

Iron deficiency anaemia in pregnancy

Information for patients



What is iron deficiency anaemia?

This is a condition caused by a lack of red blood cells or haemoglobin. In the UK, the most common reason for developing anaemia is not having enough iron.

Haemoglobin is a protein found in **red blood cells**. It traps oxygen from the lungs and carries it around the body. A **key ingredient** used to make haemoglobin is **iron**. If there isn't enough iron stored in the body, then the amount of haemoglobin drops. When haemoglobin reaches a low level, less oxygen can be carried in the blood. This can cause symptoms, such as:

- tiredness
- breathlessness
- heart palpitations
- weakness
- headache
- dizziness
- chest pain
- irritability.

Why do I have iron deficiency anaemia?

There are several reasons why you might not have enough iron in your body:

- there might not be enough iron in your diet
- your gut may not absorb enough iron from your food (even if you have an iron-rich diet)
- your iron requirement might be so high that you can't get enough from your diet (your baby needs a lot of extra iron when it's growing in the womb. It gets the iron from you, which means that your own iron stores can become lower)
- you may lose iron through bleeding, such as by having heavy periods before pregnancy, or because you have another medical condition.

It is possible to have more than one of these causes, especially during pregnancy. In fact, over 20% of pregnant women in Europe are anaemic during pregnancy!

As anaemia is so common during pregnancy, all women in the UK are screened for anaemia at their booking visit and at 28 weeks of pregnancy.

Who is more likely to get anaemia in pregnancy?

The main risk factors for developing anaemia in pregnancy are:

- already having low iron stores before becoming pregnant
- having a pre-existing blood condition, such as sickle cell disease and thalassaemia
- having an inflammatory disorder which affects the gut's ability to absorb iron from food. Examples of these include inflammatory bowel disease, coeliac disease, and previous surgery to the gut.
- having a higher demands for iron, such as having twins or triplets
- being under 20 years old when you become pregnant
- giving birth to your previous child less than 1 year ago
- having anaemia in a previous pregnancy.

You may also be at risk of becoming anaemic after giving birth. This is often due to losing blood during or shortly after giving birth.

How is it diagnosed?

Anaemia can be detected by a simple blood test. As anaemia is so common in pregnancy, your GP will routinely check your haemoglobin levels. All pregnant women are screened for anaemia at their first booking visit and at 28 weeks of pregnancy. If you are at an increased risk of anaemia, you may be screened more frequently.

What are the risks of having anaemia?

Anaemia during pregnancy is associated with a range of problems for both the mother and the baby.

Iron deficiency anaemia can affect your muscle function, ability to exercise (such as climbing the stairs) and gut function. In pregnancy, iron deficiency also increases the risk of having a low birth weight baby and a premature delivery.

After giving birth, iron deficiency anaemia can also affect you by causing tiredness and reducing your milk production. It is also associated with postnatal depression. Your baby may have low iron stores at birth too.

Another reason why we will want to treat your iron deficiency anaemia is to reduce the risk of you needing a blood transfusion during or after delivery. Giving birth often involves bleeding. If you have iron deficiency anaemia it will increase your likelihood of needing a blood transfusion.

What happens next?

If you are **less than 36 weeks pregnant**, your GP will usually give you a course of iron tablets. They will then arrange to see you again in 2-4 weeks' time, to recheck your haemoglobin level.

If the iron tablets work properly, your haemoglobin should increase. If you had symptoms, you should start to feel better. This treatment will be explained in more detail in the iron tablets section.

Sometimes the iron tablets don't work effectively enough, even when you take them every day and follow all the instructions. If this happens, your GP will ask for some additional blood tests. These will include:

- **B12 and folate** – these are important nutrients also used to make red blood cells. Low B12 or folate can also make you anaemic, even without iron deficiency. However, this is less common than iron deficiency anaemia.
- **Ferritin** – this is a protein in the blood which acts as an iron storage system. If your ferritin level is low, this confirms that you don't have enough iron.

If you are **more than 36 weeks pregnant**, there may not be enough time for iron tablets to work before your baby is born. In this situation, you might need to be given iron directly into your bloodstream. This is called intravenous iron (IV iron), and is explained further in the IV iron section.

How is anaemia treated?

Diet

A good balanced diet is vital to make sure you receive enough iron. The most easily absorbed iron comes from red meat, fish and poultry. However, other vegetarian options exist, including lentils, fortified cereals and green leafy vegetables, such as spinach.

Vitamin C can help your body to absorb iron from food; this is found in orange juice and other fruits and vegetables.

Some foods can reduce your ability to absorb iron, so should be avoided around the time you eat iron-rich foods and/or take your iron tablets. These include tea, coffee and foods containing calcium, such as milk and other dairy products and dairy alternatives, some seeds, pulses and vegetables, and many multi-vitamin tablets.

For further information about iron-rich foods and foods to avoid please visit the NHS Choices website:

www.nhs.uk/Conditions/vitamins-minerals/Pages/Iron.aspx

Iron tablets

Oral iron tablets are very effective at replacing the iron needed for haemoglobin levels to rise. Some iron tablets can also come with folic acid and vitamin C, which helps with the absorption of iron from the gut.

The recommended tablets for treating iron deficiency anaemia are ferrous sulphate tablets. How well these iron tablets work is greatly affected by how they are taken. The best way to maximise their effectiveness is to take a tablet with orange juice one hour before meals. If you don't drink orange juice, then another drink containing vitamin C will also work. Your midwife or doctor will be able to advise you on alternative drinks.

Your GP or midwife will give you further guidance on how many iron tablets to take per day.

Side effects of iron tablets

The most common side effects of taking iron tablets are nausea, bloating and constipation. If this stops you from being able to take the tablets, your GP can swap you onto a different type of iron tablet to see if the side effects reduce.

Response to treatment

After 2-4 weeks you will have another blood test to check if the iron tablets are working. If they are working, your haemoglobin level should rise. If your haemoglobin level is increasing steadily and at a good speed, you can simply keep taking the tablets.

Once your haemoglobin level has come back to normal, you should keep taking the tablets for another three months. This helps to boost your body's stores of iron, to prevent you from becoming anaemic again. If you give birth before the three months are up, you only need to continue taking the tablets for another six weeks after the birth, or as guided by your doctor.

If the iron tablets aren't working, your GP will firstly check that you are taking them regularly and correctly. You may need more blood tests to rule out other causes of anaemia.

Your doctor may refer you to hospital to have intravenous iron, if:

- the tablets are not working
- you suffer from side effects which stop you from taking the tablets
- the tablets are not working quickly enough
- there is not enough time before your baby is due to improve your anaemia with iron tablets.

Intravenous (IV) iron infusion

What does 'intravenous iron infusion' mean?

An intravenous iron infusion is a fluid containing iron which is given to you through a drip into a vein. This is a quicker way to increase haemoglobin levels than iron tablets, as the iron is delivered directly into your bloodstream.

How long does an infusion take?

Infusions take about 10-15 minutes to complete. Usually only one infusion is needed.

What happens at the appointment?

You do not need to prepare for an iron infusion, so you can continue to eat normally and still take your usual medications. You will need to come to hospital for the treatment.

Your baby's heart rate will be checked and a nurse, midwife or doctor will go through your medical history, checking for any allergies or other problems.

You will then have a cannula (small plastic tube) put into a vein in your hand or arm, through which the iron infusion will be delivered. You can bring a book or magazine or something else to keep you occupied during the infusion.

When the infusion is completed you will need to stay in the building for another 30 minutes, so we can make sure you don't have a reaction to the infusion. After this time, you can go home, as long as no reaction has occurred.

You should resume taking your oral iron tablets one week later, as these will help to prevent you becoming anaemic again. Your haemoglobin level will be re-tested in 2-4 weeks' time, to check the infusion has worked.

Are there any side effects of IV iron?

Side effects of IV iron are extremely rare. The doctor, nurse or midwife will go through the information with you. If you feel unwell or have any symptoms during or after the infusion, you should tell one of the healthcare staff. If you are at home and think you are experiencing a side effect, please contact your GP.

The most common side effect is a fall in blood pressure, so we will monitor your blood pressure during the infusion. There are other less common side effects, such as a high temperature and shivering. There is also a small risk that the iron-rich fluid will leak into the nearby skin, so you must tell the nurse if you experience any discomfort during the infusion.

The most important side effect that we watch for is an allergic reaction. This is rare, but it is important that we monitor you for a reaction, which is why you must stay in the hospital for 30 minutes after the infusion. This is also why the nurse, midwife or doctor checks your medical history for any risk factors, such as previous allergic reactions.

Blood transfusions

Most pregnant women with anaemia can be successfully treated with a change in diet and iron supplementation (with tablets or intravenously). However, if your haemoglobin levels become very low, or you are experiencing severe symptoms of anaemia, you may need a blood transfusion.

Blood transfusions have some risks, particularly because the blood you receive is donated from another person. This is why we try to minimise the need for transfusion by supplementing iron with tablets or through intravenous infusion.

However, blood transfusions are the only way to quickly correct severe anaemia. This could occur after a large bleed during delivery. If you need a blood transfusion, a doctor or midwife will explain this procedure further.

Where can I find more information?

For more information, the best person to speak to is your doctor (obstetrician or GP) or midwife. There are also some useful online resources:

- <http://patient.info/health/anaemia-leaflet>
- www.nhs.uk/conditions/Anaemia-iron-deficiency-/Pages/Introduction.aspx

If you have a specific requirement, need an interpreter,
a document in Easy Read, another language, large print,
Braille or audio version, please call **01865 221 473**
or email **PALS@ouh.nhs.uk**

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