VITAMIN LISTING	HOW IT HELPS	BEST NATURAL SOURCES	SYMPTOMS OF DEFICIENCY
RETINOL **VITAMIN A**	- Crucial role in vision - Helps with the immune response - Promotes healthy skin and bone development - Important in reproduction	- Cod Liver Oil - Carrot - Sweet Potato - Spinach - Kale	- Night Blindness - Dryness of the eyes - Roughened, bumpy-appearing skin - Weakened mucous membranes
THIAMINE **VITAMIN B_1**	- Maintenance of the nervous system - Metabolism of carbohydrates - Role in muscle contraction and conduction of nerve signals	- Brewer's Yeast - Peanuts - Pork - Sunflower Seeds - Whole Grain Cereals	- Beri-beri - Mental confusion - Muscular weakness - Leg cramps
RIBOFLAVIN **VITAMIN B_2**	- Vital for proper growth - Metabolism of fats, carbohydrates and proteins - Important for the skin and mucous membranes - Development of red blood cells	- Yeast - Liver - Eggs - Oyster - Milk	- Dry and scaly skin - Cracked and red lips - Cracks at the corners of the mouth - Sensitive, bloodshot eyes
NIACIN **VITAMIN B_3**	- Reduction of cholesterol levels in the blood - Metabolism of fats, carbohydrates and proteins - Protection of the nervous system	- Liver - Beef - Fish - Peanuts - Avocado	- Pellagra - Diarrhoea - Thickening of the skin - Smooth tongue
PANTOTHENIC ACID **VITAMIN B_5**	- Assists in cell building and maintaining normal growth - Synthesizes and metabolizes fats, carbohydrates and proteins - Development of the central nervous system	- Organ Meats - Whole Grains - Cauliflower - Avocado - Beet	- Muscle cramps - Low blood glucose concentrations - Skin disorders - Numbness
PYRIODOXINE **VITAMIN B_6**	- Role in immune and cognitive function - Synthesizes and metabolizes fats, carbohydrates and proteins - Helps with red blood cell formation	- Tuna - Chickpeas - Turkey - Potato - Banana	- Dizziness and nausea - Skin disorders - Swollen tongue - Scaling on the lips and cracks at mouth corners
BIOTIN **VITAMIN B_7**	- Assists in cell growth - Metabolism of fats and amino acids - Production of fatty acids - Important role in storage of energy	- Cauliflower - Cooked Egg Yolks - Sardines - Pecans - Blackeye Peas	- Hair Loss - Conjunctivitis - Scaly, red rash around eyes, nose and mouth - Tingling of the extremities
FOLATE/FOLIC ACID **VITAMIN B_9**	- Important in synthesizing and repairing DNA - Crucial in rapid cell division and growth (in pregnancy and infancy) - Production and regeneration of red blood cells	- Dark green, leafy vegetables - Lentils - Egg Yolks - Beans and Peas - Fortified Grain Products (e.g. Pasta, Bread, Cereal)	- Diarrhoea - Limb numbness - Complications in pregnancy - Forgetfulness
COBALAMIN **VITAMIN B_{12}**	- Important in the conversion of food into energy - Normal functioning of the brain and nervous system - Formation of red blood cells and prevention of anemia	- Dairy Products - Liver - Eggs - Poultry - Salmon	- Fatigue - Numbness of hands and feet - Poor memory - Pernicious anemia *(severe deficiency)*
ASCORBIC ACID **VITAMIN C**	- Vital and protective antioxidant - Key in proper wound healing - Role in collagen and connective tissue formation	- Citrus Fruits - Cantaloupe - Pepper - Tomato - Mango	- Scurvy - Bleeding gums - Poor wound healing - Nosebleeds
CALCIFEROL **VITAMIN D**	- Essential for strong bones and teeth - Maintains proper mineral balance of calcium and phosphorus - Role in reduction of inflammation in the body	- Cod Liver Oil - Salmon - Mackerel - Egg Yolks - Sunlight	- Rickets - Severe tooth decay - Softening of the bones - Senile osteoporosis *(fragile bone disease)*
TOCOPHEROL **VITAMIN E**	- Important antioxidant to protect cells from free radical damage - Assists in immune function - Role in platelet aggregation inhibition	- Vegetable Oils - Wheat germ - Green, leafy vegetables - Peanuts - Seeds & Nuts	- Damage to red blood cells - Male infertility - Impairment of the immune response
VITAMIN K	- Key for blood coagulation (clotting) - Role in bone strengthening and development	- Parsley - Cabbage - Broccoli - Grapes - Dairy Products	- Anemia - Easy bruising - Bleeding of the gums - Heavy menstrual bleeding in women
CHOLINE	- Help maintain the structural integrity of cell membranes - Help protect the liver against toxic chemicals	- Beef liver - Whole Eggs - Cauliflower - Wheat germ - Spinach	- Fatty liver - Hardening of the arteries - Raised cholesterol levels - Reduced ability to digest fats

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MINERAL LISTING	HOW IT HELPS	BEST NATURAL SOURCES	SYMPTOMS OF DEFICIENCY
CALCIUM	- Helps form and maintain strong, healthy bones and teeth - Essential in proper nervous system function - Role in blood clotting and blood vessels constriction and relaxation	- Dairy Products - Almond - Coconut Milk - Sardines with bones - Spinach	- Rickets - Osteoporosis - Softening of the bones
CHLORIDE	- Aids in maintaining proper fluid balance as well as acid-base balance in the body - Essential in proper nervous system function - Role in conversion of food into energy and digestion	- Seaweeds - Table and sea salts - Tomato - Olive - Rye	- Nausea and vomiting - Prolonged diarrhoea - Excessive thirst
CHROMIUM	- Essential for proper insulin function and maintenance of ideal blood glucose levels - Metabolism of proteins, carbohydrates and fats	- Broccoli - Apple - Garlic - Basil - Grape Juice	- Poor blood glucose control - Poor concentration and memory - Anxiety
COPPER	- Necessary for collagen and connective tissue formation - Role in energy production - Acts with iron to synthesize hemoglobin in red blood cells	- Chocolate & Cocoa - Crustaceans - Lentils - Organ Meats - Mushrooms	- Anemia - Edema - Cold sensitivity
IODINE	- Needed for proper growth and development - Important role in maintaining healthy reproductive system - Required for the synthesis of thyroxin which regulates metabolic rate	- Dairy Products - Iodized Salt - Seafood - Seaweed - Turkey	- Goiter - Weight gain - Cretinism (in infants if the mother is severely deficient in the first trimester)
IRON	- Key in generation of energy - Crucial for the production of red blood cells - Important role in fertility and reproduction	- Dark green, leafy vegetables - Red Meats - Prunes - Nuts - Egg Yolk	- Iron deficiency anemia - Lightheadedness - Unusual cravings *(e.g. for ice or dirt)*
MAGNESIUM	- Essential for effective nerve and muscle functioning - Helps in the maintenance of normal heart rhythm - Assists in blood pressure regulation	- Avocado - Banana - Wheat Bran - Pumpkin Seeds - Spinach	*Mainly in alcoholics:* - Tremors - Dizziness - Delirium
MANGANESE	- Important in the synthesis of DNA and cartilage - Aids the body in its use of insulin to regulate blood sugar - Contributes to wound healing	- Beet - Nuts - Pineapple - Spinach - Sweet Potato	- Ataxia *(loss of control over the voluntary movements of everyday life)*
MOLYBDENUM	- Plays a supportive role in iron metabolism - Helps with the metabolism of carbohydrates and fats - Role in enzyme production	- Nuts - Whole Grains - Dark green, leafy vegetables	- None known
PHOSPHORUS	- Necessary for normal bone and teeth structure - Regulates energy release from cells - Helps maintain the acid-base balance in the body	- Beans and Peas - Dairy Products - Nuts and Seeds - Poultry - Seafood	- Weakness - Bone pain - Loss of minerals, especially calcium from the bones
POTASSIUM	- Works with sodium to regulate the body's water balance - Assists in normalizing heart rhythms and function - Supports blood pressure regulation	- Banana - Citrus Fruits - Sweet Potato - Tomato - Dates	- Muscle weakness - Nausea - Rapid heart beat
SELENIUM	- Antioxidant function - Helps maintain proper immunity and immune response - Role in ideal thyroid function	- Brown Rice - Tuna - Ham - Cottage Cheese - Oatmeal	- Fatigue - Weight gain - Shortness of breath
SODIUM *(Nutrient to get less of)*	- Works with potassium to regulate the body's water balance - Supports blood pressure regulation - Role in muscle contraction and relaxation	- Buttermilk - Shellfish - Celery - Eggs - Broccoli	- Confusion - Restlessness and irritability - Muscle weakness and spasms
ZINC	- Good antioxidant and powerful immune stimulant - Directs maintenance of enzyme systems and cells - Role in would healing	- Beef - Dairy Products - Flaxseed - Eggs - Shellfish	- Poor wound healing - Fine tremor - Retarded sexual development

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