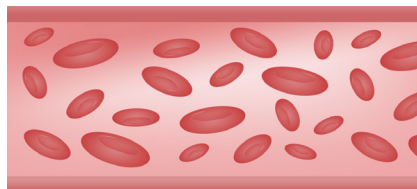


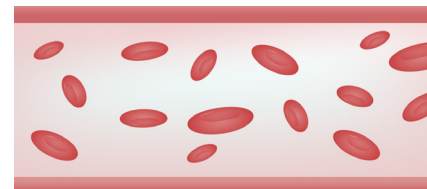
PEDIATRIC IRON DEFICIENCY ANEMIA



Iron deficiency anemia: caused by a lack of iron in the body. Iron is essential for the production of hemoglobin, a protein in red blood cells that carries oxygen to the body's tissues. A lack of iron can result in a reduced number of red blood cells and a decrease in hemoglobin.



Normal level of red blood cells



Anemia level of red blood cells

Causes:

- Low iron diet: Not enough iron is being absorbed by the body through nutrition.
- Body changes: Sometimes, growth spurts can create a shortage in red blood cells.
- Dysfunction in the gastrointestinal system: Iron is absorbed in the small intestine. When there is dysregulation in the small intestine, it makes it difficult for the body to absorb iron.
- Blood loss/hemorrhage: Bleeding can cause a decrease in red blood cells and iron.
- Breastfeeding without inclusion of iron-rich foods starting around 6 months

Symptoms:

- Pallor
- Fussiness
- Fatigue
- Tachycardia
- Swollen tongue
- Splenomegaly
- Eating inedible substances (pica)

Iron content in common foods

Food (serving size)	Amount of elemental iron (mg)
Soybeans: cooked (1/2 cup)	4.4
Lentils: cooked (1/2 cup)	3.3
Spinach: cooked/boiled, drained (1/2 cup)	3.2
Beef: cooked (3 oz)	2.5
Beans (lima, navy, kidney, pinto): cooked (1/2 cup)	1.8 to 2.2
Baby food brown rice cereal: dry (1 tbsp)	1.8
Baby food green beans (6 oz)	1.8
Baby food oatmeal cereal: dry (1 tbsp)	1.6
Turkey and chicken: dark meat (3 oz)	1.1 to 2.0
Baby food lamb or chicken (2.5 oz)	1.0 to 1.2
Baby food peas (3.4 oz)	0.9

Elemental iron supplementation or requirements in children

Age	Iron supplementation or requirements
Preterm (< 37 week's gestation) infants: 1 to 12 months	<ul style="list-style-type: none">• 2 mg per kg per day supplementation if exclusively breastfed• 1 mg per kg per day supplementation if using iron-fortified formula
Term infants: 4 to 6 months to 12 months	<ul style="list-style-type: none">• 1 mg per kg per day supplementation if exclusively breastfed• Supplementation not needed if using iron-fortified formula
Toddlers 1 to 3 years	Requires 7 mg per day; modify diet and/or supplement if anemic
Children 4 to 8 years	Requires 10 mg per day; modify diet and/or supplement if anemic

CLINICAL TIP:

Important lab values to look for are hemoglobin (< 11 g/dL), hematocrit (< 31%–40%, depending on age), MCV (< 73–80 fL, depending on age), and RDW (< 12%).

NOTES

