



Information About Surgical Procedures You May Have

Having a shunt fitted is the most common surgical procedure if medical treatments have failed or if your vision is severely compromised and needs immediate intervention to prevent permanent sight loss.

A shunt is thin tubing that's placed into the body to act as an internal drain to take fluid from one place to another. The most common place for a shunt to drain into is the peritoneum. The peritoneum is a membrane that lines organs in the stomach.

The procedure will be done by a Neurosurgeon and the average time for the procedure to take is 1-4 hours, although it's important to remember every patient is different and some have additional health conditions which complicate the procedure leading it to take a longer amount of time.

You will be given a general anaesthetic for the procedure so you will be fully unconscious and feel no pain throughout the operation. You will come around from the anaesthetic after the operation is completed in the recovery room. You will have a recovery nurse looking after you who will regularly check your vital signs (blood pressure, pulse, oxygen levels and heart rate). They will also be able to administer extra pain relief and anti sickness should you require it. You will only be moved back to the ward when your pain levels are at a reasonable level and you are awake enough. Most patients will need to stay in hospital for between 2-7 days, this will depend on your recovery rate. Once you are ready to go home you will be given enough pain relief and any other medications you need from the hospital pharmacist. You should also be given some spare dressings for your wounds and told when you need to have your staples or stitches removed. You will have to return to the out patient Neurosurgical clinic for a check up following your operation; this is normally between 6 - 12 weeks.

There are a few different shunt options available the most common are LP (Lumbo-peritoneal) and VP (Ventricular Peritoneal), I will go into them all in a bit more detail on the next page.

LP (Lumbo-peritoneal)

A LP shunt is placed in the lumbar area of the spine in the bottom of the back in the subarachnoid cavity, which is the space in between the spinal chord and nerves which is where the CSF is located. The distal end (tummy end) of the tubing is then tunnelled under the skin around the waist flank (fleshy part between your ribs and waist) and finishes in the peritoneum inside the abdomen. This shunt system then drains the CSF from your spinal area and drains into the peritoneum where it will be re absorbed and will come out of your body via urination. Some LP shunts are fitted with an adjustable valve; this is normally placed in the hip area if you have one. When you come round after the operation you will have 2 wounds one on the bottom of your spine and one on your abdomen, if you have a valve then you will have a third wound on your hip area.

VP (Ventricular Peritoneal)

A VP shunt is placed into one of the ventricles of the brain. An adjustable valve is then connected to the shunt tubing which will sit just under the skin behind the ear. The tubing will be connected to the valve and tunnelled down the side of your neck and under the ribs and breast bone into the peritoneum. As with the LP shunt once in the peritoneum the CSF is then absorbed and will come of your body through urination. When you come around from the operation you will have 2 wounds, one on your head and one on your abdomen, very occasionally there may be a third wound on your head if there was some difficulty in inserting the tubing into your ventricle.

There is a common issue with patients with IIH to have small ventricles making inserting a VP shunt a little more difficult. However most neurosurgical theatres have some form of guidance technology available to them, to assist with the placement into the ventricle.

VPL (Ventricular Pleural)

A VPL shunt is exactly the same as a VP shunt, the only difference being the distal end doesn't finish in the peritoneum, instead it finishes in the pleural cavity which is the membrane that surrounds the lungs. So you will not have the abdominal wound you will have a wound on your lung area on your chest.

Venous Sinus Stenting

This is a very new procedure for IIH patients and at present its results are varied. You will have to undergo various tests before this procedure is an option for you. This procedure is carried out under a general anaesthetic and you will have a wound on either your groin or neck depending on which entry site the surgeon chooses. A stent is put into the venous sinus which can reduce pressure symptoms.

Optic Nerve Sheath Fenestration (ONSF)

This procedure is very rarely offered in England however it's a little more popular in the USA. This operation will only ever be considered if there is a severe threat to your vision. The procedure will be carried out under a general anaesthetic and a 'window' is cut into the sheath in the eye to relieve the pressure on the optic nerve, therefore reducing the risk of vision loss or blindness. This procedure will have no effect on any other symptom of IIH.