

# Drainage and aspiration

This information sheet explains about the procedure to drain or aspirate fluid from the body, what it involves and what to expect when your child comes to the Interventional Radiology department for treatment.

Please note that this leaflet is not meant to replace discussion between you and your child's doctor. You should raise any questions you may have with the doctor who has referred your child for, or is performing, the procedure.

## What is drainage or aspiration of fluid?

Fluid can build up inside the body for many reasons, for example as a result of infection. As the body is fighting off an infection, cells in the blood form fluid or pus. It usually is a yellow or green colour. Pus can collect in an area of infection making your child feel unwell and in pain.

Sometimes other fluids can build up inside the body, for example, lymph fluid, which is part of the immune system. This can happen for many different reasons, usually if your child is unwell for another reason. Fluid can build up in the abdomen or chest, putting pressure on the internal organs. Also, blood can collect inside the body following surgery, or after an accident or trauma. Sometimes, the joints in the body can become swollen with excess fluid.

Small amounts of fluid can be drawn off as a one-off procedure using a needle and syringe. This is called aspiration. Larger amounts of fluid or thicker liquid may need to be drained off slowly using a thin plastic tube, over a period of time. This is called drainage. Often, the fluid can then be tested in the hospital to check for infection. This helps the doctors to make sure your child is getting the best treatment.

## Why does my child a drainage procedure?

Your child has a collection of fluid that is causing them to be unwell in some way or they have a collection of fluid and the doctors looking after them don't know why. Removing this fluid can both help with symptoms and with finding out what the cause is.

## How does my child prepare for drainage or aspiration?

Often drainage or aspiration happens while your child is already in hospital, because it is often needed if someone is already ill for other reasons. The doctor will explain the procedure to you and your child in more detail, discuss any worries you may have and ask you to sign a consent form giving permission for your child to have the procedure. Your child will probably have had a scan before the procedure to look for the fluid.

The procedure is usually done while your child is asleep under a short anaesthetic but sometimes, if your child is old enough, the doctors may talk to you both about doing it with your child awake. If your child needs an anaesthetic, then they will need to stop eating and drinking a few hours before. The team on the ward will explain the details of this with you.

## How is a drainage or aspiration performed?

The doctor usually does an ultrasound scan at the start of the procedure to locate the best place to insert a small needle through the skin in order to get to the fluid. Sometimes, a CT scan is needed to get good enough pictures. The needle is then connected to a syringe to draw off a small sample of the fluid. If a larger amount of fluid needs to be removed or the fluid is too thick to be removed through the needle, the doctor may suggest drainage instead. If so, some local anaesthetic will be injected into the skin first, to make the area numb for a few hours. Once the correct skin position has been confirmed, they make a small incision (cut) through the skin and insert a thin plastic drainage tube through the skin and into the fluid collection. The outside end of the tube is connected to a drainage bag to collect the fluid. The cut is closed around the tube with a small stitch to hold it in place and the area is covered with a large dressing.

### Who performs the procedure and where?

Image guided drainage is usually performed by radiologists. These are people who are experts in image guided procedures. The procedure can be performed in a specialist interventional radiology room or sometimes in another imaging room like the CT scanner room or an ultrasound room.

### What are the potential risks or complications of drainage or aspiration?

Aspiration of fluid is usually quite quick and is unlikely to cause any problems such as bleeding or infection. A drainage procedure is usually carried out while the child is under general anaesthetic. Although every anaesthetic carries a risk, this is extremely small.

There is a small risk of bleeding when the small skin cut is made. Very occasionally, the structures near to the area of fluid collection can be damaged during the procedure, although using scans to plan the position of the needle and drainage tube reduces this risk greatly. There is a chance that the drainage tube could block or move or fall out some time afterwards, although the design of the tube is intended to minimise this risk.

This is usually the most effective way of removing excess fluid from the body so that it does not cause any further problems. Using drainage or aspiration speeds up the body's natural processes of dealing with a fluid collection. Sometimes, however, the fluid may need to be removed in a surgical operation under general anaesthetic, for instance if the fluid is too thick to come out through the tube or if it is too hard to reach through the skin.

### What happens afterwards?

Your child will return to the ward after they have recovered from the general anaesthetic if they have had one. Some children feel sick and vomit after a general anaesthetic. Your child may have a headache or sore throat or feel dizzy, but these side effects are usually short-lived and not severe. Your child can start eating and drinking as normal once they feel like it.

The drainage bag will be changed as needed by the nurses on the ward. Occasionally, the drainage tube becomes blocked but this can usually be cleared by flushing it with a salt water solution (saline). The doctor may check the amount of fluid left in the body with an ultrasound scan, X-ray or CT scan. When most of the fluid has drained, the tube will be removed. This happens on the ward but is not painful. The nurses will cover the small skin cut with a dressing until it seals back up.

### Notes