NHS
King's College Hospital
NHS Foundation Trust

Iron Supplements (Oral and Intravenous)

Information for patients

This leaflet explains the importance of iron and why your iron level may be low and the symptoms this can cause. It describes the different ways iron can be replaced, including tablets, capsules or liquid taken by mouth and intravenous (IV) iron given through a drip. It also explains how to take or receive your treatment safely, the possible side effects to look out for, when to seek medical advice and the follow-up blood tests you may need. Your healthcare team will discuss the treatment that is most suitable for you and answer any questions or concerns you may have.

Confirming your identity

Before you have a treatment or procedure, our staff will ask you your **name** and **date of birth** and check your **ID band**. If you don't have an ID band we will also ask you to confirm your address.

If we don't ask these questions, then please ask us to check. Ensuring your safety is our primary concern.

This information leaflet is for patients receiving any oral or IV iron preparations. This can include:

- Ferrous Sulfate
- Ferrous Fumarate
- Ferrous Gluconate
- Ferric Carboxymaltose (IV iron)
- Ferric Derisomaltose (IV iron)

What is iron and why do I need it?

Iron is an essential mineral that your body needs to make haemoglobin (red blood cells). Haemoglobin is the part of red blood cells that carries oxygen from your lungs to the rest of your body. Iron also helps your muscles and cells work properly.

If your iron levels are low, your body may not be able to make enough healthy red blood cells. This is called iron deficiency anaemia. Some people have low iron stores before they become anaemic. Treating low iron can help prevent symptoms from getting worse.

What causes low iron levels?

Iron levels can fall when your iron intake is not enough to match your body's iron requirement. There are four main causes for this:

1. Increased demand – children and pregnant or breastfeeding women have a higher iron requirement to fuel growth
2. Increased losses – blood loss will result in iron loss. This can be due to:
   a. Heavy periods (menorrhagia)
   b. Bowel disease, for example bowel cancer
   c. Major blood loss such as after surgery

3. Reduced iron absorption – such as in some bowel diseases such as coeliac disease, chronic gastritis or after gastric surgery.
4. A lack of iron in your diet.

Low iron is common and treatable, but the cause should be investigated if it is not clear. Your healthcare provider should arrange any further tests or referrals needed, such as to your GP, gynaecology (women's health) or gastroenterology (gut health).

During pregnancy, it is common for your iron levels to drop, especially in the third trimester. Iron deficiency anaemia is the most common form of anaemia during pregnancy. If left untreated, you can feel tired, short of breath, dizzy and you can experience heart palpitations. It can also increase the risk of having a greater blood loss during childbirth and requiring a blood transfusion following birth as well as delayed healing, higher infection rates and an increased risk of postnatal depression.

What are the possible symptoms of low iron?

Low iron can affect people differently. You may have symptoms even if your haemoglobin level is normal, or you may have very few symptoms despite low iron stores or red blood cell levels.

Common symptoms of low iron or iron deficiency anaemia include:

- Tiredness, low energy or weakness
- Shortness of breath or reduced exercise tolerance
- Dizziness, light-headedness or headaches
- Palpitations, which may feel like a racing or noticeable heartbeat
- Paler skin than usual
- Hair shedding, brittle nails, mouth ulcers or a sore tongue
- Craving non-food items such as ice, paper or clay.

What are the benefits of iron treatment?

Iron treatment aims to refill your iron stores and, where needed, improve your haemoglobin level. Benefits can include feeling less tired, having more energy, improved concentration, feeling less breathless on exertion and reducing the need for a blood transfusion in some situations.

Your symptoms may improve before your blood results have fully returned to normal. It is important to continue treatment for as long as your healthcare professional advises, as your body needs time to rebuild its iron stores and in some cases haemoglobin.

How will I have my iron treatment?

Iron treatment may be given as tablets, capsules or liquid that you swallow, or as iron given directly into a vein through a drip (intravenous). Your healthcare professional will discuss which option is most suitable for you.

Before starting oral or IV iron supplements

Before starting oral or IV iron, your healthcare professional will review your symptoms and blood test results. These may include your full blood count, ferritin level and iron studies. It is important that these investigations are completed before iron is prescribed, as it may not be safe or appropriate to give iron without this information.

Please tell your healthcare provider if:

- you are pregnant, planning a pregnancy, or breastfeeding. IV iron can be given during pregnancy if needed, but it is usually only given after the first trimester.
- you have ever had an allergic reaction to oral iron, IV iron, injections, infusions or any medicines.
- you feel unwell, have a current infection, fever, or are taking

antibiotics, as treatment may need to be reviewed.
- you have liver disease, kidney disease, asthma, inflammatory conditions, swallowing difficulties, or if you take regular medicines, antacids, calcium tablets or supplements.

Oral iron treatment?

Oral iron means iron that you swallow as a tablet, capsule or liquid. It is usually the first treatment offered for iron deficiency because it is effective for many people and can be taken at home.

Common oral iron preparations include ferrous sulphate, ferrous fumarate, ferrous gluconate and liquid preparations. Your prescriber will advise which preparation and dose is best for you.

How to take oral iron:

- Take your iron as prescribed. Some patients experience fewer side effects when iron is taken on alternate days. This can be discussed with your health care professional.
- Continue taking oral iron until your healthcare professional tells you to stop, even if your symptoms have improved. You may need to continue oral iron for up to three months after your blood results improve so your body can rebuild your iron stores. You will be advised on the duration of your course.
- Iron is often absorbed best on an empty stomach, but you can take it with or soon after food if it upsets your stomach.
- Taking oral iron with a source of vitamin C, such as a small glass of orange juice or a vitamin C drink, may help your body absorb the iron better. If you have been advised to avoid vitamin C or citrus drinks for another medical reason, follow the advice from your healthcare professional.
- Tea, coffee, milk, calcium supplements, antacids and some medicines can reduce iron absorption. Ask your pharmacist or clinician if you are unsure how to space your medicines.

- Keep iron tablets and liquid iron out of the reach and sight of children. Iron overdose can be dangerous, especially in young children.

Common side effects:

- Constipation, diarrhoea, tummy pain, heartburn, feeling sick and darker stools.
- These side effects often improve on their own or with dose reduction such as iron tablets on alternate days. If you are finding the side effects difficult to manage, speak to your GP, pharmacist or hospital team before stopping treatment – having side effects does not automatically mean you are allergic to oral iron. If you are concerned, please discuss this with your healthcare professional.
- Oral iron – particularly liquid preparations can cause teeth staining. Using a straw to take your liquid iron, gently rinsing your mouth with water and brushing your teeth with a soft toothbrush and fluoride toothpaste can help to prevent and improve this.

Intravenous (IV) iron treatment

IV iron means iron given directly into a vein through a small tube called a cannula, usually placed in your hand or arm. It may be recommended if oral iron has not worked, cannot be taken, causes troublesome side effects, or if your iron level needs to improve more quickly. Your suitability for IV iron should be discussed with you prior to your infusion.

What happens during IV iron treatment

- A nurse or clinician will check your details and explain the treatment.
- A cannula will be inserted into your vein, and the iron will be given through a drip.
- The infusion time and number of appointments vary depending

on the type and dose of iron used. You will be observed during and after the infusion to keep you safe and will be discharged on the same day if you receive IV iron as an outpatient.

- Tell staff straight away if you feel unwell, develop pain, burning, swelling or leaking around the cannula site, or notice any change in your skin colour near the cannula.

Possible IV iron side effects and risks include:

Type of reaction or risk	What this means
Fish bane reaction	This is a short-lived infusion reaction that can cause flushing, warmth, chest or back tightness, muscle aches or feeling anxious. It is usually mild, settles quickly when the infusion is paused and is not the same as an allergy.
Allergic or allergic type reactions	Allergic reactions to IV iron are rare. Staff will monitor you during and after the infusion. Tell staff immediately if you feel faint, wheezy, breathless, develop chest tightness, swelling of the lips or tongue, itching, hives or a widespread rash.
Iron staining	Rarely, iron can leak from the vein into the surrounding skin. This can cause brown or grey staining, which may be long lasting or permanent. Tell staff straight away if you notice pain, burning, swelling, leaking or a change in skin colour around the cannula site.
Common short-term symptoms	Some people may have headache, nausea, flushing, dizziness, muscle or joint aches, mild fever or temporary changes in blood pressure. These are usually mild and improve without lasting problems.
Low phosphate	IV iron medicines can sometimes lower phosphate levels. Report new or worsening bone pain, muscle weakness or severe tiredness after treatment, especially if symptoms continue. You may need to receive treatment to correct this.

Can I take oral iron and IV iron together?

If you are taking oral iron at the time of your infusion, you should stop oral iron 24 hours before your infusion and for five days after. Your healthcare professional will discuss this with you. It is safe to restart oral iron after five days if advised to. This should be discussed with your health care provider.

Please inform the team administering your IV iron if you are taking oral iron.

When and where should I seek advice?

Oral Iron

Contact your healthcare team, GP or pharmacist if you are struggling with side effects, if you are unsure of how to take your oral iron, or if your symptoms are not improving.

IV iron

After your IV iron, seek urgent medical attention if you experience signs of a severe allergic reaction, including difficulty breathing, swelling of the lips, tongue or throat, severe dizziness, chest tightness, collapse, or a widespread rash. You should contact the department where your iron infusion was given for advice, speak to your GP, or attend your nearest Accident and Emergency Department, depending on the severity of your symptoms.
If symptoms are severe or develop suddenly, call 999 immediately.

Follow-up after iron treatment

Your healthcare team may arrange repeat blood tests to check your haemoglobin and iron stores after treatment. It is important to attend any follow-up appointments and blood tests so your response to treatment can be reviewed safely, and your ongoing plan can be discussed.

If your symptoms do not improve, return after treatment, or you develop new symptoms, please contact your GP or hospital team for advice. Further information and resources can be found on the NHS website or by speaking with your healthcare professional.

Your IV iron treatment details

Type of IV iron given	
Dose given	
Date given	

Contact information

Department / team	
Contact number	

Next appointment

Date and times	
Location / clinic	
Blood tests needed before appointment?	Yes / No Details:

Further information and resources surrounding iron deficiency and iron supplementation can be found on the NHS website:

Iron – vitamins and minerals
https://www.nhs.uk/conditions/vitamins-and-minerals/iron/

Iron in your diet – patient information
https://hospital.blood.co.uk/patient-services/patient-blood-management/patient-information-leaflets/iron-in-your-diet/

Consent

We must by law obtain your written consent to any operation and some other procedures beforehand. Staff will explain the risks, benefits and alternatives before they ask you to sign a consent form. If you are unsure about any aspect of the treatment proposed, please do not hesitate to speak with a senior member of staff again.

MyChart

Our MyChart app and website lets you securely access parts of your health record with us, giving you more control over your care. To sign up or for help, call us on **020 3299 4618** or email **kings.mychart@nhs.net**. To find out more visit **www.kch.nhs.uk/mychart**

Sharing your information

King's College Hospital NHS Foundation Trust has partnered with Guy's and St Thomas' NHS Foundation Trust through the King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at Guy's or St Thomas' hospitals. King's College Hospital and Guy's and St Thomas' NHS Foundation Trusts share an electronic patient record system, which means information about your health record can be accessed safely and securely by health and care staff at both Trusts. For more information visit **www.kch.nhs.uk**.

Care provided by students

We provide clinical training where our students get practical experience by treating patients. Please tell your doctor or nurse if you do not want students to be involved in your care. Your treatment will not be affected by your decision.

PALS

The Patient Advice and Liaison Service (PALS) is a service that offers support, information and assistance to patients, relatives and visitors. They can also provide help and advice if you have a concern or complaint that staff have not been able to resolve for you. They can also pass on praise or thanks to our teams.

Tel: **020 3299 4618**
Email: **kings.pals@nhs.net**

If you would like the information in this leaflet in a different language or format, please contact our Interpreting and Accessible Communication Support on 020 3299 4618 or email kings.access@nhs.net

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