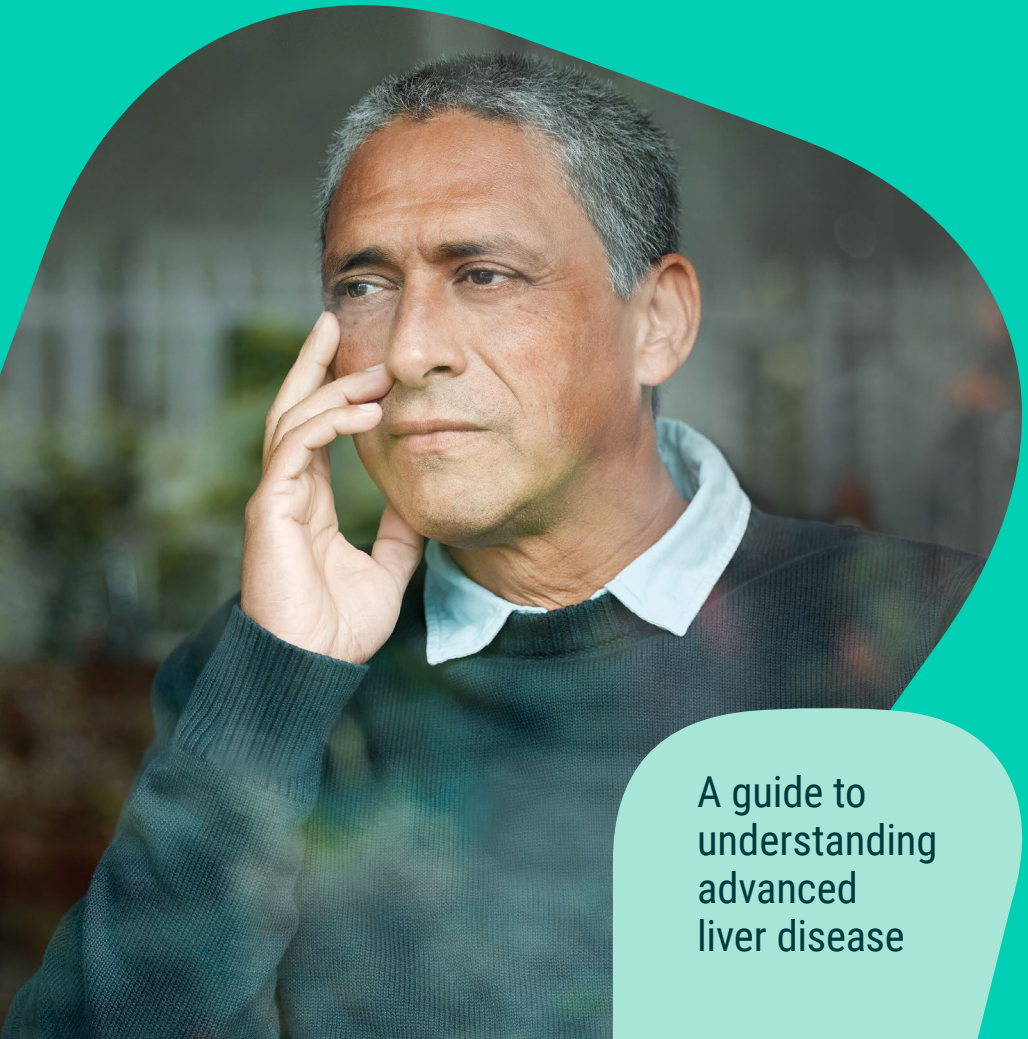




The new name for the British Liver Trust
and Children's Liver Disease Foundation

Varices and variceal bleeding



A guide to
understanding
advanced
liver disease

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Welcome

Welcome to your guide to understanding **varices** and **variceal bleeding**. These can develop in people with advanced liver disease, sometimes called **decompensated cirrhosis**.

Unusual or medical words are highlighted in bold and explained in the glossary at the end of this booklet.

This booklet is one of a series about living with advanced liver disease. The other booklets include **decompensated cirrhosis**, **hepatic encephalopathy (HE)** or brain fog, and **ascites**.

Download or order them from our website.

Use this QR code to view our resources or visit **www.liveruk.org/cirrhosis**



How to say it:
VAH-ri-sees



What is liver cirrhosis?

Advanced liver disease and cirrhosis can have several causes including drinking too much alcohol, viral infection such as **hepatitis B or C**, **metabolic diseases** such as **metabolic dysfunction-associated steatotic liver disease (MASLD)**, or other conditions such as autoimmune hepatitis.

These things all injure the liver. It repairs itself by replacing damaged cells with new ones. This usually works well but, when too much damage occurs or lasts a number of years, some of this repair work can leave scars (fibrosis). Having a lot of severe scars in your liver 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 (decompensated cirrhosis) the scarring can become so great that the liver can no longer repair itself or function properly.



This can cause linked conditions like hepatic encephalopathy, ascites, variceal bleeds or liver cancer. In this booklet, we focus on varices and variceal bleeding.

Why can cirrhosis lead to varices and variceal bleeding?

When the liver is scarred, it increases the pressure inside the liver's blood vessels.

In turn this increases the pressure in other blood vessels that link to the liver. In particular it affects blood vessels in the food pipe (oesophagus) and stomach.

This can cause blood to be redirected to smaller veins, causing them to increase in size and become twisted and swollen. These are known as varices.



Because they are strained by the extra load, these smaller veins can burst, causing serious bleeding.

Approximately half of people with cirrhosis will experience varices at some point, and approximately 3 in 10 will have a variceal bleed. Varices are most likely to develop in your food pipe, although some people have varices in their stomach.

Knowing that your health is at risk can be worrying. Being well informed and following advice from professionals should help you stay as healthy as possible.

It's also reassuring to know you are not alone. There are lots of other people out there in a similar situation to you.

If you would like to find out more or connect with others in a similar situation to you, please contact Liver UK.



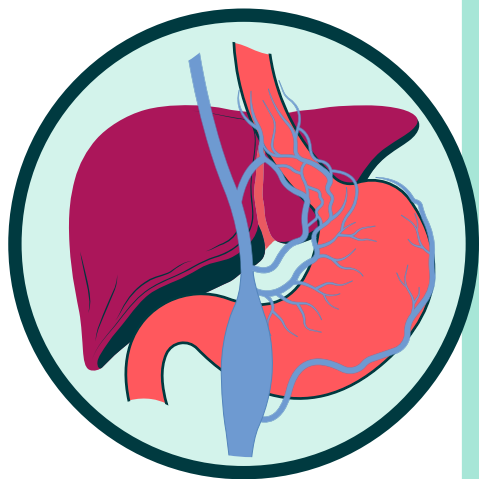
Tell me more about varices and variceal bleeding

One of the most important jobs performed by the liver is to act as a filter that cleans blood before it gets passed on to the heart.

For example, small veins along the **oesophagus [1]**, the **stomach [2]** and the **intestines [3]**, carry blood containing nutrients and toxins to the **liver [4]** to be cleaned.

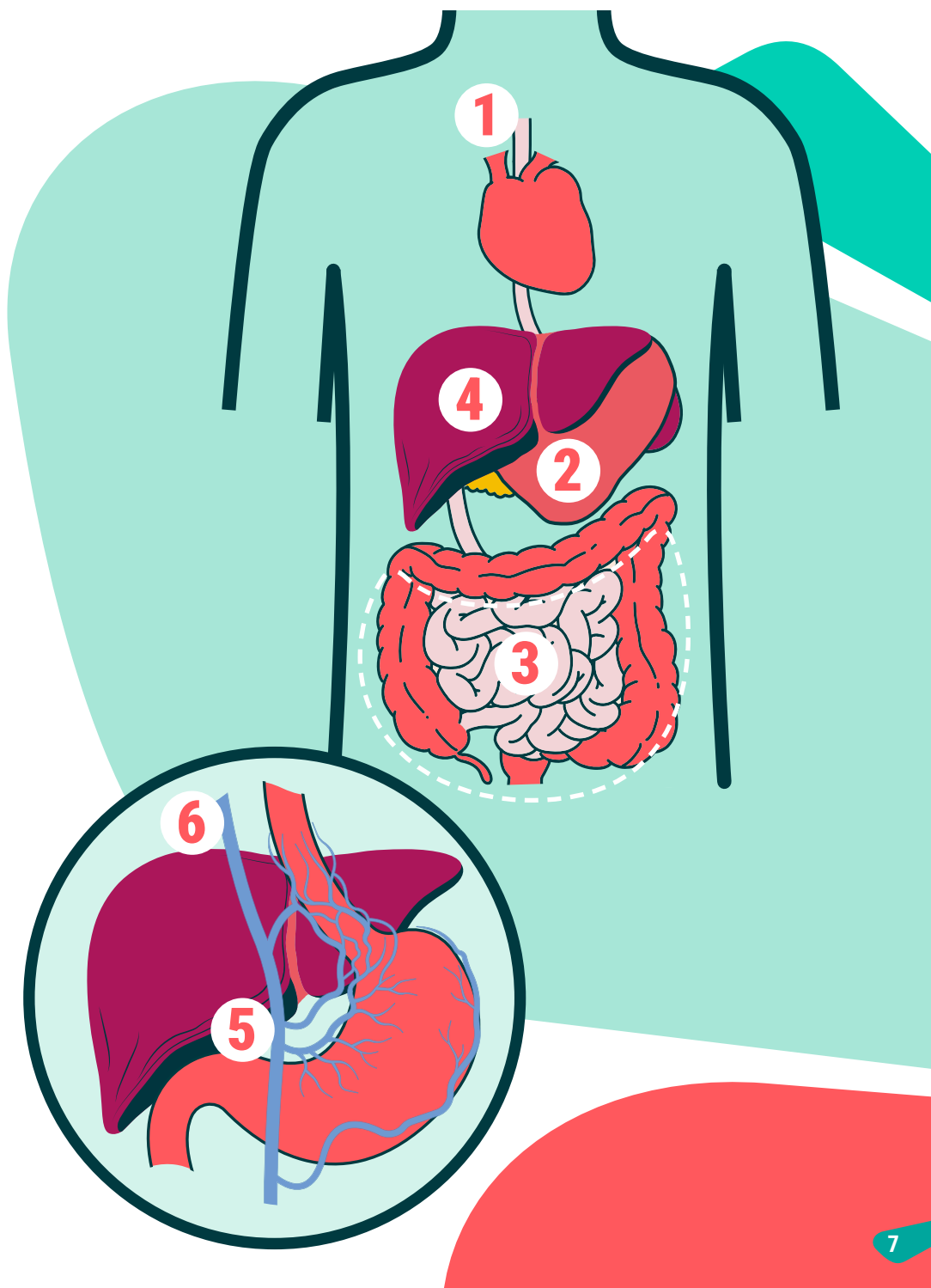
The veins carrying this blood are like small streams that connect together to form a large river. The largest vein leading directly to the liver is called the hepatic **portal vein [5]**.

In a healthy liver, the blood from the portal vein flows smoothly through the liver, where it is cleansed. This purified blood then passes out the other side of the liver through the **hepatic vein [6]** on its way to the heart. However, when a liver is damaged and scarred by cirrhosis, the blood flow is slowed down.



This means that blood cannot pass through the liver as quickly as it is arriving. Blood then begins to back-up and create pressure in the hepatic portal vein (this is known as portal hypertension).





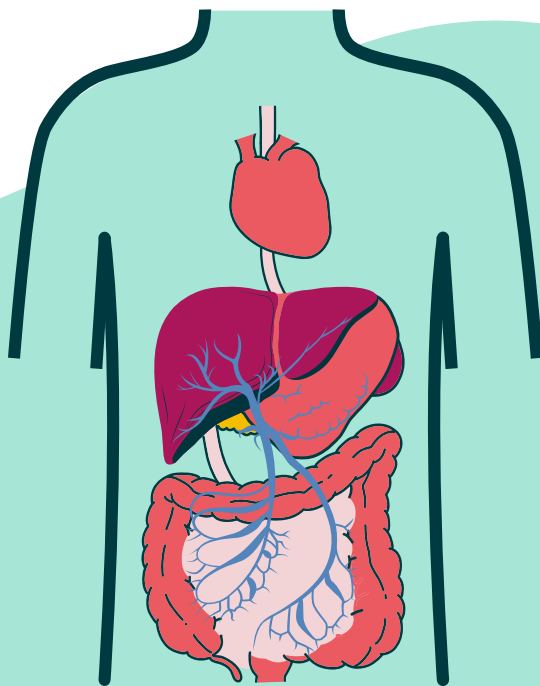
Usually, the portal vein can stretch and expand like a balloon, to hold any extra blood. However, if the pressure becomes too great, the blood then starts to back-up even further and overload the small veins that lead to the portal vein. These small, swollen veins are known as varices.

If the pressure continues to build over time and the lining of the veins becomes too thin, they can tear and bleed. This is known as variceal bleeding.



When this happens, it can be very dangerous or even life-threatening. The bleeding can be slow and long term. This causes anaemia and you might feel very tired and lacking in energy.

Varices can also suddenly bleed a lot. This can cause things like vomiting blood or having blood in your poo, which makes it look black and tarry.



What are the main symptoms of variceal bleeding?

Varices themselves don't usually cause any symptoms that you would notice.

But when varices bleed there are often clear signs.

If you notice any of the following symptoms treat it as an emergency and get medical help straight away.



- **Black, tarry or bloody poo**
- **Unusually fast heart rate**
- **Vomiting blood**
- **Pale skin**
- **Stomach pain**
- **You might go into shock**

Symptoms of shock include:

- **fast, shallow breathing**
- **cold, clammy skin**
- **weak pulse**
- **dizziness, fainting or weakness**



Endoscopy

Doctors use an endoscope to check for and diagnose varices. During the endoscopy it is also possible to treat them with banding.

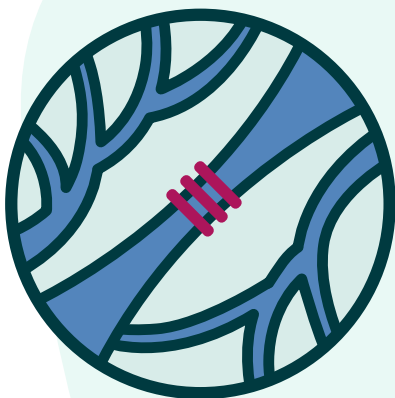
An endoscope is a long thin tube with a light and camera on the end. It's bendy so it can travel down your food pipe and let your doctor see what is happening.

You have a local anaesthetic and sometimes a sedative. During an emergency you might have a general anaesthetic.

How is variceal bleeding treated?

There are a number of treatments for variceal bleeding. Your doctor will decide on the right one for you. They should explain the treatment they are recommending.

Ask your doctor any questions you have and to explain things that aren't clear.



Banding

Tiny rubber bands are fixed around the damaged veins during an endoscopy. This stops them from leaking or bursting.

Banding can be used to stop varices from bleeding in the future, as well as to treat bleeding that has already started.

Clotting (or 'sclerotherapy')

The varices are injected with a clotting agent or a type of glue to block the vein and stop the bleeding. This is now mainly used for treating varices in the stomach.



TIPSS

(Transjugular Intrahepatic PortoSystemic Shunt/Stent)

A tube-shaped 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 allows some blood to bypass the filtering process in the liver. Because blood is no longer backing up so much, this lowers the pressure in the other veins leading to the liver.



Medicines

Antibiotics are used to reduce the risk of you developing a serious infection.

You may also be given medicines called vasoconstrictors to help control the bleeding.

How is variceal bleeding prevented?

There is a strong focus on stopping bleeds from happening in the first place.

There are several different ways your doctor can do this. You might hear this called prevention or prophylaxis.



Checking for varices

An endoscopy is used to check or screen for varices.

Blood-pressure medicine

You may be prescribed a medicine called a 'beta-blocker' (a very common treatment for high blood pressure) or similar in order to reduce the pressure and swelling in the veins.



Clotting

These methods are used to prevent bleeding as well as treat it.

Tiny rubber bands or injections of medicine that make your blood clot can both stop varices from starting to bleed.

Can I get any more support?

Variceal bleeding can be a life-threatening condition, so make sure you take all the advice and medicine prescribed by your doctor exactly as instructed.

By looking after your liver and living as healthily as possible, you may be able to reduce liver-related complications. Liver UK has plenty of information and advice to help you.



Glossary

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

Cirrhosis: Where the liver has a lot of damage and scar tissue and can no longer repair itself and grow new cells properly.

Decompensated cirrhosis: When the liver is so scarred and damaged it is no longer able to work properly.

Fibrosis: Scar tissue that can develop as a result of liver damage.

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. Cirrhosis increases the chance of developing this condition.

Hepatic vein: The blood vessel that transports cleansed blood out of the liver to the heart.

Intestines: The tube that runs from the end of the stomach to the anus.

Liver: The largest organ inside the human body. Among other things it removes toxins from our blood, produces hormones, and helps control blood sugar.

Metabolism: How the body produces, uses and stores energy from food.

Metabolic dysfunction-associated steatotic liver disease (MASLD): MASLD is when you get a build-up of fat in your liver.

Oesophagus: The tube that transports food and liquids between the mouth and the stomach. Commonly called the food pipe or gullet.

Portal vein: A large vein carrying blood from the stomach and gut to the liver for cleaning.

Stomach: The organ that breaks down and digests our food and drink.

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

Follow this QR code for a full list of medical terms and useful words



Useful resources

Advanced liver disease information suite



This booklet forms part of a suite of information for people with advanced liver disease (decompensated cirrhosis).

- **Decompensated cirrhosis**
- **Ascites – swelling of your belly with fluid**
- **Varices and variceal bleeding**
- **Hepatic encephalopathy (HE)**

Find the full information suite at:
liveruk.org/cirrhosis

How Liver UK can help



A diagnosis of liver disease can be worrying, and you may have a lot of questions. The Liver UK support team are here for you and for your family and friends.

Whether you have questions or just need someone to listen, we can help.

Find out how we can help you
liveruk.org/support

Call our nurse-led helpline
0800 652 7330





How we produce information

Feedback and information services

Your feedback is important to us and will help us improve our information. To provide feedback, email **patient-info@liveruk.org**

For more information on how our information was developed, visit our website: **www.liveruk.org**

Thanks

All our information resources are reviewed by medical experts and people living with liver disease.

We would like to thank all of the clinical and patient experts who were involved in creating this booklet.



Disclaimer

This resource provides general information but does not replace personal medical advice. It is important to contact your medical team if you have any worries or concerns.





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www.liveruk.org/donate

Liver UK is the UK's leading charity dedicated to supporting adults, children and young people affected by liver disease or liver cancer. Our mission is to transform liver health by raising awareness, promoting prevention, and improving care and support for everyone affected.



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