

## Iron for pregnant women

### Iron in pregnancy

This resource will help you understand why iron is important in pregnancy, and how you can eat enough iron to support your growing baby.

Iron is used by the body to make red blood cells. Your body makes more blood when you are pregnant because you and your baby are growing. This means you need more iron when you are pregnant.

Having low iron levels can make you feel tired, have poor concentration and increase your risk of infection. Very low iron levels can affect your baby's growth and can increase the 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. These stores are used until your baby starts on 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. Eating too much iron can be toxic and cause organ damage.

### **Iron tablets**

Iron tablets (supplements) should only be taken when a blood test has confirmed that your levels are low. It is best that you discuss what type of iron tablet is best for you with your doctor, midwife, or dietitian.

You may experience constipation (difficulty opening your bowels) 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)
- Talking to your doctor or midwife about using a different type of iron supplement (i.e. liquid iron).

### **Iron blockers**

Tea, coffee, bran and some 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. Limit iron blockers when you are eating foods rich in iron.

## Summary

- You need more iron when you are pregnant.
- Include either animal and/or higher iron plant-based sources of iron at all your main meals.
- Choose wholegrain and iron fortified foods (e.g. breakfast cereals with added iron) wherever possible.
- Include foods that contain vitamin C with iron rich meals (e.g. fruit, tomato, capsicum, broccoli, cabbage).
- Limit iron blockers when eating foods rich in iron.
- If your iron is low, talk to your doctor about taking iron tablets. Remember, your pregnancy multivitamin may also contain some iron.

## How much iron is in food?

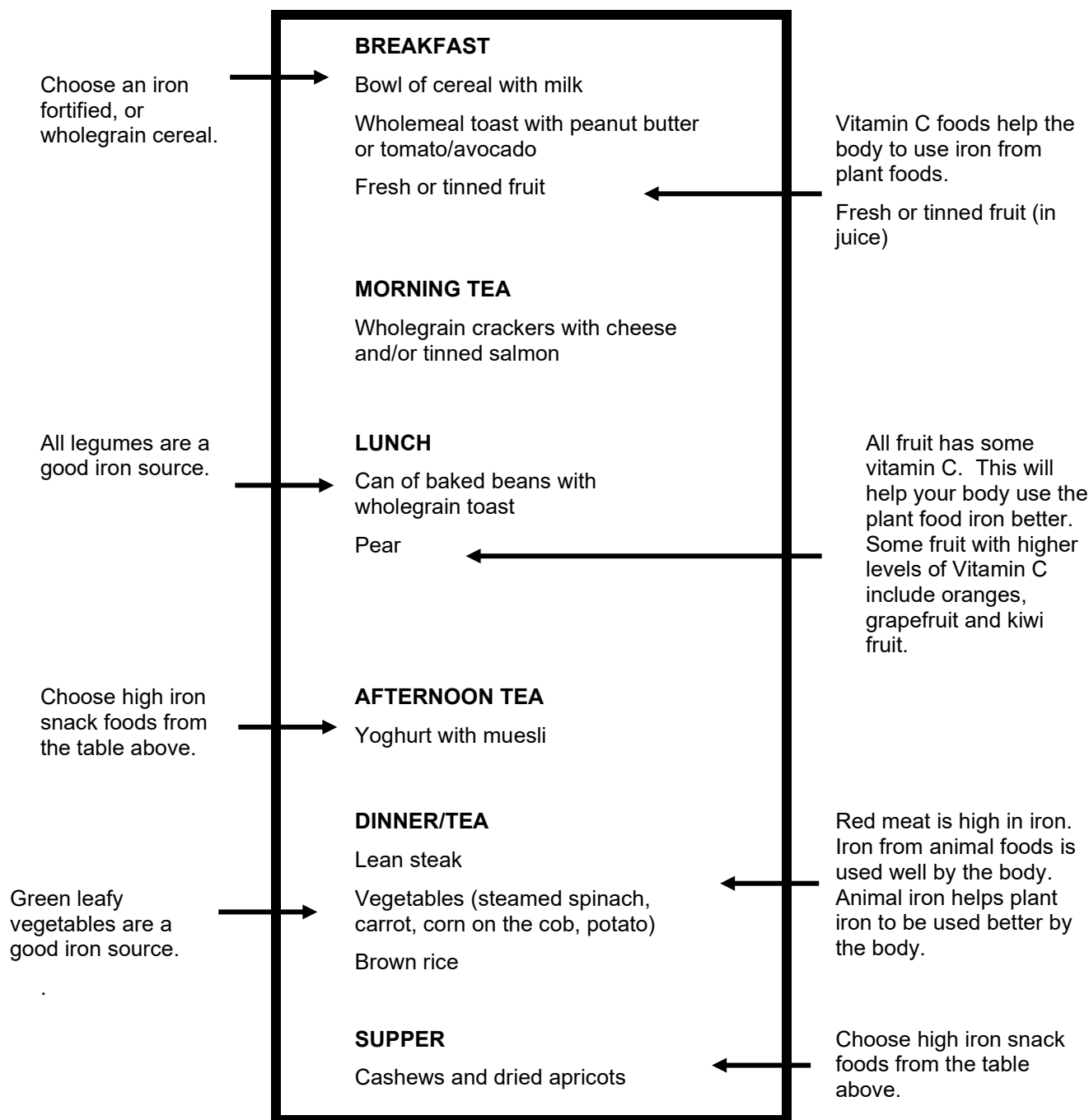
| Food (serving size)                              | Iron (mg) |
|--------------------------------------------------|-----------|
| <b><i>Meat and meat alternatives</i></b>         |           |
| Tofu (170 g)                                     | 4.9       |
| Kangaroo (100 g raw)                             | 3.4       |
| Kidney beans (1 cup = 150 g)                     | 3.2       |
| 3 bean mix (1 cup = 150 g)                       | 3         |
| Sardines (120 g or 1 regular tin)                | 2.7       |
| Lean beef (100 g raw)                            | 2.1       |
| Egg (2 eggs = 120 g)                             | 2         |
| Lean lamb (100 g raw)                            | 1.8       |
| Baked beans (1 small can = 140g)                 | 1.4       |
| Tuna (115 g raw or one small can)                | 0.9       |
| Lean pork (100 g raw)                            | 0.8       |
| Chicken (100 g raw)                              | 0.4       |
| Snapper (115g raw)                               | 0.4       |
| <b><i>Bread and Cereal Foods</i></b>             |           |
| Iron fortified breakfast cereal (2/3 cup = 30 g) | 3         |
| Wheat biscuits (3 pieces = 35 g)                 | 2.4       |
| Wholegrain cracker (3 crackers = 35 g)           | 1.1       |
| Non-fortified breakfast cereal (2/3 cup = 30 g)  | 1         |
| Cooked porridge (1/2 cup = 120 g)                | 0.8       |
| Wholemeal bread (1 slice)                        | 0.7       |

|                                                                                                                        |     |
|------------------------------------------------------------------------------------------------------------------------|-----|
| Pasta (1/2 cup = 75-120 g)                                                                                             | 0.7 |
| Wholegrain bread (1 slice)                                                                                             | 0.6 |
| White bread (1 slice)                                                                                                  | 0.5 |
| Brown rice (1/2 cup = 75-120 g)                                                                                        | 0.4 |
| <b>Vegetables</b>                                                                                                      |     |
| ½ cup cooked spinach                                                                                                   | 1.6 |
| ½ cup cooked silver beet                                                                                               | 1.5 |
| ½ cup cooked asparagus                                                                                                 | 1   |
| ½ cup green peas                                                                                                       | 0.9 |
| ½ cup green beans                                                                                                      | 0.7 |
| ½ cup beetroot                                                                                                         | 0.6 |
| ½ medium potato                                                                                                        | 0.3 |
| <b>Fruit</b>                                                                                                           |     |
| Dried apricots (30 g)                                                                                                  | 0.9 |
| Sultanas (30 g)                                                                                                        | 0.7 |
| Fresh fruit (150 g)                                                                                                    | 0.4 |
| Prunes (30 g)                                                                                                          | 0.3 |
| <b>Dairy foods</b>                                                                                                     |     |
| Cheese (2 slices)                                                                                                      | 0.1 |
| Milk (1 cup = 250 ml)                                                                                                  | 0.1 |
| <b>Snack foods</b>                                                                                                     |     |
| 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 |
| Vegemite (1 tsp)                                                                                                       | 0.2 |
| <b>Discretionary Items</b> (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.