Intravenous (IV) Iron Infusions

Why iron given by a drip into a vein is sometimes needed…

This leaflet answers some common questions about IV iron infusions. It does not contain all available information and does not take the place of talking to your doctor or midwife about why IV iron has been recommended in your particular case.

What is an IV iron infusion?

"Intravenous" or "IV" means giving something directly into the blood stream of the body through a vein. A needle placed into a vein (usually in the back of the hand or arm) is attached to a drip that contains iron mixed with saline (a sterile salt water solution). This fluid is slowly "dripped" (infused) into the vein and mixes with the blood in your body.

Why is iron important?

Iron is essential for the body to make haemoglobin (Hb), a pigment that makes red blood cells red. When the amount of iron in the body gets too low, the haemoglobin level falls below normal. This is known as "iron deficiency anaemia".

Haemoglobin is very important as it carries oxygen from the lungs to the rest of the body. If your haemoglobin or iron levels are low this may make you feel tired and not able to carry out your normal routine.

Why might I need IV iron?

The most common way to treat iron deficiency anaemia is to take iron by mouth as a tablet or liquid. This works well for most people and is usually tried first.

IV iron might be needed if you are:

- Unable to tolerate iron taken by mouth
- Unable to absorb iron through the gut
- Unable to absorb enough iron due to the amount of blood the body is losing
- In need of a rapid increase in iron levels to help avoid important complications or a blood transfusion (such as, before or after major surgery, significant anaemia late in pregnancy or after delivery)
- Not responding to iron tablets (such as due to chronic health problems)
- Have chronic kidney or heart failure

Risks & benefits of IV iron

Your doctor or midwife will explain the risks, benefits & available alternatives to IV iron in your particular case. 33% of pregnant women experience symptoms during rapid iron polymaltose infusions. For most patients these symptoms will resolve completely with early cessation of the infusion however, in rare cases they can be life threatening. IV iron is prescribed for iron deficiency anaemia when oral iron is not tolerated, effective or likely to work quickly enough & the benefits of IV iron outweigh the risks in your particular case. If there is a chance you could be pregnant, inform your doctor or midwife, as IV iron should be avoided in the first trimester in pregnancy.

Alternatives to IV iron

> **ORAL IRON:** If you are able to tolerate and absorb iron taken by mouth this is the first option that should be tried (unless a more rapid increase in your Hb level is needed). If you get stomach (tummy) upset with iron tablets, a lower dose of iron as syrup can be tried and increased slowly as tolerated or iron tablets can be taken 2 or 3 times a week instead of daily– discuss this with your doctor or midwife as it is important that the right amount of iron is given. Many iron tablets claim to be gentle on the stomach but don't have enough iron in them to treat anaemia.

> **IM IRON**: Injection of iron into muscle (IM) is not recommended as it is painful & can cause permanent skin scarring & discolouration.

> **BLOOD TRANSFUSION**: Transfusion can be life saving when severe anaemia or bleeding is present. It carries greater risks than IV iron & should be avoided unless an immediate increase in Hb level is needed (when benefits outweigh risks).

> **DIET**: Once a person has already become low in iron and anaemic it is difficult to get enough iron back into the body even with a diet that is high in iron.

Before you have IV iron

Tell your doctor or midwife if you:

- Are pregnant or trying to get pregnant
- Have a history of asthma, eczema or other allergies
- Have had a reaction to any type of iron injection or infusion in the past
- Have a history of high iron levels, haemochromatosis or liver problems
- Are on any medications (including over the counter or herbal supplements)

How much iron is needed?

Your doctor or midwife will calculate how much iron is needed to return Hb levels to normal & also to have some iron stored in reserve for the future. When all the iron needed by the body is given in a single infusion (one treatment) this is called a "total dose" infusion.

Sometimes a "total dose" is needed but in other cases just giving smaller amounts of IV iron can help increase Hb levels enough to improve symptoms and help avoid a blood transfusion. The rest of the iron can then be given back to the body slowly over the coming months with iron tablets.

The iron will take a few weeks to have its full effect and your doctor or midwife will check your Hb level to see how you are responding.

Types of IV iron

- **Iron polymaltose (Ferrosig or Ferrum H)** can be given in a single large dose ('total dose' infusion) or less over a number of hours. *(preferred product)*
- **Iron sucrose (Venofer)** cannot be given in a large dose but may be given as a series of small doses taking about ½ an hour and repeated over a period of days or weeks.
- **Iron carboxymaltose (Ferinject)** can be given as medium dose over about 15 minutes. It may need repeating on another occasion. *(Not currently available)*

Side effects of IV iron

Patients receiving iron infusions can experience side effects including:

- Temporary changes in taste (eg metallic)
- Headache, feeling sick or vomiting
- Muscle and joint pain
- Shortness of breath
- Itchiness, rash
- Changes to blood pressure or pulse
- Burning and swelling at injection site
- Severe side effects are rare. You will be closely monitored for any signs of these side effects by nursing staff.

Day of the iron infusion

- Have your breakfast/lunch. You do not need to fast for an iron infusion.
- Take all of your regular medications
- You can drive home after the infusion and resume usual activities (unless there is an unexpected reaction)
- The iron will be given through a small IV drip which will be put in your arm
- If you experience any side effects, inform your nurse immediately

After the iron infusion

Sometimes side effects can start 1 to 2 days after the infusion and include headache, mild fever, joint and muscle aches. These generally settle down by themselves over the next few days. They are more common with 'total dose' infusions of iron polymaltose. If they are worrying you or interfere with your daily activities contact your doctor or midwife or infusion centre for advice. **If you have chest pain, difficulty breathing, dizziness or neck/mouth swelling SEEK URGENT MEDICAL ATTENTION / CALL AN AMBULANCE (111).**

Iron tablets should be stopped for a week after an iron infusion *because the iron in them will not be absorbed by the body. If you are having more than one iron infusion then stop the iron tablets during the course of treatment as well. They are often not needed after IV iron infusions (especially after a 'total dose' is given): Check with your midwife or doctor if & when iron tablets are needed*

Hospital contact details:

Appointment date: **Time:** **Location:**

Blood test date(s):

For more information: **Talk to your doctor or midwife**

静脉铁剂输注

为什么要采用静脉输注的方式补铁. . . . . .
这份宣传单回答了有关静脉铁剂输注的一些常见问题，因此传单并未涵盖全部有关资讯，所以不应用来取代咨询医生或助产士关于推荐静脉铁剂的基础。

什么是静脉铁剂输注？

“静脉输注”或简称“IV”是指通过静脉直接向血管输送某些物质。一根针管会被插入静脉（一般是手背或手臂），而针管的另一端与一根输注管相连，用来输注铁与生理盐水（即经过消毒的盐水溶液）的混合液。这一液体会被慢慢地“滴入”（注入）静脉，并于体内的血液混合在一起。

为什铁很重要？

铁是人体的重要元素，可生成血红蛋白（简称：Hb），而血红蛋白是一种可以使血细胞变红的色素。在人体缺铁时，血红蛋白的水平就会低于正常值。这通常被称作“缺铁性贫血”。

血红蛋白对于身体至关重要，因为它承担从肺部携氧至全身各处的任务。如果您的血红蛋白或铁水平过低，您会感到倦怠乏力，无法正常生活。

为什么需要静脉铁剂？

治疗缺铁性贫血的最常用方法是服用补铁药片或口服液。这一方法对于大多数的人都会有效，因而也是通常最先采用的补铁方法。

有可能需要采用静脉铁剂，如果您：

- 无法耐受口服铁；
- 无法通过肠胃吸收铁；
- 由于身体正在流失的血量，而无法吸收足够的铁；
- 需要快速提高体内铁值，以避免严重的并发症或输血（例如，大手术之前或之后，妊娠后期或生产之后）；
- 对补铁药片不产生任何反应（例如，由于慢性身体疾病）；
- 患有慢性肾脏或心脏衰竭。

静脉铁剂的利弊

您的医生或助产士会给您解释采用静脉补铁的利弊及其他替代性做法。33%的怀孕女性会对快速的多聚麦芽铁糖注射产生反应。对大多数病人来说，这些反应会在注射停止的初期消退。然而在罕有的情况下，有可能威胁到人的性命。静脉铁剂一般是在身体无法耐受口服铁剂、或口服铁剂不是十分有效、或无法快速起效，或者根据您的个人情况，采用静脉铁剂的利会大于弊。如果您可能怀有身孕，请告知您的医生或助产士，因为在妊娠的第一个周期应避免使用静脉铁剂。

静脉铁剂的替代方法

- 口服铁剂：如果您的身体可以耐受并吸收口服铁，这应该是首选的方法（除非需要快速提高体内的血红蛋白水平）。如果您在服用铁剂后出现腹部不适的情况，可考虑服用含铁量较低的糖浆，然后在身体适应后，逐渐增加剂量，或者改每天服用补药铁药片为每周两次至三次服用。您需要和医生或助产士商量，因为服用理想剂量的铁至关重要。市面上有许多种补铁药片声称不伤胃，主要是因为其产品里的铁含量很低， 因而也无法起到治疗贫血的作用。
- 肌注铁剂：一般不提倡肌肉注射铁剂（简称：IM/肌注），因为肌注很痛，并可以造成永久性的皮肤结疤或脱色。
- 输血：在出现严重贫血或失血时，输血可以救命。但同静脉铁剂相比，它承载着更大的风险，因此应该尽量避免，除非需要快速提高体内的血红蛋白水平（在利大于弊时）。
- 饮食调节：一旦一个人体内缺铁，并出现贫血时，仅通过含铁丰富的膳食来提高内铁水平是十分困难的。

摘自 “Intravenous Iron Infusions”,Blood Safe Australia

在接受静脉铁剂之前

告诉您的医生或者助产士，如果您：

- 怀有身孕或准备怀孕
- 有哮喘、湿疹或其他过敏史
- 曾经对任何种类的铁剂注射或输注产生过不良反应
- 有铁水平过高、遗传性血色病或肝病史
- 正在服用任何药物（包括非处方药或中草药）

需要多少铁？

您的医生或助产士可以计算出您需要服用多少铁，才可以将您的血红蛋白水平提升到正常值，并为未来储备足够的铁。如果一次给够身体所需的全部铁（一次性治疗），这种方法被称作“总剂量”输注。

有时需要采用“总剂量”输注，但是在其他情况下，小剂量静脉铁剂就可以帮助提升血红蛋白的水平，以达到改善症状及避免输血的目的。剩余的所需铁量可在几个月的时间内通过口服补铁药片慢慢补充。

补铁效果将需要几周时间方可体全部体现出来，您的医生或助产士将会检查您的血红蛋白水平，看补铁药片是否有效提升了血红蛋白的水平。

静脉铁剂的种类

- **多聚麦芽糖铁剂（普通药名：Ferrosig 或 Ferrum H）**可以一次性大剂量给药（即“总剂量”输注）或跨若干个小时以较小剂量给药。（首选的种类）
- **蔗糖铁剂（普通药名：Venofer）**不可以一次性大剂量给药，但可以以一系列小剂量每次持续半个小时的方式给药，并且可以在几天或几周期间重复给药。
- **羧基麦芽糖铁剂（普通药名：Ferinject）**可以跨 15 分钟以中等剂量给药。有些情况下，可能需要重复给药一次。（目前不提供）

静脉铁剂的副作用

接受铁剂输注的患者可能经历副作用，包括：

- 味觉暂时性改变（例如，金属味）；
- 头痛、恶心或呕吐；
- 肌肉关节酸痛；
- 气短；
- 皮痒、皮疹；
- 血压或脉搏发生改变；
- 注射点烧灼感与红肿；
- 严重的副作用较为少见。护士将会密切观 察上述副作用出现的任何迹象。

铁剂输注当天

- 吃早餐/午餐。铁剂输注不需禁食。
- 可正常服用其他药物。
- 输注后可自驾车回家，并恢复正常活动（除非出现始料未及的不良反应）。
- 铁剂将通过插入手臂的静脉输注小管输注。
- 如果您出现任何副作用，请立即告知护士。

铁剂输注之后

有时，副作用可在输注后的一至两天后出现，症状包括头痛、低烧、肌肉与关节酸痛。这些副作用通常可在几天之内自行消除。输注“总剂量”的多聚麦芽糖铁剂通常会引发这些副作用。如果这些症状令您担忧，或已经影响到您的日常生活，请联系咨询您的医生，助产士或输注中心。**如果您出现胸痛、 呼吸困难、眩晕或脖颈/口唇肿胀时，请寻求紧急医疗救助/叫救护车（拨打紧 急 电 话 ： 111 ） 。**

铁剂输注后一周之内应停止口服补铁药片，因为补铁药片中的铁将无法被身体吸收。如果您需要接受超过一次以上的铁剂输注，那么您在治疗的过程中应停止口服补铁药片。通常，在接受静脉铁剂输注后，您无需口服补铁药片（特别是在接受“总剂量”后）：询问助产士或医生是否/何时可以开始服用补铁药片。

医院的联系方式：

预约日期： **时间：** **地点：**

血检日期：

如需详情：

联系您的医生或助产士

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