



HEALTHY LIVING FOR TEENS

PART 2

The Second Group of Players on Your Team – Minerals

Last month we covered the vitamins as essential team players. The second important group of players on your nutritional support team is **minerals**. Just like vitamins, minerals help your body grow, develop, and stay healthy. The body uses minerals to perform many important functions from building strong bones to helping nerves communicate. Some minerals even help in the creation of hormones and maintaining a healthy heartbeat. Like vitamins, you must get your minerals from the food you eat.

There are two types of minerals: *macrominerals* and *microminerals*.

Macrominerals are minerals you need larger amounts of than microminerals. The macromineral group is made up of calcium, magnesium, phosphorus, potassium, and sodium. Some of the important microminerals are chromium, copper, iodine, iron, manganese, molybdenum, selenium, and zinc.



The Macrominerals

CALCIUM When it comes to bones, calcium is the macromineral you definitely want on your team. It helps build strong bones, so you can run, swim, and score the winning goal! It also helps you chomp on tasty food by building strong healthy teeth. It's the most abundant mineral in your body, making up about 2 percent of your total body weight. Foods high in calcium are milk, yogurt, cheese, collards, turnip greens, kale, canned salmon, sardines, and calcium-fortified foods.

MAGNESIUM Every cell in your body needs magnesium. It's important for energy – so if you want to have fun with your friends, magnesium is a key team player. You also need magnesium to make more than 300 different enzymes to send messages along the nerve pathways,

help your muscles relax, keep your heart beating, maintain strong bones and teeth, and keep your blood pressure normal. Lots of foods contain magnesium. Good sources are leafy vegetables, whole grains, seafood, beans, and nuts.



PHOSPHORUS Phosphorus is the second most abundant mineral in your body, about 1 percent of your body weight. Over 80 percent of that partners with calcium to support your bones and teeth. Phosphorus is abundant in all types of foods so it is difficult to be deficient in it.

Good sources of phosphorus are legumes (peas and beans), milk/milk products, nuts, cheese, eggs, grains, meat, and poultry.

POTASSIUM Potassium helps your muscles and nervous system work properly. Blood and body tissues, such as muscles, contain water. Potassium helps make sure the amount of water is just right. Most people know that bananas are rich in potassium. Other foods rich in potassium are broccoli, tomatoes, potatoes with skin, leafy green vegetables, citrus fruits, dried fruits, lentils, and peas.



SODIUM This mineral pumps water into your cells and helps keep them healthy. You mainly get sodium from the salt that you sprinkle on your food.



The Microminerals

CHROMIUM Chromium helps to prevent and lower high blood pressure. It can also deter diabetes because it works with insulin in the metabolism of blood sugar. It helps transport protein where it is needed in your body. A deficiency in chromium may contribute to adult-onset diabetes. Foods that contain chromium are whole grains, chicken, shellfish, meat, and brewer's yeast.

COPPER Helps to protect against heart disease and stroke. It is also good for bones and the immune system. Liver, lean beef, wheat germ, brazil nuts, cashew nuts, butter beans, lentils, walnuts, peanuts, wholemeal bread, and mackerel are good sources.



IODINE Iodine has a single role - it is needed to make thyroid hormones that help regulate your body's metabolism.

Most people get iodine from iodized salt. Other sources of iodine are mushrooms and kelp.

IRON The body needs iron to transport oxygen from your lungs to the rest of your body. It helps in the formation of hemoglobin, which is the part of your red blood cells that carries oxygen throughout the body. Foods rich in iron are leafy green vegetables, whole grains, eggs, beans, raisins, meat, tuna, and salmon.

MANGANESE For a long time, we didn't know you could have a shortage of manganese. Now, the science community is discovering it may be important. They think it is similar to magnesium and helps make your connective tissue, support digestion, and other supporting roles we may not yet fully understand. If you eat raisins, pineapple, blueberries, green veggies, nuts, beans, and grains, you will get high amounts of manganese.

MOLYBDENUM All of your tissues contain tiny amounts of molybdenum. It helps make several enzymes, one in particular called xanthine oxidase. This helps you develop and grow and to properly use iron in your body. Some good food sources are whole grains, lean meat, beans, green leafy vegetables, and milk.

SELENIUM This trace mineral helps your body make antioxidants to fight off those nasty free radicals. It also may help prevent against heart disease and cancer. Plant foods are the major dietary sources of selenium in most countries throughout the world. The content of selenium in food depends on the selenium content of the soil where plants are grown or animals are raised.

Brazil nuts may contain high levels of selenium, so eating them once in awhile is a good idea. Other foods that contain small amounts of selenium are turkey, chicken, noodles, eggs, and grains.

ZINC Zinc is important for growth. It also helps to fight off colds and other illnesses. So, the next time you feel like you are catching a cold, some pretty good studies prove it can help you get better faster. It can also help in the cell growth that heals cuts and wounds. The best source of zinc is oysters. Other sources are chicken, chickpeas, liver, dry roasted almonds, beans, beef, pecans, and turkey.

FUN FACT:

The "adult" human body has 206 bones.



DID YOU KNOW?

Americans eat about 30 pounds of lettuce every year. That's about five times more than what we ate in the early 1900s.



DID YOU KNOW?

Your thyroid is a small, butterfly shaped gland in your neck right below your Adam's apple. It is responsible for producing the hormones that regulate how fast you use the energy from the food you eat.



Sources: National Institutes of Health Office of Dietary Supplements Northwestern University Nutrition