Why is iron important?

Iron helps your body carry oxygen in the blood. It gives us energy, helps us concentrate and fights off infection.

Children, teenagers, menstruating women, pregnant women, vegetarians and vegans are most at risk of iron deficiency. Their iron needs are higher than other groups.

There are two types of iron found in food. Haem iron is found in animal foods. Haem iron is well absorbed by the body (about 20% absorbed). Haem iron is found in meat, poultry, fish and seafood. Generally, the more red or darker the meat is, the higher iron content it has.

Non-haem iron is found in plant foods and is not as well absorbed by the body (only about 5% absorbed). Non-haem iron is found in cereals, vegetables, legumes and nuts.

The actual amount of iron absorbed differs between individuals.

How can I increase my iron?

- **Choose foods high in iron at each meal.** It is recommended that up to a maximum of 445gm of lean, cooked, red meat can be consumed per week. If you are vegetarian, high-iron replacement foods will be needed (e.g. beans, lentils, fortified cereals, nuts, vegetables).
- **Include fruits and vegetables with each meal.** Foods high in vitamin C (e.g. berries, oranges, capsicum, tomato). Vitamin A (e.g. carrots, plant oils, dairy, eggs) increase our absorption of non-haem iron by 2-3 times. Try adding strawberries to your iron-fortified breakfast cereal. Or try adding capsicum and tomato to a spinach and bean salad.
- **Avoid drinking tea and coffee with meals.** They contain tannins that can reduce iron absorption. Drink tea and coffee between meals.

Please note that iron supplements should not be taken without medical advice.

---

Best sources of iron (in mg)

- **Beef (lean), cooked**
  100g = 2-3mg
- **Veal (lean), cooked**
  100g = 1.1-1.9mg
- **Lamb (lean), cooked**
  100g = 2.0-2.5mg
- **Pork (lean), cooked**
  100g = 0.6-1.0mg
- **Chicken (no skin), cooked**
  100g = 0.4-0.9mg
- **Kangaroo, cooked**
  100g = 3.2mg
- **Tuna, canned in water**
  100g = 1.0-1.3mg
- **Salmon, canned or grilled**
  100g = 1.1-1.3mg
- **Sardines, canned in water**
  100g = 2.3mg
- **Ocean trout, canned or grilled**
  100g = 1.1-1.3mg
- **Oyster, raw**
  6 = 3.5mg
- **Egg, large**
  65-70g = 1.0mg
- **Tofu, firm**
  100g = 2.3-2.9mg

---

Other sources of iron (in mg)

- **Baked beans**
  small can, 130g = 1.66mg
- **Legumes/pulses/beans, cooked**
  ½ cup = 2.0-2.5mg
- **Spinach, raw & chopped**
  1 cup = 1.2mg
- **Chinese green leafy vegetables: bok choy, gai lan, cooked, ½ cup = 2.5mg
- **Fortified breakfast cereal**
  1 cup = 3.0mg
- **Muesli, natural/untoasted**
  ¼ cup = 2.0mg
- **Wholemeal bread**
  2 slices = 1.1-3.9mg
- **Peanut butter**
  2 tablespoons = 0.6mg
- **Almonds**
  20 = 0.9mg
- **Pumpkin seeds**
  1 Tablespoon = 1.75mg
- **Dried apricots,**
  10 halves = 1.1mg
- **Malt-based drink, dry beverage base**
  20g = 5mg

*Fortified foods are foods which have vitamins or minerals added to them.*
# How much iron per day?

<table>
<thead>
<tr>
<th>Age</th>
<th>RDI (mg per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infants</td>
<td></td>
</tr>
<tr>
<td>0-6 months</td>
<td>0.2 mg*</td>
</tr>
<tr>
<td>7-12 months</td>
<td>11 mg</td>
</tr>
<tr>
<td>Children</td>
<td></td>
</tr>
<tr>
<td>1-3 years</td>
<td>9 mg</td>
</tr>
<tr>
<td>4-8 years</td>
<td>10 mg</td>
</tr>
<tr>
<td>9-13 years</td>
<td>8 mg</td>
</tr>
<tr>
<td>Men</td>
<td></td>
</tr>
<tr>
<td>14-18 years</td>
<td>11 mg</td>
</tr>
<tr>
<td>19-70 years</td>
<td>8 mg</td>
</tr>
<tr>
<td>&gt;70 years</td>
<td>8 mg</td>
</tr>
<tr>
<td>Women</td>
<td></td>
</tr>
<tr>
<td>14-18 years</td>
<td>15 mg</td>
</tr>
<tr>
<td>19-50 years</td>
<td>18 mg</td>
</tr>
<tr>
<td>50+ years</td>
<td>8 mg</td>
</tr>
<tr>
<td>Pregnant</td>
<td></td>
</tr>
<tr>
<td>14-50 years</td>
<td>27 mg</td>
</tr>
<tr>
<td>Lactating</td>
<td></td>
</tr>
<tr>
<td>14-18 years</td>
<td>10 mg</td>
</tr>
<tr>
<td>19-50 years</td>
<td>9 mg</td>
</tr>
</tbody>
</table>

These values represent the Recommended Dietary Intake (RDI) values for Australians. Sourced from the Nutrient Reference Values for Australia and New Zealand (2006).

*Adequate Intake (AI) was used for infants (0-6 months), as an RDI was not available for this age group. Also, iron in infant formula is less well absorbed by the body compared to breast milk (bottle feed infants will need 5 – 10 times this amount).

Vegetarians require 80% more high iron foods to equal iron absorption from meat.

# Example of Iron for a day

<table>
<thead>
<tr>
<th>Time</th>
<th>Description</th>
<th>mg Iron</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>2 whole-wheat, fortified breakfast biscuits with 1 cup reduced fat milk.</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>1 mandarin</td>
<td>5.2</td>
</tr>
<tr>
<td>Morning Tea</td>
<td>130g can of baked beans on 1 slice of wholemeal bread.</td>
<td>2.2</td>
</tr>
<tr>
<td>Lunch</td>
<td>100g grilled chicken, with spinach garden salad (capsicum, cucumber, tomato, avocado), dressed with fresh lemon juice and olive oil</td>
<td>8.4</td>
</tr>
<tr>
<td>Afternoon Tea</td>
<td>200g tub plain yoghurt</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>6 dried apricot halves and 20 raw almonds</td>
<td>1.2</td>
</tr>
<tr>
<td>Dinner</td>
<td>100g cooked lean beef</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>2 cups of cooked mixed vegetables (broccoli, carrot, capsicum)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 medium potato, baked</td>
<td></td>
</tr>
<tr>
<td>Minimum total iron intake approx</td>
<td>22.4 mg</td>
<td></td>
</tr>
<tr>
<td>Total energy intake approx</td>
<td>7092 kj</td>
<td></td>
</tr>
</tbody>
</table>

Medical, midwifery, and dietitian appointments are available at WHFS. See our website for nutrition workshops being held this term.

**NORTHBRIDGE**
227 Newcastle Street, Northbridge WA 6003
PO Box 32, Northbridge WA 6865
Telephone: (08) 6330 5400
Fax: (08) 6330 5499
Email: info@whfs.org.au

**JOONDALUP**
Joondalup Lotteries House
Suite 6, 70 Davidson Terrace, Joondalup WA 6026
Telephone: (08) 9300 1566
Fax: (08) 9300 1699
Email: infojoondalup@whfs.org.au

www.whfs.org.au

Originally produced by the Department of Health, Western Australia, amended with permission by Womens Health & Family Services.