## **Water-soluble vitamins**

|  |  |  |  |
| --- | --- | --- | --- |
| **Vitamin** | **Recommended daily intake \*** | **Role in the body** | **Deficiency syndrome** |
| Thiamine (B1) | 1.2 mg | Co-enzyme in energy metabolism | Anorexia, neurologic dysfunction (*beri beri*) |
| Riboflavin (B2) | 1.3 mg | Co-enzyme in energy metabolism | Mouth sores, dermatitis, anemia |
| Niacin (B3) | 16 mg | Co-enzyme in protein metabolism | Dermatitis (*pellagra*), mouth sores, diarrhea |
| Folic acid | 400 mcg | Methyl donor | Anemia |
| Pyridoxine (B6) | 1.3 mg | Co-enzyme in protein metabolism | Weakness, insomnia, mouth sores |
| Cobalamin (B12) | 2.4 mcg | Co-enzyme in protein metabolism | Anemia |
| C | 90 mg | Antioxidant | Scurvy |

## **Fat-soluble** **vitamins**

|  |  |  |  |
| --- | --- | --- | --- |
| **Vitamin** | **Recommended daily intake \*** | **Role in the body** | **Deficiency syndrome** |
| A | 900 mcg | Vision | Night blindness |
| D | 15 mcg  (600 IU) | Calcium absorption, acts as a hormone | Rickets |
| E | 15 mg | Antioxidant | Neuromuscular, vascular, reproductive issues |
| K | 120 mcg | Blood clotting | Inability to form blood clots |

## **Major** **minerals**

|  |  |  |  |
| --- | --- | --- | --- |
| **Mineral** | **Recommended daily intake \*** | **Role in the body** | **Good food sources** |
| Calcium | 1,000 mg | Bone health | Dairy |
| Phosphorus | 700 mg | Bones/teeth, metabolism | Meats, milk |
| Potassium | 4.7 g | Muscle, nerve conduction | Many foods – meat, fish, vegetables, fruits |
| Sodium | < 2300 mg | Blood pressure and volume | Salt, processed foods |
| Chloride | 2.3 g | Fluid balance, digestive juices | Salt, vegetables |
| Magnesium | 400 mg (M)  310 mg (F) | Co-factor in many enzyme systems | Green leafy vegetables, whole grains |

## **Trace** **minerals**

|  |  |  |  |
| --- | --- | --- | --- |
| **Mineral** | **Recommended daily intake \*** | **Role in the body** | **Good food sources** |
| Iron | 8 mg (M)  18 mg (F) | Red blood cell formation, oxygen delivery | Animal meats, breakfast cereals |
| Iodine | 150 mcg | Thyroid hormone synthesis | Iodized salt |
| Zinc | 11 mg (M)  8 mg (F) | Co-factor for numerous enzyme systems | Seafood, red meat, poultry, beans, nuts, whole grains |
| Chromium | 35 mcg (M)  25 mcg (F) | Metabolism, blood glucose regulation | Meats, whole grains, some fruits and vegetables |
| Selenium | 55 mcg | Reproduction, thyroid hormone metabolism, DNA synthesis, antioxidant | Seafoods, meats, cereals and grains, dairy products |
| Fluoride | 4 mg (M)  3 mg (F) | Bones and teeth | Fluoridated water, seafood, tea, gelatin |
| Molybdenum | 45 mcg | Co-factor for catabolism of amino acids, DNA | Legumes, grains, nuts |
| Copper | 900 mcg | Red blood cell formation; maintenance of blood vessels, nerves, immune system and bone | Shellfish, whole grains, beans, nuts, potatoes, organ meats, dark leafy greens, dried fruits, cocoa, black pepper, yeast |
| Manganese | 2.3 mg (M)  1.8 mg (F) | Bone formation; protein, fat and carbohydrate metabolism | Nuts, legumes, tea and whole grains |

*\* For adults, 19 – 50 years old*

## **Reliable** **sources of nutrition information**

Dietary Guidelines for Americans <http://dietaryguidelines.gov>

Interactive Dietary Reference Intakes for Healthcare Professionals

<http://fnic.nal.usda.gov/fnic/interactiveDRI/>

Linus Pauling Institute, Micronutrient Information Center, Oregon State University

<http://lpi.oregonstate.edu/infocenter/vitamins.html>

Food and Nutrition Information Center, USDA National Agricultural Library <http://fnic.nal.usda.gov/>

Office of Dietary Supplements, National Institutes of Health <http://ods.od.nih.gov/>