

What is iron? Iron is a mineral in the human body. It is one of the parts of hemoglobin, the substance in red blood cells that helps blood carry oxygen throughout the body. If you do not have enough iron, your body cannot make hemoglobin, and you may get anemia, a health problem that occurs when there is not enough hemoglobin in the blood. When you get anemia, you are said to be "anemic".

According to the World Health Organization, up to 80% of the people in the world may be iron deficient. Premenopausal women, particularly those who exercise regularly, face a great risk of iron deficiency, or even anemia. Athletic, active males are also at high risk for iron deficiency

What are the signs of anemia?

The major signs of anemia are: • Feeling tired • Problems breathing • Dizziness • Headache • Feeling cold

Why might my iron be low?

One reason you may be low on iron is that your body's demand for iron may have increased. This often occurs in young children undergoing rapid growth, pregnant women, and people who lose blood through blood donation, intestinal conditions, menstruation, or very intense endurance activity. Another reason for low iron is decreased iron intake or absorption. The Institute of Medicine of the National Academy of Sciences recommends that men aged 19-50 consume 8 mg of iron per day and premenopausal women consume 18 mg of iron per day. After menopause, women's iron needs drop to the same level as men's: 8 mg per day.

Iron is found in food in two forms, heme and non-heme iron. Heme iron, which makes up 40 percent of the iron in meat, poultry, and fish, is well absorbed. Non-heme iron, 60 percent of the iron in animal tissue and all the iron in plants (fruits, vegetables, grains, nuts) is less well absorbed. Because vegan diets only contain non-heme iron, vegans should be especially aware of foods that are high in iron and techniques that can promote iron absorption. Recommendations for iron for vegetarians (including vegans) may be as much as 1.8 times higher than for non-vegetarians

How does the body acquire and expel iron?

The body cannot make iron; you must acquire it through your diet. Dietary iron is processed and absorbed by the mucosal cells of the small intestine. Only about 10% of the iron we consume each day is absorbed into the body, however. The process of iron absorption is tightly regulated because the body does not possess any biochemical mechanisms for removing iron. Instead, iron is lost through processes such as bleeding, menstruation, and breast-feeding. Additionally, iron within the body is constantly being recycled and reused (e.g., in red blood cell turnover).

