

Iron-Deficiency Anemia

Iron-deficiency anemia is a relatively common problem, usually occurring when your child's diet does not provide enough iron. It is most common in children ages 1 to 2. Iron-deficiency anemia can also occur in adolescents—especially girls—because of additional blood loss during their periods. In most cases, the anemia clears up quickly once your child is given extra iron.

What is iron-deficiency anemia?

Our bodies need iron to produce a substance called hemoglobin, which allows red blood cells to carry oxygen. If iron levels aren't high enough, the body can't make enough hemoglobin. Anemia means low levels of red blood cells or hemoglobin. When the problem is caused by a lack of iron, it's called iron-deficiency anemia.

The most common cause is not enough iron in the diet. Children ages 1 to 2 are most commonly affected. In this age group, it can be hard to provide enough iron through a good diet. Losing blood from our bodies can also cause iron-deficiency anemia, as the body needs extra iron to make up for the blood loss. This may occur in teenage girls whose menstrual periods are heavy or last a long time. It can also occur in children with digestive problems, if they are losing blood in their stools.

Some children and teens may have low iron levels but not low enough to cause iron-deficiency anemia. They still may need treatment. Whatever the cause, your child's red blood cell and hemoglobin levels should return to normal soon after more iron is added to the diet. If not, further tests and treatment may be needed.

What does it look like?

- Iron-deficiency anemia may not cause any symptoms. It may be recognized during routine blood tests. Symptoms are usually present only when the hemoglobin level drops pretty low.
- Skin may appear pale (pallor).
- Your child may be easily tired or irritable. He or she may have difficulty concentrating or have a poor appetite.
- If the anemia is severe, your child may be very pale or be out of breath after just light activity.
- Even without anemia, low iron levels may have mild effects on attention and learning.

What causes iron-deficiency anemia?

- The most common cause is not enough iron in the diet. This is most common in infants and toddlers ages 9 to 18 months.
- Infants drinking large amounts of cow's milk (greater than 20 to 24 ounces per day) may be at increased risk. Infants who are fed only breast milk can also be at increased risk. Beginning at about 6 months of age, breast-fed babies should receive additional iron in the form of iron-rich foods or liquid iron if necessary.
- Risk is increased for premature infants, who have less iron in their bodies at birth. They also grow quickly and need more iron.
- In teens, prolonged or heavy menstrual periods may cause anemia.
- Rarely, unrecognized bleeding may cause anemia. This is most often related to problems in the digestive system.

What are some possible complications of iron-deficiency anemia?

After proper levels of iron are added to the diet, there are usually no further problems.

Can iron-deficiency anemia be prevented?

Make sure your child's diet contains enough iron:

- Breast-fed babies should receive extra iron starting at about 6 months of age.
- Bottle-fed babies should receive iron-fortified formula until 1 year of age.
- When your baby starts solid foods, give him or her iron-fortified cereals.
- Limit intake of cow's milk to less than 24 ounces per day.
- For older children, give foods that are high in iron. These include red meats, fish, egg yolks, beans, and leafy vegetables. If you don't feel your child is getting enough iron in the diet, it's reasonable to give an iron supplement or multivitamin. It's especially important to make sure your child gets enough iron during periods of rapid growth, during athletic training, or after the start of menstrual periods.

How is iron-deficiency anemia treated?

- Treatment includes iron supplements, usually given in drops (for infants), tablets, or pills. Your doctor can recommend the best iron dose for your infant or child. Your child's anemia should start to improve within a few days.
- We may recommend that your child continue taking iron for a few months. Iron and hemoglobin levels should be rechecked to make sure they are going up.

- *Very rarely*, children with severe anemia may need a blood transfusion.



When should I call your office?

Call our office if you are having trouble using iron supplements or increasing the amount of iron in your child's diet, as recommended.