

Percutaneous fluid and abscess drainage

A fluid collection is an abnormal build-up of fluid in a part of the body that can happen from many different causes. An **abscess** is a type of collection that is infected and has a wall around it developed by the body to stop the infection from spreading.

Abnormal fluid collections, such as abscesses, may be **drained** by the placement of a tube (also called a drain or catheter) through the skin (percutaneous) or body orifice (rectum or vagina) into the collection. Interventional radiologists do this in a minimally invasive way, using imaging techniques such as ultrasound or CT to guide them.

The purpose of drainage is:

- to establish a diagnosis, i.e. to find out exactly what type of fluid it is
- to relieve symptoms and to cure/drain an infected fluid collection
- to stabilise a patient's condition to allow the safe performance of another procedure and to improve its outcomes

How will I benefit from the procedure?

Percutaneous drainage is usually the safest, least invasive and most effective way to drain abnormal fluid collections from your body. It usually spares you from longer, more invasive surgical operations with higher complication rates.

How should I prepare before the procedure?

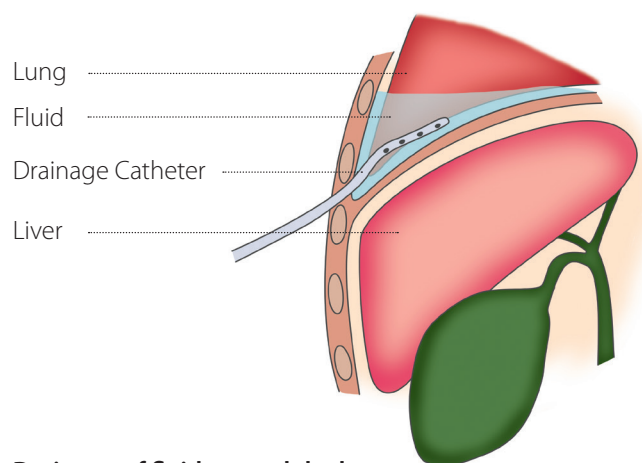
Prior to the procedure, you should report all medications that you are taking to your doctor, and alert them to any allergies. You should also inform them about other medical conditions (including pregnancy) or recent illnesses. Your doctor may instruct you to stop taking aspirin or blood thinners for a specific period of time before your procedure. Other medications may also need to be adjusted (e.g. insulin).

You may be instructed not to eat or drink for 6-8 hours before the procedure. A blood sample may be taken for appropriate blood tests. Your kidney function may also be checked if the doctor thinks you may need intravenous contrast for a CT scan.

If you are an outpatient, you should have a relative or a friend to accompany you and drive you home afterwards.

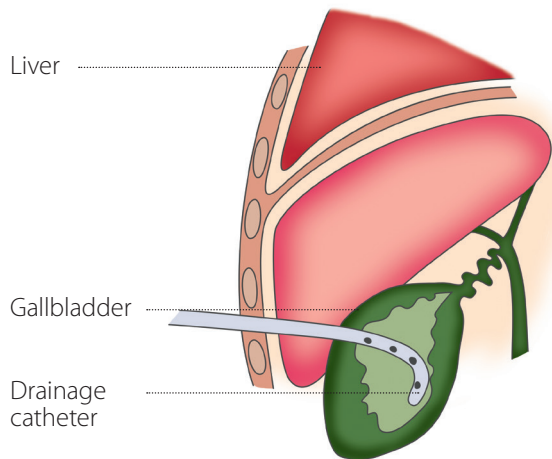
The procedure

The procedure is performed under image guidance, meaning the interventional radiologist uses ultrasound, CT, fluoroscopy or a combination to guide the drain into position via the shortest and safest path. During the procedure, the part of your skin that will be punctured is marked. The skin will be cleaned with sterilising fluid and local anaesthetic injected into and under the skin. After the anaesthetic has taken effect, if necessary, a tiny incision (3-4 mm) is made and the tissues under the skin spread a little to allow the tube to be placed. A needle is then placed through the skin into the collection. When the tip of the needle is in the collection, a wire is passed into it, the needle removed and the tube put into the collection by sliding it over the wire.



Drainage of fluid around the lung

The wire is then removed. During the process, your doctor will need your cooperation and may give you some instructions (e.g. hold your breath). The tube is attached to a small drainage bag on the outside of your body into which the fluid flows out through the tube. The tube is secured to your skin with fixation devices including sticky tape and occasionally sutures to prevent the tube from falling out or getting pulled out. Other dressings are placed on top of this.



Drainage of fluid from the gallbladder

What are the risks?

Image-guided fluid and abscess drainage is a safe procedure with a very low complication rate. Rare complications include injury to structures close to the collection. Injury to blood vessels may cause bleeding (haemorrhage). Bacteria escaping into the bloodstream may infrequently cause septic shock which is managed with fluids, antibiotics and other medications.

What should I expect after the procedure?

If the collection has been painful, you can anticipate almost immediate relief, and if you have had fevers, draining the pus will make you feel better almost immediately. If you were sedated, you will regain control of your physical and mental faculties quickly.

How do I manage the drain and dressings? What is the follow-up plan?

When you are being discharged, you should receive clear instructions about how to empty and change your drainage bag, how to flush your catheter and when to seek immediate medical advice. You may need a course of antibiotics.

Your doctor will need to see you in order to check your catheter, to change your dressing, evaluate your symptoms and check the remaining amount of fluid in your body with an ultrasound or CT. Sometimes you may be required to maintain the drainage catheter for weeks or months. When most of the fluid has been drained the tube can be removed via a quick, simple and painless process.

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