

# Vitamins & Minerals Cheat sheet

## Water-soluble vitamins

Vitamin	Required Amount for Adults	Food Sources	Functions
Vitamin C (Ascorbic Acid)	Male: 65-90 mg	Citrus fruits (oranges, lemons), strawberries, bell peppers, kiwi, broccoli, and tomatoes	<ul style="list-style-type: none"> <li>- Antioxidant</li> <li>- Collagen synthesis</li> <li>- Immune system support</li> <li>- Enhances iron absorption</li> </ul>
	Female 75-110 mg		
Vitamin B1 (Thiamin)	Male: 1.1-1.2 mg	Whole grains (brown rice, oats), pork, legumes, nuts, seeds, and fortified cereals	<ul style="list-style-type: none"> <li>- Energy metabolism</li> <li>- Nervous system function</li> </ul>
	Female 0.8-0.9 mg		
Vitamin B2 (Riboflavin)	Male: 1.3-1.6 mg	Dairy products, lean meats, eggs, leafy greens, and enriched grains	<ul style="list-style-type: none"> <li>- Energy metabolism - Cellular growth and repair</li> </ul>
	Female 1.1-1.3 mg		
Vitamin B3 (Niacin)	Male: 16-18 mg	Poultry, fish, peanuts, whole grains, mushrooms	<ul style="list-style-type: none"> <li>- Energy metabolism</li> <li>- DNA repair</li> <li>- Skin health</li> </ul>
	Female 14-16 mg		
Vitamin B5 (Pantothenic Acid)	5 mg	Meat, whole grains, and avocados	<ul style="list-style-type: none"> <li>- Energy metabolism</li> <li>- Synthesis of hormones and cholesterol</li> </ul>
Vitamin B6 (Pyridoxine)	Male: 1.3-1.7 mg	Poultry, fish, bananas, spinach, chickpeas, potatoes, and fortified cereals	<ul style="list-style-type: none"> <li>- Amino acid metabolism</li> <li>- Neurotransmitter synthesis</li> </ul>
	Female 1.3-1.5 mg		
Vitamin B7 (Biotin)	30 mcg	Eggs, nuts, sweet potatoes	<ul style="list-style-type: none"> <li>- Coenzyme in metabolic reactions</li> <li>- Healthy hair and nails</li> </ul>
Vitamin B9 (Folate)	400 mcg	Leafy greens, legumes, citrus fruits, fortified grains, and avocado	<ul style="list-style-type: none"> <li>- DNA synthesis and repair</li> <li>- Cell division</li> </ul>
	(600 mcg for pregnant women)		
Vitamin B12 (Cobalamin)	2.4 mcg	Meat, dairy products, fortified foods, shellfish, and eggs	<ul style="list-style-type: none"> <li>- Red blood cell production</li> <li>- Nervous system function</li> </ul>

## Fat soluble vitamins

Vitamin	Required Amount for Adults	Food Sources	Functions
Vitamin A	Male: 900 mcg	Liver, carrots, sweet potatoes, spinach, kale, and butternut squash	<ul style="list-style-type: none"> <li>- Vision (night vision)</li> <li>- Immune system support</li> <li>- Cell growth and differentiation</li> </ul>
	Female: 700 mcg		
Vitamin D	15 mcg (600 IU)	Fatty fish (salmon, mackerel), fortified dairy products	<ul style="list-style-type: none"> <li>- Calcium absorption</li> <li>- Bone health</li> <li>- Immune system modulation</li> </ul>
Vitamin E	15 mg (22.4 IU)	Nuts (almonds, sunflower seeds), spinach, vegetable oils (sunflower, safflower)	<ul style="list-style-type: none"> <li>- Antioxidant</li> <li>- Cell membrane protection</li> <li>- Skin health</li> </ul>
Vitamin K	120 mcg	Leafy greens (kale, spinach), broccoli, brussels sprouts, and soybeans	<ul style="list-style-type: none"> <li>- Blood clotting</li> <li>- Bone health</li> <li>- Regulation of calcium</li> </ul>

## Trace minerals

Trace Mineral	Required Amount for Adults	Food Sources	Functions
Iron	Male: 8 mg	Red meat, poultry, beans, fortified cereals, and spinach	<ul style="list-style-type: none"> <li>- Oxygen transport (hemoglobin)</li> <li>- Energy production (cytochromes)</li> </ul>
	Female 18 mg		
Zinc	Male 11 mg	Oysters, beef, pumpkin seeds, lentils, cashews, and yogurt	<ul style="list-style-type: none"> <li>- Enzyme function</li> <li>- Immune system support</li> <li>- Wound healing</li> </ul>
	Female: 8 mg		
Copper	900 mcg	Organ meats, seafood, and nuts	<ul style="list-style-type: none"> <li>- Enzyme function (e.g., antioxidant defense)</li> <li>- Connective tissue formation</li> </ul>
Selenium	55 mcg	Brazil nuts, sardines, and eggs	<ul style="list-style-type: none"> <li>- Enzyme activation</li> <li>- Bone formation</li> </ul>
Manganese	2.3 mg	Whole grains, nuts, and tea	<ul style="list-style-type: none"> <li>- Enzyme activation</li> <li>- Bone formation</li> </ul>
Fluoride	3.1 mg (males)	Fluoridated water, tea, fish, and crab	<ul style="list-style-type: none"> <li>- Dental health (prevents tooth decay)</li> </ul>
	2.3 mg (Females)		
Chromium	Chromium	Broccoli, whole grains	<ul style="list-style-type: none"> <li>- Enhances insulin action</li> <li>- Glucose metabolism</li> </ul>
Iodine	150 mcg	Iodized salt, seafood	<ul style="list-style-type: none"> <li>- Thyroid hormone synthesis</li> <li>- Regulates metabolism</li> </ul>
Molybdenum	45 mcg	Legumes, grains, and nuts	<ul style="list-style-type: none"> <li>- Cofactor for enzymes involved in sulfur metabolism</li> </ul>

## Macrominerals

Macromineral	Required Amount for Adults	Food Sources	Functions
Calcium	1000 mg	Dairy products (milk, cheese), fortified plant milks, leafy greens (collard greens, kale), almonds	<ul style="list-style-type: none"> <li>- Bone and teeth formation</li> <li>- Muscle function</li> <li>- Nerve transmission</li> </ul>
Phosphorus	700 mg	Meat, poultry, and fish	<ul style="list-style-type: none"> <li>- Bone and teeth formation</li> <li>- Energy metabolism (ATP)</li> <li>- Acid-base balance</li> </ul>
Potassium	4700 mg	Bananas, potatoes, spinach, avocado, beans, and yogurt	<ul style="list-style-type: none"> <li>- Fluid balance</li> <li>- Nerve transmission</li> <li>- Muscle contraction</li> </ul>
Sodium	2300 mg	Processed foods (sodium chloride), table salt	<ul style="list-style-type: none"> <li>- Fluid balance</li> <li>- Nerve transmission</li> <li>- Muscle function</li> </ul>
Chloride	2300 mg	Table salt and processed foods	<ul style="list-style-type: none"> <li>- Fluid balance</li> <li>- Acid-base balance</li> </ul>
Magnesium	400 mg	Nuts (almonds, cashews), whole grains, leafy greens (spinach, kale), legumes	<ul style="list-style-type: none"> <li>- Enzyme function</li> <li>- Muscle and nerve function</li> <li>- Bone health</li> </ul>
Sulfur	No specific RDA	Protein-rich foods (meat, fish, poultry)	<ul style="list-style-type: none"> <li>- Component of amino acids</li> <li>- Structural role in certain molecules</li> </ul>

Remember that individual mineral requirements can vary based on factors such as age, gender, physical activity, and specific health conditions. A balanced diet rich in a variety of nutrient-dense foods is important to meet your macromineral needs. If you have specific dietary concerns or health conditions, it's recommended to consult with a healthcare professional or registered dietitian.