

## Two types of dietary iron:

### 1. Heme Iron:

Heme iron, the organic kind, is found in animal products, especially red meat, liver, and also in poultry and fish. The body can easily absorb approximately 15% of the iron from these sources. Although the absorption of iron from this food group is not affected by other foods in the diet, eating these foods can greatly enhance iron absorption from other sources.

### 2. Non-Heme Iron:

Non-Heme iron is found in vegetables, fruits, breads and cereals, eggs, nuts and oral iron supplements. Only about 3% of the iron from these sources can be absorbed. How well your body absorbs the iron in these food groups depends on what else is on the menu. Some foods increase iron absorption, while others interfere.

## Iron Enemies

Avoid combining the following foods with food that are non-heme iron sources:

- Dairy products such as cheese, yogurt, ice cream, and milk.
- Eggs, which contain an anti-iron factor that binds iron, also foods eaten with eggs such as toast.
- Whole-grain breads and cereals, baked goods, and candy bars.
- Foods high in oxalates, such as spinach.
- Tea, coffee, wine, beer, and soft drinks : Caffeinated beverages (coffee, tea, soda) taken with meals can act as iron blockers, as might excess consumption of high fiber foods or bran supplements.
- Canned and processed food containing EDTA.

## How to improve your iron absorption ?

Eat foods which enhance iron absorption when combined with foods that are non-heme iron sources:

- Beef, poultry, fish, lamb, and veal are on the top of the list.
- Food high in vitamin C, such as citrus fruits, cantaloupes, strawberries and vegetables such as cabbage, green pepper, tomatoes, and broccoli.
- Foods containing folate, a B vitamin, such as vegetables, citrus fruits, liver, beans, and seafood.

All types of red meat, fish and poultry are excellent dietary sources of iron, since iron from these sources is most easily absorbed by your body.

Most vegetables, fruits, nuts, beans and grains are also good dietary sources of iron, but iron from plant sources such as these is not absorbed efficiently by your body. Vitamin C enhances iron absorption from such plant sources, so eating vitamin C-containing foods in combination with iron-rich vegetables, fruits, nuts, etc. is recommended.

## What if I am a strict Vegetarian or eat meat only occasionally?

We recommend that the number of donations given each year is reduced.

- Men can give blood donations every 6 months.
- Women will usually be able to give blood donations at 6 to 12 month intervals.

# Iron Nutrition for Blood Donors





## Proper nutrition is important to maintain your body's normal functions and overall general health.

Most of the iron in your body is found in the hemoglobin molecule of the red blood cell, responsible for carrying oxygen to the body. When you donate blood, you temporarily give up part of this valuable resource until the body has time to replace it. During the medical history interview, a drop of blood from your finger tip is collected to measure your hemoglobin.

To be a blood donor, men's hemoglobin  $\geq$  13.5g/dL; women's hemoglobin  $\geq$  12.5g/dL.

## What happens if my iron level is low?

The body needs iron to make hemoglobin. If there isn't enough iron available, hemoglobin production is limited, which in turn affects the production of red blood cells (RBCs). A decreased amount of hemoglobin and red cells in the bloodstream is known as anemia. Because red cells are needed to carry oxygen throughout the body, anemia results in less oxygen reaching the cells and tissues, affecting their function.

A person with low iron stores will still feel normal. There is sufficient iron to meet daily needs and make red blood cells but there is not much iron held in reserve.

If iron stores have been used up, iron deficiency is present and the person may feel unusually tired. If iron stores fall further there will not be enough iron to make red blood cells and iron deficiency anaemia will occur. Treatment is likely to be needed.

## Possible reasons for deficiencies

### Dieting

Food intake is less, with less red meat consumption.

### Blood Loss

- Menstruation, especially if the flow is heavy or prolonged;
- Extensive oral surgery;
- Peptic ulcers, colitis, diverticular disease, hemorrhoids

### Medications

- Aspirin - regular use can irritate the stomach lining;
- Antacids, especially in large amounts, block iron absorption.

### Foods

- The tannic acid in tea can reduce iron absorption by half;
- Food additives such as phosphate found in baked goods, candy, beer, soft drinks, and ice cream reduce iron absorption;
- EDTA, a food preservative found on almost every food label, reduces iron absorption;
- Processed foods, such as breads and cereals, contain the wrong type of iron and are poorly absorbed by our bodies.

## Opening Hours:

Monday to Friday: 9:30 to 18:30

Saturday: 10:00 to 18:00

Sunday: 11:00 to 17:00

Closed on Public Holidays

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