

# All About Iron



## What is Iron and Why Do We Need It?

Iron is a mineral that is found in a number of foods and is essential for several key bodily functions:

- Iron is a key component of haemoglobin, which transports oxygen around the body in the blood
- Iron is involved in the release of energy from cells via electron transport
- Iron is required for red blood cell production
- Iron is required for a healthy immune system

## Approximate Daily Iron Requirements

Children	8-10 mg/day
Adolescents Females	15 mg/day
Adolescents Males	11 mg/day
Adult Females	18 mg/day
Adult Males	7 mg/day
Pregnant Females	27 mg/day

These amounts are approximate and will vary between individuals, but note that women typically require much more iron intake than men do.

## Sources of Iron

The body doesn't produce iron so we have to get it through the food we eat. Unfortunately, many of us don't get enough iron in our diet; in fact, iron deficiency is the world's most common nutritional deficiency! We can get 2 types of iron from food:

- Haem Iron: from animal sources
- Non-Haem Iron: from plant-based sources



## Absorption is Key

It's not enough just to eat foods with a high iron content...that iron needs to actually be absorbed! Haem iron is absorbed much more efficiently than non-haem iron. In fact, we absorb about 18-22% of the iron from animal sources vs. <5% of the iron from plant-based sources. The process of absorption also occurs differently for these two types of iron, so we need to be aware of what foods will enhance and inhibit this process.

## Foods That Increase Iron Absorption

**Animal Protein:** The presence of animal protein such as meat, chicken, fish will enhance the absorption of iron from non-animal sources.

**Vitamin C:** Include citrus fruits, berries, tomato, capsicum or broccoli with meals

**Vitamin A:** The presence of vitamin A, a fat soluble vitamin found in spreads and oils and full cream dairy products, enhances iron absorption

## Foods That Decrease Iron Absorption

**Phytates:** Oxalates in spinach and phytates found in wholegrains, brans and legumes (soy beans, split peas,

lentils and dried beans).

**Tannins:** tea, coffee, cola drinks etc.

## What Increases the Risk of Iron Deficiency?

- Sub-optimal energy intake e.g., a low calorie diet
- Not eating enough iron rich food
- A poorly balanced vegetarian or vegan diet

Also, women who are pregnant or in their reproductive years are generally more likely to be iron deficient since their iron requirements are much higher.

## Symptoms of Iron Deficiency

If you're not getting enough iron in your diet, you may experience the following: fatigue, poor concentration, feeling weak/dizzy, headaches, increased risk of infection.

## How to Make Sure You Get Enough Iron

- Ensure you are eating enough (in terms of your total energy intake) and a balanced variety of foods
- Choose breakfast cereals that contain added iron
- Choose red meat 3 to 4 times per week. Small amounts in sandwiches, stir fry and soups can be useful if you prefer not to eat large pieces of meat
- Add foods rich in Vitamins C and A to your meals
- Limit intake of foods that inhibit iron absorption
- Avoid drinking strong tea and coffee at meal times

HAEM IRON SOURCE	Iron content (mg)	Iron Absorbed (mg)
Beef Liver ( 90g )	5.7	0.64
Sirloin Steak ( 90g )	2.8	0.42
Lamb Chop ( 90g )	1.8	0.27
Pork Tenderloin ( 90g )	1.4	0.16
Chicken Breast ( 90g )	0.9	0.13
White Fish ( 90g )	0.4	0.04
NON-HAEM IRON SOURCE	Iron content (mg)	Iron Absorbed (mg)
Bran Flakes ( 45g )	1.2	0.05
Kidney Beans ( 70g )	1.1	0.06
Tofu	1.7	0.09
Spinach	0.8	0.04
Raisins	0.4	0.02

## Should I Take an Iron Supplement?

Supplementation (under the guidance of your medical practitioner) may be required to treat a diagnosed iron deficiency. Full recovery from iron deficiency can be slow and may take several months. Blood levels should be reviewed after 10 to 12 weeks and supplementation ceased when measurements return to usual ranges.

If you would like further advice on ensuring you have enough iron in your diet, we recommend you speak to a dietitian; preferably one who has experience working with eating disorders.

Developed in conjunction with Kate Fleming, Dietician

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