Undescended testes and surgery - in children

What are undescended testes?
During pregnancy the testes start developing inside the abdomen (‘tummy’). Usually about two months before birth the testes move down (‘descend’) into the scrotum. However in some boys (1 in 60) this does not happen. This leads to undescended testes being detected in the baby. In some cases the testes will descend during the first six months after birth. Surgeons may consider an operation to place and fix the testes in the scrotum if they are still undescended after six months of age. Occasionally testes which have been descended at birth ascend as the boy grows and undescended testes are diagnosed at an older age.

Boys can have one testis that is undescended (called ‘unilateral undescended testis) or sometimes both (‘bilateral’).

Why is an operation needed?

- To develop and work properly testes should lie within the scrotum where they are kept at a slightly lower temperature than the body. When the testes lie outside the scrotum they do not develop properly and so will not function properly.
- It is important for all males, from the age of puberty onwards, to carry out regular self testicular examination to detect any changes which can indicate testicular cancer. If a testis is outside of the scrotum it cannot be felt and assessed for changes and so the man is unaware that problems are developing.
What are retractile testes and do they need to be operated on?

Many boys have testes that go up and down (‘retractile testes’) due to muscular activity and so the testes are not seen in the scrotum all the time. Retractile testes do not need surgery as they will stay down in the scrotum after puberty. Your doctor may review your son annually to observe him but many parents can see their son’s testis in the scrotum clearly after baths when the body is warmer.

Before admission to hospital

- **Preoperative assessment:**
  Most children who will be cared for on one of our children’s wards will be reviewed 7-14 days prior to admission in our ‘pre-operative assessment clinic.’ The purpose of the clinic is to ensure you and your child are fully informed and to ensure your child’s hospital stay is as straightforward and seamless as possible. For children who will be attending our day surgery unit, the preoperative assessment takes place via a telephone consultation.

- **Purchasing suitable painkillers:**
  It is important that you purchase some children’s painkillers such as Paracetamol (e.g. Calpol) and Ibuprofen before admission to hospital so that you have these available at home after discharge. If it is likely that your son will need ‘stronger’ painkillers, these will be supplied via the hospital.

- **If your child becomes unwell:**
  If your child has a cold, cough or illness such as chicken pox the operation will need to be postponed to avoid complications. Please telephone us (the telephone number is provided at the end of this leaflet) to discuss, prior to coming to hospital.

- **Starvation times**
  Your son will not be able to eat and drink before the operation. Specific advice about this will be given on the day before your child’s surgery when you telephone the ward to confirm bed availability (for children attending one of our children’s wards) or during the preoperative assessment.

Admission to hospital

Depending on which operation your surgeon thinks will be needed, you will be asked to bring your child to either the day surgery unit or one of the children’s wards. You will be seen by nursing staff, your doctors and an anaesthetist (who puts your child to sleep for the operation). You will be able to be present while your son goes to sleep and may also be present in the recovery area when your child wakes up. If your child needs to stay in hospital overnight a bed will be provided for a parent to also stay.
The operation

The operation that your son will undergo depends on the location of the testis.

Laparoscopy:
If the surgeon cannot identify the location of the testis while examining your son in the clinic/on the ward, an examination under anaesthetic (EUA) will be performed. If the testis can still not be felt it may be necessary to carry out a ‘laparoscopy’ at the beginning of the operation. This means that a special camera (‘scope’) is passed through the belly button to help locate the testis.

Orchidopexy:
If the testis can be felt in the groin area (or can be seen there with laparoscopy) your son will have an operation called an ‘orchidopexy.’ The surgeon will need to make two wounds, one in the groin and one in the scrotum to bring the testis down and fix it in the scrotum. The groin wound will be stitched on the inside of the skin so you will not be able to see any of the stitches. The stitches used on the scrotum will be visible. All these stitches will dissolve over time and so do not need to be removed.

Fowler-Stevens Orchidopexy:
If the testis is found to be higher up in the body than in the groin (called an ‘intra abdominal testis’) an operation called a ‘Fowler Stevens Orchidopexy’ will be needed. During a Fowler Stevens Orchidopexy the first stage is freeing up the testis by dividing its attachments (blood vessels). Then the second stage is when the testis is moved down into the scrotum.

Sometimes, if there is enough length to the blood vessels to allow the testis to reach the scrotum it is possible to perform both the first and second stages of the operation as one operation under the same anaesthetic. However, if the connecting blood vessels to the testis do not have sufficient length, the operation will be performed as a two part operation with each stage six months apart. Waiting for six months allows time for the connecting blood supply to hopefully be sufficient to then allow the testis to reach the scrotum during the second operation. Occasionally the testis does not gain sufficient blood supply and therefore the testis needs to be removed at stage two of the operation to prevent complications in later life.

During a Fowler Stevens operation the wounds are closed with dissolvable stitches and so these do not need to be removed.

Removal of testicular remnant:
Sometimes a testis cannot be found at all or, if a testis is found, it can be in poor condition or not developed properly. In these circumstances any remnant of testis is removed to prevent your son developing problems from it later on in life. Wounds from surgery which has involved removal of testicular remnant will be closed with dissolvable stitches under the skin. These stitches do not need to be removed.

When a testicular remnant is removed it is possible that the opposite testis (called the ‘contralateral testis’) will undergo fixation under the same anaesthetic.
Fixation of a testis involves insertion of stitches under the scrotal skin to try and prevent the testis from twisting (called testicular torsion). Your surgeon will discuss this with you when taking your consent for the operation.

**Complications**

Complications related to any type of surgery for undescended testes are rare but include:

- Infection in the wound
- Bleeding
- Occasionally the testis can ascend up out of the scrotum again and so further surgery may be required.
- Injury to the sperm duct
- The testis may not survive: Despite an operation taking place which has appeared successful at the time, loss of the testis after surgery can occur. This is most commonly because there is not a sufficient blood supply to the testis. In these cases the testis will start to feel hard and shrivel up. This is rare after a straightforward orchidopexy but where a Fowler Stevens orchidopexy has been required for an intra abdominal testis, there is an increased risk. When the testis has not survived there is usually no need for further surgery.

**After the operation**

- Most boys will be able to go home on the same day as their operation after they have had a drink, something to eat and have passed urine.
- We advise that your son wears loose fitting clothes for the journey home and for a few days after the operation to prevent discomfort.
- Pain killing medicines should be given regularly for the first days after surgery and then gradually given less often. The nurses will discuss this with you before you are discharged.
- It is common for some swelling and/or bruising to develop within 24 hrs of the operation and this may take a few weeks to settle down.

**Looking after your son at home**

- The wounds should be kept clean and dry but not submersed in bath water for five days to help prevent infection. If the wound gets soiled (for example covered with faeces/’poo’) you should shower your son or allow a quick dip into clean bath water to clean the area.
- Where a dressing has been applied, this may fall off on its own or can be soaked off during the first bath at day 5 after surgery.
- Where applicable, nappies should be changed regularly to keep urine away from the wound area.
- Check the wounds for signs of infection. If the wound starts to appear red, seek advice from your GP.
- As the stitches used are dissolvable these will not need to be removed.
- Your son should be given pain killing medicine for any discomfort. Do read the instructions on the bottles carefully.
• Your son should rest for a few days at home before returning to nursery/school.
• Your son should avoid physical activities such as sports, cycling, climbing for approximately six to ten weeks after the operation. (Please note this point does not apply if no testis was found during the operation).
• All boys who have had surgery for undescended testes should carry out regular (monthly) self testicular examination when they become of an appropriate age (advice which applies to all men).
• Testicular torsion (twisting of the testis) is uncommon after orchidopexy surgery but should your son ever complain of pain at his testis he should seek immediate medical attention via an emergency department to ensure that testicular torsion has not occurred. Testicular torsion can cause the testis to die because blood is not able to flow to it properly so it is essential that emergency review takes place.

Looking after your son when he has only one testis

Boys can continue through life normally with only one testis and will proceed through puberty normally. The difference in fertility between having one versus two testicles is only minimal.

However it is essential to have one testis and therefore it is important for your son to take extra care in looking after his remaining testis by:

• Carrying out regular (monthly) self testicular examination from puberty onwards (advice which applies to all men).
• To either avoid contact sports or ensure that appropriate protective clothing is always worn during such sports to prevent damage to the remaining testis. (Such protective clothing can be purchased from good sports shops).
• Should your son ever complain of pain at his testis he should seek immediate medical attention via an emergency department to ensure that testicular torsion (twisting of the testis) has not occurred. Testicular torsion can cause the testis to die because blood is not able to flow to it properly so it is essential that emergency review takes place.

When older, some boys do not mind the cosmetic appearance of having only one testis. However, for others, this is embarrassing for them. If your son is unhappy the appearance of having only one testis it is possible, after puberty, for a testicular implant to be inserted, usually as a day case procedure. You should seek advice your GP for a referral to the hospital for this as appropriate.

Follow up

You will receive an outpatient appointment so that your son can be monitored. Usually boys have more than one outpatient appointment as they are monitored over the course of at least a year.
Chaperoning:
During your child’s hospital visits he will need to be examined to help diagnose and to plan care. Examination, which may take place before, during and after treatment, is performed by trained members of staff and will always be explained to you beforehand. A chaperone is a separate member of staff who is present during the examination. The role of the chaperone is to provide practical assistance with the examination and to provide support to the child, family member/carer and to the person examining.

For information or questions before or after admission please call:

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<th>The ward you were on:</th>
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<td>Your nurse specialist: 01223 586973 (Mon to Fri, 08:00 to 18:00)</td>
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We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site.
For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Other formats:
If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team: patient.information@addenbrookes.nhs.uk.

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