



IRON DEFICIENCY ANEMIA

Anemia occurs when the number of oxygen-carrying red blood cells is lower than normal. There are several types of anemia, but the most common is iron deficiency anemia.

What are the symptoms of anemia?

When anemia is mild, or when it develops very slowly, there may be no symptoms to let you know you have a problem. If it develops quickly or is severe, symptoms may include fatigue, weakness, dizziness, or difficulty concentrating. Young children may be fussy, look pale, or have less energy. If anemia goes undetected in children, it can lead to slowed growth and difficulty learning.

What causes anemia?

Causes of anemia include genetic disorders like sickle cell disease, lack of certain vitamins like folate or B12, chronic kidney disease, and inflammatory diseases like rheumatoid arthritis and ulcerative colitis. It's also caused when red blood cells are attacked by the immune system or lost through bleeding from injury or inflammation in the gut.

The most common cause of anemia is low iron levels.

Iron is a metal that is needed to make red blood cells that carry oxygen to the cells in your body. Babies get iron from their mother while in the womb. After birth, we get iron from the food we eat.

In the first 6 months of life, babies rely on the iron stores they built up from mom before birth and the small amounts of iron in breastmilk or fortified infant formulas. After 6 months of age, it's important to start offering plenty of iron-rich foods. Breastfed infants will often need extra iron in the form of vitamin drops. Ask your doctor about which supplement they recommend.

After the first birthday, most of a child's daily nutrition comes from the food they eat rather than breastmilk or formula. Breastfeeding can be continued for as long as is desired, but formula can be stopped. The calcium found in both cow's milk and plant-based milk can block the absorption of iron from the diet leading to anemia, so limit milk consumption to 2 to 3 cups (16 to 24 ounces) per day. Cow milk protein sensitivity is increasingly common in infants and young children. This can lead to gut inflammation and microscopic bleeding which can cause anemia if it goes undetected over time. Switch to unsweetened plant-based milk like soy or pea protein (Ripple) if your child does not tolerate cow milk protein. On the other hand, vitamin C increases iron absorption. Pairing iron-rich foods with vitamin C-containing foods like tomatoes, citrus, or vegetables like broccoli will maximize the amount of iron absorbed from the diet.



Types of iron in food.

There are two types of iron in food: heme iron and nonheme iron. Since heme iron is found in muscle and blood cells, you can easily guess that we get it from eating meat, poultry, and fish. Nonheme iron is found in plants. While it is true that the iron found in animal products is absorbed and used more efficiently than that in plants, there is compelling evidence that heme iron promotes the growth of certain cancers like colorectal cancer, lung cancer, and pancreatic cancer. When iron-rich plant-based foods are eaten together with vitamin C-containing foods, nonheme iron is readily absorbed without the added cancer risk.

Which plant-based foods are highest in iron?

One cup of cooked beans and other legumes like lentils can provide 50 to over 80% of the recommended daily allowance of iron; a cup of cooked spinach provides 70%, and a cup of raw edamame provides a whopping 123%. The chart below compares one cup of various plant-based foods to the average recommended daily allowance of iron. It's easy to see that even one meal that includes legumes, green vegetables, or a fortified low-sugar cereal can provide almost all of the recommended iron needed for the day. Don't forget to add a side of vitamin C-rich fruit salad or tomatoes to boost absorption of the iron in your meal.

