Specific minerals and what they do

In addition to vitamins your body also needs 15 minerals that help regulate cell function and provide structure for cells. Major minerals, in terms of amount present, include calcium, phosphorus, and magnesium. In addition, your body needs smaller amounts of chromium, copper, fluoride, iodine, iron, manganese, molybdenum, selenium, zinc, chloride, potassium and sodium.

Amounts needed for most of these minerals is quite small and excessive amounts can be toxic to your body.

Calcium: A mineral important for strong teeth and bones and for

maintenance, growth, blood formation and utilization of glucose.

sources: organ meats, sea foods, nuts and seeds.

Fluoride: A mineral that is important to dental and bone health. Greatly improves resistance to cavitites

sources: fluoridated water, foods cooked in or containing fluoridated water, fish with bones that are eaten, and tea.

Iodine: A mineral essential for the production of thyroid hormones.

sources: seafoods, iodized salt and foods containing iodized salt.

Iron: A mineral that is an essential constituent of blood and muscle and important for the transport of oxygen. Certain groups can be at risk of having low iron levels. These include young children and early teens, women with heavy menses, women with multiple pregnancies, and people with conditions that cause internal bleeding, such as ulcers or intestinal diseases.

But for healthy men and postmenopausal women, iron deficiency is rare. In fact, one study suggested that high iron levels may increase risk of heart attack and atherosclerosis, although a link hasn't been proven. In addition, if you have the uncommon — but not rare — genetic disease hemochromatosis, iron supplements could cause a hazardous iron buildup in your body.

sources: liver, red meat, egg yolk, legumes, whole or enriched grains and dark green vegetables.

Magnesium: A mineral found mainly inside muscles, soft tissues and bone. It functions in many enzyme processes.

sources: nuts, legumes, whole grains and green vegetables.

Manganese: A mineral that is important for growth, reproduction, formation of bone, and carbohydrate metabolism.

sources: whole grains, fruits, vegetables and tea.

Molybdenum: A mineral involved in many enzyme processes, nerve function and protein metabolism.

sources: milk, beans, breads and cereals.

Phosphorus: A mineral essential to bone formation and maintenance, energy metabolism, nerve function and acid balance.

sources: meat, poultry, fish, eggs, dairy products and cereal products.

Potassium: A mineral that is essential for nerve function, muscle contraction and maintenance of normal blood pressure.

sources: fruits and vegetables.

Selenium: A mineral associated with antioxidant properties and fat metabolism. It has been claimed to help prevent cancer and cardiovascular disease. One recent study did suggest that selenium supplements may decrease cancer risk. However, more research is needed. Taking excessive amounts of selenium may cause hair and nail loss.

sources: seafoods and organ meats.

Sodium: A mineral that regulates body fluid volume, concentration and acid-base

sources: table salt (sodium chloride), foods processed with table salt, milk, milk products, eggs and seafoods.

Zinc: A mineral involved in wound healing, taste sensation, growth and sexual maturation and part of many enzymes regulating metabolism.

Some studies have also shown that taking a daily multivitaminmineral supplement containing zinc may increase immune response in older people. However, other studies have shown just the opposite — that zinc may weaken the immune status of older people.

What is known is that megadoses of zinc can interfere with the way your body uses other essential minerals, such as iron and copper. And, excess zinc (more than 10 times the RDA) can lower HDL ("good") cholesterol levels.

sources: meat, liver, eggs and seafood (oysters).

<u>Top</u>

Resources

Dr Ardith Brundt: "HEC 131 - Introduction to Nutrition " Chapters 7 & 8 @: <u>http://iweb.tntech.edu/abrunt/homework.htm</u>

Mosbey's Medical & Nursing Dictionary, 1983:pp1140-1145.

"Vitamin and nutritional supplements- Sorting out fact from fiction amid a storm of controversy." From Mayo Clinic Health Letter @ http://www.mayohealth.org/mayo/9707/htm/me_jun97.htm

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