

XS WebHealth Vitamin and Mineral Reference Chart

Nutrient	Daily Value	Functions	Dietary Sources	Comments
Fat Soluble Vitamins				
Vitamin A (retinol)	5,000 IU	Required for vision growth and bone	Preferred: Fortified skim or low-fat milk,	Large intakes (10 times the RDI) can be toxic.
and/or beta carotene)		development; helps maintain healthy mucous membranes	dark-green, yellow or orange fruits and vegetables.	During pregnancy, avoid intakes greater than the RDI and seek
		and immune system.	Use Sparingly:	the advice of a
		Beta carotene	Fortified whole milk,	physician. Beta
		functions as an	liver, egg yolks,	carotene is nontoxic;
		antioxidant.	butter, margarine	however, large amounts of beta carotene may not be beneficial for smokers and exsmokers.
Vitamin D	400 IU	Promotes normal bone growth and tooth function; stimulates calcium and phosphorus absorption	Preferred: Fortified skim milk or low-fat milk, fortified cereals.	May be toxic with intakes greater than five times the DV (2,000 IU).
			Use Sparingly:	
			Fortified whole milk,	
			liver, egg yolks,	
			butter, margarine.	
Vitamin E	30 IU	As an antioxidant, protects body cells, vitamin A and unsaturated fatty acids; maintains normal red blood cells.	Preferred: Whole grains, wheat germ, nuts.	Use Sparingly: vegetable oils. Vitamin E needs increase as intake of polyunsaturated fats increases. If using anticoagulant medication, seek advice of a physician.

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Water Soluble Vitamins				
Nutrient	Daily Value	Functions	Dietary Sources	Comments
Thiamine B1	1.5 mg	Assists in carbohydrate metabolism and energy production; required for normal nerve function.	Preferred: whole grains, enriched breads and cereals, legumes, lean meats, poultry, fish. Use Sparingly: fatty meats, liver.	Water soluble; excess is excreted by the body.
Riboflavin B2	1.7 mg	Assists in production of energy from foods and the formulation of red blood cells	Preferred: low-fat or non-fat dairy products, whole grains, cereals, leafy green veg Use Sparingly: liver egg yolks	excreted by the body
Niacin	20mg	Assists in release of energy from carbohydrates, fats and proteins; helps maintain healthy skin.	Preferred: whole grains, enriched breads and cereals, lean meats. Use Sparingly: liver, fatty meats, eggs.	One form of niacin, nicotinic acid, can cause flushing of the skin and gastrointestinal upset with very high intakes (1,000 to 3,000 mg/day).
Pantothenic acid (vitamin B5)	10mg	Helps release energy from foods; needed for synthesis of many substances.	Preferred: lean meats, fish, whole-grain cereals, legumes. Use Sparingly: fatty meats, eggs.	Water soluble; excess is excreted by the body.
B6	2 mg	Essential for protein metabolism and nervous system function; involved in synthesis of hormones and red blood cells.	Preferred: bananas, whole-grain breads and cereals, chicken, fish. Use Sparingly: avocados, nuts.	Very large intakes (more than 2,000 mg/day) over a period of months can result in a loss of motor coordination.
B12	6mcg	Essential for normal growth and for production of red blood cells; helps maintain a healthy nervous system.	(Animal foods only) Preferred: lean meats, chicken, fish, skim or low-fat dairy products. Use Sparingly: eggs, liver, fatty meats.	Water soluble; excess is excreted by the body.
Folic Acid	0.4mg	Essential for red blood cell formation and synthesis of DNA and protein.	Preferred: green leafy vegetables, oranges and other fruits, wheat germ. Use Sparingly: liver.	Adequate folic acid intake during reproductive years reduces risk of neural-tube birth defects.
Biotin	0.3mg	Involved in metabolism of carbohydrates and synthesis of fats and proteins.	Preferred: legumes, nuts. Use Sparingly: eggs, liver.	Water soluble; excess is excreted by the body.
C	60mg	Essential for Formation of connective tissue, bones and teeth; assists in utilization of other nutrients; acts as an antioxidant.	Preferred: citrus fruits, melons, strawberries, potatoes, broccoli, green leafy vegetables	Some people experience adverse effects with very large intakes.

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Minerals				
Nutrient	Daily Value	Functions	Dietary Sources	Comments
Calcium	1,000mg	Forms strong bones and teeth stimulates blood after injury; required for normal muscle and nerve activity	Preferred: Skim or low-fat dairy products, fish with edible bones, green leafy vegetables. Use sparingly: whole-fat dairy products	Intakes of two grams or more per day can decrease absorption of iron, zinc or other minerals.
Phosphorus	1,000mg	Forms bones and teeth with calcium; regulates energy release from foods.	Preferred: lean meats, skim or low- fat dairy products, fish, poultry. Use sparingly; eggs.	Abundant in the average diet
Magnesium	400mg	Required for Normal Muscle and nerve activity; involved in metabolism of energy and the genetic material DNA.	Preferred: Green leafy vegetables, legumes, whole- grain cereals, seafood. Use sparingly: nuts, seeds.	Large doses may cause laxative effect.
Iron	18mg	Essential part of hemoglobin which carries oxygen in the blood; involved in energy metabolism.	Preferred: Lean meat, poultry, fish, whole grains or enriched cereals, legumes.	Considered safe for healthy adults in amounts up to 75 mg/day.
Zinc	15mg	Essential for proper growth and development; involved in protein synthesis and digestion, wound healing, and synthesis of DNA.	Preferred: lean meats, poultry, seafood, whole-grain cereals, legumes. Use sparingly: egg yolks.	Large chronic intakes (more than 150 mg/day) can impair copper status and immune function.
Iodine	150 mg	As part of the Thyroid Hormone, helps regulate growth development and energy metabolism.	Preferred: Seafood, skim or low-fat dairy products. Use sparingly: iodized salt.	
Copper	2mg	Involved in Iron metabolism protein synthesis, maintenance of the cardiovascular and nervous systems.	Preferred: Legumes, whole- grain cereals, seafood. Use sparingly: liver, nuts.	
Manganese	2mg	Necessary for the normal development of skeletal and connective tissues; part of the enzymes involved in fatty acid synthesis; involved in carbohydrate metabolism.	Preferred: whole- grain products, green vegetables, legumes. Use sparingly: tea (while tea is in exceptionally rich source, large amounts may impair iron status.)	
Selenium	70mcg	As a component of an enzyme system: acts as an antioxidant.	Preferred: grain and cereal products, fish, lean meat, poultry, skim or low-fat dairy products.	
Chromium	120mcg	Essential for the normal metabolism of glucose.	Preferred: vegetables, whole- grain cereals, fruits, brewer's yeast. Use sparingly: liver, cheese.	
Molybdenum	75mcg	Essential part of several enzymes in the body	Preferred: legumes, whole-grain products, lean meats.	

References

1. Modern Nutrition in Health and Disease, 8th Edition.
2. RDA, 10th Edition.
3. The Essential Guide to Vitamins and Minerals. Elizabeth Somer.
4. Vitamins and minerals: efficacy and safety. American Journal of Clinical Nutrition article.
5. Optimal Nutrient Intake. Rehnberg Center Nutrition Services.