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# Anemia in Pregnancy

## What is Anemia?

Anemia is a common condition that is seen in many women who are pregnant. It occurs when the number or size of a person's red blood cells are too low. Red blood cells are important because they carry oxygen from your lungs to all parts of your body.

## What causes anaemia during pregnancy?

Pregnancy places major demands on the body because you must meet the needs of both your body and your growing baby. Your iron requirements go up significantly when you're pregnant. Iron is essential for making haemoglobin, the protein in red blood cells that carries oxygen to other cells. During pregnancy, the amount of blood in your body increases until you have almost 50 percent more than usual. And you need more iron to make more haemoglobin for all that additional blood. You also need extra iron for your growing baby and placenta.

Unfortunately, most women start pregnancy without sufficient stores of iron to meet their body's increased demands, particularly in the second and third trimesters. If you get to the point where you no longer have enough iron to make the haemoglobin you need, you become anaemic.

Your risk is even higher if you have morning sickness severe enough to cause frequent vomiting, if you've had two or more pregnancies close together, if you're pregnant with more than one baby, if you have an iron-poor diet, or if your pregnancy menstrual flow was heavy.

Iron deficiency is by far the most common cause of anaemia in pregnancy, but it's not the only cause. You could also develop anaemia from not getting enough folic acid or vitamin B12, by losing a lot of blood, or from certain diseases or inherited blood disorders such as sickle cell disease and thalassemia.



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## Are there any side effects from taking iron supplements?

High levels of iron from supplements can upset your gastrointestinal tract. Most often it leads to constipation, which is already a problem for many pregnant women. If you suffer from constipation, try drinking prune juice. It can help you stay regular– and it's a good source of iron, as well. Taking a stool softener may be helpful, too.

You may also have heartburn, abdominal discomfort, nausea, vomiting, or, less commonly, diarrhea. Try taking your iron at different times of day to see what works best for you. For example, if the iron irritates your stomach or you suffer from heartburn, you'll want to avoid taking it at bedtime because lying down afterward may increase your discomfort.

If side effects continue to bother you, talk to your doctor.

Don't worry if your stools look darker when you start taking iron. That's a normal and harmless side effect.

## How is iron-deficiency anemia treated?



If your test indicates that you're anemic, your doctor will prescribe an iron supplement. The dose will depend on the severity of your anemia. Follow your doctor's instructions – never take more iron than prescribed.

In order to absorb as much of the iron as possible, it's best to take your iron pills on an empty stomach. Wash them down with water or orange juice (the vitamin C helps with absorption), but not with milk (calcium interferes with absorption). Coffee and tea also hinder absorption.

Within a week or so after starting treatment, you should be producing a lot of new red blood cells and your hemoglobin level will begin to rise. It usually takes just a couple of months for the anemia to resolve, but your doctor will likely advise you to continue taking iron supplements for several more months so you can replenish your iron stores.



## What are the Signs of Anemia?

If you do become anaemic, you might not have any symptoms at all, especially if your condition is mild. Or you might feel tired, weak, and dizzy. (Of course, these are symptoms that many women experience during pregnancy, anemic or not.) You might also notice that you're paler (especially in your fingernails, the underside of your eyelids, and your lips). Other symptoms include a rapid heartbeat, heart palpitations, and shortness of breath, headache, irritability, and trouble concentrating.



## What can be done to avoid anaemia during pregnancy?

Take your prenatal vitamin and eat a healthy diet that includes plenty of iron-rich foods. Red meat is preferred, although poultry (dark meat) and other meats are good sources, too. Non-animal iron-rich foods include beans, lentils, raisins, dates, prunes, figs, apricots, potatoes (leave the skin on), broccoli, beets, leafy green vegetables, whole grain breads, nuts and seeds, oatmeal, and iron-fortified cereals. Keep in mind that your body absorbs the iron from animal sources much more readily than the iron from non-animal sources.

### Nutrients that interfere with your body's ability to absorb iron

If you're taking calcium supplements or an antacid that contains calcium, don't take either one while you're eating iron-rich foods or at the same time as your iron supplement. Calcium hinders your body's ability to absorb iron. For that reason, don't take your supplement with milk. Drink milk between meals, instead.

The same goes for tea and coffee, which contain substances that interfere with the absorption of iron from supplements and plant sources.

### Nutrients that help your body absorb iron

Eating or drinking something rich in vitamin C when you take your iron supplement or eat iron-rich plant foods can help your body absorb significantly more iron. Good vitamin C choices include a glass of orange or tomato juice, a handful of strawberries, sliced bell peppers, or half a grapefruit.



## How does iron-deficiency anemia affect my baby's health and mine?

Your baby does a good job taking care of his iron needs – he'll get his share before you do. Still, maternal anemia can affect a baby's iron stores at birth, increasing his risk for anemia later in infancy.

Iron-deficiency anemia during pregnancy is linked to an increased risk of preterm delivery and low birth weight. It's also associated with a higher risk of stillbirth or newborn death, so it's something to take seriously.

Iron-deficiency anemia affects your health as well. It can lower your energy and make it harder for your body to fight infection. And if you're anemic later in pregnancy, you're more likely to have problems if you lose a lot of blood when you give birth. You may feel dizzy, have a rapid heart rate, or have other symptoms that require you to stay in the hospital an extra day or two. You're also more likely to need a blood transfusion.

### What about Sickle cell anemia or Thalassemia?

Sickle cell anemia and thalassemia are both inherited blood disorders.

The risks for pregnancy depend on whether the mother has sickle cell disease or sickle cell trait. Generally, women with sickle cell trait are not at increased risk for problems, however, it is important to remember that, unlike sickle cell anemia, a woman with sickle cell trait can have iron deficient anemia while pregnant and may need iron supplementation for this reason.

Some women with sickle cell disease may benefit from blood transfusions to replace the sickled cells with fresh blood. These may be done several times during the pregnancy to help increase the blood's ability to carry oxygen and decrease the number of sickled cells

Severe forms of thalassemia frequently produce iron overload. Excess iron accumulates due to enhanced iron absorption produced by thalassemia, repeated blood transfusions or both. A number of questions are frequently asked regarding thalassemia and iron.

Iron replacement tablets or iron-supplemented vitamins should be taken only as directed by a physician to treat actual iron deficiency or to prevent iron deficiency in high risk circumstances (e.g., pregnancy). While in Thalassemia major, the administration of iron supplements is absolutely contraindicated, in Thalassemia minor, iron may be given. People with thalassemia trait (thalassemia minor) are not per se at greater risk of complications from iron in the diet than anyone else in the general population.

In the absence of concomitant iron deficiency, iron supplementation will neither correct nor improve anemia due to thalassemia. For people with both iron deficiency and thalassemia, iron replacement will lessen the severity of the anemia, until the iron deficiency is corrected. The blood count will level off and no further improvement will occur.



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