A guide to understanding advanced liver disease

Information for patients and carers about ascites

Introduction

Welcome to your guide to understanding advanced liver disease and **ascites**. Throughout this guide, any unusual terms are highlighted in bold and explained at the end of this leaflet in the glossary. If you have any questions, remember to ask your doctor or nurse at your next appointment. We hope you find it informative and useful – it should help you to feel more in control of your condition.

There are five other booklets available in this series that cover a range of topics, including general health and wellness, **varices** and **variceal bleeding**, **hepatic encephalopathy**, **hepatocellular carcinoma** and nutrition. If any of these interest you, be sure to ask your doctor about them.

Contents

What is liver cirrhosis?

When a healthy liver gets injured by a virus, a toxin like alcohol or another specific liver disease, it repairs itself by replacing damaged cells with new ones. This is usually an efficient process but, when too much damage occurs and/or lasts a number of years, some of this repair work can leave scars. This is known as **'cirrhosis'**. At this point, if care is taken, the liver can usually cope with the damage and maintain its important functions. During this period, which can last years, there can be very few symptoms or even none at all.

In advanced liver disease, the scarring can become so great that the liver can no longer repair itself or function properly.

This can cause associated conditions like ascites, hepatocellular carcinoma, variceal bleeds or hepatic encephalopathy. In this booklet, we focus on the associated condition ascites.

Advanced liver disease and cirrhosis can have several causes including long term alcohol abuse, viral infection such as **hepatitis B or C**, metabolic diseases such as **non-alcoholic related fatty liver disease (NAFLD)**, or other conditions such as autoimmune hepatitis.

Why can cirrhosis lead to ascites?

When the liver is scarred, it increases the pressure inside the liver's blood vessels. The increased pressure can force fluid into the abdomen. Simply put, this is what is known as ascites.

Knowing that you have ascites can be worrying. Being well informed and following advice from professionals should help you avoid any unnecessary problems.

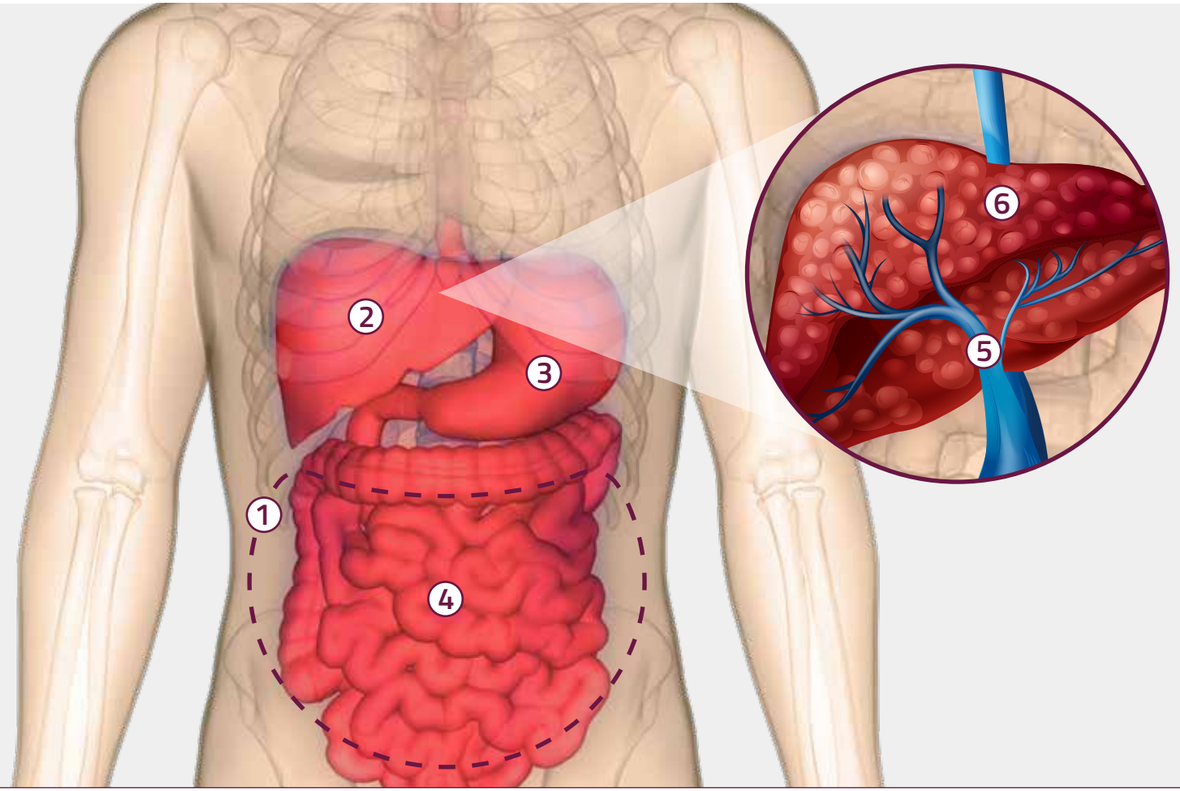
It's also reassuring to know, you are not alone. There are lots of other people out there in a similar situation to you – ascites is a very common condition among people with advanced liver disease.[1]

If you would like to find out more about others in a similar situation to you, please see the patient support group information at the back of this leaflet

Tell me more about ascites

The diagram shows the **abdomen [1]** and the organs that are found inside it. The **liver [2]**, the **stomach [3]** and a number of other organs, are all held together in a casing called the **peritoneal membrane [4]**. The purpose of the membrane is to protect and support the organs but also to allow them to move around a little as they do their job.

In a healthy liver, some of the blood is supplied by the **portal vein [5]**. This flows directly through the liver, being cleaned and filtered before making its way to the heart.



However, when a liver becomes damaged by **cirrhosis [6]**, blood cannot pass through it as quickly as it needs to. The pressure then starts to build up inside the liver and the veins leading into it.

When the pressure reaches a certain level, it starts to force fluid out of the liver and veins, back through the peritoneal membrane and into the abdomen.

What are the main symptoms of ascites?

To begin with, the build-up of fluid may be quite minor and easy to miss. If your doctor does suspect that you have ascites, they may want to confirm the diagnosis with an **ultrasound** or a **CT scan**. However, once the swelling reaches a certain point, there are definite symptoms you or your doctor will notice.

You may feel or see new, heavy sagging weight around your middle.

Alternatively, your belly moves in an unusual wave-like motion when pushed or prodded.

If you do think you are experiencing any of the following symptoms, let your doctor know as they could be related to a problem in the liver:

- A swollen or extended abdomen (belly)
- Swelling in the legs
- Bruising easily
- Changes to the belly button
- Loss of appetite
- Sudden weight gain
- Difficulty breathing (especially when lying down)
- Bloating
- Abdominal pain
- Heartburn or indigestion
- Nausea and vomiting
- Fever and abdominal pain (suggesting infection)

How is ascites treated?

Reducing salt

Your body contains a lot of water that is naturally quite salty, about the same as seawater.
If you consume a lot of salt in your diet, your body will react by keeping hold of extra water just so the saltiness stays at this level. By decreasing the salt in your diet, you will naturally lose some of this water.

Reducing salt in your diet can have a dramatic effect on reducing ascites.

Salt can find its way into your diet in all sorts of ways and some of them are not at all obvious. The following suggestions can help you take more control of salt in your diet. However, if you would like to know more about this, talk to your doctor, nurse or dietician for advice. There is also another booklet which goes into the subject of diet in more detail (please see the last page for more information).

Here are some useful tips that are easy to follow:

- Read the labels on the food and drink you buy. Salt, or sodium, should be clearly labelled
- Try to use fresh ingredients where possible. Processed food (foods that have been treated or manufactured) tend to be higher in salt
- Avoid adding salt to your food at the table
- Avoid packet and tinned soups if possible
- Tinned vegetables, including baked beans, can be high in salt. Look for low-salt or no-salt versions. Frozen vegetables are lower in salt and a good alternative
- Smoked and tinned fish, including salmon, tuna and pilchards that come in 'brine', contain a lot of salt. Try to eat fresh fish or try those tinned in spring water instead
- Avoid cured meats – such as ham, bacon, sausages and salami. Use cold cooked fresh meat, poultry or eggs instead
- Full-fat hard cheese is an excellent source of protein, so include it in your diet but do not have it every day because it is high in salt
- Bovril®, Marmite® and all yeast extracts are high in salt and so should be avoided
- Choose unsalted butter

Diuretics (sometimes called water tablets)
Improving your diet will probably not be enough on its own so sometimes your doctor will prescribe a treatment called a 'diuretic'. Some of these work by controlling a chemical inside your body called 'aldosterone', which is responsible for keeping hold of salt in the body.

The diuretic helps us to eject salt from the body, and in turn lose excess water.

It is usually best to take diuretic treatment in the morning, to avoid frequent trips to the toilet during the night.

Paracentesis
This is a method of draining off large amounts of liquid from our body when reduced salt in the diet and diuretics are still not enough. You are first given a local anaesthetic, so you are awake, but you shouldn't feel any pain.

The procedure involves a needle being inserted into the abdomen and fluid is drawn out.

This can be performed when necessary to deal with large amounts of fluid. There is some risk of infection during this procedure so you may be given antibiotics at the same time.

TIPS (Transjugular Intrahepatic PortoSystemic Shunt/Stent)

Here, some of the blood that would usually travel through the liver is redirected around it.

A tubular device is inserted into the liver to create an artificial connection (like a tunnel) between the vein carrying blood into the liver and the vein carrying blood out. This relieves some of the pressure on the liver and the veins leading to it, reducing the amount of fluid leaking out of them.

Can ascites be prevented?

Once the liver has developed advanced liver disease, it is quite likely to lead to ascites.

The best way to prevent it from developing is to avoid alcohol, control your diet and reduce salt intake.

Also, some of the ways of treating ascites mentioned in the previous section may help to prevent any future episodes.

Ascites can be a very unpleasant condition, so make sure you take all the advice and medicine prescribed to you by your doctor, exactly as instructed.

In some cases, you may be able to avoid ascites altogether if you look after your liver by being as healthy as possible.

Glossary

Abdomen: This is a space in your body (often known as the stomach or belly) that holds a number of organs, including the liver and stomach.

Ascites: A build-up of fluid in the abdomen.

Cirrhosis: Where healthy liver cells become damaged and are replaced with scar tissue.

CT scan: This is a painless scan where multiple x-rays are used to create a 3D image of the inside of your body.

Hepatic encephalopathy: A change in the brain that can occur in patients with advanced liver disease due to high levels of toxins in the brain.

Hepatitis B and C: Two conditions that cause inflammation of the liver due to viral infection.

Hepatocellular carcinoma: A type of liver cancer that is common in people with cirrhosis.

Liver: The largest organ inside the human body. Among other things, it is responsible for removing toxins from our blood, producing certain molecules like hormones and storing and releasing energy from food.

Peritoneal membrane: A thin layer of tissue covering the abdominal organs

Non-alcohol related fatty liver disease (NAFLD): NAFLD is when you get a build-up of fat in your liver.

Portal vein: A large vein carrying blood to the liver for cleaning.

Stomach: The organ in which most of the food and liquid we consume is digested.

Toxins: Harmful chemicals that enter the body through our normal daily activities such as eating, drinking and breathing. A healthy liver helps to remove these toxins from the body.

Ultrasound: This is a painless scan that uses high-frequency sound-waves to form a picture what is happening inside your body.

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

Varices: Small veins that have become larger, twisted and swollen due to blood being redirected to them.

Reporting of side effects due to prescribed medicines

If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in the package leaflet. You can also report side effects directly via the Yellow Card Scheme at www.mhra.gov.uk/yellowcard.

By reporting side effects, you can help provide more information on the safety of this medicine.

Reference:

1. Moore CM, Van Thiel DH. Cirrhotic ascites review: Pathophysiology, diagnosis and management. World J Hepatol 2013; 5(5): 251-263.

Disclaimer:

The images are being used for illustrative purposes only. Any persons depicted are models.

Suggested reading:

www.healthline.com/symptom/ascites

www.medicinenet.com/ascites/article.htm

www.webmd.com/digestive-disorders/ascites-medref

Support groups:

European Liver Patients' Association:
https://www.elpa-info.org

ELPA European Liver Patients' Association

NORGINE Partner for a healthy life

Norgine has organised and fully funded the production of these patient leaflets as a service to medicine.

GL/XIF/0318/0183b. Date of preparation: June 2019.