



Eat Your

ROCKS!

Minerals mean wealth in health. According to the National

Science Foundation, your body needs 60 minerals to function healthfully. Minerals for the body are classified into two categories: major and trace. You need more than 100 milligrams of each major mineral every day, and fewer than 100 milligrams of trace minerals per day. Where can you find these essential minerals to stay healthy? How about adding some dirt to your meals? Well, not exactly. Minerals are a main ingredient in soil. Plants that grow in the soil suck up minerals through their roots. When animals eat the plants, they're getting a hefty dose of the minerals, too.

Check your lunch bag. Did you pack any minerals? You probably did, without even knowing it. Hopefully, you don't have a basalt and cheese sandwich, but odds are that you do have some kind of mineral wedged between your bread. Here's a typical lunch. Be aware that what's listed here are elements, elements that are parts of the minerals they come from. Listed are the major elements that make up the minerals in the foods. So don't expect to see a piece of copper or iron in your food.

Apple: Boron, calcium, chlorine, copper, iron, magnesium, manganese, nickel, phosphorus, potassium, silicon, sodium, sulfur, vanadium, zinc

Soft Drink: Phosphorus

Sandwich:
OCheese: Calcium, phosphorus, potassium
OTomato: Chloride, potassium, iron
OLettuce: Chloride, silicon, sulfur, cobalt, copper

CROPPING AND CHOPPING

Prehistoric plants were exploding with minerals. That's because thousands of years ago, soil near the earth's surface had a very high mineral content. At least 84 minerals were widespread in all soils, and some areas had at least 100. Over time though, mineral content in some soil was gradually—and drastically—cut down. As humans began plowing and treating soil to grow crops, the minerals in the soil decreased. Wind and rain also caused minerals to erode from the soil. The result? Some soils now lack several essential minerals which means some plants have fewer minerals—and so do the livestock animals that eat them.



Mineral Magic

What do these minerals do for your body?



Milk: Phosphorus, cobalt, zinc, calcium, sulfur

Chocolate bar: Copper

Major element of the mineral	What it does:
Boron	Helps out with metabolism.
Calcium	One of the most important minerals. Builds bones and teeth, and helps keep your nervous system functioning
Chromium	Helps metabolize glucose, or sugars.
chlorine	Influences metabolic processes and aids digestion.
Copper, cobalt, zinc	Help enzymes function for metabolism.
iron	Keeps your muscles—including your heart—running smoothly. It's necessary for making red blood cells, which carry oxygen to every tissue in your body.
Magnesium	Essential for energy production, protein production, and cell growth.
Manganese	Helps bone, tissue, and cell growth.
Nickel	Helps the body use iron better.
Phosphorus	It's an ingredient in many proteins helps make up cell membranes.
Selenium	Helps develop vitamin E and supports the immune system—so you can fight back against illness.
Silicon	Helps build cartilage and bone.
Sodium and potassium	Helps regulate water levels.
Sulfur	Combines with nitrogen, carbon and oxygen to form proteins.
Vanadium	May be involved in hormone, glucose, fat, bone, and tooth metabolism, reproduction, and growth.

Activity

MINERAL MUNCH What kinds of minerals are in a slice of pizza? Use a nutrition book or go on the Internet to do some research. Then build your own lunch that's chock full of minerals.