

XS WebHealth Vitamin and Mineral Reference Chart

Nutrient	Daily Value	Functions	Dietary Sources	Comments
Fat Soluble Vitamins				
Vitamin A (retinol and/or beta carotene)	5,000 IU	Required for, vision growth and bone development; helps maintain healthy mucous membranes and immune system.	Preferred: Fortified skim or low-fat milk, dark-green, yellow or orange fruits and vegetables. Use Sparingly: Fortified whole milk, liver, egg yolks, butter, margarine	Large intakes (10 times the RDI) can be toxic. During pregnancy, avoid intakes greater than the RDI and seek the advice of a physician. Beta carotene is nontoxic; 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. Use Sparingly: Fortified whole milk, liver, egg yolks, butter, margarine.	May be toxic with intakes greater than five times the DV (2,000 IU).
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.
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	
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).

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				Water soluble; excess is excreted by the body.
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.	
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	Preferred: Skim or	Intakes of two grams or more per day can decrease absorption of iron, zinc or other minerals.
		stimulates blood after	low-fat dairy	
		injury; required for	products, fish with	
		normal muscle	edible bones, green	
		and nerve activity	leafy vegetables.	
			Use Sparingly:	
			whole-fat dairy	
			products	
				Abundant in the
Phosphorus	1,000mg	Forms bones and teeth	Preferred: lean	average diet
		with calcium: regulates	meats, skim or low-	
		energy release	fat dairy products,	
		from foods.	fish, poultry. Use	
			Sparingly: eggs.	
				Large doses may cause
Magnesium	400mg	Required for Normal Muscle	Preferred: Green	laxative effect.
		and nerve	leafy vegetables,	
		activity; involved	legumes, whole-	
		in metabolism of	grain cereals,	
		energy and the	seafood. Use	
		genetic material	Sparingly: nuts,	
		DNA.	seeds.	
				Considered safe for
Iron	18mg	Essential part of hemoglobin	Preferred: Lean	healthy adults in
		which carries	meat, poultry, fish,	amounts up to 75
		oxygen in the	whole grains or	mg/day.
		blood; involved in	enriched cereals,	
		energy	legumes.	
		metabolism.		
				Large chronic intakes
Zinc	15mg	Essential for proper growth	Preferred: lean	(more than 150 mg/day)
		and development;	meats, poultry,	can impair copper
		involved in	seafood, whole-grain	status and immune
		protein synthesis	cereals, legumes.	function.
		and digestion,	Use Sparingly: egg	
		wound healing,	yolks.	
		and synthesis of		
		DNA.		
Iodine	150 mg	As part of the Thyroid	Preferred: Seafood,	
		Hormone,helps regulate	skim or low-fat dairy	
		growth development and	products.	
		energy metabolism.	Use Sparingly:	
			iodized salt.	
Copper	2mg	Involved in Iron metabolism	Preferred:	
		protein synthesis,	Legumes, whole-	
		maintenance of	grain cereals,	
		the	seafood.	
		cardiovascular	Use Sparingly: liver,	
		and nervous	nuts.	
		systems.		
Manganese	2mg	Necessary for the normal	Preferred: whole-	

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		development of	grain products,
		skeletal and	green vegetables,
		connective	legumes. Use
		tissues; part of	Sparingly: tea (while
		the enzymes	tea is in
		involved in fatty	exceptionally rich
		acid synthesis;	source, large
		involved in	amounts may impair
		carbohydrate	iron status.)
		metabolism.	
Selenium	70mcg	As a component of an	Preferred: grain and
		enzyme system:acts as	cereal products, fish,
		an antioxidant.	lean meat, poultry,
			skim or low-fat dairy
			products.
Chromium	120mcg	Essential for the normal	Preferred:
		metabolism of	vegetables, whole-
		glucose.	grain cereals, fruits,
			brewer s yeast. Use
			Sparingly: liver,
			cheese.
Molybdenum	75mcg	Essential part of several	Preferred: legumes,
		enzymes in the body	whole-grain
			products, lean
			meats.

References

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2. RDA, 10th Edition.
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4. Vitamins and minerals: efficacy and safety. American Journal of Clinical Nutrition article.
5. Optimal Nutrient Intake. Rehnborg Center Nutrition Services.