

Vitamins and Minerals

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Water Soluble Vitamins

Vitamin C - Antioxidant, protects cells from free radical damage, needed to make collagen, helps in repairing injuries, improves iron absorption, plays a major role in optimizing the immune system.

The B Complex Vitamins

Riboflavin (B2) - Protects cells from oxidation damage, supports cell energy production, helps convert carbohydrates to glucose, helps convert Vitamin B6 and Folate into usable forms, essential for body growth and red cell production.

Thiamine (B1) - Plays a role in the energy cycle, helps coordinate muscle and nerve activity, supports proper heart functioning, improves circulation.

Niacin (B3) - Involved in digestion, converting food to energy, helps form healthy skin, essential for nervous system functioning.

Folate (Folacin, Folic Acid) - Prevents anemia, helps produce and maintain new red blood cells, helps ensure accurate and rapid cell division, needed to make DNA and RNA, prevents damage to DNA against cancer, maintains normal homocysteine levels to prevent heart attacks.

Pyridoxine (Vitamin B6) - Helps produce antibodies against foreign pathogens, needed for normal nerve function, aids with hemoglobin-carrying oxygen in red blood cells, helps prevent anemia, needed to break down proteins, helps maintain normal blood sugar (glucose) levels.

Cyanocobalamin (Vitamin B12) - Required for metabolic processes, formation of red blood cells, maintaining nervous system.

Biotin - Essential for growth, helps break down foods for energy, assists in metabolism, helps regulate cholesterol, important for production of hormones.

Pantothenic Acid - Works with biotin in digestion, absorption and energy production; helps regulate cholesterol, helps produce hormones.

Choline - Used in the synthesis of phospholipids, which are essential for all cell membranes and formation of all messenger molecules, involved in neurotransmission for muscles and memory, prevents fat accumulation in the liver and helps prevent high cholesterol.

Fat Soluble Vitamins

Vitamin A - essential for vision, bone growth, reproduction, cell division and differentiation, helps regulate the immune system and fight off infections, helps destroy viruses, bacteria, promotes healthy eyes, lungs, kidneys, intestines, and skin.

Vitamin D - Helps maintain strong bones, forms in the body when skin is exposed to sunlight, helps calcium absorption, prevents osteoporosis, rickets, osteomalacia, important for nerve to muscle communication for muscular movement, helps immune system destroy invading viruses, bacteria and other illness-causing micro-organisms.

Vitamin E - Protects cells from free radical damage from pollution and chemicals, helps immune system destroy viruses and bacteria, prevents blood clotting in arteries, helps increase blood vessel diameter, essential for cell-to-cell communication.

Vitamin K - Plays a major role in blood clotting for preventing excess bleeding, helps develop strong bones, strengthens blood vessels and helps maintain their pliability to prevent bruising and excessive swelling when injured; prevents the breakdown of tissues, helps prevent sagging skin.

Essential Major Minerals

Sodium - Important component of blood plasma, regulates cells' water uptake, critical for normal muscle contractions, required for normal nervous system and digestion functioning.

Potassium – Helps determine what enters the cell, assists nerves in sensory cognition, essential for nerve transmission and release of signaling chemicals, works with sodium to regulate the cells' water balance.

Calcium - Essential for building strong bones and teeth, controls muscle growth and contractions, and electrical impulses to the brain, helps maintain proper blood pressure, helps blood clotting in cuts to stop bleeding, plays a role in digestion and energy production cycles.

Boron - Assists calcium to build strong bones, ensures proper brain functioning, increases mental alertness, improves attention and short-term memory, helps calcium, magnesium and phosphorus function properly.

Magnesium - Involved in energy production, metabolism of carbohydrates and fats, required for forming DNA/RNA. Deficiencies of protein, calcium, zinc and Vitamin D impair absorption of this mineral.

Manganese - Activator of multiple enzymes involved in ATP (adenosine tri-phosphate) synthesis for cell energy production and in metabolism of carbohydrates, amino acids, and cholesterol.

Phosphorus - Required by every cell in the body for normal functioning. Along with calcium, is a major component of bone in the form of phosphate. Needed for the ATP energy production cycle and energy storage. A major component of DNA/RNA, is needed for storing and transmitting genetic information. Required for activating enzymes, hormones and cell-signaling communication. Helps in blood hemoglobin functioning for delivering oxygen to body tissues.

Zinc - Helps balance blood sugar, helps maintain a healthy immune system, helps provide an optimal sense of smell and taste, helps stabilize metabolic rate.

Selenium - Antioxidant, protects cells from free radical damage, allows thyroid to produce thyroid hormone, helps reduce risk of joint inflammation.

Sulfur - Besides calcium and phosphorus, sulfur is the third most abundant mineral in the body. Used in every single cell throughout the entire body; we cannot live without it. Is often excluded from lists of essential minerals since it is present in all amino acids, the basic foundation of all protein molecules in the body. Part of the components of hair, skin, nails and cartilage in bone joints in the form of chondroitin and glucosamine sulfates, and in cartilage in the nose and ears. Important for detoxifying the blood, liver, glandular system and other organs. Helps the liver convert accumulations of fat-soluble, toxic chemicals from the environment and works to convert them to water soluble substances to more be easily eliminated by the body's eliminative channels: the bowels, kidneys, lungs, lymph circulatory system and skin. Sulfur also has powerful antibacterial properties.

Essential Micro Minerals

Copper - reduces free radicals, preserving cells' electron configurations; involved in strong and flexible connective tissue, essential to brain and nervous system, prevents anemia with iron.

Chloride - One of the main electrolytes in the body, important for working with potassium and sodium in conducting proper electrical impulses in the nervous system. Combines with hydrogen in the stomach to produce hydrochloric acid, the highly acidic digestive enzyme required to break down protein foods. Needed to activate intrinsic factor in order to absorb vitamin B12. Helps control pH balance in the body, helps transport carbon dioxide out of the body during respiration. (Not to be confused with chlorine, a deadly gas.)

Iron – transports oxygen in blood, is stored in muscle cells, critical to cell energy production.

Iodine – helps regulate the glands, including the brain's hypothalamus and pituitary, prevents brain damage.

Chromium - Critical for blood sugar (blood glucose) metabolism. Enhances the hormone insulin's effects.

Molybdenum - Cofactor-catalyst for enzyme biochemical reactions involving protein metabolism, detoxification and forming new RNA/DNA for new cell genesis.