, and kidney function. • Organic phosphates are a part of all cellular structures and many of their functions. • Part of ATP (Adenosine Triphosphate), which is a cell's power company. Used in the oxidation of sugars for the formation of ATP. • Builds bones, teeth, blood, brain and hair. • It is also essential for utilizing the vitamins. 	<ul style="list-style-type: none"> • Leads to bone pain, • Poor bone formation, • Osteoporosis, Osteoporosis, • Poor memory, • Tissue weakness, • Prolapsed conditions, • Fatigue, Fatigue, • Irritability, • Poor growth, • Rickets, • Skin sensitivity, • Decreased appetite, • Decreased weight and • Weakness. 	<ul style="list-style-type: none"> • Peas, • Seeds, • Mushrooms, • Carrots, Carrots, • Nuts (pecans, almonds, etc.), • Whole grain products, • Dried fruit, • Legumes, • Eggs, • Fish and • Garlic.
Selenium	<ul style="list-style-type: none"> • It helps in enzyme functions to release the free radicals from the body.. • It improves male fertility. • It promotes production of antibodies in the body. • Protects the body from free radicals which leads to the development of heart diseases. 	<ul style="list-style-type: none"> • Hypothyroidism, • Weakness of immune system, • Chances of development of heart diseases and • Poor functioning of the thyroid gland. 	<ul style="list-style-type: none"> • Brazil nut, • Wheat Germ, • Brewers Yeast, • Shell Fish, • Sunflower seeds and • Cashew Nuts.

Zinc	<ul style="list-style-type: none"> • Helps our immune systems. • Aids in protein synthesis. • Cell Reproduction. • Wound healing. • Plays a major role in fertility and conception, among others. 	<ul style="list-style-type: none"> • Growth retardation, • Hypogonadism, • Immune dysfunction, • Skin changes, • Decreased lean body mass and • Alzheimer. 	<ul style="list-style-type: none"> • Dairy Products, • Beans and Lentils, • Yeast, • Nuts, • Seeds, • Pumpkin seeds and • Whole Grain Cereals.
Vanadium	<ul style="list-style-type: none"> • It helps in formation, reproduction and growth of strong teeth and bones. • Increases energy levels in the body. • It actively participates in chemical reactions in the body. • It helps to maintain healthy glucose in the body. • Promotes cellular metabolism. • Inhibits synthesis of unwanted cholesterol. 	<ul style="list-style-type: none"> • Increased dental cavities, • Increased cholesterol, • Pain in chest, • Coughing and wheezing, • Sore throat , • Runny nose, • Diabetes and • Hypoglycemia. 	<ul style="list-style-type: none"> • Meat, • Cereals, • Radish, • Corn, • Black pepper, • Mushrooms, • Gelatin, • Olive oil, • Seafood, • Shellfish, • Olives, • Soy, • Vegetable oils, • Snap beans and • Whole grains.