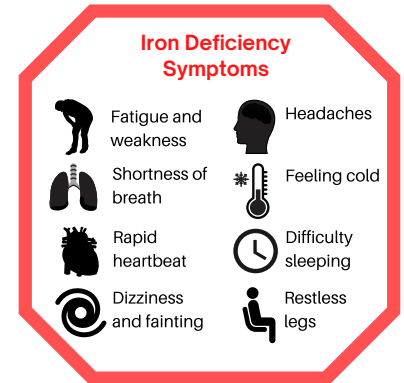


# YOU HAVE IRON DEFICIENCY (AND YOU'RE HAVING SURGERY)

## 01 What is Iron Deficiency?

Iron is an essential mineral that your body needs for growth and development. It is an important component of hemoglobin, a protein in red blood cells that transports oxygen around the body. When your body does not have enough iron, your hemoglobin levels can drop below normal, and your organs are unable to get the adequate amount of oxygen they require. This condition is known as **iron deficiency anemia**. It is the most common form of anemia. A lack of iron can lead to many symptoms and impair your ability to do normal daily activities.



## 02 Why is it important to correct iron levels prior to surgery?

It is ideal for people to go into surgery with a hemoglobin level greater than **120 g/L**.

People with iron deficiency anemia are more likely to require blood transfusions around the time of their surgery, get an infection, have a longer hospital stay, and be at an increased risk of complications, readmission to hospital, and rarely, death. It is very important to correct iron deficiency before individuals undergo surgery to ensure the best health outcomes.

## 04 What are my treatment options?

**Iron deficiency can be treated.**

**Oral iron supplements**, taken by mouth and absorbed through the digestive tract, are the first choice in treatment for most patients. Iron supplements are “over the counter” and do not require a prescription. There are many iron preparations available including pills, capsules, drops, and extended-release tablets (Table 1). The specific dosing regimen for your oral iron will be dependent on the iron preparation and severity of your condition. Typically, adults will need to take between 60-120mg of **elemental iron** per day. Preparations with less than this will be ineffective.

**Intravenous (IV) iron infusion** is an alternative treatment option to oral iron that can improve iron stores at a much faster rate. It may be recommended by your doctor in cases where oral iron is not tolerated, not able to correct the iron deficiency, or where an increase in iron is needed quickly.

## 03 Will eating more iron-rich foods help?

A dietary strategy works best for **prevention** rather than **treatment** of iron deficiency.

While eating an iron-rich diet can help to prevent iron deficiency anemia, an average person’s intake of **dietary iron is not enough** to correct the condition once it has developed. There are two main sources of iron in our diets: animal (heme iron) and plant (non-heme).

<b>Heme iron-containing foods</b>	Lean red meat, chicken, fish, pork, shrimp
<b>Non-heme iron-containing foods</b>	Beans, leafy greens, dried fruits, eggs, wholemeal bread, iron-fortified breakfast cereals

**Table 1: Some commonly recommended oral iron products**

Oral Iron	Brand Name	Daily or alternate day dosing	Dose, mg	Elemental iron, mg/tab	Daily estimated cost*
Ferrous gluconate	Floradix®, Floravit®	1 - 2 tablets	300	35	\$0.10
Ferrous fumarate	Palafer®, Eurofer®	1 tablet	300	100	\$0.10

\*Cost will vary depending on geographic location and subject to change.

## 05 How should I take my oral iron?

### MAXIMIZE IRON ABSORPTION

Take your iron supplements on an **empty stomach** (preferably 1-2 hours before a meal) with vitamin C.



**Vitamin C** can be in the form of a supplement (250-500mg) or a citrus drink (e.g. orange juice).

### AVOID CERTAIN FOODS AND MEDICATIONS

Avoid these **within 1 hour** of oral iron:

- Calcium
- Proton pump inhibitors (e.g. omeprazole, pantoprazole)
- Antacids (e.g. Tums, Gaviscon, famotidine)
- Thyroid medication
- Tea, coffee, milk
- Soy
- Eggs

### WATER AND FIBRE

Consume lots of water and fibre with your iron to reduce constipation and cramping side effects. If you have constipation, try taking a laxative such as Senokot or PEG.

If the side effects of oral iron are very bothersome, you can try taking your iron supplement **EVERY OTHER DAY**.

## 06 What are the side effects of oral iron?

- Dark stools
- Stomach discomfort
- Nausea
- Diarrhea
- Constipation

Side effects can be lessened by:



Drinking lots of water



Increasing fibre in diet (e.g. Metamucil, bran, vegetables)



Taking iron before bedtime



Taking a stool softener



Changing to 'every other day' dosing

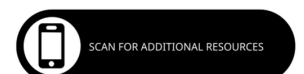
These side effects are bothersome but not dangerous.

## 07 What happens now?

It is recommended that you repeat your blood tests 2-4 weeks after the start of your iron supplement to ensure that you are responding to treatment. Once your hemoglobin and iron levels are normalized, you may need to take the iron supplement for another six months.

**For more information, talk to your doctor.**

**Always consult with your doctor about the treatment plan that is right for you.**



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