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## 5:2 diet

The 5:2 diet is a calorie-restricted diet that involves eating 'normally' for five days out of seven and then 'fasting' on the other two days out of seven. The proposed health effects of the 5:2 diet include weight loss, improvement in life expectancy, protection against certain cancers and protection against dementia. However, the evidence supporting the 5:2 diet is currently limited. More research is needed to look at the long-term risks and benefits.

### What is the 5:2 diet?

The 5:2 diet is also known as 'The 5:2 Fast Diet™', or 'The Fast Diet', or 'Intermittent Fasting Diet'. It is based on the underlying principle of eating 'normally' for five days a week (not being particularly conscious of calories and not avoiding certain foods) and then 'fasting' (calorie restriction) on the other two days out of seven.

But 'fasting' does not mean that you eat nothing at all. In the 5:2 diet, it means eating around a quarter of your recommended calorie intake. Men and women have different recommended daily calorie intakes. A woman on the 5:2 diet should eat around 500 calories in total on a fasting day and a man should eat around 600 calories.

The 500 or 600 calories can be eaten throughout the day as snacks, or as one or two meals. And the two days of fasting do not have to be consecutive - they could, for example, be a Tuesday and a Friday.

You should try not to compensate for the lower calorie intake on the 2 days by overeating on the other 5 days. This will mean you do not lose weight, and may even put weight on. It can be difficult to suddenly only eat 500 or 600 calories, and it might be easier if you gradually lower your calories on those days over a number of weeks.

### Supporters of the 5:2 diet

There are a number of people who support and promote the 5:2 diet. They include Michael Mosley who originally trained as a medical doctor and then became a producer and presenter for the BBC. Mr Mosley famously first followed the 5:2 diet whilst making a BBC Horizon programme in 2012. He has since teamed up with journalist Mimi Spencer and together they have written a book about 'The Fast Diet' and launched a website.

The diet may be popular because of the simplicity; you do not need meal plans or measured portions. In addition there are no foods that are prohibited.

## What are the health benefits of the 5:2 diet?

Supporters of the 5:2 diet propose that there are numerous health benefits including:

- Weight loss.
- Increased life expectancy.
- Protection against certain cancers.
- Protection against [dementia](#).

The theory is that the fasting days lower the levels of a certain chemical in the body known as insulin-like growth factor 1 (IGF-1). It is thought that high levels of IGF-1 in the body accelerate the ageing process and also make ageing-related diseases such as cancer and [type 2 diabetes](#) more likely. Low levels of IGF-1 are thought to have reverse effects.

Supporters of the diet also suggest that because you are only fasting for two days out of seven, this means that there is never a long period when you feel like you are depriving yourself of tasty foods. They argue that this makes you more likely to stick to the diet and therefore have successful weight loss.

## Does the 5:2 diet work?

The evidence supporting the 5:2 diet is limited when compared with some of the other types, or ways, of dieting. Most of the research carried out so far has been around fasting on one or more days of the week (intermittent fasting) rather than the 5:2 diet model exactly.

The other problem with much of the research is that studies have not been carried out long-term. They also tend to have involved small numbers of study participants, or have been based on animals rather than on humans.

A wide-ranging review in 2017 showed that the 5:2 diet helped people to lose weight over a six-month period but was no more effective than diets in which energy was restricted every day. A 2021 study followed up participants for a year. Although they lost more weight in the first 6 weeks following the 5:2 diet, by 12 months the weight loss between different methods was equal.

When looking at the more general benefits for cardiometabolic health, it seems intermittent fasting generally improves body composition and lowers risks, particularly for those who are unhealthy and at-risk of cardiac or metabolic problems.

## What should I eat on the 5:2 diet?

During the 'fasting' days, calorie intake should be no more than 500 calories for women and 600 for men. The 500 or 600 calories can be eaten throughout the day as snacks, or as one or two meals. It is recommended that good foods to eat on a 'fasting' day are foods high in protein and fibre which tend to fill you up more – so things like fish, meat and vegetables.

- Whole-grains are fibre-rich. They include whole wheat bread and pasta, brown rice and quinoa.
- Green leafy vegetables like kale and spinach and full of vitamins and minerals.
- Other high fibre foods include legumes, lentils, oatmeal and beans.
- Healthy fats from nuts, seeds, olive oil, avocados and oily fish.
- Lean protein includes chicken, turkey, eggs and fish.

Recommended drinks for the fasting days include water, black coffee and herbal teas.

## Are there any drawbacks to following the 5:2 diet?

Supporters of the 5:2 diet may experience side-effects including:

- Sleeplessness on 'fasting' days.
- [Bad breath](#).
- [Headaches](#).
- [Constipation](#).
- Irritability.
- Reduced concentration.

Drinking plenty of water can help to reduce the chances of most of these side-effects. It should also be noted that eating 'normally' for five days out of seven does not mean that you should not eat healthily and stay physically active.

## Who should not follow the 5:2 diet?

There are certain groups of people who should not follow the 5:2 diet or carry out intermittent fasting. They include:

- Children and teenagers.
- People who have diabetes and who are being treated with insulin.
- People who experience a regular drop in their blood sugar levels.
- People who are already underweight.
- Pregnant or breast-feeding women.
- People with a history of [eating disorders](#).
- People who are otherwise feeling unwell.

It is recommended that anyone with a chronic illness or anyone taking regular medications (especially the medicine [warfarin](#)) should check with their doctor first before starting any kind of diet that involves fasting.

## What other options are there to lose weight?

Other types of diet are available - for example:

- [Dukan Diet](#).

- [Atkins Diet](#).
- [Paleolithic Diet \(Paleo Diet\)](#).

There are other ways of changing your diet and altering your lifestyle to help you lose weight, such as increasing your [physical activity](#).

You may find other leaflets in this series helpful, including:

- [Obesity and Weight Loss](#).
  - [Weight Loss \(Weight Reduction\)](#).
  - [Orlistat \(Weight Loss Medicine\)](#).
  - [Weight Loss Surgery](#).
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## Further reading

- [Headland M, Clifton PM, Carter S, et al](#); Weight-Loss Outcomes: A Systematic Review and Meta-Analysis of Intermittent Energy Restriction Trials Lasting a Minimum of 6 Months. *Nutrients*. 2016 Jun 8;8(6). pii: nu8060354. doi: 10.3390/nu8060354.
- [Hajek P, Przulj D, Pesola F, et al](#); A randomised controlled trial of the 5:2 diet. *PLoS One*. 2021 Nov 17;16(11):e0258853. doi: 10.1371/journal.pone.0258853. eCollection 2021.
- [Schubel R, Nattenmuller J, Sookthai D, et al](#); Effects of intermittent and continuous calorie restriction on body weight and metabolism over 50 wk: a randomized controlled trial. *Am J Clin Nutr*. 2018 Nov 1;108(5):933-945. doi: 10.1093/ajcn/nqy196.
- [Dote-Montero M, Sanchez-Delgado G, Ravussin E](#); Effects of Intermittent Fasting on Cardiometabolic Health: An Energy Metabolism Perspective. *Nutrients*. 2022 Jan 23;14(3):489. doi: 10.3390/nu14030489.
- [Elortegui Pascual P, Rolands MR, Eldridge AL, et al](#); A meta-analysis comparing the effectiveness of alternate day fasting, the 5:2 diet, and time-restricted eating for weight loss. *Obesity (Silver Spring)*. 2023 Feb;31 Suppl 1:9-21. doi: 10.1002/oby.23568. Epub 2022 Nov 8.

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