



IRON IN PREGNANCY

Iron is essential for the manufacture of red blood cells that carry oxygen around the body. During pregnancy iron is needed in larger amounts because the mother's blood volume increases, and the baby's blood is also developing.

Lack of iron can cause anaemia, which means the red blood cells are not able to carry enough oxygen around the body leaving you tired and less able to fight off infections. Anaemia during pregnancy can persist after the birth of the baby and can also affect the baby's iron stores.

The best sources of iron are red meat, fish and chicken.

Iron is also in foods derived from plants such as:

- legumes (dried beans, lentil, baked beans, chickpeas, etc.)
- nuts and nut butters
- wholegrain breads
- green leafy vegetables
- dried fruit
- iron enriched breakfast cereals (check label to see whether iron has been added)
- Milo, Ovaltine.

Iron from these foods is not absorbed as easily by the body as it is from animal foods, however you can increase the amount of iron you absorb from plant foods by:

- eating foods rich in vitamin C at the same meal. These foods include oranges, berries, kiwifruit, cabbage, broccoli, cauliflower, brussels sprouts, capsicums, tomato
- as well as the above, eat either red meat or chicken or fish at the same meal.

Liver is a rich source of iron; however, it should be limited to 50 grams per week at most as it contains large amounts of vitamin A. Vitamin A in excess can be harmful to the developing baby. Beta-carotene, the type of vitamin A in carrots, is safe even in large amounts.

Liver pate is not recommended in pregnancy as it is one of the foods that can carry listeria, bacteria that can be harmful to unborn babies. Delicatessen meats, such as ham and salami and smoked salmon, and uncooked seafood are not recommended for the same reason.

For an iron rich diet:

- include at least two serves of the following foods every day – meat, chicken, fish, legumes or nuts
- choose wholegrain breads, cereals and green leafy vegetables regularly.

For a list of common foods containing iron, see the *Iron in Common Foods* table on page 3.

Do I need supplements?

Some pregnant women find it difficult to meet their iron requirements by diet alone. Blood tests are performed at different stages throughout the pregnancy to check for iron deficiency. If necessary, an iron supplement will be recommended. The risk of iron deficiency may be increased by:

- vegetarian diets
- pregnancies close together
- severe morning sickness
- poor diet
- past history of anaemia.

Constipation can be a side effect of taking iron supplements. This is less likely to be a problem if you have plenty of fibre and fluid and do some regular, gentle exercise.

Iron and calcium compete for absorption in the body. This is not normally a problem as the effect is minimal. However, if you are anaemic and taking both iron and calcium supplements you may get better absorption if you avoid taking them both at the same time.

Tea and coffee, if taken with a meal, reduce the amount of iron absorbed. This is not a problem for people with normal iron levels but if you are anaemic it may be better to have your tea or coffee between rather than with meals.

If you need any further information about iron, please ask your doctor or dietitian.

For more information

Nutrition & Dietetics

Royal Women's Hospital

Tel: (03) 8345 3160

Women's Welcome Centre

Royal Women's Hospital

T: (03) 8345 3037 or 1800 442 007 (rural callers)

E: wwcadmin@thewomens.org.au

For a list of common foods containing iron, see the *Iron in Common Foods* table on page 3

Sample Meal Plan

Breakfast	<ul style="list-style-type: none"> wholegrain or iron enriched cereal with milk, or wholegrain toast with margarine and peanut butter or baked beans orange juice or fresh fruit
Morning tea	<ul style="list-style-type: none"> wholemeal dry biscuits, or fresh or dried fruit and nuts
Lunch	<ul style="list-style-type: none"> wholemeal salad sandwich with freshly cooked meat, chicken, tuna or peanut butter fresh fruit or yoghurt
Afternoon tea	<ul style="list-style-type: none"> milk with Milo or Ovaltine wholemeal dry biscuits or fresh or dried fruit and nuts
Dinner	<ul style="list-style-type: none"> red meat, fish, chicken or legumes vegetables, including green leafy varieties fresh or dried fruit
Supper	<ul style="list-style-type: none"> milk with Milo or Ovaltine

Iron content in common foods

This table compares the iron content of some common foods. The iron from foods in the shaded area is best absorbed by the body. At 22 to 27 mg of iron per day is recommended but can be difficult to attain from food alone. If your blood iron level is low, you may also need an iron supplement.

Food	Quantity	Iron (milligrams)	
Meat	Beef, lean	100g	2.5–4
	Veal, lean	100g	2.1
	Lamb, lean	100g	2.5
	Pork, lean	100g	1.1
	Chicken, lean	100g	0.9–1.2
	Fish		
	White	100g	0.2–0.8
	Tuna	100g	1.0–1.3
	Salmon	100g	1.7
	Sardines	5 small	2.0
	Oysters	6	4.6
Egg	1 medium	0.9	
Baked beans	2/3 cup	2.9	
Lentils/pulses/dried beans (cooked)	2/3 cup	2.9–3.4	
Nuts	Peanuts	50g	1.2
	Peanut butter	1 tablespoon	0.5
	Cashews	50g	2.6
	Almonds	50g	1.8
	Pine nuts	50g	2.0
Bread	Wholemeal/wholegrain	1 slice	0.5
	White	1 slice	0.3
Cereals <i>(Many cereals have iron added. Check labels)</i>	Cornflakes	1 cup	3.0
	Rice Bubbles	1 cup	3.0
	Bran Flakes	1 cup	2.7
	Weet-Bix	2	3.0
	Muesli	1 cup	5.0
	All-Bran	1 cup	4.0
	Oats, boiled (porridge)	1 cup	1.3
Rice	White (cooked)	1 cup	0.6
	Brown (cooked)	1 cup	0.9
Pasta (cooked)	1 cup	0.6	
Dried fruit	Dried apricots	1/2 cup	2.1
	Sultanas	1/2 cup	1.7
Fresh fruit	100g (small apple size)	0.2–0.7	
Vegetables	Spinach, cooked	1/3 cup	1.5
	Broccoli	1/3 cup	0.6
	Carrot	1/3 cup	0.2
	Potato	1 small	0.5
Dairy	Milk	1 cup	0.3
	Cheese	1 slice	0.1
Milo	2 heaped teaspoons (9g)	2.2	