

Diet and Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD)

Also known as Non-Alcoholic Fatty Liver
Disease (NAFLD)

① For more information, please contact:

Department of Nutrition and Dietetics

Scarborough Hospital

Telephone: 01723 342415

Woodlands Drive, Scarborough, YO12 6QL

York Hospital

Telephone: 01904 725269

Wigginton Road, York, YO31 8HE

Contents	Page
What does the liver do?	3
What is Metabolic Dysfunction- Associated Steatotic Liver Disease (MASLD)?	3
What are the causes?.....	4
What is the treatment?	4
Diet and lifestyle advice	5
Maintaining a healthy weight	6
Are there other foods I can add to my diet?	7
What if I am already a healthy weight?	7
‘Crash diets’	8
Reduce intake of high fat and high sugar food and drinks	9
Fruit and vegetables	10
Alcohol	11
Activity.....	12
Goal setting	13
Teaching, training and research.....	14
Patient Advice and Liaison Service (PALS).....	14
Leaflets in alternative languages or formats	16

What does the liver do?

Your liver carries out many important jobs that are vital for life, such as:

- Processing of nutrients from food
- Storing energy, vitamins and minerals
- Breaking down chemicals, poisons, drugs and alcohol
- Controlling cholesterol
- Helping control blood sugar (or glucose) levels

What is Metabolic Dysfunction- Associated Steatotic Liver Disease (MASLD)?

Metabolic dysfunction-associated steatotic liver disease (MASLD), also known as non-alcoholic fatty liver disease (NAFLD), is diagnosed when there is a build-up of fat in the liver and other causes such as excessive alcohol intake and viral infections have been excluded.

Over time, if untreated, fatty liver may develop into a more serious form of the disease known as Metabolic dysfunction-associated steatohepatitis (MASH, previously called NASH) where the build-up of fat begins to trigger inflammation (hepatitis) and scarring (fibrosis). Damage from the fat, inflammation and fibrosis in the liver can result in a condition called cirrhosis. This is non reversible liver damage which can lead to liver cancer or liver failure.

What are the causes?

Fatty liver is more likely to develop if you:

- Have high blood cholesterol or triglyceride levels
- Have type 2 diabetes
- Live with overweight or obesity
- Have insulin resistance
- Have a high waist measurement
- Undertake low levels of physical activity
- Consume a diet with too many unhealthy food and drinks

What is the treatment?

If you live with overweight or obesity, the main treatment advised for MASLD, including MASH, is weight loss and regular exercise. There is good evidence that gradual weight loss and increasing your activity levels can reduce the fat stores in your liver.

If you have a higher body weight (body mass index (BMI) of 25 or above), losing 5-10% of your body weight via diet and exercise has been shown to help manage your condition, while a weight loss of 10% and above can improve fibrosis and in some cases reverse MASH.

Diet and lifestyle advice

1. Maintain a healthy weight
2. Reduce intake of high sugar and high fat foods
3. Include plenty of fruit and vegetables in your diet
4. Reduce alcohol intake
5. Increase activity levels

Maintaining a healthy weight

If you have a higher body weight, losing weight can help reduce the amount of fat in your liver. It can also improve blood pressure, blood cholesterol, and blood sugar levels.

Research has shown that a Mediterranean style diet can help reduce liver fat and improve insulin sensitivity.

A Mediterranean diet includes plenty of vegetables, fruit, wholegrains, pulses and small amounts of olive oil, nuts, fish, eggs, dairy and meat. To lose weight following a Mediterranean style diet, you could try to:

- Fill half your plate with vegetables or salad at meal times. This will reduce your overall calorie intake and help to stop you feeling hungry between meals.
- Choose wholegrain versions of pasta, rice and breads. These are higher in fibre than white versions and help you feel fuller for longer.
- Eat protein rich foods such as eggs, lean meat, tofu, fish and pulses. If you eat fish, include two portions of fish per week, of which one should be oily e.g. mackerel or salmon. Protein rich foods also help you feel fuller for longer.
- Include lower fat unsweetened dairy products in your diet such as cheese, yogurt and milk. Try to limit cheese to a small matchbox sized piece (approximately 30g) per day.

- Instead of butter or lard, opt for olive oil in cooking, olive spreads and salad dressings.
- Ensure you have regular meals and only snack if you are hungry and opt for healthier snacks such as fruit, natural yogurt or a handful (30g) of unsalted nuts.
- Minimise intake of processed foods, puddings, sugary and fatty foods.
- Gradually reduce your portion sizes at mealtimes.

Are there other foods I can add to my diet?

Research has also found that daily probiotics, including supplements and natural probiotic yogurt, can improve liver enzymes in MASLD and MASH.

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

What if I am already a healthy weight?

Exercise alone can reduce liver fat and improve insulin resistance, so increasing exercise levels is recommended. Additionally, reducing intake of fructose sweetened beverages should be considered.

‘Crash diets’

Following ‘crash’ or ‘fad’ diets and losing weight too quickly may worsen the problems with your liver. Therefore, it is important to lose weight gradually (no more than 1-2lbs or 0.5-1kg a week) following a healthy diet as discussed in this diet sheet.

Weight loss greater than 1kg/2lbs per week is associated with worsening liver function.

Avoid diets that:

- Promise a quick fix
- Recommend magical fat-burning effects of foods (e.g. grapefruit)
- Promote eating mainly one type of food (e.g. cabbage soup or eggs)
- Suggest easy, rapid weight loss (more than 2lbs a week)
- Recommend eating foods only in particular combinations
- Make claims that sound ‘too good to be true’
- Focus only on your appearance rather than on health benefits

Reduce intake of high fat and high sugar food and drinks

Cutting back on foods high in fat and sugar can reduce overall calories from the diet so can help regulate weight. Food and drinks high in sugar and/or fat include; sweets, sugary fizzy drinks, chocolate, pastry, crisps, biscuits, fried foods, cakes, sugary breakfast cereals and fatty meat.

Instead of sugary fizzy drinks and juice drinks opt for water or drinks with no added sugar.

Fruit juices and smoothies are usually high in natural sugars. Try to have no more than a 150ml daily serving, which counts towards one of your '5 a day.'

Aim to use fat-free cooking methods, i.e. grilling, steaming, microwaving, boiling, baking.

Choose lean cuts of meat, removing all visible fat and removing the skin from poultry.

If you are hungry in between meals try a healthier snack such as fruit or a natural yoghurt.

Fruit and vegetables

Eat at least five portions of fruit and vegetables each day. These might be fresh, frozen, tinned or dried.

A portion is approximately a handful, 80g, or the equivalent:

- One banana, apple, pear or similar sized fruit
- Two satsumas, plums or kiwis
- Handful of grapes (about twelve)
- A dessert bowl of salad
- Seven cherry tomatoes
- One heaped teaspoon (30g) of dried fruit

Ways to include more in the diet:

- Add chopped or dried fruit to breakfast cereal
- Add salad to sandwiches
- Have fruit or raw vegetables as snacks
- Add grated vegetables such as carrots and courgettes to sauces such as pasta sauce and chilli
- Buy frozen vegetables so they are always at hand

Alcohol

Alcohol directly damages your liver and drinking large quantities can increase fat stores in the liver, therefore alcohol should be avoided or limited. Alcoholic drinks are often high in calories and sugar, so limiting your intake is another helpful way to manage weight.

If you are going to drink alcohol, avoid exceeding 14 units of alcohol per week to keep associated health risks to a low level. If you drink as much as 14 units per week, it is best to spread this evenly over three days or more.

If you wish to cut down the amount you are drinking, a good way to help achieve this is to have several alcohol-free days each week

You can speak with your doctor for advice regarding safe levels of alcohol intake.

How many units do drinks contain?

- 175ml of 12% wine = 2 units
- 250ml of 12% wine = 3 units
- Pint of lower strength lager/beer/cider (3.6%) = 2 units
- Pint of stronger lager/beer/cider (5.2%) = 3 units
- Can of lager/beer/cider (440ml 5%) = 2 units
- Single measure/25ml of spirit (40%) = 1 unit

Please note that drinks with higher percent (%) alcohol will contain more units of alcohol.

Activity

Exercise can help reduce liver fat levels and improve blood glucose control in diabetes. Regular exercise can also help with weight loss, energy levels and mood.

It is recommended that adults do at least 150 minutes of moderate exercise per week, such as swimming, walking and cycling. Alternatively, at least 75 minutes of vigorous intensity activity such as running. Try to spread exercise evenly over four to five days a week, or every day.

To be as active as possible in your daily routine, you can:

- Take the stairs rather than the lift
- Walk or cycle rather than using the car for short journeys
- Be active around the house/at work

Try to find something you enjoy and can gradually incorporate into your lifestyle. Walking is a great way to start getting active and there may be other activities you can enjoy such as swimming, yoga, cycling and gym classes.

If you are not used to exercise, you may want to check with your doctor before starting.

Goal setting

Making changes to your diet and activity levels can be difficult. It is often easier to ensure that you do not try to change too much at one time.

Aim for one to two small changes at a time.

Prioritise the changes which are most important for you.

Once you are doing these routinely then you may be able to add in further changes.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:

Admin Team, York Hospital, Wigginton Road, York,
YO31 8HE, telephone 01904 725269 or
email yhs-tr.yorkdietitians@nhs.net.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net.

An answer phone is available out of hours.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website:

www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

Owner	Department of Nutrition and Dietetics
Date first issued	October 2012
Review Date	June 2027
Version	5 (issued August 2025)
Approved by	Nutrition and Hydration Steering Group
Document Reference	PIL1107 v5
© 2025 York and Scarborough Teaching Hospitals NHS Foundation Trust.	
All Rights reserved.	