

Center for Integrative Medicine

Dietary Supplements: Iron

Iron is an essential mineral. It helps carry oxygen to every cell in the body. Iron is essential for optimal function of red blood cells, the heart, lungs and muscles. Iron deficiency is associated with anemia and fatigue, pale skin, difficulty concentrating, learning and performing, headaches, lethargy, rapid breathing and heart rate, and poor athletic performance. Iron deficiency anemia in pregnancy is associated with increased risk for low birth weight, preterm delivery, and perinatal mortality. Iron deficiency is associated with post-partum depression and stress in new mothers. Approximately 7% of toddlers and 9% - 16% of women are iron deficient; many children between 9 and 24 months old are also iron deficient. Deficiencies are particularly common in Hispanic and African Americans in the US. Iron supplementation improves learning, memory, and test scores in iron-deficient teenagers. It also improves the performance of iron-deficient athletes.

Needs for iron may be increased in women who are pregnant and those with heavy menstrual periods; patients with poor absorption from the GI tract (such as celiac disease); chronic blood loss (such as from colon cancer, peptic ulcers or use of non-steroidal anti-inflammatory medications such as aspirin that can cause bleeding in the intestine); children 9 -24 months old and those with lead poisoning.

Excessive iron may contribute to heart disease and cancer in adults. Iron can be toxic in overdoses.

Certain medications can deplete iron: non-steroidal anti-inflammatory medications can increase iron loss through the GI tract.

Some medications and foods can interfere with absorption of iron: milk (except human breastmilk), antacids, coffee, tea, eggs, soy protein, whole-grain cereals; high doses of calcium, zinc, magnesium and other minerals

Dietary sources of iron include: meats (especially liver), raisins, fish, poultry, eggs (yolk), peas and beans, and whole grain bread. In general, human beings absorb nutrients more easily from food than from supplements; taking vitamin C rich foods can help increase the absorption of iron.. See the US National Library of Medicine site for more information: <http://www.nlm.nih.gov/medlineplus/ency/article/000584.htm> .

US Recommended Daily Allowance (RDA) or Adequate Intake (AI for infants) for iron for

Children 1-3 years: 7 milligrams	Children 4-8 years: 10 milligrams
Children ages 9-13 years: 8 milligrams	Males ages 14-18: 11 milligrams
Females ages 14-18 years: 15 milligrams	
Adults: 18 milligrams daily for males	Adults over 50 years: 8 milligrams
Pregnant or breastfeeding women: 27 milligrams daily.	

Iron can reduce the absorption of certain medications: levodopa, levothyroxine, penicillamine, quinolone antibiotics, and tetracycline antibiotics.

Iron is generally considered safe, but it can cause upset stomach, especially when taken on an empty stomach. Excessive iron over a long time can lead to heart and liver problems. People with a genetic problem (hemochromatosis) develop iron overload. Patients with heart or liver disease should be cautious in taking iron supplements because they may develop an excessive iron load. The upper limit is 40 milligrams daily for children under 13 years old and 45 milligrams for older persons. Patients can take higher doses with medical supervision.

All 16 products tested met quality testing standards set by ConsumerLab. For more information, see <http://www.consumerlab.com/results/iron.asp> . Talk with your doctor before starting iron supplements to avoid getting too much iron.

www.wakehealth.edu/CIM - See Quick Link to Dietary Supplements