

Ligation of Patent Processus Vaginalis (PPV) in Boys

Ligation of PPV is the name of the operation used to treat a Hydrocele in a young child.

A hydrocele in young people is usually caused by a connection that runs between the tummy and the scrotum (The patent processes vaginalis.) The aim of this operation is to divide this connection.

In some older boys an alternative operation called a Jaboulay Procedure is performed.

How is the operation done?

The operation is usually done as a **day case** procedure - meaning that you come in and go home on the same day.

Occasionally there may be a surgical or anaesthetic reason to recommend an overnight stay. This will be discussed with you at the time of surgery

ANAESTHETIC

The operation is done with the patient asleep under a **Full General Anaesthetic**.

As well as the general anaesthetic the patient will have local anaesthetic for pain relief which will work after the surgery has finished. The local anaesthetic may be injected around the wound (local block) or may be injected into the patients back. This is called a **Caudal Block**, and is a very effective method of pain relief after the surgery.

THE SURGERY

The surgery involves making a little cut in the groin, going down and finding the hernia.

The PPV (the connection that runs from the tummy often to the scrotum), runs with the blood vessels and the sperm tube (vas) that supply the testicle on that side. The hernia is separated from the blood vessels and sperm tube. Once it is separated the PPV is tied off (closed). Fluid is then drained from the scrotum

The wound is then closed using buried dissolving stitches. Sometimes paper stitches or a dressing is put over the wound.

If there is a hydrocele on both sides then the operation is done on each side - meaning that the patient will have a cut on each side.

How Long will the Surgery Take?

The operation usually takes about 20 minutes if it is uncomplicated. This does not include the time for the anaesthetic or recovery after the anaesthetic.



Are there any risks to the surgery?

All operations carry a risk of complications. The potential complications of an inguinal herniotomy include:

- **BLEEDING** - If it does happen it normally settles by itself and you see it as bruising. Rarely more severe bleeding occurs, and the blood can travel down into your son's scrotum. If this happens the scrotum can swell up and look very bruised. This normally settles by itself, but very occasionally needs a further operation
- **INFECTION** - If this occurs it may need to be treated with antibiotics
- **INJURY TO THE BLOOD VESSELS OR THE SPERM TUBE (VAS)** - Every care is taken to prevent this from happening. In very young boys the blood vessels and sperm tube are very small and delicate and the risk is slightly greater. The risk of this happening is very small.
- **TESTICULAR ATROPHY** - If the sperm tube or blood vessels are damaged during the operation this can result in not enough blood getting to the testicle. This can cause the testicle to die because it is starved of oxygen. This is seen by the testicle shrinking and disappearing. There is nothing that can be done to save the testicle if this happens. The risk of this happening is approximately 1% in the literature - but this number also includes children who have had an inguinal herniotomy (operation for an inguinal hernia) as the operation is virtually the same. Boys who are having this procedure are older (over the age of 3.) The blood vessels and sperm tube tend to be much bigger and less likely to be damaged. As a result the risk of testicular atrophy after this surgery is very small indeed.
- **RECURRENCE** - There is a small risk that your son's hydrocele can come back, although it is very rare. Your son may also develop an adult type of hydrocele when they are older.
- **FAILURE** - In a small number of older boys, a ligation of PPV fails to treat the hydrocele. This is because they have developed an adult type of hydrocele. If this is the case they may need a Jaboulay Procedure to treat the hydrocele.
- **TESTICULAR ASCENT** - Scar tissue heals by shortening. After the operation the scar tissue can pull the testicle into the groin. This may not become apparent for many years. If this happens your son would require another operation to bring the testicle down to the scrotum again. The risk of this is very small (less than 1%)

What Happens after the operation?

After the operation your son will wake up and be able to have something to eat and drink straight away. The vast majority of children who have this operation go home the same day.

It is not uncommon for children to feel a bit sick for the first 24 hours after an anaesthetic. You should encourage your son to drink lots of fluid. As long as he is drinking it does not matter if he is off his food for a day or two.

After the operation you should keep the wound dry for 5 days. Do not allow your son to have a bath for 5 days, but you can use wet wipes to keep the area clean. You should get your GP to check the wound after a week.

Give your son regular pain relief for the first couple of days after the operation. Giving pain killers regularly is much more effective than waiting for someone to complain of pain before giving them something.

The scrotum, where the hydrocele was will continue to look swollen after the surgery. It can take a few months for the swelling to disappear. This is because the tissues where the hydrocele was have been stretched and there will be some fluid that cannot be drained that the body needs to reabsorb.

You should call the ward or your family doctor (GP) if:

- ▶ **your child is in a lot of pain and pain relief does not seem to help**
- ▶ **your child has a high temperature and paracetamol does not bring it down**
- ▶ **the wound site looks red, inflamed and feels hotter than the surrounding skin**

The information provided in this information leaflet is meant to provide general information only. It does not replace a consultation with a doctor who will be able to give you information tailored to the patient.