

The Ultimate Vitamin and Mineral Chart Vegetarian Sources

1 microgram = 40 International Units (IU'S)

Vitamin/Mineral	Sources	Indication	Efficacy
Vitamin A Retinol Retinoic Acid Men: 3,000-4,000 IU Women: 2,700-3,200 IU	Watercress, Tomatoes, Yellow and Red Peppers, Spinach (Also see below for Carotene sources.) *Best absorbed cooked.	Essential for eyes (especially night vision), maintains healthy skin and the proper function of the immune system, promotes cell differentiation. Helps maintain hair, bones and teeth. Helps to stabilize blood sugar. Helps to speed nerve impulses to the brain.	Deficiency: Night blindness; reduced hair growth in children; loss of appetite; dry, rough skin; lowered resistance to infection; dry eyes, dental problems, diarrhea, changes in digestive tract lining, kidney stones. Overdose: >25,000 IU/day Headaches; blurred vision; fatigue; diarrhea; irregular periods; joint and bone pain; dry, cracked skin; rashes; loss of hair; vomiting, liver damage, slowed clotting time, jaundice, enlarged spleen and liver.
Beta Carotene (Pro-Vitamin A) (See Vitamin A)	Carrots, Apricots, Mangoes, Squash, Broccoli, Green Leafy Vegetables	Antioxidant. Some is converted to Vitamin A in the body. (See Vitamin A)	
Vitamin D People < 50 take 100-200 IU People > 50 take 400 IU *D ₂ =vegetable source *D ₃ =animal source	Fortified Cereals and Soy Milk, Exposure to sun enables body to make its own Vitamin D. (10-15 min. for light-skinned people, 20-30 min. for dark-skinned people.)	Helps build and maintain teeth and bones. Enhances calcium absorption. Promotes cell differentiation.	Deficiency: Rickets in children; bone softening in adults; osteoporosis. (Stress interferes with Vit. D being converted into Vit. D hormone in the kidneys.) Overdose: >500-1,500 mcg/day Calcium deposits in organs; fragile bones; renal and cardiovascular damage; loss of appetite, headaches, fatigue, weakness, increased calcium in blood and in urine.
Vitamin E Men: 9-10 mg Women: 6-7 mg	Corn, Peanut, Soybean or Cottonseed Oils, Brown Rice, Sunflower Seeds, Nuts, Wheat Germ, Apricot Oil, Whole Wheat Flour, Avocados, Tahini, Peppers, Tomatoes.	Antioxidant. Helps form red blood cells, muscles and other tissues. Preserves fatty acids. Protects lungs from irritants such as smog and smoke damage. Protects Vit. A by sacrificing itself. Prevents tumor growth. May reduce risk of allergies and asthma at 7 mg/day not above	Deficiency: Rare, seen primarily in premature or low birth weight babies or children who do not absorb fat properly. Causes nerve abnormalities. Anemia; irritability; apathy and depression; inability to concentrate; sexual dysfunction; muscle weakness and lethargy; usually associated with absorption problems like cystic fibrosis or stomach bypass Overdose: >800 IU/day Alters immune function; impairs sexual function; increases risk of blood clots; alters thyroid, pituitary and adrenal functions; increases peroxidation of RBC's except in smokers; decreases Vit. C; abdominal pain; breast enlargement; diarrhea and nausea; headache, dizziness and blurred vision
Vitamin K None established. Estimated at 0.03-1 mcg/kg of body weight	Dark, Leafy Green Vegetables, Tomatoes, Vegetable Oils, Seaweeds, Kelp, Blackstrap Molasses, Lentils, Peas, also made by intestinal bacteria.	Needed for normal blood clotting. Prothrombin. Assists in synthesis of bone protein.	Deficiency: Defective blood coagulation, diarrhea. Overdose: Jaundice in infants; RBC hemolysis; brain damage.
Thiamine Vitamin B1 Men: 0.8 - 1.3 mg daily Women: 0.8 mg daily	Yeast, Peanuts, Legumes, Brown Rice, Germ of grains, Sunflower seeds, Whole and enriched Grains, dried Beans. Many herbal sources.	Necessary for carbohydrate metabolism and muscle coordination. Promotes proper nerve function. Maintenance of appetite, intestinal function, and cardiovascular health.	Deficiency: Anxiety, pitting edema, headaches, insomnia, hysteria, depression, muscle cramps, loss of appetite, in extreme cases beriberi (mostly in alcoholics). Overdose: Exaggerates effects of thyroid and stress hormones. Excess of one B vitamin may cause deficiency of others.
Riboflavin	Whole and Enriched	Needed for metabolism of all foods	Deficiency: Cracks and sores around the mouth and nose,

Vitamin B2 Men: 1.3 - 1.6 mg Women: 1.1 mg	Grains, Asparagus, Broccoli, Kelp, Dulse, Leafy Green Vegetables, Mushrooms, Molasses, nuts and Watercress. Many herbal sources.	and the release of energy to cells. Needed for normal vision, health of skin, red blood cell formation, mucous membranes of the GI tract. Facilitates the use of O ₂ in skin, hair, and nails. Essential to the functioning of Vitamin B6 and Niacin.	hypersensitivity to light, skin rash (ariboflavinosis), visual problems. Overdose: >50 mg/daily increases the risk of cataracts and retinal diseases. See Vitamin B1 overdose above.
Niacin Vitamin B3 Men: 16-23 mg Women: 14-16 mg Niacin is converted to niacinamide in the body.	Corn flour, legumes, Whole Grains, Broccoli, Yeast, Carrots, Dates, Dandelion Greens, Potatoes, Tomatoes	Needed in many enzymes that convert food to energy. Helps maintain a nervous system. Protects skin. Aids in HCL, acid, and bile production in digestive system.	Deficiency: In extreme cases, pellagra, a disease characterized by dermatitis, diarrhea and mouth sores. Overdose: >500 mg daily Hot flashes; ulcers; liver disorders; high blood sugar and uric acid; cardiac arrhythmias.
Pantothenic Acid Vitamin B5 Men: 2.5 mg Women: 2.5 mg NO RDA: Estimated safe intake 4-7 mg	Tortula Yeast, Legumes, Mushrooms, Oranges, Bananas, Whole Wheat and Rye Bread, Most Fresh Vegetables	Required by every cell. Needed to produce antibodies. Converts food to molecular forms. Needed to manufacture adrenal hormones and chemicals that regulate nerve function. Involved in hemoglobin formation	Deficiency: Headache, fatigue, nausea, vomiting, insomnia Overdose: See Vitamin B1.
Vitamin B6 Pyridoxine Pyridoxal Pyridoxine Men: 1.8 mg Women: 1.5 mg RDA 0.016/mg/g /protein/day	Carrots, Brown Rice, Brewers Yeast, Peas, Spinach, Walnuts, Leafy Greens, Avocado, Bananas, Beans, Whole Grains, Cabbage, Plantain, Corn, Potatoes, Soybeans.	Needed for protein metabolism and absorption, carbohydrate metabolism. Helps form red blood cells. Promotes nerve and brain function. Vital in Na/K balance. Aids in absorption of B ₁₂ . Aids in immune function.	Deficiency: Weakness, insomnia, anemia, convulsions, dermatitis, patches of itchy, scaling skin, nausea and vomiting, hearing and hair loss, depression, irritability, muscle twitching, kidney stone formation. Overdose: >1000mg daily Nerve damage.
Vitamin B9 Folate (Folacin) Men: 400 mg Women: 400 mg	Green, leafy vegetables, Orange Juice, Sprouts.	Essential for the manufacture of genetic material as well as protein metabolism and red blood cell formation. Helps convert B ₁₂ into useful form.	Deficiency: Impaired cell division; anemia; diarrhea; gastrointestinal upsets. Spina bifida = split spine, anencephaly = no brain Overdose: Convulsions in epileptics. May mask pernicious anemia (see Vitamin B ₁₂ deficiency).
Vitamin B12 Cyanocobalamin Men: 2 mcg Women: 2 mcg	Nutritional Yeast Fortified soy milks and cereals.	Builds genetic material. Helps form red blood cells.	Deficiency: Pernicious anemia; nerve damage. (Note: Deficiency rare except in strict vegetarians, the elderly or people with malabsorption disorders.) Overdose: See Vitamin B1.
Biotin 60 mcg	Soybeans, Whole Grains, Cauliflower, Peanut Butter	Needed for metabolism of glucose and formation of certain fatty acids. Coenzyme that carries CO ₂ . Crucial in gluconeogenesis. Promotes healthy sweat glands and nerve tissue.	Deficiency: High blood sugar, Seborrhic dermatitis in infants. Rare in adults, but can be induced by consuming large amounts of egg whites - anorexia, nausea, vomiting, dry scaly skin. Overdose: See Vitamin B1
Vitamin C Ascorbic Acid Men: 40 mg Women: 30 mg *lost with water, heat, air, vinegar	Red Sweet Peppers, Citrus Fruits, Mangoes, Strawberries, Broccoli, Potatoes, Pineapple, Green Leafy Vegetables, Kalamansi, Pomelo	Antioxidant. Helps bind cells together and strengthens blood vessel walls. Helps maintain healthy gums. Aids in the absorption of iron. Immune function. Tissue growth and repair. Sperm production.	Deficiency: Muscle weakness, bleeding gums; easy bruising. In extreme cases, scurvy. Overdose: >2000 mg daily for a prolonged time may increase the risk of cancer

Calcium Men: 800 - 1000 mg Women: 700-800 mg	Tofu, Tahini, Green Leafy Vegetables, Squash, Sweet Potatoes, Parsley, Watercress, Broccoli, Almonds, Figs, Fortified Soy Milk, Blackstrap Molasses	Helps build strong bones and teeth. Promotes muscle and nerve function. Helps blood to clot. Helps activate enzymes needed to convert food to energy.	Deficiency: Rickets in children; osteomalacia (soft bones) and osteoporosis in adults. Overdose: Constipation, Kidney Stones, calcium deposits in body tissues. Hinders absorption of iron and other minerals.
Magnesium Men: 230 - 250 mg Women: 200 - 210 mg	Green Leafy Vegetables, Soy Beans, Cashews, Almonds, Broccoli, Whole Grains, Wheatgerm, Bananas, Prunes	Activates enzymes needed to release energy in body. Needed by cells for genetic material and bone growth.	Deficiency: Nausea, irritability, muscle weakness; twitching; cramps, cardiac arrhythmias. Overdose: Nausea, vomiting, low blood pressure, nervous system disorders. Warning: Overdose can be fatal to people with kidney disease.
Potassium Men: 40-80 mmol Women: 40-80 mmol (3-6 g)	Peanuts, Bananas, Citrus, Orange Juice, Green Beans, Mushrooms, Oranges, Broccoli, Sunflower Seeds, Whole Grains, Legumes, Blackstrap Molasses, Potatoes, Figs, Dates, Watercress, Cantaloupe	Helps maintain regular fluid balance. Needed for nerve and muscle function.	Deficiency: Nausea, anorexia, muscle weakness, irritability. (Occurs most often in persons with prolonged diarrhea.) Overdose: Rare.
Sodium Average adult: 500 mg daily RDA 1.1-3.3g daily	Kelp, Lemons, Celery, Beets, Lettuce, Watermelon, Artichoke, Cereal, Salt	Helps maintain acid/base balance. Critical to extracellular fluid balance. Essential to nerve transmissions and muscle contractions. Regulates Aldosterone and kidney function.	Deficiency: Loss of appetite, thirst, muscle cramps, weakness, confusion, irritability, circulatory collapse. Overdose: Edema, Acute Hypertension
Phosphorus Men: 1000 mg Women: 850 mg (3-6 g)	Whole Grains, Beans, Lentils, Nuts, Seeds, Asparagus, Corn, Garlic	With calcium builds bones and teeth. Needed for metabolism, body chemistry, nerve and muscle function.	Deficiency: (Rare) Weakness; bone pain; Anorexia. Overdose: Hinders body's absorption of calcium.
Iron (Elemental) Men: 8-10 mg Women: 8-13 mg	Dark leafy greens, Beets, Cabbage, Parsley, Beans, Whole Grain Bread, Wheat Germ, Millet, Blackstrap Molasses, Almonds, Pumpkin (and seeds), Prunes, Dates, Soy and Tofu, Raisins. Note: Oxalic acid in spinach hinders iron absorption.	Essential for making hemoglobin, the red substance in blood that carries oxygen to body cells.	Deficiency: Skin pallor; weakness; fatigue; headaches; shortness of breath (all signs of iron-deficiency anemia) Overdose: Toxic buildup in liver and in rare instances the heart.
Zinc Men: 12 mg Women: 9 mg	Whole Grains, Brown Rice, Lentils, Pumpkin and Sesame Seeds, Almonds, Wheat Germ, Tofu, Soybeans, Spinach, Sunflower Seeds, Brazil Nuts, Mushrooms, Peanuts, Beans.	Necessary element in more than 100 enzymes that are essential to digestion and metabolism.	Deficiency: Slow healing of wounds; loss of taste; retarded growth and delayed sexual development in children. Overdose:

			Nausea, vomiting; diarrhea; abdominal pain; gastric bleeding.
Copper 2-3 mg	Beans, Brazil nuts, Raisins, Avocado, Bananas, Potatoes, Nutritional Yeast, and Seeds.	Component of several enzymes, including on needed to make skin, hair and other pigments. Stimulates iron absorption. Needed to make red blood cells, connective tissue and nerve fibers.	Deficiency: Rare in adults. Infants may develop a type of anemia marked by abnormal development of bones, nerve tissue and lungs. Overdose: Liver disease; vomiting; diarrhea.
Manganese 2-5 mg	Nuts, Green Leafy Vegetables, Fruits, Herbal Tea, Whole Grains and Cereal products.	Needed for normal tendon and bone structure. Component of some enzymes important in metabolism.	Deficiency: Unknown in humans. Overdose: Generally results from inhalation of manganese containing dust or fumes, not dietary ingestion.
Iodine Average Adult: 140 mcg daily	Seaweed, Kelp, Green Leafy Vegetables, Onions, Iodized Salt (<1/2 tsp needed per day)	Necessary to form thyroid hormone. Needed for metabolism and energy production.	Deficiency: Goiter and low thyroid function. Cretinism. Weight gain. Mental and physical retardation in infants. Overdose: Unknown
Selenium 0.05-0.2 mg	Whole Grains, Brown Rice, Kelp, Garlic, Onions, Most Vegetables, Legumes, Tomatoes,	Antioxidant. Interacts with Vitamin E to prevent breakdown of fats and body chemicals.	Deficiency: Unknown in humans. Overdose: Finger nail changes, hair loss.
Molybdenum 0.15-0.3 mg	The concentration in food varies depending on the environment in which the food was grown. Beans, Whole Grain Breads and Cereals contribute the highest amounts.	Component of enzymes needed in metabolism. Helps regulate iron storage.	Deficiency: Unknown in humans. Overdose: Gout-like joint pain.