

Having a Percutaneous Biliary Drainage

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Introduction

This leaflet tells you about the procedure known as Percutaneous Biliary Drainage. It explains what is involved and what the possible risks are. It is not meant to be a substitute for informed discussion between you and your doctor, but can act as a starting point for such a discussion.

Whether you are having the procedure as planned or as an emergency procedure you should have sufficient explanation before you sign the consent form.

What is biliary drainage?

One of the normal functions of the liver is to produce bile. This drains through a series of small tubes (ducts) and eventually drains into one large tube, the common bile duct, which itself empties in to the duodenum (first part of the small bowel). If the bile duct becomes blocked either by gallstones, inflammation or tumour around the pancreas, the bile cannot drain and the skin becomes jaundiced (yellow). This is serious and need to be treated by draining the bile.

Percutaneous biliary drainage

Involves inserting an internal or external drain into your bile duct through a tiny hole in your skin.

Specific complications of percutaneous biliary drainage

- The doctor may be unable to place the drainage tube. This is usually due to the ducts not being wide enough for the needle to be placed.
- Occasionally there is a bile leak from the duct where the tube has been inserted. This results in a small collection of bile inside the abdomen that can be painful. The leak from the duct should stop within 48 hours but may need draining.
- If you are jaundiced you may have problems with blood clotting causing slight bleeding from the wound site. On rare occasions this may become severe and need a blood transfusion or another procedure to stop the bleeding.

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 doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure.

What happens afterwards?

You will be taken back to your ward on a trolley. Nurses on the ward will carry out routine observations, such as taking your pulse and blood pressure, to make sure that there are no problems. You will generally stay in bed for a few hours, until you have recovered.

Be aware that you are connected to a drainage bag. Try not to make any sudden movements, such as getting out of bed or a chair. Remember you have a drainage bag with you. The bag will need to be emptied regularly and the nurses must measure and record the amount of bile each time. You may have to have further x-rays to check if the drain or stent is working. Your doctors will discuss with you if you need any further procedures and if the external drain can be removed. A stent will be left in permanently.

Are there any risks or complications?

Percutaneous biliary drainage is a safe procedure and should result in an improvement in your medical condition. However, there are some risks and complications that can arise.

Any procedure using sedation can result in complications, although they are rare. They include a reaction to the medicines used (nausea or skin reactions) or the effect on any ongoing disease process (e.g. heart, lung or kidney disease).

Taking x-rays involves a small dose of radiation, but this is no greater than any standard x-ray test and is well within recommended limits.

Why do I need percutaneous biliary drainage?

You may have already had other tests, such as an ultrasound scan or a CT scan that have shown that your bile ducts are blocked. You may have also had an unsuccessful ERCP and the doctors looking after you have decided that you would benefit by having a percutaneous drainage tube inserted. This may then be easily changed for an internal drainage tube or a stent at a later date if needed.

Who will be doing the drainage procedure?

An Interventional Radiologist will perform the procedure, a doctor who specialises in such procedures; he will be assisted throughout the procedure by radiology nurses and radiographers.

As the procedure happens in the Interventional Theatre all members of staff will be dressed in scrub tops like below. All members of staff will introduce themselves before the start of the procedure.



How do I prepare for the procedure?

You need to be an in-patient in the hospital. You will be asked not to eat for four hours beforehand, though you may be allowed to drink some water. You may receive a sedative to relieve anxiety, as well as an antibiotic. You will be asked to put on a hospital gown. You will have some routine blood tests before we can proceed with the procedure.

If you have any allergies, you **must** let your doctor know. If you have previously reacted to intravenous contrast medium, the dye used for kidney x-rays and CT scanning, then you must also tell your doctor about this.

Where is the procedure performed?

The drainage will take place in the Radiology Department in a special “screening room” design specially for this type of procedure.



What actually happens during the drainage?

You will need to lie on the x-ray table, on your back. A fine soft tube will be placed into a nostril to give you oxygen to breathe during the test. You will be given an injection to make you sleepy and ease any discomfort you may feel. There will be a nurse looking after you during the procedure, who will monitor your pulse and blood pressure. They will give you extra painkillers if needed.

The area of skin where the drain is to be placed will be cleaned with antiseptic. The doctor will inject a local anaesthetic under the skin to numb the area. This may sting a little. The rest of your body will be covered by a sterile sheet.

The doctor will then insert a fine needle into your liver guided by an ultrasound machine and x-rays. Once the needle is in a satisfactory position, x-ray dye is used to assess the bile ducts. One of the following will be inserted;

- **External drain** – a plastic tube that is fixed to the skin by a stitch (suture) and drains the bile into a drainage bag.
- **Internal / external drain** – a plastic tube, which crosses the bile duct blockage and drains bile into the duodenum and into an external drainage bag.
- **Internal stent** – a permanent metal tube, which is placed across the obstruction to relieve the blockage. A temporary external drain may also be used for a few days. It is highly likely this procedure will be performed whilst you are under a general anaesthetic (GA).