

# Anemia in Children and Teens

Anemia can make your child appear pale in color and feel cranky, tired, or weak. Though these symptoms may worry you, the most common causes of anemia—such as iron deficiency—are generally easy to treat, especially when anemia is detected early.

Here is information from the American Academy of Pediatrics about what anemia is, the signs and symptoms of anemia, and how to prevent anemia.

## What is anemia?

Anemia is a condition in which the amount of red blood cells in the body is decreased below normal for your child's age. Because rapid growth is a potential cause of the condition, the first year of life and adolescence are two age groups where infants and children are especially prone to anemia.

Anemia means there are not enough red blood cells in the body. Red blood cells are filled with hemoglobin, a special pigmented protein that makes it possible to carry and deliver oxygen to other cells in the body. The cells in your child's muscles and organs need oxygen to survive, and decreased numbers of red blood cells can place stress on the body.

## Your child may become anemic if his or her body

- **Does not produce enough red blood cells.** This can happen if your child does not have enough iron or other nutrients in their diet (e.g. iron-deficiency anemia).
- **Destroys too many red blood cells.** This type of anemia usually happens when a child has an underlying illness or has inherited a red blood cell disorder (eg, sickle-cell anemia).
- **Loses red blood cells through bleeding.** This can either be obvious blood loss, such as heavy menstrual bleeding, or long-term low-grade blood loss, perhaps in the stool.

## What are the signs and symptoms of anemia?

If your child shows any of the following signs or symptoms, please see your child's doctor.

Even a low level of anemia can affect your child's energy, focus, and ability to learn. Chronic iron deficiency anemia can result in long term, permanent impairment of development. In most cases, a simple blood count can diagnose anemia.

## Common sign and symptoms

- Pale or sallow (yellow) skin
- Pale cheeks and lips
- Lining of the eyelids and the nail beds may look less pink than normal
- Irritability
- Mild weakness
- Tiring easily, napping more frequently
- Children experiencing red blood cell destruction may become jaundiced (yellowing of the skin or eyes) and have dark tea or cola-colored urine

## Children with severe anemia may have additional signs and symptoms

- Shortness of breath
- Rapid heart rate
- Swollen hands and feet
- Headaches
- Dizziness and fainting
- Restless leg syndrome

## When kids eat non-foods

Children with anemia caused by very low levels of iron in their blood may also eat strange non-food things such as ice, dirt, clay, paper, cardboard, and cornstarch. This behavior is called "pica" (pronounced pie-kuh). Pica often occurs in children who are low in iron and can cause constipation. In these children, the pica usually stops after the anemia is treated with iron supplements.

## How can I prevent anemia?

Iron-deficiency anemia and other nutritional anemias can be prevented by ensuring that your child eats a well-balanced diet. Talk with your child's doctor about any specific dietary restrictions in your household as your child *may* require a nutritional supplementation to prevent anemia.

## Here are ways to prevent nutritional anemias.

- **Do not give your baby cow's milk until he or she is over 12 months old.** Giving cow's milk before your child is ready may cause blood loss in his or her stool and can also decrease the amount of iron absorbed in the gut.
- **If you are breastfeeding:** Your baby will have an adequate supply of iron until at least 4 months of age. At 4 months of age breastfed infants should be supplemented with iron until they are eating enough complementary foods that contain are rich in iron (eg, red meat or iron-fortified cereals). Talk with your child's doctor about foods best suited for this purpose, and how much additional iron supplementation is needed.
- **If you formula-feed your baby:** Give your baby formula with added iron. Low-iron formula can result in iron-deficiency anemia and should not be used.
- **After 12 months of age, avoid giving your child more than 2 cups a day of whole cow's milk.** Milk is low in iron and can make children feel full, which can decrease the amount of other iron-rich foods they eat.
- **Feed older children a well-balanced diet with foods that contain iron.** Many grains and cereals have added iron (check labels to be sure). Other good sources of iron include red meat, egg yolks, potatoes, tomatoes, beans, molasses, and raisins.
- **Encourage the whole family to eat citrus fruits or eat other foods high in Vitamin C** to increase the body's absorption of iron. Although green vegetables contain lots of iron, the iron from many vegetables comes in a form that is difficult for your body to absorb, but Vitamin C can help!

## Remember

If your child starts to show any signs or symptoms of anemia, be sure to tell your child's doctor. Also, find out if anyone in your family has a history of anemia or problems with easy bleeding. With proper treatment, your child's anemia should improve quickly.

Note: If your child has an inherited red blood cell disorder, your pediatrician will likely refer you to a pediatric hematologist to provide you with supportive care and education on your child's specific condition.

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