



Imaging



**Brighton and Sussex
University Hospitals**
NHS Trust

Biliary drainage and stenting

Information for patients

What is percutaneous biliary drainage?

The liver produces bile which aids digestion of fats. The bile flows through a series of small tubes (ducts) that drain into one large duct called the common bile duct, which then empties into the duodenum, the first part of the small bowel after the stomach. Bile is also stored in the gallbladder. If part of your system of bile ducts become blocked then the bile needs to be drained in another way. Percutaneous Biliary Drainage is the passage of a tube through the skin into the liver that allows bile to be drained externally. Signs of blocked bile ducts include jaundice (yellowing of the skin), dark urine, light stools, itching, nausea and poor appetite. This is a potentially serious condition that needs to be treated.

What is biliary stenting?

Sometimes the biliary drainage procedure may be extended with the placement of a permanent metal stent across the site of the bile duct blockage. Stents are usually inserted a few days after the first drainage procedure and they keep the narrowed duct open without the need for a catheter. Stenting may come before or after biliary dilatation, which is when a segment of bile duct is dilated with a balloon to open it up.

Why would I need percutaneous biliary drainage with or without stenting?

The most common reason to have biliary drainage is because you have blockage or narrowing (stricture) of the bile ducts.

There are several conditions that may cause this, including:

- Gallstones – in the gallbladder or within the bile ducts
- Inflammation of the pancreas (pancreatitis)
- Inflammation of the bile ducts (sclerosing cholangitis)
- Tumours of the pancreas, gallbladder, bile duct, liver
- Enlarged lymph nodes in the region of the pancreas and liver due to various types of tumours
- Injury to bile ducts during surgery
- Infection

Biliary drainage relieves the blockage in the bile ducts allowing bile to leave the liver.

Biliary drainage may be necessary in preparation for surgery or other procedures on the bile ducts, such as removal of a bile duct stone or tumour.

Who has made the decision?

The Consultant in charge of your case, and the Interventional Radiologist (the doctor who specialises in Imaging Procedures) who will be carrying out the Biliary Drainage, will have discussed the situation, and feel that this is the best treatment option. However, you will also have the opportunity for your opinion to be taken into account and if, after discussion with your doctors, you do not want the procedure carried out, then you can decide against it.

Who will be performing the biliary drainage?

A specialist doctor called an Interventional Radiologist. Interventional Radiologists are experts in using X-ray equipment and in microsurgical techniques.

Where will the procedure take place?

In the Imaging Department, in a special Interventional Radiology (IR) Procedure Room which is designed for these specialised procedures. You will be checked into the department by a nurse, who will ask some medical questions and fill out some paperwork. The Interventional Radiologist will then talk to you about the procedure, where you will have the opportunity to ask any questions or raise any concerns. Only if you are happy to continue with the procedure will you be asked to sign the consent form.

What actually happens during a biliary drainage?

It is performed in the IR procedure room. You will lie on a special x-ray table on your back and be covered with sterile drapes.

- You will have a needle put into a vein in your arm so we can administer antibiotics, pain killers and sedation. Then your abdomen is cleaned and you will be covered in sterile drapes.
- The radiologist will inject local anaesthetic to numb the area. This may sting at first before numbing the area.
- The radiologist will use ultrasound and imaging guidance to place a plastic tube in one of your bile ducts.

- A long thin plastic tube called a drain will then be placed across the narrowed duct. One end of the tube will lie outside your body and drain into a bag. This will be secured to the skin with a dressing and is sometimes also secured with a stitch.

You may also need a stent placed into one of your bile ducts.

This may happen during this first procedure or at a later date.

A stent is a small metal tube that will be placed across the blockage.

How do I prepare for biliary drainage/stenting?

To prepare for the procedure you will need to make sure you do the following:

- You will need to have a blood test before your procedure.

Please let us know if you are taking any **antiplatelet medicines** (for example, Aspirin, Clopidogrel) or any **medicines that thin the blood** (for example, Warfarin), as these may need to be withheld temporarily before the procedure. Call the IR department for advice as soon as you get your appointment letter on **01273 696955 Ext. 4240/4278** and ask to speak to one of the IR nursing team.

If you are taking **medicines for diabetes** (for example metformin) or using insulin, then these may need to be altered around the time of the procedure. Call the IR department on the numbers above for advice as soon as you get your appointment letter.

You cannot eat or drink anything (except water) for four hours before your procedure.

You can drink water up to two hours before your procedure.

You will be admitted to a hospital ward after the procedure for observation.

Will it hurt?

When the local anaesthetic is injected it will sting for a moment but the stinging will wear off, leaving that area of skin numb. You will be given pain relief and sedation for the procedure and if you need more pain relief you can ask the nurse looking after you.

How long will it take?

Whilst every patient is different, we allow an hour for the procedure.

What are the risks of the procedure?

Although biliary drainage is a relatively safe technique, there are potential risks as with any procedure. Occasionally, it may not be possible to place the drain in the bile duct, in which case surgery or a different procedure may be required to relieve the blockage. Sometimes the bile may leak around the catheter and form a collection in the abdomen that can cause pain and may require drainage. Occasionally, the procedure can cause a blood infection (septicaemia) but prophylactic antibiotics are given to reduce this risk. Occasionally, bleeding may be a problem that requires a blood transfusion. Rarely, bleeding can be more severe and an embolisation procedure or surgical operation may be necessary.

What are the benefits?

- Symptom relief
- It can improve liver function.

What happens after the procedure?

You will be taken back to your ward where your blood pressure, pulse rate, oxygen levels and temperature are monitored regularly. You will be on bed rest for a few hours until you have recovered. It is important to take care of the drainage bag so that the catheter does not get pulled out. The nurses will empty the drainage bag at regular intervals and record the drainage output. If you are discharged with the catheter and bag in place, the nursing staff will teach you how to care for the catheter at home, such as how to empty the bag and change the dressing. The team looking after you will decide when the tube can be removed.

Finally

Some of your questions should have been answered by this leaflet but remember that this is only a starting point for discussion about your treatment with the team looking after you.

Make sure you are satisfied that you have received enough information about the procedure before you sign the consent form.

**Interventional Radiology:
01273 696955 Ext. 4240**

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Disclaimer

The information in this leaflet is for guidance purposes only and is in no way intended to replace professional clinical advice by a qualified practitioner.

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