

What is iron and why is iron important?

Our bodies need iron.

Iron is used to make haemoglobin – the part of our red blood cells that gives our blood its red colour and carries oxygen around our body in our blood stream. Iron is also important for muscle strength, energy and good mental function.

Iron Deficiency or Iron Deficiency Anaemia?

Iron Deficiency is when your iron levels are low (low ferritin level on blood result) you may feel tired and lack energy to do normal daily activities.

Iron Deficiency Anaemia is when the low ferritin level is seen **with** a lower-than-normal haemoglobin level (oxygen-carrying part of our red blood cells). With iron-deficiency anaemia you may also feel fatigued and short of breath doing activities.

Treatment for iron deficiency and iron deficiency anaemia.

The treatment of low body iron levels will depend on the cause, how severe it is and how quickly it needs to be corrected. Most commonly, doctors treat iron deficiency with iron (*by mouth*) orally either in tablet or liquid form. This is usually tried first and works well for most people. If oral iron has not helped or is not suitable, you may be suitable for an iron infusion *given straight into the body's blood stream via a needle ('drip') into a vein. This is called an iron infusion.*

An iron infusion (IV) might be needed if you:

- Are not able to take iron tablets / liquid.
- Iron tablets / liquid is not being absorbed or improving your iron levels.
- Need to get your iron levels up quickly (e.g., before major surgery, late in pregnancy or to avoid blood transfusion)
- If you have chronic kidney disease or chronic heart failure.

Sometimes 2 iron infusions (given at least 1 week apart) are needed to fully top up iron stores. *The infusion is made up of iron, not blood.* There are no blood products in an iron infusion.

At Andrew Place Clinic

When your blood tests show you have iron deficiency, *an* iron infusion using **Ferinject®** (Ferric Carboxymaltose) may be offered to adults, which is given by a nurse or doctor (not necessarily your usual treating doctor) in our medical clinic at Mill Park.

We aim to provide the best quality medical care. This level of service will incur a gap or out-of-pocket payment. This payment is the difference between our fee and the Medicare Rebate. Deposit payment is required at time of booking. Please speak to our reception staff re current cost. *Some other iron infusion products you may hear of include Ferric Derisomaltose (Monofer®), Iron Polymaltose (Ferrosig®), and Iron Sucrose (Venofer®).*

Part of your CONSENT for Iron Infusion

You must tell your doctor and the nurses performing the infusion if you:

- 1 Are pregnant/trying to get pregnant. IV iron should be avoided in the first 12 weeks.
- 2 Have a history of asthma, eczema or other allergies.
- 3 Have had a reaction to any type of iron injection or infusion in the past.
- 4 Have a history of high iron levels (haemochromatosis) or liver problems.
- 5 Have a current infection.

Your doctor will discuss the following:

Why you are being offered/need an IV iron infusion?

- 6 What are the other options?
- 7 The risk/s and benefits of having and Not having IV iron in your case.
Uncommon but important side effects like allergic reactions and skin staining (can be permanent).

You may want to ask your doctor about the following:

- 8 How many infusions will I need to get enough iron?
- 9 A plan for any oral iron tablets/ liquids (when to stop or to use them again)
- 10 How long will it take for my iron levels to improve?
- 11 Any questions about side effects or risks that may worry you.
- 12 The plans for any follow-up blood tests, treatment or investigations.

Are there any side effects with IV iron?

There are risks and potential complications with this procedure. If specific risks to a person's individual condition and circumstances exist, they will be discussed and added to the consent form. Generally, when side effects do occur, they are mild and settle down on their own.

The most common side effects are **temporary** and include:

- 13 Headache, feeling sick or vomiting, muscle and/or joint pain.
- 14 Changes to blood pressure or pulse and or dizziness
- 15 Facial flushing
- 16 Irritation at injection site

Less common (may also be delayed) reactions, side effects, risk and complications include:

- Vomiting, flatulence, abdominal pain, constipation or diarrhoea
- Low blood pressure, fast heartbeat, dizziness / difficulty breathing
- Skin changes (tingling sensation on arm, leg or foot skin, itchy skin, skin rash with red itchy bumps, reddened skin rash)
- Muscle spasms, sore muscles, joint or back pain
- Fever, fatigue, chills

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- Pain including chest pain
- Fluid 'build up' in the lower legs
- Temporary taste change (metallic)
- Some blood levels may change temporarily (e.g., lowered blood phosphate levels (called Hypophosphataemia, this can cause muscle weakness, respiratory failure, heart failure and in rare circumstances bone softening, fractures, seizures and/or coma. You may require oral medication to raise your blood phosphate level).
- Skin staining** (brown discolouration) may occur due to leakage of iron into the tissues around the needle (drip) site. **This is not common, but the stain can be long lasting or permanent** (see *image*). Inform the doctor or nurse straight away of any discomfort, burning, redness or swelling at the needle (d

Image: Iron staining.

Source: Canning, M & Grannell, L. 2020, 'A Stain on iron therapy,' Australian Prescriber, vol. 43, no. 5, pp.160-3, viewed 17/01/2023.

Rare risks and complications

- Serious allergic reaction (Anaphylaxis) – Although very rare it usually occurs in the first few minutes of the iron infusion and can be life threatening. It is characterised by breathing difficulties. You will be closely monitored during the iron infusion and for at least 30 minutes after.
- A rapid heartbeat (tachycardia) and low blood pressure

Preparation, and the day of the infusion

- ✓ Buy the iron from a pharmacy before arriving at for the infusion. The doctor usually writes a prescription during the appointment when you give consent.
- ✓ **Contact your doctor at the clinic before the day of your infusion if you:**
 - Feel unwell or have *an infection*.
 - If there is a chance you are pregnant.
- ✓ Ensure you are well hydrated. Eat and drink at least 8 glasses of fluids the day before.
- ✓ You do not need to fast. Have your regular breakfast/lunch and at least 2 glasses of fluids.
- ✓ keep your arms/hands warm before your appointment so that insertion of the 'drip' in the vein may be easier. Note: If a suitable vein is not found the infusion may be rescheduled.
- ✓ Take all your regular medications, however, please stop taking any iron (in tablet or liquid form) at least 7 days before your infusion.
- ✓ Adults may drive home afterwards and do usual activities.

- ✓ Breast feeding mothers may safely breastfeed. Very little iron crosses into breast milk.

During the treatment

- **Tell your nurse IMMEDIATELY during the iron infusion starts if you:**
 - ⊗ Experience any discomfort, pain or stinging at the 'drip' site.
 - ⊗ Experience any side effects.

Please allow 90 minutes for your appointment.

Includes treatment, medical review, education and monitoring *for at least 30 minutes after the iron infusion.*

You are welcome to bring music to listen to or a magazine to look at whilst you are here.

Our nurse will record your vital signs regularly and confirmation of the doctor's plan for any follow-up blood tests or about any oral iron (if relevant)

After the Treatment

Sometimes side effects (e.g., headache, muscle or joint pain) can start 1 to 2 days later. Mostly they will settle down by themselves over a few days. If they worry you or interfere with your daily activities, please call the nurse at Andrew Place Clinic for advice and so to record it in your file.

If you have chest pain, trouble breathing, dizziness, or mouth swelling, please seek urgent medical attention by calling an ambulance (000).

If oral iron therapy is recommended after the infusion, it should be at least 5 days POST your IV iron infusion as the iron within the tablets/liquids will not be absorbed. If you are having more than one iron infusion, then do not restart supplements until 5 days after the 2nd infusion.

The iron will take a few weeks to have its full effect.

For More information on iron infusions refer to:

- SA Health (Govt of South Australia) 2016. [Patient information brochure for Intravenous iron infusion \(English\)](https://www.health.vic.gov.au/publications/patient-information-brochure-for-intravenous-iron-infusion-sa)
<https://www.health.vic.gov.au/publications/patient-information-brochure-for-intravenous-iron-infusion-sa> website viewed Jan 2023.
- Consumer Medicine Information page for Ferinject®: website viewed Jan 2023
<https://www.ebs.tga.gov.au/ebs/picmi/picmirepository.nsf/PICMI?OpenForm&t=cmi&q=Ferinject>
- Better Health Channel 2021.(Vic Government) website viewed Jan 2023:
<https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/iron>
- Therapeutic Goods Administration (TGA) e Business Services.
website: www.tga.gov.au/sites/default/files/auspar-ferric-carboxymaltose-191001.pdf