

Iron Deficiency Anemia in Pregnancy

What is Iron Deficiency Anemia?

Iron-deficiency anemia means that your body does not have enough iron. Your body needs iron to help carry oxygen through your blood to all parts of your body. Iron-deficiency anemia affects women more than men and is more common during pregnancy.

If left untreated, iron-deficiency anemia can cause serious health problems. Having too little oxygen in the body can damage organs. With anemia, the heart must work harder to make up for the lack of red blood cells or hemoglobin. This extra work can harm the heart. Iron-deficiency anemia can also cause problems during pregnancy.

What are the causes of Iron Deficiency Anemia?

Women can have low iron levels for several reasons:

- **Iron lost through bleeding.** Bleeding can cause you to lose more blood cells and iron than your body can replace. Women may have low iron levels from bleeding caused by:
 - Heavier or longer than normal menstrual periods
 - Uterine fibroids, which are noncancerous growths in the uterus that can cause heavy bleeding
 - Digestive system problems, such as ulcers, colon polyps, or colon cancer
 - Regular, long-term use of aspirin and other over-the-counter pain relievers
 - Donating blood too often or without enough time in between donations for your body to recover

- **Increased need for iron during pregnancy.** During pregnancy, your body needs more iron than normal to support your developing baby.
- **Not eating enough food that contains iron.** Your body absorbs the iron in animal-based foods, such as meat, chicken, and fish, 2 to 3 times better than the iron in plant-based foods. Vegetarians or vegans, who eat little or no animal-based foods, need to choose other good sources of iron to make sure they get enough. Your body also absorbs iron from plant-based foods better when you eat them with foods that have vitamin C, such as oranges and tomatoes. Thankfully, most people in the United States get enough iron from food.
- **Problems absorbing iron.** Certain health conditions, such as Crohn's disease, celiac disease, or gastric bypass surgery for weight loss can make it harder for your body to absorb iron from food.

What are the symptoms of iron deficiency anemia during pregnancy?

Iron-deficiency anemia often develops slowly. In the beginning, you may not have any symptoms, or they may be mild. As it gets worse, you may notice one or more of these symptoms:

- Fatigue (very common)
- Weakness (very common)
- Dizziness
- Headaches
- Low body temperature
- Pale or yellow "sallow" skin
- Rapid or irregular heartbeat
- Shortness of breath or chest pain, especially with physical activity
- Brittle nails

- Pica (unusual cravings for ice, very cold drinks, or non-food items like dirt or paper)

If you think you may have iron-deficiency anemia, talk to your health care provider or nurse.

How much iron do I need every day?

The chart below lists how much iron you need every day. The recommended amounts are listed in milligrams (mg). See the list of good sources of iron on page 4.

Age	Non-pregnant Women	Pregnant women	Breastfeeding women	Vegetarian women*
14–18 years	15 mg	27 mg	10 mg	27 mg
19–50 years	18 mg	27 mg	9 mg	32 mg
51+ years	8 mg	n/a	n/a	14 mg

Source: Adapted from Institute of Medicine, Food and Nutrition Board

*Vegetarians need more iron from food than people who eat meat do. This is because the body can absorb iron from meat better than from plant-based foods.

Do I need more iron during pregnancy?

Yes. During pregnancy, your body needs more iron to support your growing baby. In fact, pregnant women need almost twice as much iron as women who are not pregnant. Not getting enough iron during pregnancy raises your risk for premature birth or a low-birth-weight baby (less than 5 ½ pounds). Premature birth is the most common cause of infant death. Both premature birth and low birth weight raise your baby's risk for health and developmental problems at birth and during childhood.

If you're pregnant, talk to your provider or nurse about these steps:

- Taking a prenatal vitamin with iron or an iron supplement (pill) to get the required 27 milligrams of iron every day
- Testing for iron-deficiency anemia
- Testing for iron-deficiency anemia 4 to 6 weeks after childbirth

Do I need more iron if I am breastfeeding?

No, you do not need more iron during breastfeeding. In fact, you need less iron than before you were pregnant. The amount of iron women need during breastfeeding is 10 milligrams per day for young mothers 14 to 18, and 9 milligrams per day for breastfeeding women older than 18.

You need less iron while breastfeeding because you likely will not lose a lot through your menstrual cycle. Many breastfeeding women do not have a period or may have only a light period. Also, if you took enough iron during pregnancy (27 milligrams a day), your breastmilk will supply enough iron for your baby.

It is possible to prevent iron deficiency anemia?

A few action steps can help prevent or reduce the severity of iron deficiency:

- Treat the cause of blood loss. Talk to your provider if you have heavy menstrual periods or if you have digestive system problems such as frequent diarrhea or blood in your stool.
- Eat foods with iron. Good sources of iron include:
 - Fortified breakfast cereals (18 milligrams per serving)
 - Oysters (8 milligrams per 3-ounce serving)
 - Canned white beans (8 milligrams per cup)
 - Dark chocolate (7 milligrams per 3-ounce serving)
 - Beef liver (5 milligrams per 3-ounce serving)
 - Spinach (3 milligrams per ½ cup)

- Tofu, firm (3 milligrams per ½ cup)
- Kidney beans (2 milligrams per ½ cup)
- Canned tomatoes (2 milligrams per ½ cup)
- Lean beef (2 milligrams for a 3-ounce serving)
- Baked potato (2 milligrams for a medium potato)
- Eat and drink foods that help your body absorb iron, like:
 - Orange juice
 - Strawberries
 - Broccoli
 - Other fruits and vegetables with vitamin C
- Make healthy food choices. Most people who make healthy, balanced food choices get the iron and vitamins their bodies need from the foods they eat.
- Avoid drinking coffee or tea with meals. These drinks make it harder for your body to absorb iron.
- Talk to your provider if you take calcium pills. Calcium can make it harder for your body to absorb iron. If you have a hard time getting enough iron, talk to your doctor about the best way to also get enough calcium.

I am a vegetarian. How can I make sure I get enough iron?

You can help to ensure you get enough iron by choosing more foods that contain iron. Vegetarians need more iron from food than people who eat meat. This is because the body can absorb iron from meat better than from plant-based foods.

Vegetarian sources of iron include:

- Cereals and bread with added iron
- Lentils and beans
- Dark chocolate
- Dark green leafy vegetables, such as spinach and broccoli

- Tofu
- Chickpeas
- Canned tomatoes

Talk to your provider or nurse about whether you get enough iron. Most people get enough iron from food.

Can I get more iron than my body needs?

Yes, your body can get too much iron. Extra iron can damage the liver, heart, and pancreas. Try to take no more than 45 milligrams of iron a day, unless your provider prescribes more. Some people get too much iron because of a condition called hemochromatosis that runs in families. If you have hemochromatosis, your provider will work with you to monitor your iron levels. You can also get too much iron from iron pills (if you also get iron from food) or from repeated blood transfusions.

How do we treat iron-deficiency anemia during pregnancy?

If you have problems absorbing iron or have lower iron levels but do not have severe anemia, your provider or nurse may recommend:

- Taking iron pills to build up your iron levels as quickly as possible. Do not take any iron pills without first talking to your provider or nurse.
- Eating more foods that contain iron. Good sources of iron include meat, fish, eggs, beans, peas, and fortified foods (look for cereals fortified with 100% of the daily value for iron). (see the list on page 4).
- Eating more foods with vitamin C. Vitamin C helps your body absorb iron. Good sources of vitamin C include oranges, broccoli, and tomatoes.

If you have severe bleeding or symptoms of chest pain or shortness of breath, your provider may recommend iron or red blood cell transfusions.

Transfusions are for severe iron deficiencies only and are much less common.

What do I need to know about iron pills?

Your provider may recommend iron pills to help build up your iron levels. **Do not take these pills without talking to your provider or nurse first.** Taking iron pills can cause side effects, including an upset stomach, constipation, and diarrhea. When taken as a liquid, iron supplements may stain your teeth.

Follow these steps to reduce side effects from iron pills:

- Start with half of the recommended dose. Gradually increase to the full dose.
- Take iron in divided doses. For example, if you take two pills daily, take one in the morning with breakfast and the other after dinner.
- Take iron with food (especially food that contains vitamin C, such as a glass of orange juice, to help your body absorb the iron).
- If one type of iron pill causes side effects, ask your provider for another type. Look for iron pills labeled “Slow Iron,” or “Slow Fe,” as these are absorbed slower.
- If you take iron as a liquid instead of as a pill, aim it toward the back of your mouth. This will prevent the liquid from staining your teeth. You can also brush your teeth after taking the medicine to help prevent staining.

What are Iron Infusions?

If you still have anemia after adding more iron to your diet and taking iron pills your health care provider may consider giving you an iron transfusion. That means that you will receive the iron through an IV directly into the veins. An IV infusion may be needed if you:

- Can't take iron by mouth
- Can't absorb iron adequately through the intestine
- Can't absorb enough iron due to blood loss

- Need to increase iron levels quickly to avoid medical complications or a blood transfusion

How do I prepare for an iron infusion?

Your provider or nurse will give you specific instructions for preparing for your first iron infusion treatment. Some basic things you can do to prepare on the day of your infusion include:

- Eat your breakfast and lunch. There is no need to fast before an iron infusion.
- Take your regular medications.
- Be prepared to have a small IV drip put in your arm or hand.
- Know how to call for help during your infusion in case you have an adverse reaction.

You may feel nervous about your iron infusion. Talking with your provider or nurse before the procedure can help reduce this anxiety. They can recommend ways to help you stay comfortable and relaxed during the procedure.

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