

Cystic Fibrosis all about nutrition

Iron in the cystic fibrosis diet

With thanks to members of the Cystic Fibrosis Dietitians Group UK (CFDGUK)
for preparing the information in this leaflet.

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Introduction

The information here was written by cystic fibrosis (CF) dietitians who work with adults. The information can be used by anyone with CF over 10 years of age. If you are looking for information about iron for your baby or child (ie someone under the age of 16) you can also speak to your child's dietitian for personalised advice.

Iron and iron deficiency anaemia

Iron from the diet is used to make red blood cells, which carry oxygen in the blood. If the body's store of iron becomes low, new red blood cells cannot be made and the symptoms of iron deficiency anaemia can develop.

Iron deficiency anaemia can make you feel tired and breathless, low in energy and irritable, and it can also reduce your appetite.

If you have CF, these symptoms could make you feel more unwell, particularly when you have a chest infection. Iron deficiency anaemia is easily preventable if you regularly eat foods containing iron.

Recommended daily iron intake

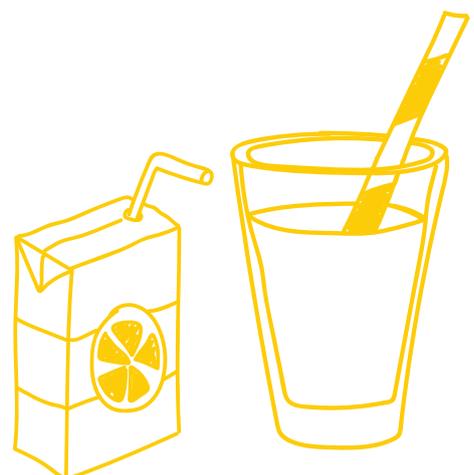
The table below details the recommendations for daily iron intake according to age and gender.

Age	Iron intake per day
Children aged 7–10 years old	9mg
Girls aged 11–18 years	15mg
Boys aged 11–18 years	11mg
Men	9mg
Women	15mg

Iron and vitamin C

As well as eating a varied diet including foods containing iron, it is recommended to take some food containing vitamin C at the same time. This helps the body to absorb the iron in the food.

Good sources of vitamin C include fruit juices and cordials (eg blackcurrant juice, Ribena® or other fortified blackcurrant cordials). Orange juice, oranges, tangerines, satsumas and strawberries are also high in vitamin C.



Meeting your iron requirements

Eating a varied diet, including foods that are good sources of iron, can help prevent low levels of iron and anaemia.

Meat and meat products

Red meat such as beef and lamb are very good sources of iron because the body is more able to absorb these. The best sources of iron come from offal foods (eg liver, kidney).

Food	Amount of iron
2 faggots (meatballs made from minced off-cuts and offal)	12.5mg
2 slices of lambs liver	8mg
8oz (raw weight) of rump steak	4mg
2 tablespoons of minced beef	3mg
Individual steak and kidney pie	3mg
1 large slice of roast beef	2mg
3 slices of roast lamb (90g)	2mg
Liver pate (45g)	3mg

Chicken, pork and turkey do not contain a good source of iron, but can still be included in your diet.

Other sources of iron

Iron is also found in cereals, pulses, beans and fruit. The body is less able to absorb the iron from these plant and vegetable sources compared to meat products, but you should still try to include these in your diet.

A bowl of fortified breakfast cereal (e.g. Rice Krispies®, Frosties®, Cheerios®, Ready Brek®) is also a good source of iron, containing 3–5 mg per portion.

Food	Amount of iron
Chick peas (half a tin)	6mg
Small tin of sardines in tomato sauce	5mg
Liquorice Allsorts® (small bag)	4mg
Bowl of lentil dahl	3mg
Small bag of cashew nuts	3mg
Small tin of baked beans	2mg
Wholemeal bread (2 slices)	2mg
1 medium chapatti	2mg
Toasted teacake	2mg
Malt loaf (2 slices)	2mg
2 fried/boiled eggs	2mg
1 large Scotch egg	2mg
Soya mince (100g)	2.6mg
1 large slice of rich fruit cake	1.5mg
Small handful of dried fruit (eg raisins)	1.5mg
Small bar of dark chocolate	1mg
Small bag of dry-roasted peanuts	1mg

Sample meal plan

Below is a sample meal plan, showing how foods high in iron can be included in your diet. This plan could provide up to 20mg of iron.

Breakfast

- Fortified breakfast cereal with milk and a glass of orange juice

Mid-morning

- Two slices of malt loaf

Lunch

One of the following:

- Two slices of wholemeal bread with two slices of roast beef
- Bean/lentil soup with bread and butter
- Baked beans on two slices of wholemeal bread and a bar of dark chocolate

Your choice to be eaten with a fruit squash containing added vitamin C

Mid-afternoon

- Toasted teacake

Evening meal

One of the following:

- Steak and chips
- Two fried eggs on two slices of wholemeal toast
- Lentil curry and two chapattis
- Three bean chilli and rice

Your choice to be eaten with a fruit squash with added vitamin C

Did you know?

Drinks such as tea, coffee and cocoa will reduce the absorption of iron if they are taken at the same time as a meal. This means the body is less able to use the iron from the food.

It is much better to avoid these drinks at mealtimes. Try a glass of fruit juice instead.

If you need help looking at how much iron you get from your diet, speak to your dietitian.



Cystic Fibrosis Trust

The information in this leaflet is general, please discuss it with your dietitian for a more personalised look at the topic.

This leaflet is part of a broad series on nutrition. Leaflets are available as online downloads and printed copies and can be found here: cysticfibrosis.org.uk/nutritionleaflets. You can also order the leaflets and our other publications from our helpline or download them here: cysticfibrosis.org.uk/publications.

Our helpline is open Monday to Friday, 9am–5pm, and can be contacted on 0300 373 1000 or by emailing helpline@cysticfibrosis.org.uk. Trained staff can provide a listening ear, practical advice, welfare/benefits information or direct you to other sources of support.

The information in this leaflet is based on clinical best practice, a consensus of opinion by dietitians within the CFDGUK and a consensus document on nutrition management of cystic fibrosis, which you can read here: cysticfibrosis.org.uk/publications.