

Vitamins and Minerals

Vitamins and minerals are essential to your health. Although they do not **give** you energy, they do **assist** in energy-yielding reactions and promote body growth and development. Vitamins and minerals are vital for human function, each one playing a different role. Read on to find out what select vitamins and minerals do and where you can find them!

Vitamin	Function	Overdose/Toxicity	Good Sources	Dietary Reference Intakes (DRI's) µg = micrograms mg = milligrams
Vitamin A	<ul style="list-style-type: none"> Prevents night blindness Promotes healthy eye function Keeps skin, hair, and nails healthy Help ward off bacterial infection 	<ul style="list-style-type: none"> Joint and bone pain Hair loss Skin changes Headaches Blurred vision Fatigue 	<ul style="list-style-type: none"> Green, yellow, or orange vegetables Cantaloupe Apricots Sweet potatoes 	<ul style="list-style-type: none"> Males 14+ = 900 µg/D Females 14+ = 700 µg/D Pregnancy = 770 µg/D Lactation = 1300 µg/D
Vitamin B₆	<ul style="list-style-type: none"> Carbohydrates and protein metabolism Helps form red blood cells Proper nerve function 	<ul style="list-style-type: none"> Nerve destruction 	<ul style="list-style-type: none"> Bananas Meats, poultry, fish Potatoes Broccoli Cereals and grains 	<ul style="list-style-type: none"> Males 14-50 = 1.3 mg/D Males 50+ = 1.7 mg/D Females 14-18 = 1.2 mg/D Females 19-50 = 1.3 mg/D Females 50+ = 1.5 mg/D Pregnancy = 1.9 mg/D Lactation = 2.0 mg/D
Vitamin B₁₂	<ul style="list-style-type: none"> Proper nerve function Helps form red blood cells Builds genetic material 	<ul style="list-style-type: none"> None known 	<ul style="list-style-type: none"> Meats, poultry, fish Milk Eggs Vegans may need supplementation 	<ul style="list-style-type: none"> Males & females 14+ = 2.4 µg/D Pregnancy = 2.6 µg/D Lactation = 2.8 µg/D
Folic Acid	<ul style="list-style-type: none"> DNA and RNA synthesis Helps form red blood cells Important in growth and development Helps prevent birth defects 	<ul style="list-style-type: none"> None known 	<ul style="list-style-type: none"> Orange and grapefruit juice Green leafy vegetables Poultry Supplement recommended for pregnancy Dried beans 	<ul style="list-style-type: none"> Males & females 14+ = 400 µg/D Pregnancy = 600 µg/D Lactation = 500 µg/D
Vitamin C	<ul style="list-style-type: none"> Promotes healing of cuts and wounds Helps resist infection Keeps gums healthy 	<ul style="list-style-type: none"> Diarrhea Kidney stones 	<ul style="list-style-type: none"> Citrus fruits (oranges, grapefruit) Strawberries Cantaloupe 	<ul style="list-style-type: none"> Males 14-18 = 75 mg/D Females 14-18 = 65 mg/D Males 19+ = 90 mg/D Females 19+ = 75 mg/D

Vitamin	Function	Overdose/Toxicity	Good Sources	Recommended Dietary Allowance (RDA's) µg= micrograms mg = milligrams
Vitamin C (cont.)	<ul style="list-style-type: none"> • Strengthens blood vessel walls 		<ul style="list-style-type: none"> • Green or red peppers • Broccoli 	<ul style="list-style-type: none"> • Pregnancy = 85 mg/D • Lactation = 120 mg/D
Vitamin E	<ul style="list-style-type: none"> • Helps form red blood cells, muscles, and other tissues • Antioxidant 	<ul style="list-style-type: none"> • Muscle weakness • Headaches • Fatigue 	<ul style="list-style-type: none"> • Seeds and nuts • Seafood • Eggs • Oils 	<ul style="list-style-type: none"> • Males & females 14+ = 15 mg/D • Lactation = 19 mg/D
Vitamin D	<ul style="list-style-type: none"> • Promotes calcium and phosphorus absorption • Bone health • Teeth health 	<ul style="list-style-type: none"> • Kidney stones • Weak muscles and bones • Excessive bleeding 	<ul style="list-style-type: none"> • UV light • Cheese, eggs, milk, margarine • Sardines and salmon • Fortified cereals 	<ul style="list-style-type: none"> • Males & females 14-50 = 5 µg/D • Males & females 50+ = 10 µg/D
Vitamin K	<ul style="list-style-type: none"> • Blood clotting 	<ul style="list-style-type: none"> • None known 	<ul style="list-style-type: none"> • Leafy green vegetables • Milk • Meat and eggs • Fortified cereals • Fruits and vegetables 	<ul style="list-style-type: none"> • Males & females 14-18 = 75 µg/D • Males 19+ = 120 µg/D • Females 19+ = 90 µg/D
Calcium	<ul style="list-style-type: none"> • Helps build strong bones and teeth • Involved in muscle contractions and nerve function 	<ul style="list-style-type: none"> • Muscle and abdominal pain • Calcium kidney stones 	<ul style="list-style-type: none"> • Milk and milk products (yogurt, cheese) • Tofu • Broccoli • Calcium fortified orange juice • Some fortified cereals 	<ul style="list-style-type: none"> • Males & females 14-18 = 1300 mg/D • Males & females 19-50 = 1000 mg/D • Males & females 50+ = 1200 mg/D • Pregnancy & lactation = 1000 mg/D
Chromium	<ul style="list-style-type: none"> • Works with insulin for proper glucose metabolism 	<ul style="list-style-type: none"> • None Known 	<ul style="list-style-type: none"> • Egg yolks • Meat • Whole grains • Cheese 	<ul style="list-style-type: none"> • Males 14-40 = 35 µg/D • Males 50+ = 30 µg/D • Females 14-18 = 24 µg/D • Females 19-50 = 25 µg/D • Females 50+ = 20 µg/D • Pregnancy = 30 µg/D • Lactation = 45 µg/D
Iron	<ul style="list-style-type: none"> • Helps carry oxygen to body tissues including muscle 	<ul style="list-style-type: none"> • Liver disease • Arrhythmias 	<ul style="list-style-type: none"> • Red meat, seafood, and fish • Dried apricots • Dried beans • Fortified cereals • Supplement recommended for pregnancy 	<ul style="list-style-type: none"> • Males 14-18 = 11 mg/D • Males 19+ = 8 mg/D • Females 14-18 = 15 mg/D • Females 19-50 = 18 mg/D • Females 50+ = 8 mg/D • Pregnancy = 27 mg/D • Lactation = 9 mg/D

Vitamin	Function	Overdose/Toxicity	Good Sources	Recommended Dietary Allowance (RDA's) µg= micrograms mg = milligrams
Magnesium	<ul style="list-style-type: none"> • Maintains normal muscles, nerves and immune functions • Bone health 	<ul style="list-style-type: none"> • Nausea and vomiting • Low blood pressure • Heart problems 	<ul style="list-style-type: none"> • Halibut • Nuts • Soy foods • Spinach • Fortified cereals 	<ul style="list-style-type: none"> • Males 14-18 = 410 mg/D • Males 19-30 = 400 mg/D • Males 31+ = 420 mg/D • Females 14-18 = 360 mg/D • Females 19-30 = 310 mg/D • Females 31+ = 320 mg/D • Pregnancy = 350 mg/D • Lactation = 310 mg/D
Phosphorus	<ul style="list-style-type: none"> • Works with calcium to build and maintain bones and teeth • Helps convert food to energy 	<ul style="list-style-type: none"> • Lowers blood calcium 	<ul style="list-style-type: none"> • Dairy products • Egg yolks • Meat, poultry, and fish • Legumes • Soft drinks 	<ul style="list-style-type: none"> • Males & females 14-18 = 1250 mg/D • Males & females 19+ = 700 mg/D
Potassium	<ul style="list-style-type: none"> • Vital for muscle contractions and nerve transmission • Important for heart and kidney function • Helps regulate fluid balance and blood pressure 	<ul style="list-style-type: none"> • Slower heart beat • Kidney failure 	<ul style="list-style-type: none"> • Milk and yogurt • Many fruits and vegetables (especially oranges, bananas, and potatoes) 	<ul style="list-style-type: none"> • Males & females 14+ = 4.7 g/D • Lactation = 5.1 g/D
Zinc	<ul style="list-style-type: none"> • Important in function of many enzymes • Wound healing 	<ul style="list-style-type: none"> • Nausea and vomiting • Abdominal pain 	<ul style="list-style-type: none"> • Seafood • Meats • Eggs • Whole grains 	<ul style="list-style-type: none"> • Males 14+ = 11 mg/D • Females 14-18 = 9 mg/D • Pregnancy = 11 mg/D • Lactation = 12 mg/D

Whole foods are the preferred source of important vitamins and minerals for your health. Always look to foods first, before considering a supplement. If you have questions about vitamins, minerals, or nutrition supplements, talk to a nutritionist at McKinley Health Center's Health Education Unit (333-2714) or the SportWell Center (244-0261).

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: **Dial-A-Nurse at 333-2700**

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: <http://www.mckinley.uiuc.edu>