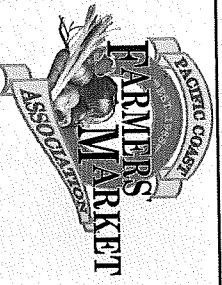


Vitamin & Mineral Guide

Vitamin / Mineral	Benefits	Found In	Signs of Deficiency
Vitamin A	Needed for vision, healthy skin and mucous membranes; key to immunity, tissue repair, bone growth, development of embryos.	Carrots, sweet potatoes, tomatoes, peaches, spinach, blueberries, apricots, watermelon, dried apricots, mangoes, fish, dairy.	Reduced resistance to infection, flaky scalp, heavy or prolonged menstrual cycles.
Vitamin B ₆	Helps body use proteins and fats; helps blood carry oxygen to tissues; maintains normal blood sugar levels.	Potatoes, bananas, walnuts, peas, corn, carrots, peanuts, organ meats, pork, beef, poultry, fish, eggs.	Risk of heart and vascular disease, insomnia and depression.
Vitamin B ₁₂	Maintains healthy nerve and red blood cells; needed to make genetic material in cells; prevents anemia.	Liver, poultry, clams, oysters, sardines, eggs, milk, cheese.	Fatigue, depression, confusion, memory loss, muscle weakness, numbness.
Vitamin C (ascorbic acid)	Helps form connective tissues; acts as an antioxidant and protects from free radicals; helps immune system.	Broccoli, green peppers, spinach, Brussels sprouts, citrus fruits, tomatoes, potatoes, strawberries, kiwi, cabbage, blueberries.	Increased risk of heart attack, cataracts, and a reduced life span; rarely scurvy.
Vitamin D	Helps body absorb calcium and phosphorous; helps prevent disease that causes weak bones; helps immune system function.	Milk products, saltwater fish, fortified cereals, mushrooms.	Osteoporosis, nervousness, muscle twitches, insomnia, and diarrhea, rickets.
Vitamin E	Antioxidant, helps blood flow, helps repair body tissues.	Sweet potatoes, sweet peppers, vegetable oils, nuts, fruits, peas, beans, broccoli, spinach, fish, milk, egg yolks.	Neurological damage (rare), mostly occurs in people with inability to absorb fat.
Vitamin K	Important for blood clotting and forming bones.	Cheese, all green leafy vegetables (spinach, broccoli, Brussels sprouts, kale, cabbage, etc.) tomatoes, plant oils.	Osteoporosis, bleeding.
Biotin	Helps body use nutrients; good for nervous system; helps form red blood cells.	Liver, kidney, egg yolks, soybeans, peas, beans, nuts, tomatoes, barley, cheese.	Brittle nails, lackluster hair.
Calcium	Plays important role in forming bones and teeth; helps with blood clotting and muscle/nerve function.	Broccoli, turnip and mustard greens, Chinese cabbage, kale, legumes, dried fruits, salmon, sardines, milk, cheese, yogurt.	Osteoporosis, muscle spasms; brittle bones in growing children.
Chromium	Helps to control insulin and certain enzymes.	Peas, corn, broccoli, green beans, grape juice, orange juice, potatoes, garlic.	Interferes with body's ability to maintain sugar levels.
Copper	Helps form red blood cells, pigment, and bones; involved in regulation of gene expression.	Artichokes, sweet potatoes, avocado, nuts, seeds, legumes, shellfish, liver.	Drop in "good" cholesterol (HDL) levels; rise in blood pressure, fatigue, heart rhythm disorders.
Folate (Folic acid)	Helps body make and sustain new cells; prevents neural tube birth defects.	Dark leafy green vegetables, dry beans and peas, oranges, grain products, beets, dates, avocado.	Increase of birth defects, chronic diarrhea.
Iodine	Part of the thyroid hormones; prevents goiter and a birth defect called infantile myxedema.	Iodized salt, seafood, kelp, eggs.	Fatigue, dry skin, delayed reflexes, reduced mental clarity.

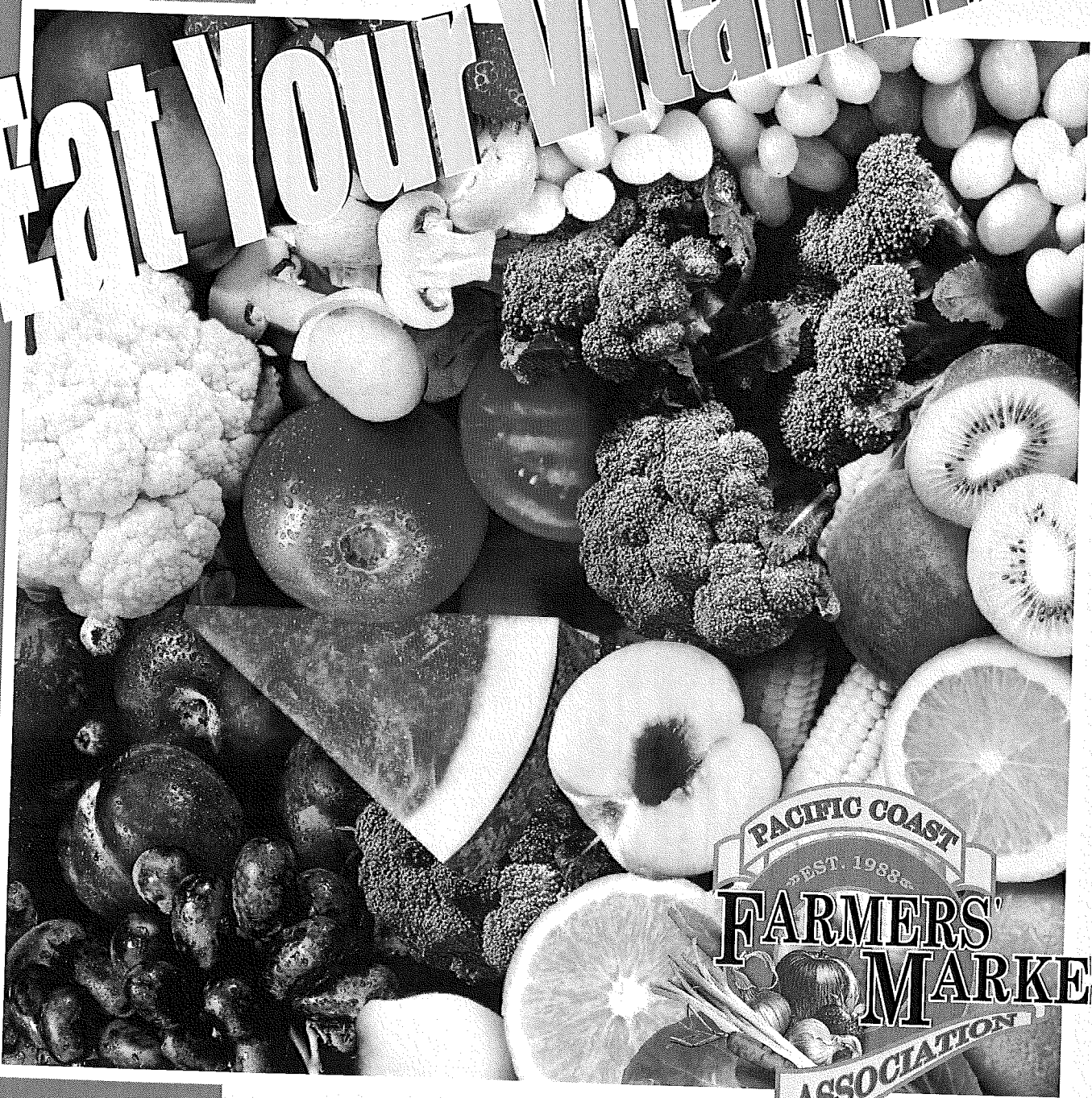
Iron	Part of hemoglobin; helps blood carry oxygen to tissues and muscles; needed to make energy; supports immune system.	Dark green vegetables, nuts, seeds, molasses, wheat bran, meat, fish, poultry, lentils, beans.	Iron-deficient anemia, reduced absorption of oxygen in the blood leading to fatigue, shortness of breath, general weakness.
Lycopene	Antioxidant, converts beta-carotene to Vitamin A.	Tomatoes and processed tomato products, carrots, sweet potatoes, leafy greens, apricots, watermelon, pink grapefruit.	Sunlight-induced skin damage.
Magnesium	Helps maintain normal muscle and nerve function; sustains regular heartbeat; keeps bones strong; helps body produce energy.	Unprocessed grains and nuts, meats, seafood, milk, cheese, yogurt, green leafy vegetables, bran cereal, seafood, chocolate and cocoa.	Susceptibility to muscle cramps, various chronic pain conditions, and muscle fatigue.
Manganese	Essential for reproductive function, physical growth, formation of bones, cartilage, brain function.	Potatoes, whole grains, lettuce, peas, dry beans, dried fruits and nuts.	Skin rash, dizziness, poor glucose tolerance, reproductive system problems.
Niacin	Helps body process protein and fats; maintains healthy nervous system, skin and digestion.	Liver, turkey, tuna, salmon, peanuts, beans, whole -grain cereals and breads.	Dry scaly skin, loss of appetite, digestive complaints, headaches.
Pantothenic acid (B ₅)	Helps body process nutrients; helps body make red blood cells; helps deal with stress.	Organ meats, beef, chicken, milk, eggs, peanuts, castews, brown rice, soybeans, lentils, broccoli.	No deficiency problems are known.
Phosphorous	Supports energy production, cell stabilization, bone formation, and cellular communication.	Fish, watercress, mushrooms, zucchini, cheese, grains.	Depleted energy, brittle bones and teeth, weakness, fatigue.
Potassium	Helps keep blood pressure down, aids muscle contractions, aids in healthy heart and transmission of nerve impulses.	Dried fruits, avocado, lima beans, potatoes, bananas, tomatoes, apricots, cantaloupe, salmon, chicken.	Muscle cramps and fatigue; abnormal heart rhythm.
Riboflavin (B ₂)	Helps body process protein, carbohydrates, and fats; helps maintain healthy skin.	Dark green leafy vegetables, mushrooms, asparagus, lean beef, pork, liver, legumes, nuts, enriched whole grains.	Cracking of the lips and at the corners of the mouth; increased sensitivity to light.
Selenium	Antioxidant, helps the immune system and thyroid function.	Most vegetables, nuts, eggs, oatmeal, garlic, brown rice, mushrooms.	Changes in fingernails, muscle weakness, and heart problems.
Thiamin	Helps body use carbohydrates for energy; good for nervous system, beneficial for stress.	Cauliflower, spinach, lean beef, pork, liver, legumes, nuts, enriched whole grains.	No deficiency problems are known.
Zinc	Helps balance blood sugar, stabilizes metabolic rate, helps immune system, optimizes sense of taste and smell.	Pumpkin seeds, peas, mushrooms, peanuts, lima beans, shellfish, liver, lamb.	Delayed wound healing; impaired sense of taste and smell, depression, lack of appetite.



Pacific Coast Farmers' Market Association
800.949.FARM www.pcfma.com

A Guide to Vitamins & Minerals in Fresh Foods

Eat Your Vitamins!



PACIFIC COAST
EST. 1988
**FARMERS'
MARKET**
ASSOCIATION

United States Recommended Dietary Allowances (RDA)

Dietary Reference Intakes: National Academy of Sciences, 1997
Dietary Reference Intakes: National Academy of Sciences, 2001

Compound	units/day	Adult Males	Adult Females	Children	Infants	Pregnant & lactating women
		31-50 yr	31-50 yr	4-8 Years	7-12 months	
Protein	g	63	50	28	14	65
Vitamin A	RE	1000	800	700	375	1300
Vitamin D	IU	200*	200*	200*	200*	200*
Vitamin E	mg	10	8	7	4	12
Vitamin K	ug	80	65	30	10	65
Vitamin C	mg	60	60	45	35	95
Folate	ug	400**	400**	200**	80*	500-600**
Thiamin(B1)	mg	1.2**	1.1**	0.6**	0.3**	1.4**
Riboflavin (B2)	mg	1.3	1.1	0.6	0.4	1.4-1.6
Niacin	mg	16	14	8	4	17-18
Pyridoxine (B6)	mg	1.3	1.3	0.6	0.3	1.9-2.0
Cyanocobalamin	ug	2.4	2.4	1.2	0.5	2.6-2.8
Biotin	ug	30	30	12	6	30-35
Pantothenic Acid	mg	5	5	3	1.8	6-7
Choline	mg	550	425	250	150	450-550
Calcium (Ca)	mg	1000*	1000	800	270*	1000*
Phosphorus (P)	mg	700**	700**	500**	275*	700**
Iodine (I)	ug	150	150	120	50	200
Iron (Fe)	mg	10	15	10	10	30
Magnesium (Mg)	mg	420	320	130	75*	320-360
Copper (Cu)	mg	1.5-3	1.5-3	1-2	0.6-0.7	1.5-3
Zinc (Zn)	mg	15	12	10	5	19
Selenium (Se)	ug	70	55	30	15	75
Chromium (Cr)	ug	50-200	50-200	50-200	10-60	50-200
Molybdenum (Mo)	ug	75-250	75-250	50-150	15-40	75-250
Manganese (Mn)	mg	2-5	2-5	2-3	0.3-1.0	2-5
Fluoride (F)	mg	4.0*	3.0*	1.0*	0.50*	3.0*
Sodium (Na)	mg	500	500	400	120-200	500
Chloride (Cl)	mg	750	750	600	180-300	750
Potassium (K)	mg	2000	2000	1600	500-700	2000

g = grams
IU = international units
ug = micrograms
mg = milligrams
RE = retinol equivalent



**PACIFIC COAST
FARMERS' MARKET ASSOCIATION**
5056 Commercial Circle Suite E
Concord, CA 94520
1.800.949.FARM
www.pcfma.com

** RDA (Recommended Dietary Allowance) from the new Dietary Reference Intakes, 1997: Calcium, Phosphorus, Magnesium, Vitamin D and Fluoride. Dietary Reference Intakes, 1998: Thiamin, Riboflavin, Niacin, B6, Folate, B12, Pantothenic Acid, Biotin and Choline. Values have changed from previous RDA.

Visit www.nal.usda.gov for more helpful nutritional information.