

Scottish Differences of Sex Development

SDSD

National Managed Clinical Network

Undescended Testes (Cryptorchidism)

Information leaflet

This document has been prepared by Public Services Delivery Scotland (PSD Scotland) on behalf of the Scottish Differences of Sex Development (SDSD) network. Accountable to Scottish Government, PSD Scotland works at the heart of the health service providing national strategic services to the rest of NHS Scotland and other public sector organisations to help them deliver their services more efficiently and effectively. The SDSD network membership is made up of a multidisciplinary group of healthcare professionals who provide care to children and adults born with a difference in sex development or anomaly of the genitalia. The network is supported by a PSD Scotland Programme Team to drive improvement.

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What are Undescended Testes (UDT)?

During development, the testes (testicles) travel down from inside the tummy into the groin. Towards the end of pregnancy, they descend into the scrotum. By the time most boys are born and certainly by six months of age both testes should be sitting comfortably within the scrotum. If this is not the case, then the boy is said to have UDT or Cryptorchidism.

What problems can occur with UDT?

A testis needs to be in the cooler environment of the scrotum to grow normally and produce healthy sperm. If both testes remain undescended long-term, then fertility can be affected. Following puberty there is also a slightly higher risk of testicular cancer developing in a boy with UDT.

What causes UDT?

In most cases the reason for the testes not descending is unknown. In a small number of cases UDT can be associated with certain medical conditions.

How common is it?

3% of boys born at full term have UDT. In two-thirds of these cases, the testis descends so that by one year of age only 1% of boys are affected. If a baby has been born prematurely then the chance of developing UDT is much higher.

Will my child need any other investigations?

If your child has a single sided undescended testis and the testis on the other side is in the scrotum no further investigations are required. However, if the testis has not come down by one year of age, an operation is usually recommended. If your doctor is unable to feel a testis they will say a laparoscopy is needed (see “What do operations involve” below). Very occasionally your doctor may be unable to feel either testis. In this situation your child may need some blood tests and further investigations before a laparoscopy.

What are these other tests?

These tests are usually arranged by the endocrine and clinical genetics team who work closely with the surgical team. The tests range from one blood test to a series of blood tests at a few visits to the hospital. Sometimes your child may have some injections between the blood tests to stimulate the testes to make testosterone. Your child may also have a urine test and an ultrasound scan of the abdomen.

Why is an operation necessary?

The operation to bring the testis into the scrotum is called an orchidopexy. There are several reasons why we recommend an orchidopexy.

1. The potential for a testis to produce sperm is reduced if it does not come down in the first few months of life. Bringing a testis down into the scrotum, where it is cooler than the body, allows it to develop as expected and produce healthy sperm.

2. The risk of the testis twisting (torsion) and damaging the blood supply is lower if the testis is in the right position.
3. Boys may become concerned about having only one or no testes in the scrotum because of the appearance.
4. Following puberty, there is a slightly higher risk of cancer developing in the testis. An orchidopexy may reduce this risk and will allow easy examination of the testis.

What do the operations involve?

The operation is usually done as a day case procedure (that does not require an overnight stay). Under a general anaesthetic a small cut is made in the groin to locate the testis. The structures that are preventing the testis from coming down are divided. Care is taken not to damage either the blood vessels that supply the testis or the vas (the tube that carries sperm from the testis). An incision is then made in the scrotum, and the testis is put into a pouch and fixed in this position. All the wounds are closed with dissolving stitches.

If your surgeon is unable to feel the testis at all then your child will need a laparoscopy. In this procedure a small camera is inserted through his tummy button. If the surgeon finds a healthy testis then they will try to bring it down. Sometimes the testis will be too far away from the scrotum to bring it down in a single step and a second procedure may need to be performed later.

During both types of operation, the surgeon may discover that the testis is very small or looks abnormal. In this situation the testis is usually removed as it is unlikely to function and may cause future problems.

What are the complications of surgery?

The operations to correct an undescended testis need a general anaesthetic and there will be a small risk of complication from this. In common with any operation there will be some pain and a small scar. There will also be a small risk of bleeding, bruising and infection.

There are several possible complications that are specific to the operation of orchidopexy.

1. Shrinking of the testis, if the blood vessels are damaged.
2. Prevention of sperm passing to the penis, if the vas is damaged.
3. The testis may return to its original position.

These complications are uncommon but occur more frequently if the testis must be brought down a long way.

How quickly will my child recover?

Your child should be able to go home on the day of the operation or the following day if he has had a laparoscopy. He should be able to return to school or nursery after a week but should avoid riding bicycles or straddling toys for six weeks. Most children make a full recovery and return to normal activities at this stage. Your surgeon will want to see you back in the clinic after three to six months to ensure that the operation has been a success.

Is there anything I should be concerned about for the future?

Your son may be at a slightly higher risk of developing cancer in his testis. Testicular cancer is uncommon and can be successfully treated if it is picked up early. Following puberty you should encourage your son to check his testes for any lumps and go to his GP if he is concerned. If both your son's testes were undescended then his fertility may be reduced or he may not go through puberty at the usual time. Your surgeon will be happy to discuss this with you. If there is a risk of a problem with fertility or there is a risk that the testes may not develop very well in the future, they will ask the endocrine team to see your child for further tests.

Further Information

This leaflet will be available in other languages (for example, Punjabi, Urdu, Polish) or formats (for example, larger print) on request.

Contact: nss.sdsd@nhs.scot

Website: nn.nhs.scot/sdsd

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