

Iron for pregnant women

Iron in the body

Iron is used by the body to carry oxygen. Iron is in haemoglobin. Haemoglobin is in red blood cells. Your body makes more blood when you are pregnant because you and your baby are growing. It needs iron to make healthy blood.

A blood test that looks at haemoglobin (Heem-o-globe-in) levels is usually used at some stage in your pregnancy to tell if there is enough iron in your blood. Your doctor may also check your ferritin level. This is a measure of the amount of iron you have stored in your body.

Having low iron levels may result in anaemia. This can often make you feel tired, have poor concentration and an increased risk of infection. Very low iron levels will affect your baby's growth and can increase the health risk of your baby coming early.

Your iron intake is most important in the final 10 weeks of pregnancy as this is when your baby begins to build their own iron stores ready for the first 6 months of life. This store is used until your baby starts on iron rich solids.

Iron in food

There are two types of iron in food: Iron from animal foods (called *haem* iron) and iron from plant foods (called *non-haem* iron).

Haem iron is taken up by the body about ten times better than non-haem iron. Meats are the best source of iron. The redder the meat, the higher it is in iron.

This means beef, kangaroo and lamb are higher in iron than pork, chicken or fish. Coloured flesh fish, such as tuna and mullet, are higher in iron than reef fish, such as barramundi.

Non-haem iron is found in some plant foods such as:

- Wholegrain and iron-fortified breads and cereal foods (these are foods with added iron)
- Legumes (e.g. kidney beans, baked beans, chickpeas, lentils)
- Fermented soy products (e.g. tofu)
- Green leafy vegetables (e.g. spinach, broccoli, bok choy)
- Eggs
- Nuts and dried fruit

Remember that non-haem iron foods are not taken up by the body as well as iron from animal foods. You may need to eat more of these foods if they are your only iron source, for example if you follow a vegan or vegetarian diet. To help your body use iron from plant foods, eat foods high in vitamin C (such as fruit, tomato or capsicum) or foods containing haem iron (from an animal) at the same meal.

How much iron do you need?

Pregnant women need 27mg iron each day. Pregnant women should not eat more than 45 mg iron each day. Overconsuming iron can be toxic and lead to organ damage.

Iron tablets

Iron tablets should only be taken when a blood test has confirmed that your levels are low. There are many different types of iron supplements, including *ferrous salts*, *iron polymaltose*, *tablets/capsules* and *liquid iron*. It is best that you discuss what type of iron supplement is best for you with a health professional (Doctor, Midwife, Dietitian).

Women may experience constipation as a side effect from taking iron tablets. You can manage constipation naturally by:

- Eating more unprocessed plant foods like fruits with the skin on, vegetables, wholegrains, legumes
- Drinking more water

- Being physically active
- Taking your iron tablet every second day (discuss with doctor)
- Talk to your health professional about using a different type of iron supplement (i.e. liquid iron).

Iron blockers

Tea, coffee, unprocessed bran and various mineral, herbal and other medications can block plant iron (non-haem iron) being taken up by the body. Drinks rich in calcium such as milk block the absorption of iron in the gut.

What to do if your iron levels are low

- Check that you are eating either animal and/or higher iron plant based sources of iron daily.
- Include wholegrain and iron fortified foods (e.g. breakfast cereals with added iron).
- Include foods that contain vitamin C with iron rich meals (e.g. fruit, tomato, capsicum, broccoli, cabbage or parsley)
- Check to make sure you limit iron blockers when eating foods rich in iron.
- After you have tried these hints, if your iron is still low, talk to your doctor about taking iron tablets. Remember, your pregnancy multivitamin will also contain some iron.
- After birth you may experience low iron levels requiring treatment. This treatment is for breastfed babies to receive enough iron and for your own health.

- Remember to have your iron levels checked soon after giving birth (usually at your 6 week post-natal check up).

How much iron is in food?

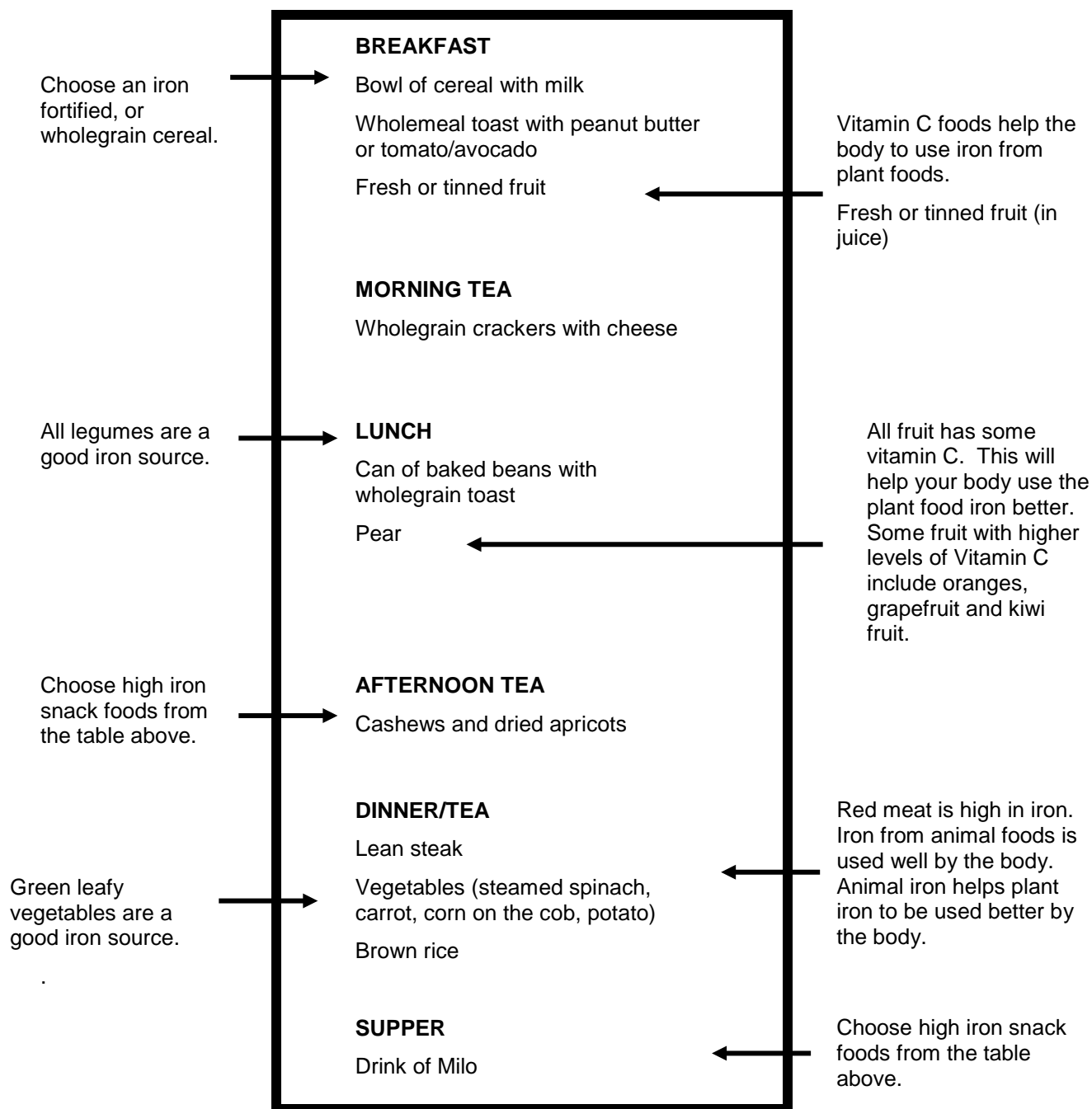
Food (serving size)	Iron (mg)
Meat and meat alternatives	
Kangaroo (100 g raw)	2.3
Lean Beef (100 g raw)	1.9
Lean Lamb (100 g raw)	1.9
Chicken (100 g raw)	0.4
Lean Pork (100 g raw)	0.8
Tuna (115 g raw or one small can)	0.9
Sardines (120 g or 1 regular tin)	2.7
Egg (2 eggs = 120 g)	2.0
Snapper (115 g raw)	0.4
Kidney beans (1 cup = 150 g)	3.2
Baked beans (1 small can=140g)	1.4
3 bean mix (1 cup = 150 g)	3.0
Tofu (170 g)	4.9
Bread and Cereal Foods	
Iron fortified breakfast cereal (2/3 of a cup – 30 g)	3
Non-fortified breakfast cereal (2/3 of a cup – 30 g)	1
Wheat biscuits (3 pieces – 35 g)	2.4
Cooked Porridge (1/2 cup – 120 g)	0.8
Wholegrain bread (1 slice)	0.6
Wholemeal bread (1 slice)	0.7
White bread (1 slice)	0.5

Brown rice (1/2 cup – 75-120 g)	0.4
Pasta (1/2 cup – 75-120 g)	0.7
Wholegrain cracker (3 – 35 g)	1.1
Vegetables	
½ cup cooked spinach	1.6
½ cup cooked asparagus	1.0
½ cup green beans	0.7
½ cup beetroot	0.6
½ cup cooked silver beet	1.5
½ medium potato	0.3
½ cup green peas	0.9
Fruit	
Dried Apricots (30 g)	0.9
Prunes (30 g)	0.3
Sultanas (30 g)	0.7
Fresh fruit (150 g)	0.4
Dairy foods	
Cheese (2 slice)	0.1
Milk (1 cup – 250 ml)	0.1
Snack foods and drinks	
Cashews (30 g)	1.5
Pine nuts (30 g)	1.2
Pistachios (30 g)	1.1
Almonds (30 g)	1.1
Peanut Butter (30 g)	0.5
Vegetemite (1 tsp)	0.2
Discretionary Items (These provide little nutrition and should be consumed only sometimes and in small amounts)	
Milo (2 teaspoons)	1.4

Things I can do to improve my iron intake:

- 1.
- 2.

Sample meal plan



For further information contact your Dietitian or Nutritionist: _____

References:

1. Nutritional Value of Australian Foods. Australian New Zealand Food Authority. (1991). Commonwealth of Australia
2. Nutrient Reference Values for Australia and New Zealand. National Health and Medical Research Council. (2006) Commonwealth of Australia.