FACTS ABOUT MINERALS

Everything you need to know about minerals

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Minerals are important for your body to stay healthy. Your body uses minerals for many different jobs, including keeping your bones, muscles, heart, and brain working properly. Minerals are also important for making enzymes and hormones.

The body needs many minerals; these are called essential minerals. Essential minerals are sometimes divided up into major minerals - macromineral's and trace minerals - microminerals. These two groups of minerals are equally important, but trace minerals are needed in smaller amounts than major minerals. The amounts needed in the body are not an indication of their importance.

- You need larger amounts of macromineral's. They include: Calcium, phosphorus, magnesium, sodium, potassium, chloride, and sulphur.
- You only need small amounts of trace minerals. They include: Iron, manganese, copper, iodine, zinc, cobalt, fluoride, and selenium.

Most people get the amount of minerals they need by eating a wide variety of foods. In some cases, your doctor may recommend a mineral supplement.

People who have certain health problems or take some medicines may need to get less of one of the minerals. For example, people with chronic kidney disease need to limit foods that are high in potassium.

A balanced diet usually provides all the essential minerals. The two tables below list minerals, what they do in the body (their functions), and their sources in food.

MINERAL	FUNCTION	SOURCES
Sodium	Needed for proper fluid balance, nerve transmission, and muscle contraction.	Table salt, soy sauce; large amounts in processed foods; small amounts in milk, breads, vegetables, and unprocessed meats.
Chloride	Needed for proper fluid balance, stomach acid.	Table salt, soy sauce; large amounts in processed foods; small amounts in milk, meats, breads, and vegetables.
Potassium	Needed for proper fluid balance, nerve transmission, and muscle contraction.	Meats, milk, fresh fruits and vegetables, whole grains, legumes
Calcium	Important for healthy bones and teeth; helps muscles relax and contract; important in nerve functioning, blood clotting, blood pressure regulation, immune system health.	Milk and milk products; canned fish with bones (salmon, sardines); fortified tofu and fortified soy milk; greens (broccoli, mustard greens); legumes.
Phosphorus	Important for healthy bones and teeth; found in every cell; part of the system that maintains acid-base balance.	Meat, fish, poultry, eggs, milk, processed foods (including fizzy drinks).
Magnesium	Found in bones; needed for making protein, muscle contraction, nerve transmission, immune system health	Nuts and seeds; legumes; leafy, green vegetables; seafood; chocolate; artichokes; "hard" drinking water.
Sulphur	Found in protein molecules	Occurs in foods as part of protein: meats, poultry, fish, eggs, milk, legumes, nuts.

MINERAL	FUNCTION	SOURCES
Iron	Part of a molecule (haemoglobin) found in red blood cells that carries oxygen in the body; needed for energy metabolism.	Organ meats; red meats; fish; poultry; shellfish (especially clams); egg yolks; legumes; dried fruits; dark, leafy greens; iron-enriched breads and cereals; and fortified cereals.
Zinc	Part of many enzymes; needed for making protein and genetic material; has a function in taste perception, wound healing, production of sperm, normal growth and sexual maturation, immune system health,	Meats, fish, poultry, leavened whole grains, vegetables.
Iodine	Found in thyroid hormone, which helps regulate growth, development, and metabolism.	Seafood, foods grown in iodine-rich soil, iodized salt, bread, dairy products.
Selenium	Antioxidant	Meats, seafood, grains.
Copper	Part of many enzymes; needed for iron metabolism.	Legumes, nuts and seeds, whole grains, organ meats, drinking water.
Manganese	Part of many enzymes.	Widespread in foods, especially plant foods.
Fluoride	Involved in formation of bones and teeth; helps prevent tooth decay.	Drinking water (either fluoridated or naturally containing fluoride), fish, and most teas.
Chromium	Works closely with insulin to regulate blood sugar (glucose) levels.	Unrefined foods, especially liver, brewer's yeast, whole grains, nuts, cheeses.
Molybdenum	Part of some enzymes.	Legumes; breads and grains; leafy greens; leafy, green vegetables; milk; liver.

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1. All nutrients require minerals for proper cellular function.
2. Minerals are needed for healing. Minerals are difficult to absorb into the body.
3. Minerals can be taken as a dietary supplement.
4. Trace minerals are found in small parts in the body and are needed in small amounts in people's diets. Minerals work to regulate many body processes.
5. People think that minerals are only found in animal products but all the food groups have foods high in minerals.
6. Fruits and vegetables are good sources of potassium.
7. Whole grains are high in magnesium, selenium, and chromium.
8. A mineral is a naturally occurring solid formed through geological processes that has a characteristic chemical composition, a highly ordered atomic structure, and specific physical properties.
9. Minerals in composition from pure elements and simple salts to very complex silicates with thousands of known forms.
10. The study of minerals is called mineralogy.