

Undescended testis

What is it?

When testes have failed to move down into the scrotum, they are called undescended testes.

Older children, in whom the testis was initially in the scrotum, but has subsequently risen may be described as having an acquired undescended testis. This is also called an 'ascending' testis.

Background

The testes are the male gonads. They normally lie in the scrotum. They develop in the abdomen and usually descend through the inguinal canal (groin) to lie within the scrotum before birth.

The cremasteric muscle lies within the spermatic cord and can pull the testis up out of the scrotum into the groin, when a boy is cold, anxious or frightened. This muscle is most active from 3 months of age until puberty. Testes that usually lie within the scrotum but are sometimes pulled up into the groin, are called retractile testes. This is normal.

Why are some testes undescended?

Often we don't know exactly why a testis has failed to descend normally. Sometimes there is delay to the descent of the testes, especially if the baby is born prematurely.

Sometimes the testis does not go in the right direction to get to the scrotum (ectopic testis).

Sometimes the testis does not form properly and then does not respond to the normal messages responsible for testicular descent.

Sometimes the testis meets with an interruption to its blood supply during development and atrophies (disappears). This is properly an 'absent' testis, but may be considered an 'undescended' testis until investigations reveal its absence.

Who gets it?

Undescended testes are seen at birth in up to 3% of boys. Two thirds (2/3) of these will undergo normal descent by 3-6 months of age.

How is it diagnosed?

How does it present?

The initial baby check after birth should include an examination of both testes. These findings should be confirmed at 6 weeks, during the "well baby check", and during subsequent maternal child health nurse (MCHN) visits. If an undescended testis is suspected at any time, your son should be referred to a paediatric surgeon or urologist for assessment.

The doctor will ask about your pregnancy and son's birth, and whether the testis has ever been felt.

The doctor will examine your son's scrotum and abdomen, to identify the position of the testis. In most cases the testis will be felt in the groin. In some cases it will be able to be manipulated to the scrotum.

What tests are performed?

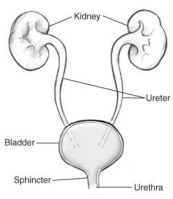
No particular investigations are required for the child with an undescended testis. Occasionally the surgeon will request an ultrasound, although this does not always reliably identify the presence or location of an undescended testis.

What are the treatment options?

Once spontaneous descent is no longer likely, treatment for an undescended testis is advised. The treatment is surgical via an "orchidopexy" operation.

The reasons for surgery for undescended testes are:

- sperm does not develop normally in a testis too close to the body, possibly because it is too warm
- a testis in the groin is at greater risk of trauma
- a testis in the abdomen is a greater risk of torsion (twisting), which can cut off blood supply and result in loss of testis. Abnormal position can make this difficult to diagnose and treat quickly
- there is an increased chance of developing a tumour in a testis that has not descended properly. If it remains in the groin or abdomen, it is difficult to examine regularly and thus difficult to identify a tumour or lump at an early stage



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Results of treatment

It is known that surgery can normalise the appearance of the scrotum, reduce the risk of trauma and make any tumour or lump that develops easier to detect early

It is likely, but not proven, that surgery will improve sperm development.

It is unknown whether the risk of tumour is reduced. We hope to be able to answer these questions when studies of the current population of boys who have had surgery as babies become available.

Surgery for undescended testis

The orchidopexy is done electively after 6 months of age and performed under general anaesthesia.

If the testis can be felt in the groin under anaesthesia, a small incision is made in the skin crease at the groin. The testis is identified, mobilised and placed in the scrotum via a scrotal incision. The wounds are closed with dissolving sutures.

If the testis cannot be felt in the groin once the child is anaesthetised, then a laparoscope (telescope) can be introduced into the abdomen through a tiny incision. This will help locate the testis and direct further treatment. This may include:

- proceeding with orchidopexy as before
- dividing high attachments of the testis (including some blood vessels), allowing the testis to be moved into the scrotum at a later stage
- removal of an abnormal or poorly formed testis

(See postoperative orchidopexy sheets.)

What are the complications?

Bleeding and infection may occur after orchidopexy, as for any operation. These are uncommon, however.

There is a very small risk of damage to the blood vessels to the testis and to the vas.

The testis may not grow normally after the operation, either due to poor testis development, or due to operative damage to the blood vessels.

The testis may fail to reach the scrotum in the first operation, or may become stuck to scar tissue in the groin and move up ('reascend') with growth. In these cases, a second operation may be needed.

What are the outcomes from surgery?

When the undescended testis is initially in the groin, 95% can be successfully placed in the scrotum. When the testis is initially in the abdomen, 85-90% can be successfully placed in the scrotum.

A testis in the scrotum is not a guarantee of fertility – this is dependent on the development of normal reproductive processes within the testis.

Men who have had surgery for one undescended testis (with a normally descended testis on the other side) have near normal paternity (~90%). In contrast, men who have had surgery for undescended testes on both sides have reduced fertility.

Surgery for undescended testis does not remove the risk of tumour in the testis, but does make early diagnosis and thus successful treatment possible.

What is the follow-up?

Your child will need review of their wound and their testis size and position. An appointment will be made 4-6 weeks after surgery.

Further appointments are made at 6 months and puberty to again check testis size and position; and to discuss testicular self-examination in the future.