

Check your iron intake

Nutrition & Dietetics Department

This booklet tells you about:

- why iron is important for the body
- how much iron different groups of people need to eat
- which foods contain iron
- the different types of iron
- what affects iron absorption
- amounts of iron in portions of iron rich foods

Why is iron important in the body?

Iron is essential for healthy blood. It is essential for the formation of red blood cells. Red blood cells carry oxygen around the body to help it function effectively.

An inadequate intake of iron in the diet will affect the blood and can lead to iron deficiency anaemia. The symptoms of anaemia are tiredness, weakness, breathlessness, headache and a pale complexion.

Iron deficiency anaemia may be caused by a variety of factors. It is important to consult your Doctor if you suspect that you have anaemia or have any of the symptoms.

Certain groups of people are more prone to anaemia. These include:

- babies and young children
- teenagers
- elderly people
- people who have recently had surgery
- vegetarians or vegans
- people who have poor diets or appetites

How much iron do I need?

The table below shows the recommended amount of iron for different groups of people.

Gender	Age Group	Recommended nutrient intake (RNI) for iron (mg/day)
Children	1-3 years	6.9
Children	4-6 years	6.1
Children	7-10 years	8.7
Teenage boys	11-18 years	11.3
Teenage girls	11-18 years	14.8
Men	19-50 years	8.7
Women	19-50 years	14.8
Men	50+ years	8.7
Women	50+ years	8.7

There is no need for women to increase iron intake if they are pregnant or breast feeding. Those women of child bearing age should have adequate iron stores to cope with the demands made by pregnancy. This is due to the lack of menstruation, body stores of iron becoming more available and increased absorption via the gut.

Try to meet your recommended iron intake every day. This booklet will help you

Which foods contain iron?

Iron is found in red meat, dark fleshed oily fish, eggs and some vegetables, cereals and pulses.

The iron found in animal products is different from the iron found in plant products.

What are the different types of iron and what affects the iron absorption?

- Iron found in animal products is called “haem” iron and is very similar to the iron in our own bodies. This makes it easy to absorb, so animal products are the best sources of iron in our diets.
- Iron found in plant products e.g. vegetables, cereals, fruit and pulses is called “non-haem” iron. This is a different type to our own and our bodies absorb it less easily. Vitamin C improves the absorption of “non-haem” iron. Include foods containing vitamin C in your meals/ alongside your meals. This is especially important if you eat few animal foods, e.g. if you are vegetarian or vegan.
- Foods rich in vitamin C include:
 - Fresh citrus fruits e.g. oranges, grapefruit, pineapple
 - Pure citrus or cranberry fruit juices
 - Raw or lightly cooked vegetables e.g. mange-tout, broccoli, brussels sprouts, cabbage, peppers
 - Tomatoes
 - Blackcurrants and blackcurrant cordials e.g. Ribena®
 - Potatoes – all kinds

Iron content of animal products (contain haem iron)

Food	Portion Size	Iron (mg)
Red meat e.g. lamb, beef	5 slices (roast) (150g)	2.7-4.4
Pork (roast, leg)	5 slices (150g)	1.5
Pork chops, rib end	1 chop (85g)	0.6
Pork sausages	1 large (40g)	0.4
Poultry e.g. chicken, turkey no skin	1 medium breast (130g)	0.5-0.8
Dark fleshed oily fish e.g. sardines, pilchards	(100g)	2.3
Offal e.g. liver* kidney, heart	1 portion (100g-112g)	7.7-11.2
Black pudding (dry fried)	1 slice (30g)	4
Eggs	1 (50g)	1

*Pregnant women should AVOID liver & liver products e.g. liver sausage or pâté, because their high vitamin A content can be toxic.

The iron content in foods is not affected by cooking or food preparation. Tinned products e.g. minced beef, corned beef, stewing steak, sardines are quick, easy and excellent sources of iron.

Iron content of plant products (contain non haem iron)

Food	Portion Size	Iron (mg)
Cereal products		
White bread	1 slice (36g)	0.6
Wholemeal bread	1 slice (36g)	0.9
Pasta (cooked)	1 tbsp (40g)	0.2
White rice (cooked)	1 tbsp (40g)	0.1
Fortified breakfast cereals, e.g. cornflakes, branflakes, Weetabix®	1 bowl (30g)	2-7
Ready Brek®	2 biscuits (40g)	4.8
Porridge	30g	3.6
	110g	0.6
Cereal biscuit bars e.g. Kelloggs, Belvita or Supermarket own brand	1 packet (20-50g)	2-3
White flour (fortified)	100g	2.0
Soya flour (full fat)	100g	6.9
Farley's rusk®	1 (17g)	1.2
Pulses		
Baked beans	3 tbsp (135g)	1.9
Canned beans e.g. kidney, chickpeas	2 tbsp (70g)	1-1.4
Lentils (cooked)	1 tbsp (40g)	1-1.4
Peas	1 tbsp (30g)	0.5

Iron content of plant products continued (contain non-haem iron)

Food	Portion Size	Iron (mg)
Vegetables		
Green leafy vegetables e.g. spring greens, spinach, broccoli	Medium portion (90g)	0.9-1.4
Boiled potato (old)	1 medium portion (175g)	0.7
Tomato puree	1 tbsp (15g)	0.2
Dried apricots	3 (24g)	1
Prunes (with stone)	3 (24g)	0.6
Raisins	1 tbsp (30g)	1.1
Miscellaneous		
Curry powder	1 tsp (3g)	1.8
Cocoa	2 teaspn (heaped) (12g)	1.3
Plain chocolate	1 small bar (50g)	1.2
Liquorice Allsorts® e.g. Weetabix®	Small bag (56g)	4
Treacle (black)	1 tbsp (25g)	5.3
Seeds e.g. sunflower, sesame	1 tbsp (12-16g)	1-1.3
nuts e.g. almonds, pine nuts, cashew nuts	6 whole (13g) – 1 tbsp (16g)	0.4-0.9
	10 whole	0.6
Milk		
Formula (Infant)	¼ pint (150mls)	1
Follow-on Formula	¼ pint (150mls)	2
Cow's milk	¼ pint (150mls)	0.05

Examples of non-haem iron sources with vitamin C rich foods

- Bean curry or chilli served with mixed side salad (including tomatoes or peppers)
- Breakfast cereal served with fruit juice (orange, grapefruit, pineapple or cranberry)
- Baked beans on wholemeal toast with fruit (orange, grapefruit, pineapple, cranberries or blackcurrants) for dessert
- Scrambled eggs served with tomatoes
- Toast served with half instead of ½ a grapefruit

Will anything stop me from absorbing iron?

Tannin

Tannin, which is mainly found in tea, can reduce the absorption of iron from your food.

It may be beneficial to drink tea between, rather than with meals, if you have, or are prone to, anaemia.

Check your iron intake:

List the iron rich foods you eat in a typical day and add up their iron content. Compare your total with the recommended nutrient intake of iron for your age and gender. If your iron intake is less than the amount recommended, use these lists to choose iron rich foods to eat regularly. Here is an example to help you:

Food	Portion size	Iron content mg
Fortified breakfast cereal	30g	2-7
Wholemeal bread	2 slices 72g	1.8
Baked beans	135g	1.9
Chicken breast	130g	0.5
Total iron		6.2-11.2 mg

The RNI is 8.7 mg per day for children aged 7–10 years, men over 19 years and women over 50 years of age. Therefore, in the example above the daily diet calculation may be lacking by **2.5 mg** of iron.

Ideas for increasing iron by 2.5 mg

(1) add 1 medium portion (90g) of green leafy vegetables and 1 medium portion of boiled potatoes (175g) to a chicken breast at your main meal
= 1.6-2.1 mg iron

and

(2) add half a serving (12g) of dried apricots as a dessert
= 0.5 mg iron

and

(3) have 10 whole cashew nuts as a snack = 0.6 mg iron

Total = 8.9-13.9mg iron

My iron rich foods on a typical day:

Food	Portion size	Iron content mg
Total iron		

My recommended intake of iron is

My ideas for increasing my iron intake are:

Further information and key reference sources

- <http://food.gov.uk/sites/default/files/multimedia/pdfs/publication/eatwell0708.pdf>
- www.gov.uk/government/publications/sacn-iron-and-health-report
- <https://www.bda.uk.com/foodfacts/vegetarianfoodfacts.pdf>
- Food portion sizes, 2nd edition, MAFF, 1988
- Food Standards Agency (2002) McCance and Widdowson's. The Composition of Foods, Sixth summary edition. Cambridge. Royal Society of Chemistry.

This leaflet is produced by the dietetic department at The Royal Surrey County Hospital, NHS Foundation Trust. It is not a substitute for dietary advice given to a specific individual by a dietitian. If you need to see a dietitian, ask your GP or consultant for a referral.

Please note that the information in this leaflet was correct at time of writing. The ingredients of manufactured products can change.

If you have any questions about the information in this leaflet please contact the Dietetic Department at the address below:

Nutrition and Dietetics Department

The Royal Surrey County Hospital
Egerton Road
Guildford
GU2 7XX

Telephone: 01483 464119

Contact details

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PALS and Advocacy contact details

Contact details of independent advocacy services can be provided by our Patient Advice and Liaison Service (PALS) who are located on the right hand side as you enter the main reception area. PALS are also your first point of contact for health related issues, questions or concerns surrounding RSCH patient services.

Telephone: 01483 402757

Email: rsc-tr.pals@nhs.net

Opening hours: 9.00am–4.00pm, Monday to Friday

If you would like information documents in large print, on tape or in another language or form please contact PALS.

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Author: Suzanne Button and Susan Hendry

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