

## Functions and Food Sources of Some Common Minerals

Minerals have many different functions in the body. They are essential nutrients that are needed in small and sometime very small or trace amounts. Because your body cannot make minerals, you need to get them from the foods you eat.

Most people can meet their mineral needs by eating a variety of foods including:

- Vegetables and fruits
- Whole grains like pasta, bread, oats or oatmeal, brown or wild rice and quinoa
- Protein foods including dairy products (milk, yogurt, kefir, cheese), eggs, meat (beef, pork, lamb, game), legumes (beans, peas and lentils), tofu, nuts and seeds.

At certain life stages, such as during pregnancy and with certain health conditions such as kidney disease or osteoporosis, less or more of certain minerals may be needed. Talk to your health care provider or registered dietitian for more information.



### Steps you can take

The tables below list the main functions and food sources of some common minerals that you need from the food you eat.

### Major Minerals

<i>Mineral</i>	<i>Function in the body</i>	<i>Common Food Sources</i>
Calcium	Builds bones and teeth and helps keep them strong.  Aids in normal nerve function and blood clotting and helps muscles like your heart work properly.	<ul style="list-style-type: none"> <li>• Dairy products</li> <li>• Unsweetened, fortified plant-based beverages, like soy and rice beverage and some juices -check labels</li> </ul>

<i>Mineral</i>	<i>Function in the body</i>	<i>Common Food Sources</i>
	Vitamin D, found in fortified milk and plant based beverages, egg (yolks), fish like salmon and tuna and organ meats, help your body absorb calcium. Health Canada recommends adults 51 years and older take a daily vitamin D supplement containing 400 IU (10 µg) of vitamin D.	<ul style="list-style-type: none"> <li>• Canned sardines and salmon with the bones</li> <li>• Firm and extra firm tofu prepared with calcium</li> <li>• Some beans like soy and navy beans and dark green vegetables like broccoli and bok choy</li> </ul>
Magnesium	<p>Helps your body to take energy from food and make protein.</p> <p>Regulates muscle and nerve function including your heart rhythm, blood glucose (sugar) and blood pressure levels. Forms bones and teeth.</p>	<ul style="list-style-type: none"> <li>• Green leafy vegetables like spinach and Swiss chard and potatoes</li> <li>• Whole grains including bran cereals and wheat germ</li> <li>• Dairy products</li> <li>• Legumes and tofu</li> <li>• Nuts such (Brazil nuts) and seeds (pumpkin, sunflower)</li> </ul>
Phosphorus	<p>It works with calcium and other nutrients to build healthy bones and teeth and helps maintain normal acid/base balance.</p> <p>It supports growth, and is involved with the storage and use of energy in your body.</p>	<ul style="list-style-type: none"> <li>• Legumes and soy products like tempeh</li> <li>• Nuts such as Brazil and pine nuts and seeds such as pumpkin and sunflower seeds</li> <li>• Dairy products</li> <li>• Seafood and meats</li> <li>• Whole grain cereals including wheat germ and bran</li> </ul>

<i>Mineral</i>	<i>Function in the body</i>	<i>Common Food Sources</i>
Potassium	Maintains muscle and nerve function and the fluid balance in your blood and body tissues. Controls blood pressure. Increases bone density.  Needed for muscle contraction and heart functioning.	<ul style="list-style-type: none"> <li>• Fruits like bananas, oranges and dried fruits and vegetables like squash, spinach, broccoli and potatoes</li> <li>• Milk, yogurt</li> <li>• Legumes</li> <li>• Nuts such as pistachios and almonds</li> </ul>
Sodium	Needed for proper fluid balance, nerve transmission, and muscle contraction.	Table salt, condiments like soy sauce, canned and processed foods including processed meats, cheese, breads, salted and seasoned foods,

## Trace Minerals

<i>Mineral</i>	<i>Function in the body</i>	<i>Common Food Sources</i>
Chloride	Needed to make acid hydrochloric acid in the stomach that helps with digestion.  Involved in maintaining fluid balance and help muscles contract.	Table salt (sodium chloride), condiments, canned and processed foods
Chromium	Helps the hormone insulin work and plays a role in how your body uses carbohydrate, protein and fat.	<ul style="list-style-type: none"> <li>• Meats including organ meats, poultry and fish</li> <li>• Whole grain products</li> <li>• Brewer's yeast</li> </ul>

<i>Mineral</i>	<i>Function in the body</i>	<i>Common Food Sources</i>
	Vitamin C helps with the absorption of chromium.	
Copper	<p>Keeps your red blood cells healthy by helping iron bind to your blood.</p> <p>Helps to produce energy in your cells and maintain healthy nervous and immune systems.</p>	<ul style="list-style-type: none"> <li>• Organ meats like liver</li> <li>• Shellfish</li> <li>• Legumes, nuts and seeds</li> <li>• Whole grain products including bran</li> </ul>
Fluoride	<p>Important in building and maintaining strong teeth and bones.</p> <p>It helps reduce dental caries by strengthening the tooth enamel, which protects the tooth against decay.</p>	<p>Fluoridated water, foods prepared with fluoridated water, some saltwater fish and brewed tea</p> <p>Fluoride is found naturally in all drinking water and soil and it is often added to the water supply</p>
Iodine	<p>Needed to make thyroid hormones. Your thyroid helps to manage the rate at which your body uses energy (metabolism).</p> <p>Iodine is important for growth and development during pregnancy and infancy.</p>	<ul style="list-style-type: none"> <li>• Iodized salt (table salt)</li> <li>• Seafood such as cod, sea bass, haddock, and seaweed such as kelp and nori</li> <li>• Dairy products and processed foods contain some iodine and plant foods grown in iodine-rich soil</li> </ul>

<i>Mineral</i>	<i>Function in the body</i>	<i>Common Food Sources</i>
Iron	<p>Iron is part of hemoglobin in red blood cells that carries oxygen to all parts of your body.</p> <p>Needed for growth, development and normal cell activity.</p> <p>Is part of muscle protein (myoglobin).</p>	<ul style="list-style-type: none"> <li>• Red meats including beef, game and organ meats</li> <li>• Poultry (dark parts) and shellfish (oysters and clams)</li> <li>• Tofu, legumes and dried fruit like raisins and prunes</li> <li>• Fortified grain products like flour, bread, pasta and cereal</li> </ul>
Manganese	<p>Used to make energy and protect your body cells from damage and having a healthy immune system.</p> <p>Helps build strong bones and needed for, reproduction and blood clotting.</p>	<p>Found in many foods, especially plant foods like whole grains, nuts, legumes and leafy green vegetables</p>
Molybdenum	<p>Molybdenum helps in many reactions in the body and is used to make proteins and genetic material like DNA.</p>	<ul style="list-style-type: none"> <li>• Legumes</li> <li>• Dairy products</li> <li>• Whole grains</li> </ul>
Selenium	<p>Works as an antioxidant to keep your tissues healthy by preventing cell damage.</p> <p>Helps keep your immune system and thyroid working well</p>	<ul style="list-style-type: none"> <li>• Nuts, especially Brazil nuts</li> <li>• Seafood, meat, poultry and eggs</li> </ul>

Mineral	Function in the body	Common Food Sources
	and may help with preventing certain cancers, but more research is needed.	
Zinc	<p>Needed for growth and development in pregnancy, early childhood and the teen years.</p> <p>Maintains a healthy immune system and is important for smell, taste and wound healing.</p> <p>Helps the body make protein.</p>	<ul style="list-style-type: none"> <li>• Meat and seafood, especially shellfish</li> <li>• Whole grain fortified cereals</li> <li>• Some seeds like pumpkin and nuts</li> </ul>



## Additional Resources

- Health Canada, Canada's Food Guide <https://food-guide.canada.ca/>

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