



# Drainage or aspiration of fluid by Interventional Radiology: information for families

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Fluid can build up inside the body for many reasons. Small amounts of fluid can be drawn off using a needle and syringe. This is called aspiration. Larger amounts or thicker liquid will need to be drained over a period of time using a thin plastic tube. This information sheet from Great Ormond Street Hospital (GOSH) 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.

Fluid can build up inside the body as a result of infection. As the body is fighting off an infection, the white blood cells form fluid (pus). Pus is a liquid mixture of dead cells and exhausted white blood cells. It usually is a yellow or green colour. Pus can collect in the 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. Fluid can build up in the abdomen or chest, putting pressure on the internal organs. Blood can collect inside the body following surgery, or as a result of trauma. The joints in the body can become swollen with excess fluid called synovial fluid which surrounds the bone surfaces reducing friction as the joint moves.

## What happens before the procedure?

Often drainage or aspiration happens while your child is still in hospital. The doctor will explain the procedure 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. If your child has any medical problems, please tell the doctors.

Many of the studies we perform involve the use of x-rays – if there is a chance that x-rays or a CT scan will be used during the procedure instead of or as well as ultrasound, we will ask about pregnancy. Legally, we are obliged to ask any girls over the age of 12 whether there is any chance they might be pregnant. We may ask for a urine or blood sample to carry out a pregnancy test. This is to protect babies in the womb from receiving unnecessary radiation.

## What does the procedure involve?

### Aspiration

If only a small amount of fluid needs to be drained, the doctor may suggest that it is done while your child is awake. However, depending on the area to be drained and your child's age, they may suggest a short general anaesthetic.

The area to be drained will be numbed with local anaesthetic before a needle is inserted through the skin. The doctor will use an ultrasound scan to

locate the correct place to insert the needle. The needle is then connected to a syringe to draw off a small sample of the fluid.

### **Drainage**

If a larger amount of fluid needs to be removed or the fluid is too thick to be removed through aspiration, the doctor may suggest drainage instead. This procedure is usually carried out while your child is under a general anaesthetic.

It is important that your child does not eat or drink anything for a few hours before the anaesthetic. This is called 'fasting' or 'nil by mouth'. Fasting reduces the risk of stomach contents entering the lungs during and after the procedure.

You will be informed the night before the procedure of the time that your child should be 'nil by mouth' – in other words, have nothing to eat or drink before the anaesthetic.

It is equally important to keep giving your child food and drink until those times to ensure they remain well-hydrated and get adequate nutrition. This may involve waking your child in the night to give them a drink which we recommend.

Once your child is under general anaesthetic, the doctor will use a variety of imaging techniques, such as ultrasound or x-rays, to guide them. Occasionally, a CT scan will be needed. Some local anaesthetic will be injected into the skin first, to make the area numb for a few hours. Once the correct position has been confirmed, they will make a small incision (cut) through the skin and insert a thin plastic drainage tube. The free end of the tube is connected to a drainage bag to collect the fluid removed. 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.

### **Are there any risks?**

Aspiration of fluid is unlikely to cause any problems with bleeding or infection. The 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 incision is made. Very occasionally, the structures near to the area of fluid collection can be damaged during the procedure, although using ultrasound to plan the position of the drainage tube reduces this risk greatly. There is a chance that the drainage tube could move or fall out, although the design of the tube is intended to minimise this risk.

### **Are there any alternatives to drainage and aspiration?**

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 fluid collection. Sometimes the fluid may need to be removed in a surgical operation under general anaesthetic.

### **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 or an x-ray. When most of the

fluid has drained, the tube will be removed. This happens on the ward but is not painful. Your child may be offered a mixture of gas and air (Entonox®) to deal with any discomfort. The nurses will cover the small incision with a dressing.

## Going home

Your child will be able to go home once the tube has been removed and the area has been covered with a dressing. You should keep the dressing dry for the next two days.

You should call the hospital if:

- The area continues to drain a lot of fluid
- The dressing begins to smell
- The area looks red, swollen and feels hotter than the surrounding skin
- Your child is in a lot of pain and pain relief does not seem to help
- Your child has a temperature of 38°C or higher.

## Further information and support

If you have any questions, please telephone 020 7405 9200 and ask for the ward from which your child was discharged.

## Having drainage or aspiration



Fluid can build up in the body for lots of reasons:

- During an infection (said: inn-feck-shun)
- After an operation
- Due to some illnesses



Fluid can press on the inside of your body, making you feel ill.



Your doctor needs to take away the fluid so you feel better.



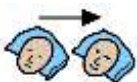
They will do this while you are under general anaesthetic (said: an-ess-thet-ick). You will not be able to feel anything or know what is happening.



They will check the area full of fluid using a scan.



The doctor will put a tube into the area to drain away the fluid. The tube will be joined to a bag. The fluid will go into the bag.



You can wake up from the anaesthetic in a bed on the ward.



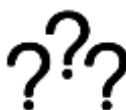
The nurses will check the bag and empty it if needed. They will take away the tube when you do not need it any more.



They will cover up where the tube was with a dressing. You should keep the dressing dry for 2 days.



If you feel sore you can take medicine to take away the pain.



Please ask us if you have any questions.