

**Comprehensive Family Care Center**  
Family Practice and Obstetrics

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## Iron Deficiency Anemia

A lack of iron, which leads to anemia, is common. The most common cause of lack of iron in the US is heavy menstrual periods. However, there are many other causes, and bleeding into the gut is a common cause in older people. Tests may be advised to find the cause. Iron tablets can correct the anemia. Other treatments may be advised, depending on the cause.

### Understanding blood

Blood is made up of a fluid called plasma which contains:

- Red blood cells - which take oxygen around the body.
- White blood cells - which are part of the immune system, and defend the body from infection.
- Platelets - which help the blood to clot if we cut ourselves.
- Proteins - and other chemicals that have various functions.

Red blood cells are made in the bone marrow, and millions are released into the bloodstream each day. A constant new supply of red blood cells is needed to replace old cells that break down.

Red blood cells contain chemical called hemoglobin. Hemoglobin binds to oxygen, and takes oxygen from the lungs to all parts of the body.

To constantly make red blood cells and hemoglobin, you need a healthy bone marrow, and nutrients from food such as iron and certain vitamins.

### What is iron deficiency anemia?

Anemia means:

- You have less red blood cells than normal, or

- You have less hemoglobin than normal in each red blood cell.

In either case, a reduced amount of oxygen is carried around in the bloodstream.

The most common cause of anemia in the US is a lack of iron. This is called iron deficiency anemia.

### **What are the symptoms of iron deficiency anemia?**

- Common symptoms are due to the reduced amount of oxygen in the body. These include: tiredness, lethargy, and feeling faint, becoming easily breathless.
- Less common symptoms include: headaches, palpitations, altered taste, and ringing in the ears (tinnitus).
- You may look pale.
- Various other symptoms may develop, depending on the underlying cause of the anemia (see below).

### **How is iron deficiency anemia diagnosed?**

A blood test can confirm that you are anemic, and measure the amount of iron in the blood. If your anemia is due to lack of iron, the cause for the low level of iron needs to be explained.

### **What are the causes of iron deficiency anemia?**

A normal balanced diet will usually contain enough iron for the body's needs. A low level of body iron leading to anemia can result from various causes. Some are more serious than others, and include the following.

#### **Heavy menstrual periods**

Anemia is common in women of all ages who have heavy periods. About 1 in 10 women will become anemic at some stage due to periods. The amount of iron that you eat may not be enough to replace the iron that you lose with the blood each period. Having heavy periods does not always lead to anemia. Heavy periods combined with eating a diet that has little iron will make anemia more likely.

#### **Pregnancy**

The growing baby needs iron and will take it from the mother. Anemia is more likely to develop during pregnancy if you eat a diet that has little iron.

#### **Poor absorption of iron**

Some conditions of the guts (intestines) lead to poor absorption of various foods, including iron. Celiac disease is an example.

#### **Bleeding from the guts (intestines)**

Several conditions of the guts can lead to 'internal bleeding'. Sometimes this is sudden. for

example, after a burst duodenal ulcer. Vomiting or passing blood is then obvious.

However, often the bleeding is not obvious. A constant trickle of blood into the guts can be passed unnoticed in the stools (faeces). The iron that you may lose with the bleeding may be more than you eat. Conditions causing this include: stomach or duodenal ulcers, colitis, inflammation of the esophagus, piles (hemorrhoids), tumors of the bowel, and other rare bowel disorders. If you have one of these problems, you may have other gut symptoms such as stomach pains, constipation, or diarrhea. However, in the early stages of these conditions, you may not have any symptoms, and anemia may be the first thing that is noticed.

### **Medication**

Some medicines, which you may take for other conditions, can sometimes cause bleeding into the guts without causing symptoms. The most common example is aspirin. Other anti-inflammatory painkillers, such as ibuprofen, naproxen, diclofenac, etc, also have this side effect in some people.

### **Bleeding from the kidney**

A small but regular trickle of blood from diseases of the kidney or bladder may not be noticed in the urine. However, enough may be lost to cause anemia.

### **A poor diet**

Not eating enough iron is sometimes the cause of iron deficiency anemia. This is uncommon as iron is in meat, liver, green vegetables, milk, flour, eggs, and other foods. However, a poor diet may contribute to other causes. For example, a poor diet combined with a growth spurt in children, with pregnancy, or with heavy periods may lead to anemia.

### **Hookworm infection**

This gut infection is the most common cause of iron deficiency anemia worldwide. It affects people living in, and visiting, certain tropical countries. The worm feeds off blood inside the guts.

### **Do I need any tests?**

It is important to find the cause of the iron deficiency. The cause may be obvious in some people. For example, anemia is common in pregnancy, and in women with heavy periods. In these situations, if you are otherwise well, then no further tests may be needed. However, further tests may be advised if the cause is not clear. For example:

- Tests to look into the guts or bowel may be advised to see if there is any internal bleeding, even if you do not have gut symptoms. The tests may include looking into the stomach with a special telescope (endoscopy). Checking the rectum and bowel may also be advised. This is sometimes done with a special X-ray examination (barium enema). Another method is by using a special telescope (sigmoidoscopy or colonoscopy).
- A biopsy (small sample) of the lining of the gut may be taken if celiac disease is suspected as the cause.
- If you have recently been to the tropics, a stool sample may be done to rule out

- hookworm.
- Other tests may be advised if the cause is still unclear.

### **What is the treatment for iron deficiency anemia?**

Iron tablets are usually prescribed to correct the anemia. Other treatments may also be advised, depending on the underlying cause.

#### **Iron tablets**

A variety of iron tablets and liquid medicines are available. A doctor will advise on one. The length of course will vary depending on how bad the anemia is. A blood test after a few weeks will show if the treatment is working. Once the blood level is back to normal, you should continue to take iron for at least three further months. This will ensure that reserves of iron are built up in your body.

Side effects from taking iron occur in some people. These include: feeling sick (nausea), an upset stomach, constipation, or diarrhea. Tell a doctor if side effects are a problem. Don't stop the iron, as the anemia will not get better. A doctor may advise a reduced dose, but to be taken for a longer time. Iron tablets may make your stools (faces) black. This is normal and nothing to worry about.

**REMEMBER** to keep iron tablets away from children. An overdose of iron tablets can be very dangerous in children (who may think that they are sweets).