

Iron in your diet

Patient information



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Why is iron important?

Iron is needed to make haemoglobin. Haemoglobin, or 'Hb', is the substance found in red blood cells that carries oxygen around your body and gives blood its red colour. Iron is also important for building and maintaining healthy muscles and for many of the body's functions and reactions.

What can happen if I have low iron levels?

A lack of iron can cause symptoms such as restless legs, strange dietary cravings known as pica, brittle nails, hair loss, dizziness and headaches. Low iron could also make other conditions worse. If iron levels remain uncorrected, haemoglobin levels may fall. This is known as iron deficiency anaemia, and can cause paleness, severe tiredness, shortness of breath and heart palpitations, as well as those symptoms listed above.

What causes low iron levels?

Low iron levels occur when iron intake is not enough to match the body's iron requirements. This occurs for four main reasons.

- 1) Increased demand – children and pregnant or breastfeeding women have higher iron requirements to fuel growth.
- 2) Increased losses – blood loss will result in a loss of iron.
This can be the result of:
 - Heavy periods
 - Bowel disease including cancer
 - Major blood loss such as following surgery or childbirth
- 3) Reduced iron absorption – seen in bowel diseases such as coeliac disease, pernicious anaemia or following some types of gastric surgery.
- 4) Lack of iron in the diet.

Iron deficiency should always be investigated if the cause is not clear – especially in men or women after the menopause. It may be the first sign of a serious condition like bowel cancer.

Which foods are good sources of iron?

A varied and balanced diet should provide adequate iron intake. The following foods are particularly good sources of iron:

Red meat, including:

- Steak
- Beef burger
- Liver – note this is NOT recommended for pregnant women because of its high vitamin A content*

Fortified breakfast cereals

Beans and pulses, including:

- Lentils
- Chickpeas – including hummus
- Kidney beans
- Baked beans

Green vegetables, including:

- Spinach
- Broccoli

Nuts and seeds, including:

- Almonds
- Brazil nuts
- Hazelnuts
- Sesame seeds
- Sunflower seeds
- Peanut butter

Dried fruit, including,:

- Dried apricots

Tofu

*Note: More information on food to avoid during pregnancy is available at www.nhs.uk (search for: Foods to avoid in pregnancy)



What if I am vegetarian or vegan?

Although iron from sources other than meat is more difficult for the body to absorb, if you are following a well-balanced diet you should be able to get enough iron in your diet. More information on the vegetarian diet is available at www.nhs.uk (search for: The vegetarian diet).

What can I do to boost my iron levels?

Try to eat a well-balanced diet, especially if you are pregnant or if you are waiting for an operation

- Vitamin C (sometimes called ascorbic acid) may help the body to absorb iron. To get the most iron from the food you eat, have vitamin C rich foods with meals; for example, fresh vegetables or fruit, or drinks such as fresh orange juice.
- Avoid drinking tea and coffee for an hour before or after meals. Tannins in tea and coffee reduce iron absorption when consumed with a meal or shortly after.
- Steam rather than boil green vegetables. This reduces the amount of iron and other vitamins and minerals that are lost during cooking.

If you are awaiting an operation and you know you have had low iron levels in the past, tell your healthcare professional so they can arrange a blood test to check your haemoglobin and iron level.

Improving your iron levels may reduce the chance of you needing a blood transfusion.



Do I need to take iron tablets?

Most people should be able to get all the iron they need by eating a varied and balanced diet and should not need to take iron supplements. If the level of iron in your body is very low your doctor may recommend you take a tablet containing iron.

Iron tablets should only be taken if your doctor has advised you to do so. Iron tablets can sometimes cause constipation, diarrhoea, abdominal pain or nausea (feeling sick). Speak to your healthcare professional if you experience any side effects. They might advise:

- Taking the tablets with food
- Trying an alternative iron preparation
- Taking the tablets less frequently (e.g., alternate days).

Additional Information

If you are interested in finding out more about **anaemia** please ask your healthcare professional for a copy of our leaflet 'Anaemia – patient information'.

You may also find the following websites useful:

NHS:

www.nhs.uk/conditions/vitamins-and-minerals/iron/

NHS Blood and Transplant:

www.nhsbt.nhs.uk/what-we-do/blood-transfusion/

We would welcome your feedback and comments on this leaflet. You can contact us in the following ways:

By post to:

Patient Blood Management
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By email to: PBM.team@nhsbt.nhs.uk

Or by phone: **01865 381010**

This leaflet was prepared by NHS Blood and Transplant in collaboration with the National Blood Transfusion Committee. Further supplies can be obtained by accessing <https://hospital.nhsbtleaflets.co.uk>

Individual copies of this leaflet can be obtained by calling **01865 381010**.

The public can obtain the evidence sources for this leaflet by calling **01865 381010**.



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