

Iron Deficiency Anemia

Information for patients and families

Read this brochure to learn:

- About Iron Deficiency Anemia
- Oral Iron Supplementation
- Intravenous Iron

What is iron deficiency?

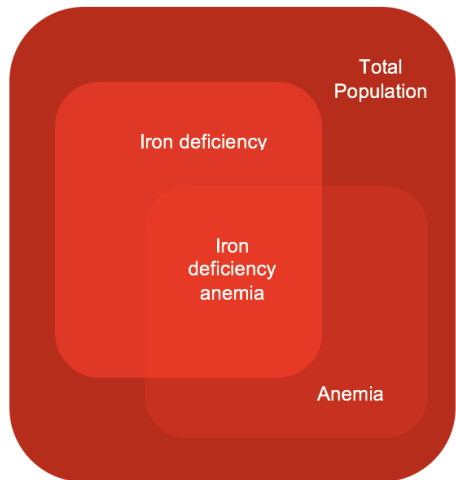
Iron deficiency means you have low levels of iron in your blood.

Iron is a mineral that your body absorbs from the food you eat. When your body does not get enough iron or loses too much iron (through blood loss), you develop iron deficiency. This is a common problem.

Iron is important for all the cells in your body. Over time, iron deficiency can lead to anemia (low red blood cells).

What is iron deficiency anemia?

Iron deficiency anemia happens when iron stored in the blood is so low that the body cannot maintain normal levels of red blood cells.



Source: Adapted from Yip R. Iron nutritional status defined. In: Filer IJ, ed. Dietary Iron: birth to two years. New York, Raven Press, 1989:19-36.

Symptoms of iron deficiency	Symptoms of iron deficiency anemia
<ul style="list-style-type: none">• Fatigue• Being pale• Brittle/grooved nails• Dizziness• Weakness• Hair loss• Twitches• Feeling irritated easily• Restless leg syndrome• Pica – uncontrollable urge to eat things that are not food such as dirt, soap, ice	<ul style="list-style-type: none">• Dizziness• Weakness• Shortness of breath when exercising• Chest pressure when exercising• Fainting

How do I know if I have iron deficiency?

Your doctor will order blood tests for:

- Hemoglobin: the protein in your red blood cells that contains iron and carries oxygen
- Ferritin: a measure of stored iron
- Reticulocyte: immature red blood cells

How can iron deficiency or iron deficiency anemia be treated?

How it is treated depends on how severe it is.

**Less
Severe**

Increase your iron intake through food

Take oral iron supplements

Get intravenous iron replacement

Have a blood transfusion

**More
severe**

The goal is to treat it before a blood transfusion is necessary.

Iron in foods

There are two types of iron found in foods, heme and non-heme.

Heme sources of iron are absorbed more easily by your body. However, iron from non-heme sources are also very important to maintain iron stores. Eat foods with both types of iron.

Foods with heme iron	Foods with non-heme iron
<ul style="list-style-type: none">• Liver• Beef• Chicken• Pork• Oysters• Mussels• Shrimp• Fish	<ul style="list-style-type: none">• Pumpkin seeds• Tofu• Spinach• Lentils• Eggs• Quinoa• Chickpeas• Soybeans• Nuts

Oral iron supplementation

There are many types of iron therapy that can be taken orally (by mouth).

Each type has different amounts of iron in it.

Oral iron supplements can cause side effects, such as nausea, stomach upset and constipation.

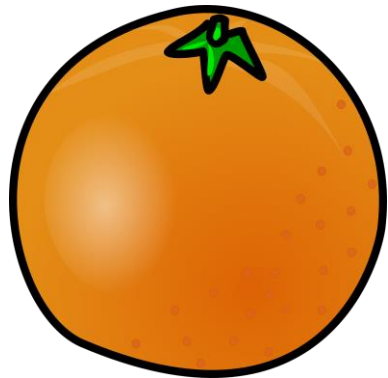
Please take your iron as recommended by your doctor. This will decrease your chances of having side effects. It will also help you get the most benefits.

How do I take oral iron?

Pay attention to how and when you take your iron pills. This is important to help your body absorb the iron well.

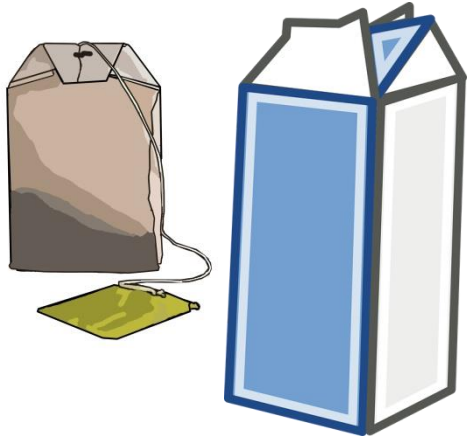
Iron needs acidity to be absorbed well. Take iron with an acidic drink such as:

- Orange juice
- Lemon with water



Do not take your iron within 2 hours of:

- Milk
- Tea or coffee (black)
- Calcium pills
- Antacids (such as TUMS)
- Proton pump inhibitors (such as Pantoprazole)
- H₂ receptor blockers (such as Ranitidine)



What are the side effects of oral iron?

- Upset stomach
- Bloating
- Diarrhea
- Nausea
- Constipation
- Dark stools

What can help with constipation?

Constipation is common when you are taking oral iron supplements. There are many ways to prevent constipation. Start by increasing dietary fibre and drinking lots of fluids.

You can also consider these over-the-counter medicines. They can improve your symptoms.

- Docusate sodium (Colace ®)
- Polyethylene glycol 3350 (Lax-A-Day ®, Peg 3350 ®)

Types of oral iron

Different oral iron supplements contain different amounts of iron per pill. You should take the pill that your doctor has prescribed to you.

Oral Iron Supplement	Trade Name Examples	Elemental Iron/pill
Polysaccharide-iron complex	Feramax ®, Triferrex ®, Polyride Fe ®	150 mg
Ferrous fumarate	Palafer ®	100 mg
Ferrous sulfate	Fer-in-Sol ®, Feosol ®, Fer Iron ®	60 mg
Ferrous gluconate	Fergon ®	35 mg
Heme iron polypeptide	Proferrin-ES ®, OptiFer®Alpha	11 mg

Intravenous (IV) Iron

Intravenous (IV) iron is a way of getting iron directly into your blood. An IV bag will slowly drip iron down a tube, into a vein in your body.

The procedure takes place in the Medical Day Care Unit and may take up to several hours.

How many doses will I need?

You may need several doses, which are given about 1 week apart. This will depend on how severe your anemia is.

How long will it take?

This depends on the type of iron you are getting:

- Iron sucrose (Venofer®) (DIN: 02243716)
 - Given in the vein over 2 to 3 hours
- Sodium ferric gluconate (Ferrlecit®) (DIN: 02243333)
 - Given in the vein over 1 hour

Do I need to pay for IV iron?

You will have to pay for your IV iron. If you have private insurance, Venofer® and Ferrlecit® may be on the list of covered medications.

If you qualify for coverage by the Ontario Drug Benefit (OBD) Plan Program (65+ years old, or with Ontario Works, Trillium or ODSP), intravenous iron should be covered.

OBD may cover some of the costs of IV iron if you meet the criteria below:

- Your anemia did not get better with oral iron
- You could not tolerate oral iron

What side effects are possible with intravenous iron?

Mild side effects:

- Low grade fever
- Ache/pain in bones
- Passing dark urine
- Skin problems, including rash
- Nausea and stomach cramps

Severe side effects:

- Bloating or swelling of the face, arms, hands, lower legs or feet
- Chest pain, trouble breathing
- Low blood pressure
- Dizziness or fainting
- Anaphylaxis (life threatening allergic reaction)
- this rarely happens

After you get IV iron, the health team will watch you for 30 minutes. They will make sure you do not have a reaction or a drop in your blood pressure.

What if I have serious side effects when I get home?

- Please go to the emergency department or call 911
- Then let your doctor know what happened

How soon will I get better?

Most patients notice an improvement in their symptoms 4 to 6 weeks after iron replacement has started.

Resources

For more information on nutritional sources of iron:

<http://www.dietitians.ca/Downloads/Factsheets/Food-Sources-of-Iron.aspx>

This information is not intended as a substitute for professional medical care. Ask your healthcare provider about this information if you have questions.