Iron

WHAT IS IT?

Iron is an essential mineral necessary for oxygen transport and blood formation. It is an integral component of many proteins and enzymes and is therefore important for immune function, energy production, gene expression and thyroid function.

Iron comes in two forms, heme and non-heme. The heme form is from animal sources, such as cooked liver, beef, and the dark meat of chicken. The non-heme form is from plant sources, including several spices, tofu, and leafy greens. In the United States, most cereals are fortified with iron.

Both iron overload and iron deficiency lead to serious illness. **Do not** take iron supplements without talking to your healthcare provider.

WHO MIGHT CONSIDER TAKING THIS?

Deficiency: Iron deficiency is the most common mineral deficiency in the world. Deficiency results in anemia, or low blood counts. Its symptoms include: feeling weak and tired, difficulty maintaining body temperature, and pale skin and gums. Anemia can be quite serious—it increases the stress on the heart and can even lead to heart attacks.

Iron is taken to replace deficiency. A healthcare provider should work to identify the reason for low iron prior to treating with iron supplements.

PREPARATIONS AND DOSAGE

Dose: Your health care provider will recommend the dose that is right for you.

The Recommended Daily Allowance (RDA) of iron, or amount most Americans need to prevent deficiency, is 8 mg per day for adult men, 18 mg for adult women and 27 mg per day for pregnant women.

Iron supplements have varying amounts of elemental iron. Dosing for iron replacement should be based on elemental iron.

Iron is routinely found in multivitamin products. People at risk for iron deficiency include premenopausal women, vegetarians, endurance athletes, infants, frequent blood donors, people with cancer and those with heart failure. Iron supplementation should be avoided in post-menopausal women and men, unless otherwise instructed by your clinician.

Iron absorption can be greater when taken with vitamin C and food.

CONCERNS

Iron can cause constipation and gastrointestinal distress. The iron in supplements is bound, or chelated, to various other compounds. The most common chelator is sulfate. This form of supplemental iron is inexpensive but has the poorest absorption. Iron interferes with absorption of many medications, including several antibiotics. Iron should not be taken within 3–4 hours of most medications that it interacts with (ask your pharmacist).

Iron supplements should not be taken by patients with iron overload states, such as hemochromatosis.

Excessive iron intake is dangerous. The upper tolerable limit is 45 mg per day total from food and supplements for healthy people over the age of 14. Do not exceed this dose unless instructed to by your health care provider. Ensure you keep any iron supplements away from young children to prevent accidental overdose, which has been associated with fatality. Many iron supplements resemble candy.