

Iron-Deficiency Anemia

What Is Iron-Deficiency Anemia?

Iron-deficiency anemia is anemia that happens when there isn't enough iron in the body.

Someone with anemia has a lower number of red blood cells (RBCs) than usual. RBCs contain hemoglobin, a protein that carries oxygen throughout the body. The body needs iron to make hemoglobin (HEE-muh-glow-bin). Without enough iron, less hemoglobin and fewer red blood cells are made, leading to anemia.

Treatment with iron supplements usually makes the anemia better.

What Are the Signs & Symptoms of Iron-Deficiency Anemia?

At first, children with iron-deficiency anemia may not have any symptoms. When symptoms do happen, a child might:

- look pale
- seem moody
- be very tired
- get tired quickly from exercise
- feel dizzy or lightheaded
- have a fast heartbeat
- have developmental delays and behavioral problems
- want to eat ice or non-food items (called pica)

What Causes Iron-Deficiency Anemia?

Iron-deficiency anemia can happen when:

- There's a problem with how the body absorbs iron (such as in celiac disease).
- Someone has blood loss from an injury, heavy menstrual periods, or bleeding inside the intestines.
- Someone doesn't get enough iron in the diet. This can happen in:
 - children who drink too much cow's milk, and babies given cow's milk before they're 1 year old
 - vegetarians because they don't eat meat, a source of iron
 - breastfed babies who don't get iron supplements
 - babies given formula with low iron
 - babies who were born early or small who may need more iron than formula or breast milk contains

How Is Iron-Deficiency Anemia Diagnosed?

Doctors usually can diagnose iron-deficiency anemia by:

- asking questions about symptoms
- asking about the diet
- finding out about the patient's medical history
- doing a physical exam
- doing blood tests to:
 - look at the red blood cells with a microscope
 - check the amount of hemoglobin and iron in the blood
 - check how fast new RBCs are being made
 - do other blood tests to rule out other types of anemia

How Is Iron-Deficiency Anemia Treated?

Doctors treat iron-deficiency anemia with iron supplements taken as a liquid or pill for at least 3 months. To help iron get absorbed into the body:

- Avoid taking iron with antacids, milk, or tea because these interfere with the body's ability to absorb iron.
- Take iron before eating (unless this causes an upset stomach).

Someone whose anemia is very severe may get iron or a blood transfusion through an IV (intravenous) line.

When iron-deficiency anemia is caused by something other than a lack of iron in the diet, treatment also may include:

- treatments to reduce bleeding in heavy menstrual periods
- reducing the amount of cow's milk in the diet
- treating an underlying disease

How Can Parents Help?

If your child has iron-deficiency anemia:

- Make sure your child takes the iron supplements exactly as prescribed.
- Include iron-rich foods in the family's diet. Good sources of iron include:
 - iron-fortified cereals
 - lean meat, poultry, and fish
 - tofu
 - egg yolks
 - beans
 - raisins
- Serve fruits and vegetables high in vitamin C or a glass of orange juice at mealtimes. This helps the iron get absorbed.
- Talk to a dietitian or your doctor if your child is a vegetarian. They can recommend foods to help your child get enough iron.

To help prevent iron-deficiency anemia in young children:

- Don't give cow's milk to babies under 1 year old.
- Limit cow's milk in kids over 1 year old to less than 2 cups of milk a day. Giving them more can make them feel full and lower the amount of iron-rich foods they eat.

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Date reviewed: June 2019

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