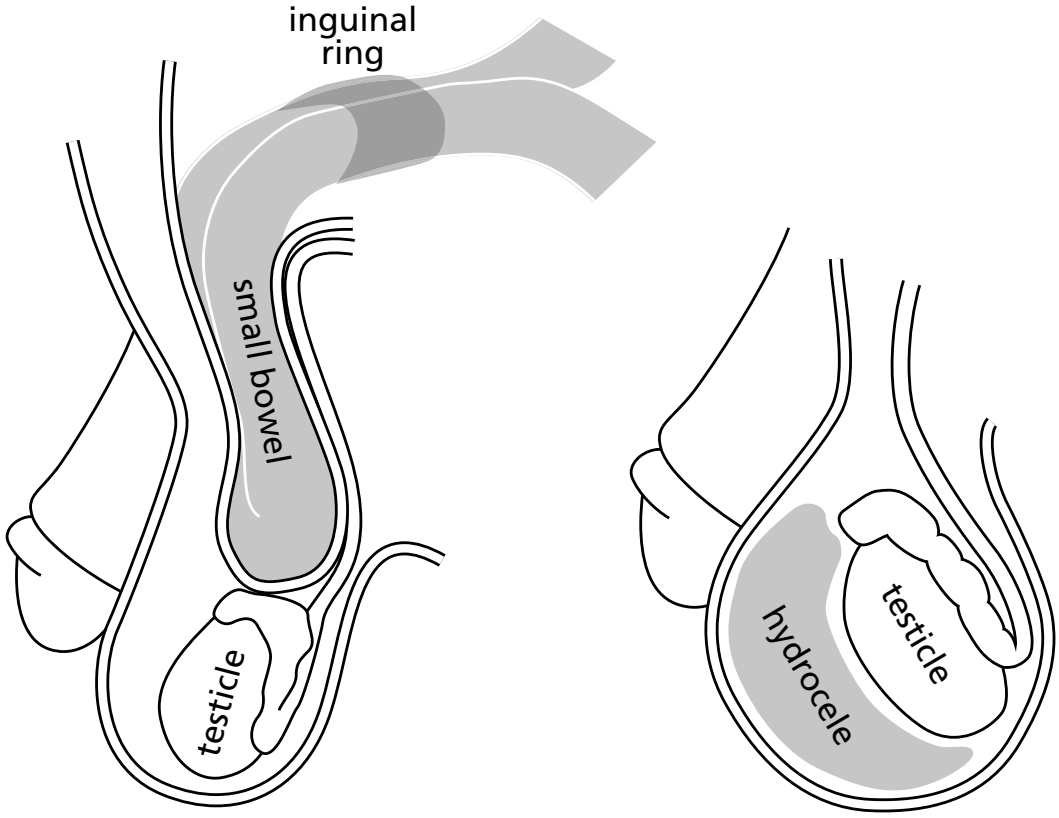
Inguinal hernias and hydroceles

This leaflet explains about inguinal hernias and hydroceles and what to expect when your child comes to Great Ormond Street Hospital (GOSH) for an operation to repair them.

What are inguinal hernias and hydroceles and what causes them?

While your child was developing in the womb, the testicles were developing inside the abdomen. Towards the end of pregnancy, each testicle creates a passage (process vaginalis) as it travels into the scrotum. If this passage fails to close and is quite wide, the abdominal lining and sometimes bowel can bulge through it, causing a lump to form in the groin area. This is called an **inguinal hernia**. If the passage is quite narrow, only fluid from the abdomen can flow through it to the scrotum, causing a fluid-filled sac to develop. This is called a **hydrocele**. The doctor will examine your child closely to identify whether your child has an inguinal hernia or hydrocele.



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Can an inguinal hernia or hydrocele be prevented?

There is no known way of preventing either inguinal hernias or hydroceles. They are not due to anything a mother did during pregnancy.

How are they diagnosed?

The doctors will feel your child's abdomen and scrotum to see if the swelling is caused by fluid or something solid. To confirm that the swelling is a hydrocele and filled with clear fluid, the doctor may shine a torch through the scrotum. The outline of the testicles will show up and the rest of the scrotum will show the light. If it is a solid lump that can be pushed back into the tummy, the doctor will confirm that it is an inguinal hernia. Usually, the doctor will confirm that both testicles are present in the scrotum during the same examination.

How are they treated?

Most hydroceles go down within a few months of birth, but occasionally they last longer. If a hydrocele is still present after two to three years or is causing any problems, an operation might be suggested. If your child has an inguinal hernia, this will need to be corrected in an operation. If the bowel remains trapped in the scrotum, it could become damaged due to pressure on the blood supply to the area. This is called strangulation and could lead to that portion of the lining and bowel dying off, which can result in serious infection and bowel problems. The testicle can also be damaged by poor blood flow to the area. For this reason, we will try to arrange the operation within a few weeks.

What happens before the operation?

You will receive information about how to prepare your child for the operation in your admission letter and booklet. Your child should not have anything to eat or drink before the operation for the amount of time specified in the letter. It is important to follow these instructions, otherwise your child's operation may need to be delayed or even cancelled.

On admission day, your child's surgeon will visit you to explain about the operation in more detail, discuss any worries you might have and ask you to give permission for the operation by signing a consent form. An anaesthetist will also visit you to explain about the anaesthetic and pain relief after the operation. If your child has any medical problems, such as allergies, please tell the doctors. Please also bring in any medicines your child is currently taking.

What does the operation involve?

The operation is carried out under general anaesthetic, either using laparoscopic (keyhole) surgery or open surgery. Whichever method is used, the operation lasts for about an hour. Once your child is asleep, the surgeon will make a small

incision (cut) on the lower abdomen to find the passageway and separate the blood vessel and testicular cord. If the surgeon is using laparoscopic (keyhole) surgery, your child will have a small incision by his tummy button and two smaller ones lower down on either side of the abdomen. In open surgery, your child will have a small incision on the lower abdomen.

If your child has an inguinal hernia, any abdominal lining and/or bowel will be moved back to the abdomen. If your child has a hydrocele, the fluid will be drained away from the scrotum. The passageway will be closed with a stitch and the incisions on the skin will be closed with dissolvable stitches and skin glue. During keyhole surgery, the surgeon will check the other side of the scrotum for a similar passageway and close this with a stitch if needed.

What are the risks of surgery?

There is a small risk of damage to the testicular cord and blood vessel while it is being separated from the passage. If this occurs, the testicle on that side may be smaller than the other, or on very rare occasions, it may shrink away. This should not affect your child's overall future fertility as the remaining testicle will continue to function normally. There is a small risk of infection but this can be treated with antibiotics if it occurs. The area around your child's groin will be bruised for a while after the operation but this is temporary and will fade over the next few days or so.

Every anaesthetic carries a risk of complications, but this is very small. Your child's anaesthetist is an experienced doctor who is trained to deal with any complications. After an anaesthetic some children may feel sick and vomit. They may have a headache, sore throat or feel dizzy. These side effects are usually short-lived and not severe.

What happens after the operation?

Your child will recover from the anaesthetic on the ward. Very young babies usually stay overnight after the operation so that we can monitor them closely while recovering from the anaesthetic. Once your child feels comfortable and has had a drink, you will be able to take him home. We recommend that you bring in some loose clothing for your child to wear home and for the next few days, as this will be a lot more comfortable.

When you get home

It is quite normal for your child to feel uncomfortable for a day or two after the operation. Usually paracetamol will be enough to relieve any pain if you give it every four to six hours for the next day. You do not need to wake your child during the night to give the medicine. If your child needs stronger medicine, we will give you some before you go home.

Your child may feel sick for the first 24 hours after the anaesthetic. You should encourage your child to drink plenty of fluids, and as long as he is drinking, it does not matter if he or she does not feel like eating for the first couple of days. The stitches will dissolve on their own within two weeks or so. The wound site may be closed by steri-strips® (plastic strips which are stuck on the skin and used, like stitches, to close wounds). The steri-strips® usually fall off of their own accord. If they have not fallen off within a week, you can soak them off using a wet flannel. The skin glue usually flakes away over a period of days.

Your child should not have a bath or shower for two days after the operation. After this, it is fine for your child to have a shower, but try to avoid long baths as this may cause the scab to soften and fall off too early.

Your child may feel tired and a bit clumsy for the first day or so after the operation, so avoid anything that might lead to a fall. Sit-on toys or bicycles will be uncomfortable so should be avoided until the area has healed. Rough and tumble play may also be uncomfortable. Your child should be ready to go back to school or nursery about a week after the operation.

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**
- **there is any oozing from the wound**

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

Notes

Compiled by the General Surgery and Urology departments
in collaboration with the Child and Family Information Group

Great Ormond Street Hospital for Children NHS Foundation Trust, Great Ormond Street, London WC1N 3JH

www.gosh.nhs.uk

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