CONDITION

Bleeding esophageal varices

Bleeding esophageal varices are enlarged veins in the swallowing tube that rupture because of raised pressure in the liver's blood supply.

WHAT IT IS
Ruptured enlarged veins in the swallowing tube

BODY SYSTEM
Digestive system and circulation

MAIN SYMPTOMS
Vomiting blood, black stools, dizziness, fainting

WHAT CAUSES IT
Raised portal-vein pressure, usually from cirrhosis

HOW IT IS DIAGNOSED
Upper endoscopy, blood tests, and imaging

MAIN TREATMENT
Emergency medicines, endoscopic banding, and bleeding support

CAN IT BE CURED?
Sometimes - reversible causes remove raised portal pressure

IS IT AN EMERGENCY?
Yes - any suspected bleeding needs immediate care

LONG-TERM OUTLOOK
Rebleeding risk remains without preventive treatment

Overview

Esophageal varices are enlarged veins in the esophagus, the tube that carries food from your mouth to your stomach. They develop when blood has difficulty flowing through the liver. Pressure rises in the portal vein, which carries blood from the digestive organs to the liver. This is called portal hypertension .

The increased pressure redirects blood through smaller veins, including veins in the esophagus. These veins have thin walls and can become swollen. If one tears, it may cause severe internal bleeding.

Bleeding esophageal varices are a medical emergency. The amount of bleeding can be large, and blood loss may quickly affect circulation and breathing. Treatment aims to stabilize you, stop the bleeding, and reduce the chance that it will happen again.

Varices are most often linked to cirrhosis, which is long-term scarring of the liver. Not everyone with cirrhosis develops varices, and not every varix bleeds. People at risk may be offered tests and preventive treatment before bleeding occurs.

Symptoms

Esophageal varices usually cause no symptoms until they bleed. You cannot normally feel the enlarged veins.

Signs of bleeding may include:

Blood can enter the airway during vomiting, causing coughing, choking, or breathing difficulty. A person with advanced liver disease may also become unusually sleepy or confused during a bleed.

Small amounts of ongoing blood loss are less typical but may contribute to anemia, meaning too few healthy red blood cells. This can cause tiredness, shortness of breath, or reduced exercise tolerance.

Vomiting blood or passing black, tar-like stool should never be treated as a routine symptom. It requires immediate emergency assessment.

- Vomiting bright red blood or darker material that resembles coffee grounds
- Black, sticky, unusually strong-smelling stools
- Red or maroon blood in the stool if bleeding is rapid
- Dizziness, weakness, fainting, or confusion
- Pale, cool, or clammy skin
- Fast breathing or a rapid heartbeat

Causes and risk factors

The direct cause is portal hypertension. When pressure is high in the portal vein, blood looks for another route back to the heart. Some of it passes through small veins around the esophagus, making them enlarge.

Cirrhosis is the most common underlying cause. Liver scarring may result from alcohol-related liver disease, long-term viral hepatitis, metabolic dysfunction-associated steatotic liver disease, autoimmune liver disease, or other chronic liver conditions.

Less common causes of portal hypertension include a blood clot in the portal vein and certain

infections, such as schistosomiasis in parts of the world where that infection occurs.

Among people who have varices, bleeding is more likely when the veins are large or under greater pressure. During an endoscopy, certain red markings on the veins can also suggest a higher bleeding risk. More advanced liver dysfunction increases the risk.

Actions or medicines that affect clotting may make bleeding harder to control, although they do not usually create varices by themselves. This includes some anti-inflammatory pain medicines, antiplatelet medicines, and anticoagulants like warfarin or apixaban . Do not stop a prescribed medicine without medical advice unless emergency staff tell you to do so.

Diagnosis

If variceal bleeding is suspected, assessment and treatment happen at the same time. The healthcare team will check your breathing, pulse, blood pressure, alertness, and circulation. Blood samples help measure blood loss, liver and kidney function, clotting, and blood type.

An upper endoscopy usually confirms the diagnosis. During this procedure, a flexible camera is passed through the mouth into the esophagus and stomach. Sedation is usually given. The examination can show whether a varix is actively bleeding, has recently bled, or whether another condition caused the bleeding.

Treatment can be performed through the endoscope. This is one reason endoscopy is arranged urgently once you are stable enough for the procedure.

Ultrasound, CT, or other scans may be used to assess the liver, portal vein, and surrounding blood vessels. These scans can help identify cirrhosis, a portal-vein clot, or other causes of portal hypertension. Imaging does not usually replace endoscopy for confirming an esophageal source of active bleeding.

If you have liver disease but have never bled, your care team may assess your risk using endoscopy, liver stiffness measurements, blood tests, imaging, and platelet counts. The exact approach depends on your liver condition and previous results.

Treatment and management

Emergency care begins with protecting breathing and supporting circulation. You may receive oxygen, intravenous fluids, or a blood transfusion based on your condition and test results. If vomiting or reduced alertness threatens the airway, a breathing tube may be needed temporarily.

Medicines that lower blood flow and pressure in the portal circulation are usually started promptly when variceal bleeding is suspected. Examples used in different healthcare systems include octreotide or terlipressin. People with cirrhosis and upper digestive bleeding are also commonly given short-term antibiotics like amoxicillin or doxycycline because infection can develop and may increase the risk of further bleeding.

The main endoscopic treatment is variceal band ligation . Small elastic bands are placed around the enlarged veins. This cuts off their blood supply and helps control the bleeding. The treated tissue later scars and the band falls away.

If bleeding cannot be controlled, temporary pressure may be applied inside the esophagus using a special balloon device or removable covered stent. These are short-term measures used while arranging definitive treatment.

A procedure called transjugular intrahepatic portosystemic shunt , or TIPS, may be needed. TIPS creates a channel within the liver that allows blood to bypass part of the high-pressure portal circulation. It may be used when standard treatment fails or early in selected people at high risk of further bleeding. TIPS can worsen hepatic encephalopathy, a form of confusion caused by liver dysfunction, so its benefits and risks are assessed carefully.

After bleeding stops, treatment focuses on preventing another episode. This commonly involves a non-selective beta blocker to reduce portal pressure, repeat endoscopic banding, or both. Follow-up endoscopies may be needed until the varices are controlled.

Managing the underlying liver condition is also important. This might include avoiding alcohol, treating hepatitis, managing metabolic liver disease, or assessing whether liver transplantation is appropriate. These decisions are based on the cause and severity of liver damage.

Complications

The main immediate complication is major blood loss. This can reduce oxygen delivery to the brain, heart, kidneys, and other organs. Severe loss may lead to shock, in which circulation cannot meet the body's needs.

Other possible complications include:

Rebleeding is a significant concern, especially during the first days and weeks after an episode. Preventive medicines, follow-up endoscopy, and treatment of the underlying liver disease are intended to lower this risk.

Bleeding varices can be life-threatening, but urgent treatment can stop many bleeds. The outlook is strongly influenced by how well the liver is functioning, whether bleeding can be controlled, and whether complications such as infection or kidney injury develop.

- Blood entering the lungs during vomiting
- Infection, particularly in people with cirrhosis
- Acute kidney injury
- Hepatic encephalopathy, causing confusion or reduced alertness
- Anemia after blood loss
- Another episode of bleeding

Prevention

Esophageal varices cannot always be prevented. Once cirrhosis or another cause of portal hypertension is present, the main goal is to identify higher-risk varices and prevent them from bleeding.

If you have cirrhosis or clinically significant portal hypertension, planned monitoring may include endoscopy or non-invasive liver assessments. Higher-risk varices may be treated with a non-selective beta blocker or endoscopic banding before any bleeding occurs.

You may be able to reduce further liver injury by following care specific to its cause. This can include avoiding alcohol, receiving treatment for viral hepatitis, managing diabetes and body weight, or taking prescribed treatment for autoimmune liver disease.

Check before using aspirin, ibuprofen, naproxen, herbal remedies, or supplements if you have cirrhosis or varices. Some can increase bleeding risk or affect the liver and kidneys. Do not stop anticoagulants, antiplatelet medicines, or beta blockers like metoprolol or propranolol on your own; stopping them may also cause harm.

After a variceal bleed, keeping appointments for repeat endoscopy and taking portal-pressure treatment as directed are important ways to reduce the chance of another episode.

Living with it and what to expect

The bleeding episode itself is treated in hospital. Recovery may involve tiredness from blood loss, repeat blood tests, and follow-up to check liver function. Some people need further banding sessions over the following weeks or months.

Banding can remove or shrink existing varices, but new ones may form while portal pressure remains high. This is why ongoing monitoring and preventive treatment are often needed even when you feel well.

Your longer-term course depends mainly on the cause and severity of portal hypertension. If the cause can be reversed, pressure and bleeding risk may improve. Established cirrhosis often requires long-term care because liver scarring may not fully resolve.

Many people return to daily activities after recovery, but repeated hospital visits may be needed. Alcohol should be avoided when advised for liver disease. Nutrition can also become difficult in advanced liver disease, so specific advice from a dietitian may be useful rather than making major dietary restrictions yourself.

Confusion, increasing abdominal swelling, yellow skin or eyes, worsening weakness, or reduced urine output may indicate a change in liver or kidney function. These symptoms need prompt medical review, even when there is no visible bleeding.

For some people with advanced liver disease, the care team may discuss liver transplantation. This does not mean transplantation will definitely be needed. Assessment considers liver function, other health conditions, complications, and likely benefit.

When to get medical help

Call emergency services immediately if you vomit blood, pass black tar-like stool, or see a large amount of red or maroon blood in your stool. Do not drive yourself.

Emergency help is also needed for:

While waiting for help, avoid food and drink because urgent endoscopy or airway treatment may be needed. If the person is unconscious but breathing, place them on their side if it is safe to do so. Do not give aspirin or anti-inflammatory pain medicines.

Contact your usual care team promptly, but not necessarily through emergency services, for increasing abdominal swelling, worsening jaundice, new mild confusion, reduced urine output, persistent weakness after treatment, or side effects from preventive medicines.

Routine follow-up includes planned blood tests, liver assessment, medication review, and repeat endoscopy when recommended. Keep these appointments even if you have no symptoms, because varices are usually silent until they bleed.

- Fainting, severe dizziness, or inability to stand
- New confusion, extreme sleepiness, or difficulty waking
- Trouble breathing, choking, or coughing blood after vomiting
- Pale, cold, clammy skin or a very rapid heartbeat
- Severe weakness with suspected internal bleeding

Common questions

Can esophageal varices go away?

Varices may shrink after banding or treatment that lowers portal pressure. They can return if the underlying pressure remains high. If a reversible cause of portal hypertension is successfully treated, the risk may fall, but established cirrhosis often needs lifelong monitoring.

Can I feel an esophageal varix before it bursts?

Usually not. Varices rarely cause pain or a sensation in the chest or throat. Screening and monitoring are therefore based on liver disease and portal-hypertension risk, not on whether you can feel symptoms.

Does vomiting blood always mean a varix has burst?

No. Stomach ulcers, inflammation, tears after forceful vomiting, and other conditions can also cause upper digestive bleeding. All vomiting of blood needs emergency assessment. Endoscopy is usually required to identify the source.

How likely is another bleed?

Rebleeding is a recognized risk, particularly without preventive treatment. Your individual risk is affected by liver function, portal pressure, the size of the varices, and how well treatment works. Beta blockers, repeat banding, and sometimes TIPS are used to reduce this risk.

Can I eat normally after variceal banding?

Your hospital team may recommend a temporary change in food texture after the procedure, especially if swallowing is uncomfortable. Follow the discharge instructions you receive. New severe chest pain, inability to swallow, vomiting blood, or black stools needs urgent assessment.

Is bleeding from esophageal varices curable?

The active bleed can often be stopped, but this does not always remove the reason the varices formed. Long-term control depends on lowering portal pressure and treating the liver or blood-vessel condition responsible.

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