

# all about iron



Iron is required for a number of key body functions:

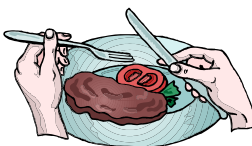
- Iron is a component of haemoglobin, which transports oxygen in the blood.
- Iron is involved in the release of energy from cells via electron transport.
- Iron is required for red blood cell production.
- Iron is required for a healthy immune system.

## Daily Iron requirements

<b>Children (1-11 years)</b>	6-8 mg/day
<b>Adult Men</b>	7 mg/day
<b>Adolescents (12-18 years)</b>	10-13 mg/day
<b>Adult Women</b>	12-16 mg/day

## Sources of Iron

Iron for the body must be supplied by the food we eat. Although iron is widely distributed in foods, iron deficiency is the world's most common nutritional deficiency. The best sources of iron are foods with a high iron content and bioavailability (i.e., are well absorbed).



## Absorption is the Key

Iron absorption is best (18 to 22%) from foods containing haem iron. These are of animal origin and include red meat, seafood and poultry. Iron absorption from foods that contain non-haem iron is much lower (<5%) and found in plant foods such as cereals, legumes, vegetables and nuts.

**The following iron enhancers, these can increase non-haem iron absorption by 2 to 3 times.**

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

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

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

**But be aware of these iron inhibitors:**

**Phytates:** Oxalates in spinach and phytates found in wholegrains, brans and legumes (soy beans, split peas, lentils and dried beans) inhibit the absorption of iron from these foods. A high fibre intake in general may act as an iron inhibitor.

**Tannin:** Avoid drinking tea, coffee & cola drinks with meals as they decrease the amount of iron absorbed.

## Am I more at Risk?

You may have a high risk of iron depletion for any of the following reasons:

- ◇ Iron intake is often sub-optimal on for people on low kilojoule intakes (below 2000 cal)
- ◇ Poorly balanced vegetarian diets
- ◇ Avoidance of meat, chicken or fish in the mistaken belief that it is fattening
- ◇ Avoidance of commercially fortified foods such as breakfast cereals

## Should I take an Iron Supplement?

Supplementation (under the guidance of your medical practitioner) is usually required to treat a diagnosed iron deficiency. Full recovery from iron deficiency is slow and can take as long as 3 months. Blood levels should be reviewed after 10 to 12 weeks and supplementation ceased when measurements return to usual ranges.

An iron rich diet is needed to prevent iron depletion re-occurring. These tips will help:

- 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 find it difficult to eat large pieces of meat.
- Add vitamin C rich foods to meals.
- Avoid or limit intake of iron inhibitors such as bran and wheat-germ
- Avoid drinking strong tea and coffee with meals. It is OK between meals.

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

Developed in conjunction with Kate Fleming, Dietician

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