

Treating NAFLD with a healthy diet and physical activity

A guide for people with non-alcohol related fatty liver disease



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Pioneering liver health

Who is this booklet for?

People managing **non-alcohol related fatty liver disease (NAFLD)** with healthy eating, physical activity and (if needed) weight loss. NAFLD is sometimes called fatty liver disease.

This booklet is not designed for people diagnosed with **cirrhosis** or **advanced liver disease**. Instead read our 'Diet and Liver Disease' booklet.

Speak to your doctor before making any changes to your diet or starting to lose weight. This is even more important if you have also been diagnosed with diabetes.



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The British Liver Trust publishes a range of booklets on liver conditions. They provide information on signs and symptoms, diagnosis and treatment, and advice about how to look after yourself.

Download digital copies of our publications from www.britishlivertrust.org.uk/publications or call us on 01425 481320 to order a copy

What is non-alcohol related fatty liver disease?

A healthy liver should contain little or no fat. But in some people fat builds up in the liver. This leads to a condition called non-alcohol related fatty liver disease (NAFLD).

People are more likely to develop NAFLD if they:

- Eat an unhealthy diet
- Have a weight in the overweight or obese ranges
- Have high blood lipids
- Live with type 2 diabetes
- Have an underactive thyroid
- Have insulin resistance - for example Polycystic Ovary Syndrome

If fatty deposits build up over a long time, they can damage the liver and stop it working properly.

“The good news is that the liver can repair itself to some degree even if there is significant damage.”

Prof William Alazawi, University of London

NAFLD has four main stages.

1. **Simple fatty liver, or steatosis** – This is the milder form of the disease. It may only be discovered during tests carried out for other reasons.
2. **Non-alcohol related steatohepatitis (NASH)** – This is a more serious form of the disease. The build-up of fat begins to trigger inflammation. This can damage the liver.
3. **Fibrosis** – Although the liver can repair itself up to a point, persistent inflammation can mean that the liver reaches the limits of this repair. This leads to liver scarring also called fibrosis.
4. **Cirrhosis** – Damage from the fat, inflammation and fibrosis in the liver can lead to a condition called cirrhosis. Cirrhosis increases the risk of developing life-threatening liver failure and liver cancer.

Diet, weight and non-alcohol related fatty liver disease

If you are overweight your doctor will treat your NAFLD by advising you to lose weight.

If you are overweight, losing 5-10% of your body weight has been shown to control and in some cases reverse NAFLD

If you weigh 14 stone (89kg) that means losing around 10 to 20 pounds (5 to 10kg) in total.

Losing weight can also reduce blood pressure, reduce cholesterol and improve diabetes control.

Aim to lose weight steadily. Losing 0.5 to 2lb (0.25 to 1kg) a week is a safe and realistic goal.

Eating a healthy balanced diet will help you to lose weight. Even if you don't need to lose weight eating healthily helps stop you putting on weight which could damage your liver more. It is also an important way to improve your general health.



Your BMI explained

Doctors use a measure called the body mass index (BMI) as a guide to whether someone is a healthy weight for their height. It is not perfect, but it is a useful guide for most people.

BMI divides an adult's weight in kilograms by their height in metres squared. You can find a BMI calculator on the NHS website, or ask your doctor to work it out for you if you're not sure.

BMI	Weight range
Below 18.5	Underweight
Between 18.5 and 24.9	Healthy weight
Between 25 and 29.9	Overweight
30 or more	Obese

For people who are Black, Asian or belong to another ethnic minority group the risk of type 2 diabetes and other long term conditions starts to increase at a BMI of 23. Even though this is in the healthy range, it is a good idea to keep an eye on your weight if your BMI is 23 or more.



Energy balance, calories and weight loss

To reach a healthy weight you need to balance the energy you get from your food and drinks with the energy you use. Energy is measured in calories. If you take in fewer calories than your body uses you will lose weight. And if you take in more calories than you use you will put on weight.

The amount of energy your body needs is affected by:

- **whether you are a man or a woman**
- **how old you are**
- **how much you weigh and how muscular you are**
- **how physically active you are**

As a rule of thumb, a healthy man uses about 2,500 calories a day. And a healthy woman uses about 2,000 calories a day.

For most people it is healthier to lose weight steadily over time. There is some evidence that very low calorie diets can be used to treat or manage metabolic disease (including NAFLD). Talk to your doctor before starting to follow a diet with very low calorie intake or that cuts out certain types of food altogether.

If you have a BMI of 35 or more and are struggling to lose weight you should ask to be seen by specialist weight management services. They have access to more specialist teams and will consider a wide range of treatments that may include medicines or surgery.



Lose weight sensibly - make small changes for good

To lose weight you need to use more calories than you take in. There are two ways to do this. Eat a healthy, balanced diet. And be more physically active.

They are big changes and it can feel overwhelming. But you don't have to make them all in one go. You can break them both down into small changes that build up over time.

“Don't put pressure on yourself to be perfect. Think about how far you've come, take it one step at a time and keep going! Small changes can add up to a big difference.”

Clare McKenzie, Dietitian

Be realistic and make one or two changes at a time. Try the ideas you like the sound of and change them a bit if you need to. Once they have become part of your normal life, add another small change. The best tips are the ones that work for you and you can stick with.

Ask your doctor for help if you need to. They can give you information and advice. And if you need more support ask your doctor about referring you to a weight loss programme or a dietitian.

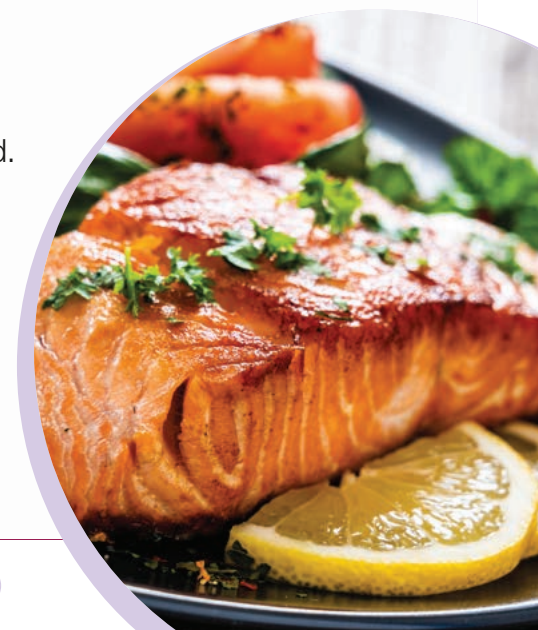
Think about your eating habits

Make it as easy as possible to stick to the healthy changes you are making.

- Plan your meals in advance so you stay on track and have the food and drinks you need to hand.
- Start your day with a healthy breakfast such as porridge, reduced sugar cereal or scrambled eggs on wholegrain toast. It will give you energy and keep you going until lunchtime.
- If you tend to get hungry between meals, swap snacks like chocolate and crisps for healthier options such as a piece of fruit, a handful of nuts, or natural or Greek yoghurt.
- Eat at about the same times each day.
- Don't eat on the go. Take your time and focus on your meal.
- Think about your drinks too.

Most importantly enjoy your food.

- Include dishes you like.
- Share meals with family and friends.
- Remember you can have a treat every now and then.



What is a healthy, balanced diet

You need to get the right balance between different foods and drinks to help your body work properly and be healthy.

Foods and drinks contain different types and amounts of nutrients. Nutrients are things like vitamins, fat and protein. They help your body do all the jobs it needs to do. So it is important to have the right amount of them in your diet. Not too little and not too much.

There is a lot of different advice on diet. And this can make it difficult to know what to do. Partly the right diet for you depends on your body and what you want to achieve from your diet.

The evidence shows that for most people a well balanced diet is the best way to stay healthy and manage your weight. It is recommended by doctors, the government, scientists, and charities. A well balanced diet helps reduce the risk of type 2 diabetes, heart attacks and stroke, cancer and other serious diseases.

A healthy, balanced diet is a way of thinking about everything you eat and drink. The overall picture of your diet is more important than any one small detail. The aim is to generally eat and drink healthily most of the time. You can adapt it to suit you, for example if you are vegetarian.

There are lots of guides to eating a well balanced diet. Your doctor or dietitian may have told you about the NHS Eat Well Guide. Or you might have a guide produced by your doctor or hospital. The advice on what to eat in this leaflet and other guides is similar. This leaflet also has lots of useful tips for putting it into practice.

Research has shown that a Mediterranean style diet can be helpful for people with NAFLD who want to lose weight.

A Mediterranean diet is a popular example of a healthy, balanced diet. It has a focus on foods that come from plants and is lower in meat and dairy products. For example using olive and other plant oils instead of butter.

A Mediterranean diet also includes plenty of vegetables, fruits, nuts and fish.



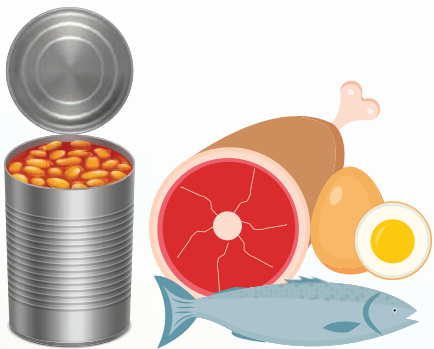
What to eat and drink



- Eat at least 5 portions of a variety of vegetables and fruits every day. One portion is roughly one handful. Include at least one portion in every meal.



- Starchy carbohydrates such as potatoes, bread, rice, or pasta should make up about a third of the food you eat. Choose wholegrain versions where possible. These are higher in fibre which helps you feel fuller for longer and is good for healthy bowels.



- Eat some beans, pulses, fish, eggs, meat and other proteins. If you eat fish include 2 portions of fish every week, one of which should be oily such as mackerel or sardines.



- Have some dairy or dairy alternatives (such as soya drinks). Choose lower fat and lower sugar options such as semi skimmed milk and Greek or neutral yoghurt.



- Choose unsaturated oils and spreads and eat them only in small amounts.



- Drink six to eight cups or glasses of fluid a day. Water, lower fat milk, and sugar-free drinks including tea and coffee are all healthier choices.



- If you eat foods and drinks high in fat, salt or sugar have these less often and in small amounts. Watch out for products with red traffic lights on the label.

Shop smart and stay on track

Check the label to find healthier products

Each serving (150g) contains

Energy	Fat	Saturates	Sugars	Salt
1046kJ 250kcal	3.0g	1.3g	34g	0.9g
	LOW	LOW	HIGH	MED
13%	4%	7%	38%	15%

of an adult's reference intake
Typical values (as sold) per 100g: 697kJ/ 167kcal

- Energy is measured in calories. This can also be written as cal or kcal. They mean the same thing.
- Look for products with mostly green and little or no red or amber.



- Make a shopping list so you don't forget anything or get tempted by offers on unhealthy foods and drinks.
- Frozen, tinned, and dried fruit and veg count towards your 5 a day and are cheaper and easier to store. Pick unsweetened products tinned in water or natural juices, rather than syrup or brine.
- Buy lower fat versions of dairy products like cheese, yoghurt and milk. There is as much calcium (needed for healthy teeth and bones) in skimmed and semi-skimmed milk as in full-cream milk.
- Try wholegrain versions of bread, rice and pasta.
- Look for lower sugar versions of breakfast cereals. Even better if they are wholegrain like shredded wheat.
- Buy less red meat (beef, pork, lamb) and choose more fish, poultry or meat-free options instead.
- Pick oven chips, sweet potato fries, and crisps that have been baked not fried.
- Go for vegetable oils and spreads (like olive, sunflower or vegetable) instead of butter or lard. Liquid oils are lower in saturated fats, so they are healthier than solid oils such as palm or coconut.

How to prepare and cook food more healthily

- Choose cooking methods that use little or no added fat. Give grilling, baking, boiling, steaming and casseroles a go instead of frying or roasting.
- Swap some or all of the meat in a curry, chilli or pasta sauce for extra vegetables, beans or lentils. Making meat go further saves money too.
- Use herbs and spices to flavour food instead of salt.
- Trim visible fat off meat and take the skin off poultry before you cook it.
- Skim fat off the surface of soups, stews and curries.
- Keep an eye on how much food you prepare - use scales, spoons, jugs or markings on packets to help you use the right amount.
- Get used to what a portion looks like, so you don't need to measure it every time.
- Look for ways to add an extra portion of fruit or vegetables to every meal. Try crunchy carrots and celery with lunch. Or cooking frozen peas along with your pasta for dinner.

Cooking from scratch gives you more control over what you eat because you know exactly what your food has been made with. You don't have to make every meal, but look for ways you can cut back on pre-prepared food.

One portion of fruit or veg weighs 80g and is roughly a handful. As a quick guide that's the same as:

- **Two or more small fruits such as plums, apricots or satsumas**
- **One medium sized piece such as an apple, orange or pear**
- **4 heaped tablespoons of greens such as spinach or cabbage**
- **3 heaped tablespoons of cooked peas, carrots or sweetcorn**



At the table - healthy tips for every meal

- Be careful with portions - don't pile food on your plate except vegetables.
- Serve out vegetables first and fill half your plate.
- Try using smaller dishes and serving spoons - research shows it works.
- It's hard to keep track of how much you're eating from bigger, sharing bags of crisps, sweets or popcorn. Serve yourself a portion instead.
- Never add salt to your food without tasting it first. Instead of salt try adding pepper, lemon or lime juice, or fresh herbs.
- Be mindful that sometimes when you feel hungry you're actually thirsty. Drink plenty of fluids, aim for 6 to 8 cups or glasses a day.
- Focus on your meal and enjoy it. Eat slowly and away from distractions.
- Wait at least 15 to 20 minutes before you decide that you need more food. It takes time for your brain to realise that your stomach is full.
- Once you're full, stop eating. Even if you haven't cleared your plate. Store leftovers safely in the fridge for another day.

- Make your plate look good with lots of colours. They are linked to the nutrients in fruit and vegetables so the more colours you see the more different vitamins and minerals you're eating.
- To finish your meal with something sweet try fruit such as peaches, pears or berries.



Make your drinks more healthy too

Drinks are an important part of your diet.

Look for drinks with no added sugar. And beware of high street coffees with full fat milk and added sugary syrups and flavours.

There is good evidence that drinking around two to three cups of coffee a day could reduce the risk of liver cancer, cirrhosis and fibrosis, and slow down the progression of liver disease.

Fruit juice and smoothies are usually high in sugar. These can only count once towards your 5 a day. Stick to a 150ml serving.

If you drink alcohol, it is very important to stay within the NHS guidelines. Alcohol directly damages your liver. And it can lead to more fat building up in your liver which in turn causes more liver damage.

If you develop more advanced scarring in your liver (including cirrhosis), speak to your doctor. They may advise you to cut down further or even stop drinking completely.

Alcoholic drinks are often high in calories too. So cutting down on alcohol is another good way to help manage your weight.

If you drink alcohol stay within the NHS guidelines.

- **Men and women should not drink more than 14 units of alcohol a week.**
- **Spread the 14 units out across the week.**
- **Enjoy two or three alcohol-free days every week.**
- **Ideally these should be next to each other.**

A unit of alcohol isn't the same as a drink. It measures the alcohol the drink contains - 1 unit is 2 teaspoons of pure alcohol. The units in a drink depend on the size and the strength (Alcohol By Volume or ABV).

- **One pint of beer, lager or cider has at least 2 units**
- **One small, single measure of spirits has about 1 unit**
- **One standard glass of wine (175ml) has at least 2 units**



Do some physical activity every day

There is some evidence that physical activity can reduce liver fat in people with NAFLD. It is also a great way to help manage your weight. It helps reduce the risk of conditions like heart disease and type 2 diabetes. And it's good for your mental health too.

The NHS recommends that adults do at least 2½ hours of moderate physical activity every week. Moderate activity is anything that makes your heart beat faster and gets you a bit out of breath. Try to do some activity every day - even 10 minutes counts.

**Any type of activity is better than none.
And more is better still.**

There are lots of different ways to get physically active. You don't have to join a gym or run a marathon - unless you want to. If you don't do much activity at the moment, it is best to start small and build up the amount you do.

Walking more is a great way to start getting active. It's free. You don't need any special equipment. And you can choose when and where you do it.

Tips on getting more active

- Walk or cycle for local trips instead of using the car or public transport.
- Get off a stop earlier - little bits of activity add up to a lot if you do them every day.
- Try out new activities with free taster sessions and find something you really enjoy doing.
- Take the stairs.
- Get your friends and family involved. You'll be more likely to stick to your plans and you'll have more fun.
- Or use your activity sessions to enjoy some me time. You deserve it.
- Don't forget your kit! Pack your bag the night before then leave it by the front door.

It is also important to **do some strengthening activities twice a week** that work all your different muscle groups. This could include:

- yoga or pilates
- working with weights or resistance bands
- carrying heavy shopping

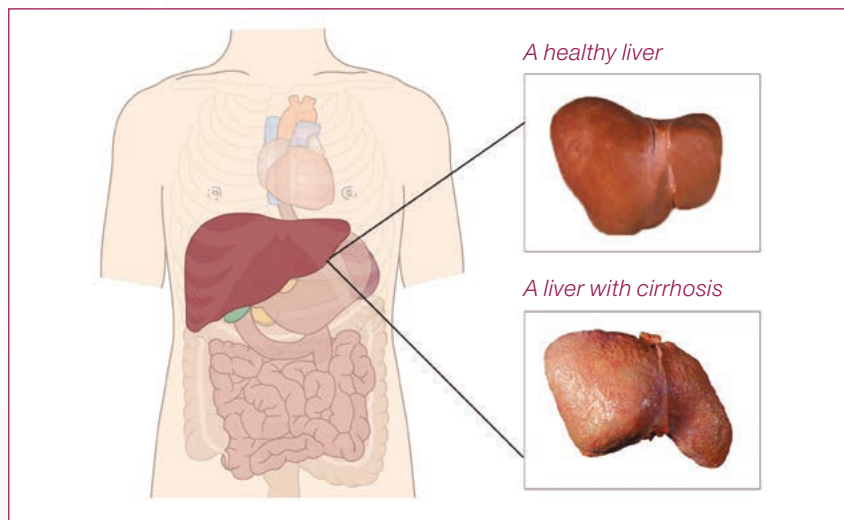


About the liver and liver disease

The liver is your body's 'factory' carrying out hundreds of jobs that are essential to life.

Your liver can be damaged in a number of different ways. It can be harmed by unhealthy habits such as drinking excess alcohol or eating an unhealthy diet. And by certain viruses or as a result of a genetic condition.

However, the good news is that the liver is able to repair itself if the damage hasn't gone too far.



Useful websites

NHS Eat Well guide

www.nhs.uk/live-well/eat-well

NHS weight loss plan

This free 12 week plan can be printed out or download it as an app

<https://www.nhs.uk/live-well/healthy-weight/start-the-nhs-weight-loss-plan/>

British Dietetic Association

The British Dietetic Association has food fact sheets on different nutrients, portion sizes, snack ideas, healthy lunches, the problems with fad diets and more

<https://www.bda.uk.com/food-health/food-facts/all-food-fact-sheets.html>

BEAT

The eating disorders charity understands that eating disorders are complex mental health issues.

Call the helpline on 0808 801 0677 or visit www.beateatingdisorders.org.uk

For more information on how liver disease develops, different liver conditions, and advice on living with liver disease visit www.britishlivertrust.org.uk

Further reading

The British Liver Trust publishes a large range of leaflets about the liver and liver conditions. Leaflets that you may find particularly helpful include:

- Non-alcohol related fatty liver disease (NAFLD)
- Our Patient Charter
Liver disease: What you should expect from your care

Special thanks

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This leaflet is for information only. Professional, medical or other advice should be obtained before acting on anything contained in the leaflet as no responsibility can be accepted by the British Liver Trust as a result of action taken because of its contents.

All our publications are reviewed by medical experts and people living with liver disease. If you have any feedback on this publication please email the Trust at info@britishlivertrust.org.uk. The British Liver Trust is a charity funded by donations, including gifts in Wills.

The British Liver Trust can only provide its expert liver health information thanks to donations from supporters like you, enabling us to meet the growing need for liver health information in the UK. We are a small charity, and your donation can make an important difference.

<p>A gift of</p> <p>£5</p> <p>could help us answer patient calls to our helpline</p>	<p>A gift of</p> <p>£20</p> <p>could help us set up a new patient support group</p>	<p>A gift of</p> <p>£50</p> <p>could support the costs of a new patient guide or leaflet</p>
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Gifts can be made:

- **Online at britishlivertrust.org.uk/donate**
- **Via post to British Liver Trust, 6 Dean Park Crescent, Bournemouth BH1 1HL**

Remember to indicate your Gift Aid preference. Please consider supporting The British Liver Trust today.

If you have questions about making a donation, please call 01425 481 320 or email fundraising@britishlivertrust.org.uk

About the British Liver Trust

The British Liver Trust is the leading UK charity for all adults affected by liver disease. Our mission is to transform liver health through increased awareness, prevention, improved care and support. We:

- Provide information and support to everyone affected by liver disease, including liver cancer
- Work to increase awareness of liver disease and liver cancer to a wider audience
- Campaign for earlier detection and better treatment of all types of liver disease
- Work in partnership with healthcare professionals and others to drive up standards of care and encourage more research.

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Website: www.britishlivertrust.org.uk

Online community: www.healthunlocked.com/britishlivertrust

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