

Maybe You Need More

COPPER

by NANCY M. BETTS, Ph.D., R.N.

It is always difficult to maintain the balance of minerals necessary to keep the human body in working order but one essential element that is often overlooked is copper. Copper is needed for enzymes involved with energy metabolism to function in the body. The nervous system needs copper to function by maintaining the balance of other useful metals in the body, like zinc.

Copper also functions as an antioxidant and helps with wound healing. Research has indicated that copper helps prevent inflammation in diseases like arthritis, although there is no evidence supporting copper as an actual preventative measure against this disease. However, its most important function is to work with iron in building blood cells and transporting oxygen.

Copper is not manufactured in the body and therefore must be procured through the diet. However, a study conducted at the University of Nebraska in Lincoln showed that the typical American diet is low in copper. It is recommended that daily copper intake be between 1.5–3.0 mg/day, but many people are ingesting much less than that, instead getting on average 1.2 mg.

A copper deficiency, even mild, impairs the ability of white blood cells to fight infection. Copper deficiency can look much like iron-deficiency anemia, in part because it causes the body to ineffectively use its iron. It is possible that cases of anemia that do not respond to iron supplements could benefit from taking copper. Long-term

copper deficiency can result in high blood cholesterol and eventually heart disease.

Women are more at risk of copper deficiency than men. Although the average intake of copper is 1.2 mg daily, women's intake only averages at 1.01 mg as opposed to men's 1.4 mg. Yet both fall below even the minimum recommendation for copper consumption.

Also at high risk for copper deficiency are those who have poor diets, infants and children. Those who have poor diets include the elderly who are not able to care for themselves and people who live in places where it is difficult to maintain good nutrition. Babies who are fed only soy milk are more prone to copper deficiency.


Not getting enough copper in their diets is also a problem of greater concern to those who take supplements like zinc in order to ward off illnesses. Zinc inhibits the body's ability to absorb copper. It is recommended that a person should not exceed 15 mg of zinc daily for an extended period of time. Although it is not harmful to take a zinc supplement for a few days to ward off colds, it is best to attempt to stay below the 15 mg mark.

Foods that are rich in copper are the more often overlooked aspects of the American diet, such as oysters, shellfish, nuts, dried beans and peas as well as organ meats. Brazil nuts and cashews, poppy and sunflower seeds and chickpeas are excellent sources of copper, as well as liver. Fish, poultry, fruits and vegetables also contain small

amounts of copper. Red meat contains even less. Copper can also be added to the diet through a common source like wheat bread. A single slice of wheat bread can provide one tenth of the recommended daily allotment of copper for a growing child.

One surprising source of copper is in chocolate. According to a study at the University of Nebraska, Americans who eat chocolate get on average 10 percent of their copper from chocolate foods. Chocolate foods like cakes, muffins and ice cream, as well as chocolate milk and hot cocoa were responsible for a surprising amount of copper in the subjects' diets. Some of those in the national sample received over 50 percent of their daily copper directly from chocolate foods.

A one-ounce square of sweet or semi-sweet chocolate has about .2 to .3 mg of copper. Chocolate candy bars have between .176 mg of copper in a milk chocolate bar and .32 mg for a bar of dark chocolate. A chocolate bar with nuts provides .2 mg of copper as well.

It is nearly impossible to ingest too much copper. When the body has enough, the rest will remain unabsorbed and be excreted. Should you have concern over the level of copper in your diet, contact your physician for a blood test. The daily allotment of copper can be easily maintained through a normal well-balanced diet, keeping your nervous system functioning efficiently and increasing your energy. 

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