

# Non-alcohol related fatty liver disease

Your guide to NAFLD, NASH and fatty liver disease



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This booklet will help you understand more about non-alcohol related fatty liver disease (NAFLD) and give you tips and advice on making healthy changes to improve your condition. Your doctor is the best person to speak to about your own treatment, as they know your medical history.



**“The good news is that NAFLD can be treated and even reversed with changes to your daily life – especially in the early stages when your liver is less damaged. Diet and physical activity can even help to repair some of the damage in the more advanced stages of disease.”**

Professor William Alazawi, Consultant Hepatologist,  
Queen Mary University of London

The British Liver Trust thank Pfizer Ltd for their kind donation to support the development of this booklet. Pfizer Ltd have had no influence in the initiation, development or editorial content of this project.

## What is NAFLD?

Non-alcohol related fatty liver disease (NAFLD) is a long-lasting liver condition caused by having too much fat in the liver. It is closely linked with being overweight as well as conditions such as type 2 diabetes and heart and circulatory disease.

**Non**-alcohol related **steato**hepatitis (NASH) is a more serious stage of NAFLD. In a small number of people it can lead to liver cancer or liver failure.

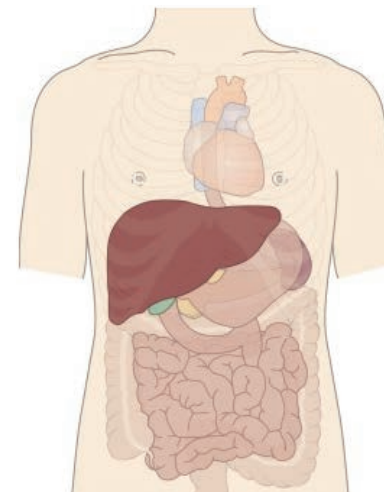
The main treatment for NAFLD is eating a well-balanced diet, being physically active and (if needed) losing weight. Research shows these can reduce liver fat and in some cases reverse liver damage.

### The name NAFLD

Some people use a slightly different version of the name - 'non-alcoholic fatty liver disease'.

Some scientists and doctors have suggested using the name **metabolic-associated fatty liver disease** (MAFLD) and you might hear it being used. It specifically means a fatty liver caused by excess weight or problems with energy balance, which account for most cases of NAFLD.

Your liver is on the right side of your tummy, just under your ribs. It works like your body's factory and carries out hundreds of jobs that help keep you alive and well.



Your liver:

- turns digested food from your gut into all the different chemicals your body needs
- breaks down toxins, alcohol, drugs and other harmful substances
- helps control the amount of sugar in your blood
- makes the chemicals that help your blood clot.

## What causes NAFLD?

NAFLD is estimated to affect up to 1 in 5 people in the UK. Rates are increasing with rising levels of obesity. Although most cases of NAFLD are linked to excess weight, you can develop the disease if you have a healthy weight.

### These things increase the risk of NAFLD:

- A weight in the overweight or obese range
- A high waist measurement
- Type 2 diabetes
- A diet with too many unhealthy foods and drinks
- Low levels of physical activity or spending a lot of time sitting down
- High blood lipids such as cholesterol
- High blood pressure
- Other conditions linked to insulin resistance for example polycystic ovary syndrome

Other diseases can make your liver fatty – either directly or as a side effect of some medicines. Your doctor will check if these things could play a role. Medicines linked to fatty liver include nonsteroidal anti-inflammatory drugs, amiodarone, corticosteroids, diltiazem, methotrexate and tamoxifen.

Do not stop taking any medicine your doctor has prescribed. Speak to your doctor if you have any questions or concerns.

NAFLD is one of a cluster of conditions that are linked to how the body produces, uses and stores energy from food (metabolism). This includes heart and circulatory diseases, type 2 diabetes, and other conditions linked to insulin resistance.

These conditions often develop together and the same person can have several of them. If you are diagnosed with NAFLD or any other metabolic condition talk to your GP. They can monitor your risk of developing a related condition and help you to reduce it.

*Throughout this booklet we have put information that links to these other metabolic conditions in a box like this to help you find it.*



## What are the symptoms of NAFLD?

**NAFLD often causes no specific symptoms, even if the disease is at a later stage. You may not show any symptoms for many years. If you have NAFLD you may have:**

- Tiredness, fatigue or a general feeling of lethargy or having no energy
- Discomfort on the upper right side of your tummy (where your liver is)

**If you develop any of the following symptoms tell a doctor straight away:**

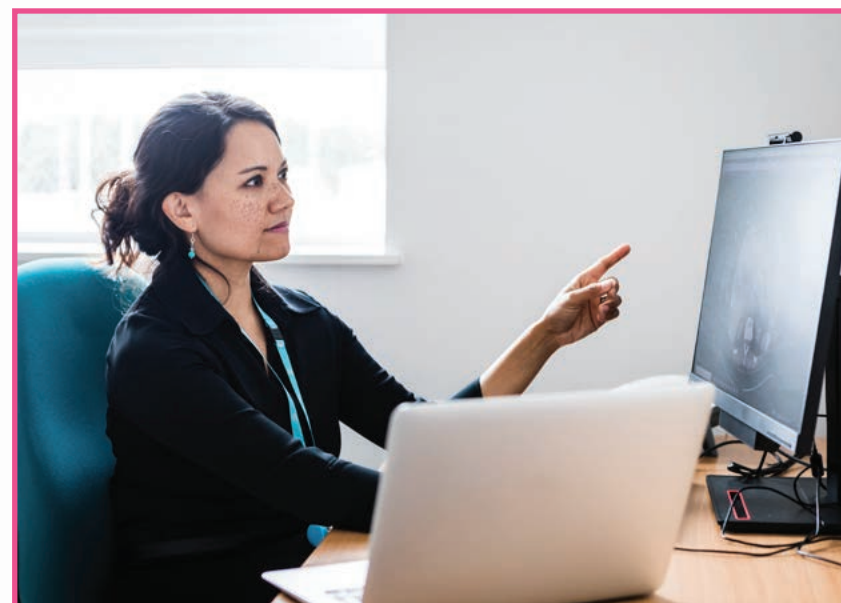
- yellowness of the eyes and skin (jaundice) – this may be harder to notice if you have black or brown skin
- bruising easily
- dark urine
- swelling of the tummy area (ascites)
- vomiting blood
- dark black tarry poo
- periods of confusion, forgetting things, mood changes or poor judgement (encephalopathy)
- itching skin

**Even if you have no symptoms, if you are at risk (see page 6) and are worried, ask your doctor for a test.**



**“What I’ve learned from my experience is that no-one knows your body better than you. If things don’t seem right, get it checked. Like most people, I put off visiting the doctor but thanks to my family and some wonderful medical staff, I was diagnosed in time to receive life-changing treatment.”**

Hilary had a liver transplant due to late stage NAFLD in 2017





## How is NAFLD diagnosed?

NAFLD might only be diagnosed when it has become serious. Or you might only find out you have it during tests for another health problem.

If your doctor thinks you have any form of liver disease they will try to find out what is causing it and how damaged your liver is. Doctors use a range of tests to get different information and build up an overall picture of what is happening.

**As part of diagnosing NAFLD, your doctor needs to rule out other causes of liver disease.**

**They will ask you about:**

- the amount of alcohol you drink
- any other medical conditions
- any medicines you take including ones your doctor has prescribed and over-the-counter medicines you buy for things like pain relief, coughs and colds, or stomach upsets
- homeopathic or alternative supplements or remedies
- recreational drugs
- your diet and the foods you usually eat
- how physically active you are.

**It is important to give your doctor as much information as you can. This will help them to diagnose your condition correctly and give you the right care.**



## Blood tests

Liver blood tests check the levels of various substances linked to liver damage and repair. They don't measure actual liver function, which is why the name liver function tests (LFTs) isn't used anymore.

Blood tests are an important guide to who might have liver disease, but they aren't accurate enough to rule out liver disease by themselves.

If your blood test results are normal but you are still worried go back to your doctor and ask them to do a test for liver fibrosis (see pages 14 and 15).

If your liver blood tests are abnormal it is important that your GP investigates the reason for this. This could include more blood tests, a scan, and testing for fibrosis (scarring) in your liver.

### ALT and AST tests

People with NAFLD often have higher than usual levels of alanine aminotransferase (ALT). And their ALT levels may also be higher than levels of aspartate aminotransferase (AST). ALT and AST are found in your liver cells. They leak into your bloodstream when the cells are damaged. ALT is more specific to the liver than AST. Your AST levels can also be raised for other reasons such as muscle damage elsewhere in the body.



## Fibrosis (scarring) tests and scores

It is very important that the amount of scarring in your liver is tested as part of your NAFLD diagnosis. This is the main sign of how advanced your liver disease is.

(See page 18 for information on the stages of NAFLD)

Fibrosis is the medical term for scarring. It is measured on a scale of 0 to 4. The higher the number, the more fibrosis there is and the more severe it is.

There are 2 main ways to check if you're likely to have advanced fibrosis (stage 3 or 4) without doing a biopsy – blood tests or a liver scan (transient elastography eg FibroScan™).

**Many doctors use a scoring system that pools results from several routine blood tests. Common fibrosis scoring systems include:**

- The **Fibrosis (FIB)-4 score** which uses 3 blood tests and your age
- The **NAFLD Fibrosis Score** which uses 4 blood tests and information about your age, weight (BMI) and whether you have diabetes
- The **Enhanced Liver Fibrosis (ELF)** test which uses a combination of 3 blood tests.

**The score doesn't say exactly how much scarring there is in your liver. Your doctor or nurse will interpret the result to decide what to do.**

**There are 3 possible results:**

- **A low risk means advanced fibrosis can be safely ruled out.**

This means you don't have later stage NAFLD including cirrhosis. Your GP will continue to manage your care. They should do a fibrosis test every 3 years to check your condition hasn't got worse.

- **Indeterminate risk means it doesn't say for sure whether you have advanced fibrosis or not.**

You should be offered further tests to find out. These could include scans or a liver biopsy.

- **A high risk means that you probably have advanced fibrosis.**

It's likely you have later stage NAFLD and you may have cirrhosis. You will be referred to a specialist liver doctor (hepatologist or gastroenterologist) who will do further tests and manage your care from then on.





## Scans

**You might also have a scan to get a better idea of what is going on inside your liver. Commonly used scans include:**

### ● **Ultrasound**

This is like the scan that is used to check on the baby during pregnancy. An ultrasound uses sound waves to create a picture of your liver. It can show the shape and surface of your liver and help spot anything unusual. On the scan a fatty liver usually looks brighter than a healthy liver would.



### ● **Transient elastography eg FibroScan™**

Liver damage and fibrosis both make your liver stiffer.

This scan tests how stiff your liver is by gently flicking the side of the skin over your liver. This sends a pulse wave through your skin and into your liver. The test measures how long it takes for the waves from the flick to bounce back. If your liver is stiffer the wave travels more slowly and your result is higher.

## Liver biopsy

In some cases, blood tests and scans aren't enough to make a diagnosis and work out the exact stage of disease. So your doctor might suggest you have a liver biopsy.

Liver biopsy is done in a hospital. It usually happens within one day so you don't need to stay overnight. You have a local anaesthetic. During the biopsy, a doctor takes a tiny sample from your liver using a thin needle. Then a specialist doctor called a pathologist examines the sample under a microscope. They look for changes in the cells that make up your liver to help diagnose your condition.

Sometimes people have complications including bleeding but this is not common. A biopsy can be painful or uncomfortable, so patients are usually offered pain relief. Your doctor will explain these risks and the reasons why they recommend having a liver biopsy so you can make your own decision about whether you agree (consent) to have it.

## The stages of NAFLD

### ● **Fatty liver** (fibrosis stage 0)

There is a build-up of fat in your liver but it has not been damaged and there is no scarring. At this point, NAFLD can be fully reversed.

### ● **NASH with mild fibrosis**

(Non-alcohol related steatohepatitis) (fibrosis stage 0 or 1)

Fat (steato means related to fat) is causing inflammation and damage in your liver (hepatitis). There is no or very little scarring. Healthy living can undo the damage and reverse your NAFLD.

### ● **NASH with moderate fibrosis** (fibrosis stage 2)

Inflammation and damage have caused some scarring. Your liver is probably still working well and the damage can mostly be repaired.

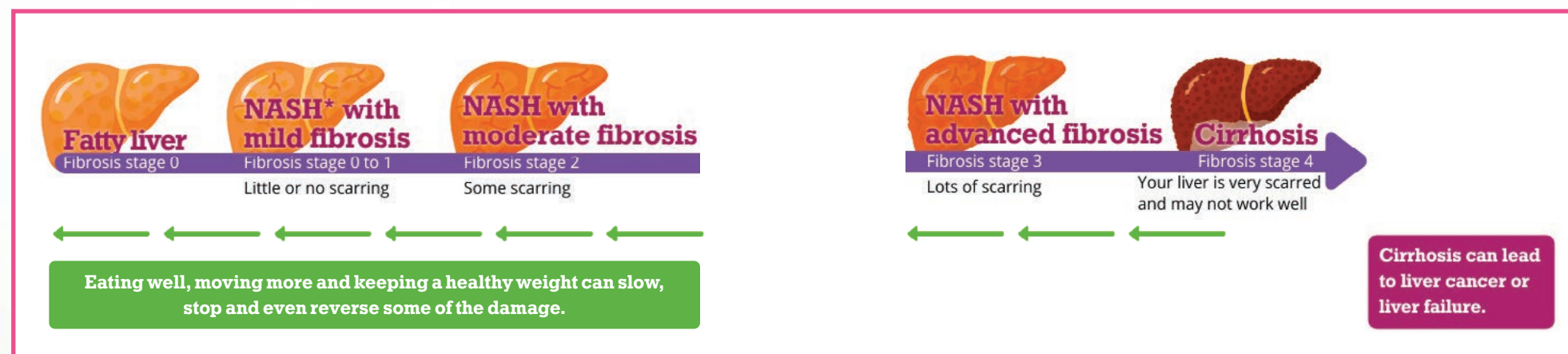
### ● **NASH with advanced fibrosis** (fibrosis stage 3)

There is a lot of scarring. At this stage it is very important to stop further damage and scarring so your NAFLD doesn't get worse. And it is still possible to repair some damage.

### ● **Cirrhosis** (fibrosis stage 4)

There is so much scarring it changes the shape of your liver. Your liver can keep working and even repair some damage at this point. But if too much of it becomes scarred, your liver may not be able to carry out its job properly.

Cirrhosis can lead to life-threatening conditions including liver cancer and liver failure.



## Treating NAFLD

### Treatment for NAFLD has 2 main aims:

- To stop the condition getting worse, so that it does not lead to liver cancer or liver failure.
- To help your liver repair as much of the damage as possible and reverse your NAFLD.

The main treatment for NAFLD is eating a healthy diet, being more physically active and (if needed) losing weight. This might seem like very general advice, but these steps all reduce liver fat and inflammation. For people who are overweight, evidence shows losing 5 to 10% of their bodyweight can stop and sometimes even reverse liver damage (see page 28).

How your care is managed depends on how serious your NAFLD is and how much scarring (fibrosis) there is in your liver. There are currently no medicines to specifically treat NAFLD. But there is a lot of research being done to develop some.

One way people with NAFLD can help is to take part in clinical trials. Ask your clinical team for more information including whether there are any trials you could take part in. You can also find out about research taking place near you by visiting the Be Part of Research website [bepartofresearch.nihr.ac.uk](http://bepartofresearch.nihr.ac.uk).

Steps to be healthier lower your risk of heart and circulatory disease, type 2 diabetes, liver cancer and other conditions linked to NAFLD.

The most common cause of death in people with NAFLD is heart and circulatory disease.

So it's important to keep your heart healthy as well as your liver. Make sure that conditions such as heart disease, high blood pressure and type 2 diabetes are well-managed. If you are managing multiple conditions tell your clinical team and ask them how they can help.

Statins are safe for most people with NAFLD. If you have been prescribed statins it is important that you continue to take them

*If you have any questions speak to your clinical team who can give advice tailored to you.*



Image © World Obesity

## GPs manage care for earlier stage NAFLD (primary care)

### This can include fatty liver and NASH with mild or moderate fibrosis

Your liver has little or no long-term damage or scarring and is probably still working well. By eating healthily, doing plenty of physical activity and keeping your weight in a healthy range you have a good chance of repairing any damage and reversing your NAFLD.

Your doctor or nurse will have a conversation with you about your weight, the foods you eat, and how physically active you are. They'll give you information and help you decide and plan the changes you want to make. The aim is to build healthy habits that will fit in with your life and help you stay well in the future.

You should have a check-up for NAFLD at least once a year. This should include checks on your risk of developing a condition related to NAFLD.

Your GP can check your:

- weight and body mass index (BMI – see page 26)
- blood glucose
- blood pressure
- blood lipids (cholesterol, triglycerides)



### Every 3 years you should have testing for advanced

**fibrosis.** This is to check that your condition is stable and not getting worse. This is important because there are often no symptoms to tell you or your clinical team that your liver is getting more damaged.



**For detailed information and lots of tips read our booklet Treating NAFLD with a healthy diet and physical activity.**



## Hospital specialists manage care for later stage NAFLD (secondary care)

### This can include NASH with moderate or advanced fibrosis, and cirrhosis

The level of scarring in your liver means you are at higher risk of liver failure or liver cancer. To reduce this risk it is very important to keep your weight in the healthy range, eat healthily and be physically active. As well as stopping your condition getting worse, it can still be possible to reverse some liver damage.

The main person in charge of your care will be a doctor who specialises in either the digestive system (gastroenterologist) or the liver (hepatologist). They may write you a care plan, which sets out what appointments you have and who else is in your Multidisciplinary Team (MDT).

Your MDT are there to give you any help you need to improve your NAFLD. They can also help you to manage some other medical conditions alongside your NAFLD. They could include a specialist liver nurse, a dietitian, a psychologist, and a physical activity specialist.

### Cirrhosis

If you have or develop cirrhosis your clinical team will advise on what other treatment you need.

**You should be offered scans to check for liver cancer every 6 months. This is called surveillance.**

There are 2 stages of cirrhosis. Compensated cirrhosis is when the liver is still working so you might not have any symptoms. Decompensated cirrhosis means your liver is no longer able to work fully. This is sometimes called advanced liver disease.

### You might have one or more complications such as:

- swollen tummy (ascites) or legs (oedema)
- bleeding (varices) in your food pipe (oesophagus) that can make you vomit blood or pass blood in your poo
- periods of confusion, mood changes or poor judgement (encephalopathy).

Your clinical team will monitor your condition and talk to you about other treatments that could help including specific advice on diet, medicines to help manage complications, or a transplant if your liver starts to fail.



**Visit our website to read or download information about cirrhosis and liver transplants.**  
**[www.britishlivertrust.org.uk](http://www.britishlivertrust.org.uk)**

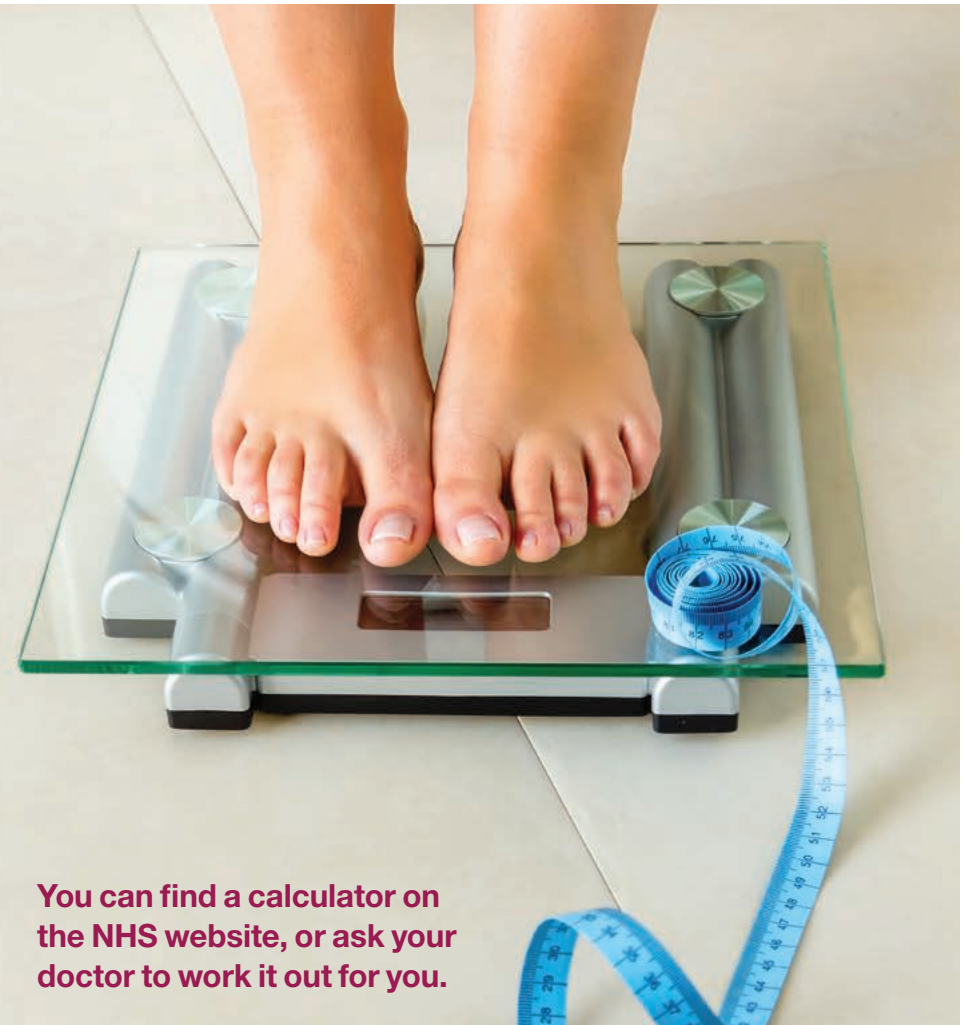
## Understanding your weight

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

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.

If you are a healthy weight, it's important to avoid gaining weight. This can make your NAFLD worse. Eating healthily and being active help you stay a healthy weight and can treat your NAFLD too.

Where you carry weight can make a difference too. People with an apple body shape who carry most of their weight around their tummy have a higher risk of conditions like NAFLD than people with a pear shape. Your waist measurement is a good guide, so your clinical team might check that as well as your weight.



You can find a calculator on the NHS website, or ask your doctor to work it out for you.

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

## Losing weight

If you have a weight in the overweight or obese range, losing weight is the most important thing you can do to improve NAFLD. Aim to lose 5 to 10% of your bodyweight. Your doctor can help you work out how much this is. You might need to lose more weight to get to a healthy weight, but this is a good start.

To lose weight you need to use more energy (calories) than you take in through food. Your body stores extra energy as fat, so your body will start to use its fat stores to make up the difference. This includes fat that has built up in your liver.

The two main ways to lose weight are to eat more healthily so that you take in fewer calories and to burn more calories by getting more physically active. Doing both usually works best to lose weight and improve NAFLD.

Losing weight this way is best done steadily. Aim to lose 2 pounds (1 kg) a week at the most. Make small changes that become part of your normal life over time. Once you are comfortable with a change, use it like a stepping stone to make another one. All those small steps add up to a big difference.

**The NHS have a free 12-week weight loss programme. It's available as an app or as printable information sheets. Visit their website to find out more.**

If you are struggling to lose weight ask about referral to a dedicated weight management service. They have access to more specialist treatments that may include very low calorie diets or weight-loss medicines or surgery (bariatric surgery).

The treatment they recommend will take into account your BMI and whether you have any other conditions, such as type 2 diabetes, high blood pressure or high cholesterol.

### What is a very low calorie diet?

A very low calorie diet has no more than 800 calories a day. It should be clinically supervised to make sure you are still getting all the vitamins, minerals and other nutrients your body needs (a nutritionally complete diet). You might also need regular checks to see if you need to change the dose of any medicines you take.

There is some evidence these diets can be used to treat metabolic disease (including NAFLD). Talk to your clinical team before starting a diet with a very low calorie intake or that cuts out certain types of food altogether to check that it would be a suitable and safe option for you.

## What does a well-balanced diet look like?

There is no magic diet or specific list of foods and drinks that will cure you or to avoid completely. Instead for most people a well-balanced diet is the best way to stay healthy and manage your weight.



The aim is to generally eat and drink healthily most of the time and not have too much or too little of anything. The overall picture is more important than any one small detail. Your clinical team can advise you on what is most important for you personally.

One popular example of a well-balanced diet is the Mediterranean diet. It has a focus on foods that come from plants and is lower in meat and dairy products. Research has shown it can be helpful for losing weight if you have NAFLD.

**For practical advice and tips to put the information on diet into practice read our *Treating NAFLD with a healthy diet and physical activity* booklet.**

## Tips to eat and drink healthily

### Be a planner

✧ Planning your meals in advance helps you think through what you will eat and when. Choose a diet that includes foods you like and that fits into your life, so you can stick with it.

### Know your portions

✧ Use scales, jugs, spoons or packet markings to help you use the right amount. Smaller dishes and serving spoons help you eat smaller portions.

### Cut down on ready meals and takeaways

✧ You don't have to cook everything from scratch, but look for ways to eat fewer packaged and processed foods. That way you're more in control of what you eat.

### Watch out for sugar in drinks

✧ A can of full sugar soft drink can have 35g of sugar – that's more than the amount in 2 jam doughnuts! Cut down on sugary drinks or have versions with no added sugar instead.



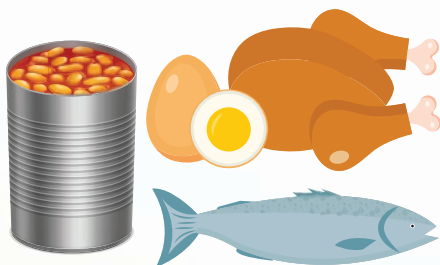
## What to eat and drink



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



- Starchy carbohydrates such as potatoes, bread, rice, or pasta should make up no more than 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 vegan alternatives (such as soya drinks). Choose lower fat and lower sugar options such as semi skimmed milk and Greek or natural 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.

**A dietitian with experience of NAFLD can give you personalised advice on what to eat and drink, including meal plans. Ask your doctor to refer you.**

## Physical activity and exercise

There is good 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. It's good for your mental health too.

The NHS recommends that adults do at least 2½ hours of moderate aerobic activity (cardio) every week. Moderate activity is anything that makes your heart beat faster and gets you a bit out of breath. They also recommend doing some strengthening activities twice a week that work all your different muscle groups.

Both types of exercise have been shown to reduce liver fat and improve liver health. This is true whether people lose weight or not. A combination of both types is likely to make the most difference.



**“It can be hard to get more active, especially if you are not feeling well. So be proud of yourself for trying. Simple seated exercises or walking a short distance are a good start. Try using the NHS website**

**‘How fit today’ to find activities you can do.”**

Dr Kate Hallsworth, Senior Research Physiotherapist,  
Newcastle University

There are lots of ways to get more active. Examples of moderate exercise include brisk walking, jogging and swimming. Strengthening activities include things like yoga, pilates and working with weights or resistance bands. Try out different activities to find something you enjoy doing.

Try to do some activity every day, even 10 minutes counts. Remember that any type of activity is better than none – and more is better still. Set yourself a realistic goal and build up slowly towards it.

Your clinical team can give you personalised advice bearing in mind your level of fitness, any other conditions you have, and coping with symptoms such as fatigue. They might be able to direct you to local services such as exercise schemes, community gyms, walking groups or weight management programmes.



## Keeping motivated with healthy changes

**If you feel like you're not making progress, have had a slip up, or are just having one of those days, try our tips to keep going when it's feeling tougher.**

- Don't beat yourself up or put pressure on yourself to be perfect.
- Try keeping a record like a food or weight loss diary so you can look back and see the progress you have made.
- Talk to your clinical team – they might be able to advise you on new things to try or give you a boost to keep going.
- Focus on your goals and imagine what it will feel like to achieve the next milestone.
- Talk to your friends and family – they want you to succeed and can help you see how much you have already achieved.
- Look at your goals again – are they too big and overwhelming? Break them down into the smallest steps you can.
- Shake things up! Try a different type of physical activity, get a friend involved, or find some healthy and delicious new foods to try.

**Getting to know people in the same situation can be a big help. Visit our website to find out about British Liver Trust support groups.**

© World Obesity



**The way out of this is a healthy diet, and plenty of exercise (two things I've not typically engaged in for large chunks of my life). Mentally, it has been very hard... The good news is that I listen to the experts. I've had therapy for a few years. A clinical dietitian who works with people with my diagnosis has been drawing up diet plans for me that have really made a difference.**

Jackson was diagnosed with NAFLD with advanced fibrosis in 2021

## Looking after yourself – your questions answered

### Can I drink alcohol?

NAFLD is not caused by alcohol. But if you drink alcohol it is important to stay within the guidelines. Drinking too much alcohol can damage your liver even more. Alcohol is also high in calories, so cutting down can help you lose weight and keep it off. If you have cirrhosis you should not drink alcohol at all. Regularly drinking alcohol increases your risk of developing liver cancer.

The guidelines on low-risk drinking are the same for men and women:

- Do not drink more than 14 units of alcohol in one week
- Spread your drinking over several days
- Have 2 to 3 alcohol free days each week – it's best if these are next to each other.

### Can I take complementary or alternative medicines?

It is important to get your doctor's advice before trying any of these products. At the moment doctors do not generally recommend them for liver disease. Most of them are not classed as medicines so they don't go through the same strict testing for quality or effectiveness. It is possible these products have no effect or could even be harmful, including causing damage to your liver.

### Does milk thistle help symptoms of liver disease?

Do not use milk thistle without speaking to your doctor. It could cause problems if you take certain medicines including warfarin, diazepam, the antibiotic metronidazole, sirolimus (an immunosuppressant used after liver transplant) and the hepatitis C drug simeprevir. There is also some evidence that it could lead to low blood sugar. There is no strong evidence to support using milk thistle as a natural treatment for liver disease.

### Do I need to stop smoking?

Smoking increases your risk of developing liver cancer and at least 50 other health conditions. If you smoke the best thing you can do for your health is quit. You don't have to do it by will power alone. Using local free stop smoking services boosts your chance of quitting by three times.

Find your local free service:

England	- NHS smokefree 0300 123 1044
Scotland	- Quit your way 0800 84 84 84
Wales	- Help me quit 0800 085 2219
Northern Ireland	- Stop smoking NI <a href="http://www.stopsmokingni.info/">www.stopsmokingni.info/</a>

### Should I try to “detox” my liver?

You might see foods or diets being recommended to cleanse or “detox” your liver. But this isn't physically possible. Some of these diets can be dangerous for people with liver disease.



## Useful words

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**Acute** – A short sharp illness that may be severe but from which most people will recover from in a few weeks without lasting effects.

**Ascites** – A build up of fluid around your tummy, which causes bloating and can be painful.

**Balanced diet** – A diet with the right amounts of all the different nutrients your body needs to stay healthy (see pages 30 to 33).

**Calories** – Used to measure the amount of energy in food. They can also be written as kilocalories or kcal.

**Carbohydrate** – A nutrient that provides energy for your body. ‘Simple’ carbohydrates or sugars are an added ingredient in many processed foods. They also occur naturally in foods such as fruit and honey. ‘Complex’ carbohydrates or starches are found in foods like bread, pasta, rice and potatoes. See pages 32 and 33 for how these foods fit into a healthy diet.

**Cirrhosis** – A serious stage of liver disease where the liver has a lot of damage and scar tissue. This means it can no longer repair itself or grow new cells properly.

**Chronic** – An illness that lasts a long time (more than six months) and possibly for the rest of a person’s life.

**Encephalopathy** – Forgetfulness, confusion and similar symptoms caused by high levels of toxins in the brain.

**End stage liver disease** – another name for cirrhosis. The name means that it comes after the other stages.

**Fibrosis** – The medical word for scar tissue, which can form as a result of liver damage. How much scarring there is in your liver is an important sign of how advanced your liver disease is. See pages 12 to 13 for information on fibrosis testing.

**Hepatic** – Anything relating to the liver.

**Inflammation** – How your body responds to things that could harm it, such as germs or wounds. Long-lasting inflammation can be triggered by things like fat in your liver.

**Metabolism** – How your body processes, stores and uses energy from food.

**NASH** – Non-alcohol related steatohepatitis is a type of NAFLD. Having NASH means that you have inflammation and damage in your liver. And you may also have scarring (fibrosis).

**Variceal bleed** – When small veins (known as varices) burst, causing serious bleeding.

## British Liver Trust information and resources

Scan the code with your phone or visit [www.britishlivertrust.org.uk/naflid](http://www.britishlivertrust.org.uk/naflid) to read and download all our information about NAFLD for patients.



This includes detailed advice on diet and physical activity and questions to ask your doctor about NAFLD.

## Useful websites

### **NHS live well resources** [www.nhs.uk/live-well](http://www.nhs.uk/live-well)

Including the eat well guide and NHS 12-week weight loss plan.

### **NHS how fit** [www.howfittoday.co.uk](http://www.howfittoday.co.uk)

Simple exercise ideas and links to local services to help you take small steps to feeling good.

### **British Dietetic Association** [www.bda.uk.com](http://www.bda.uk.com)

Food fact sheets, recipes and advice on cooking with kids, and plenty of tips.

### **BEAT** [www.beateatingdisorders.org.uk](http://www.beateatingdisorders.org.uk)

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

## Special thanks

### **All our publications are reviewed by medical experts and people living with liver disease. We would like to thank:**

Our patient focus group, reviewers and case studies.  
Prof William Alazawi, Queen Mary, University of London.  
Dr Kate Hallsworth, Newcastle University.

**We welcome your comments on this booklet,**  
**please email [publications@britishlivertrust.org.uk](mailto:publications@britishlivertrust.org.uk)**

## About the British Liver Trust

**The British Liver Trust are the leading UK charity for all adults affected by liver disease. We are entirely funded by donations, including gifts in wills. Our mission is to transform liver health by improving awareness, prevention, care and support. We:**

- Provide information and support to everyone affected by liver disease and 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 to drive up standards of care and encourage more research.

**Make your gift online today at**  
**[www.britishlivertrust.org.uk/donate](http://www.britishlivertrust.org.uk/donate)**

### Key facts about non-alcohol related fatty liver disease (NAFLD)

- NAFLD is linked to excess weight and problems with how the body produces, uses and stores energy from food. Your risk is higher if you have a condition such as heart disease or type 2 diabetes. But anyone can get NAFLD.
- NAFLD can lead to serious health problems including liver cancer and liver failure.
- Managing your weight, eating healthily, and being physically active all help reduce liver fat and can slow, stop or even reverse liver damage. This is the main treatment and your clinical team can help you make these changes.
- NAFLD often causes no symptoms, even when it is getting worse. So it's important to have the level of scarring (fibrosis) in your liver checked regularly. Talk to your doctor if you haven't been told when your next fibrosis test is due.

**Website:** [www.britishlivertrust.org.uk](http://www.britishlivertrust.org.uk)

**Nurse-led helpline:** 0800 652 7330

**Online community:** [www.healthunlocked.com/britishlivertrust](http://www.healthunlocked.com/britishlivertrust)

**Office:** 01425 481 320

**Email:** [info@britishlivertrust.org.uk](mailto:info@britishlivertrust.org.uk)

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NAFLD/03/2022