



HYPOSPADIAS REPAIR

What is hypospadias?

It is a condition in which the tube through which urine passes in the penis, called the urethra, does not reach its normal position at the centre of the tip or head of the penis. It is often associated with a bend in the penis, called a 'chordee', which may only be apparent when the boy has an erection. Almost always part of the foreskin is missing. The condition is a common one and involves about one in 300 boys born in Australia.

The goals of the procedure are to:

- Allow the boy when he is older to stand-up and pass urine with a straight stream
- Ensure the boy has a straight erection to allow normal intercourse as an adult
- To give the penis a more normal appearance

A functional and cosmetically satisfactory result can usually be achieved in most boys. The operation is normally performed as a day-case under general anaesthesia, although occasionally your son may need to be admitted overnight for observation. The operation usually takes between 90 minutes and 3 hours.

Preparations

Your child will need to fast for all solids and milk liquids generally for about 6 hours before the start of the procedure. In breast-fed babies or infants this time may be reduced after consultation with the anaesthetist.

Water may be allowed up to 2 hours beforehand. You will be called by the hospital approximately 48 hours prior to surgery to be advised of your admission and fasting times. It is often helpful to bring your child's favourite toy with you on the day.

Anaesthesia

You and your child will meet the anaesthetist prior to the procedure. After talking to you and briefly examining your child, they will take you through to the operating theatre. One parent is welcome to accompany your child until they are asleep. The anaesthetist puts your child to sleep via a face mask (with children 5 years and over there is the option of either a face mask or a needle with numbing cream).



Hypospadias – the urethra opens onto the undersurface of the penis rather than at the tip

You will then be shown to a waiting room. It is very important that you remain available in this area during your child's surgery so that we can quickly contact you in an emergency. Once your child is asleep, the anaesthetist will insert a 'drip' to allow fluids to be given directly into a vein. Usually this is located in the hand or arm, but occasionally may need to be sited in the leg or scalp. The anaesthetist will then inject some local anaesthetic to numb the penis. This is either injected around the base of the penis or it may be given near the base of the spine near the 'tail' bone, termed a 'Caudal'. Please inform the anaesthetist if you wish to discuss the relative risks and benefits of these two options.

Procedure

The penis is cleaned with an antiseptic solution. Salty water is temporarily injected into the penis to make sure that it will be straight when erect. If a bend of more than 20 degrees is found, this will be corrected and the erection test repeated to ensure the penis is now straight. A new urine tube will be created to the tip of the penis, usually using the inner layer of the foreskin. The remains of the foreskin are removed and any bleeding stopped with an electrical cautery instrument. The wounds are then closed using a very fine stitch material that will dissolve slowly over the next 2 to 4 weeks. A fine white plastic tube is inserted into the penis so that urine will trickle out into the nappy after the surgery. This tube is secured with a bright blue stitch. A gauze dressing will cover the penis, held in place with clear plastic film. The local anaesthetic block usually lasts around 6 to 12 hours.



Hypospadias repair 6 days after surgery. Note swelling and bruising of penis and scrotum

Initial recovery

Once the operation has finished, your child will be taken to the recovery area. When they are awake, you will be called into the recovery ward. Often children appear distressed and a little confused initially - there may be several reasons for this including residual effects of the anaesthetic, hunger, and some discomfort.

Generally they will settle quite quickly, especially if offered a drink or feed. The recovery and ward staff are also able to give additional pain relief medication once your child is awake if required. The nursing staff will check the wound and make sure you are happy before you go home. Usually this will be about 2 to 4 hours after the surgery.

Post-operative course

There may be a small amount of blood that oozes from the edges of the dressing, enough to lightly stain a nappy or pair of underpants. Any further bleeding should be discussed with your local doctor or myself. Paracetamol ('Panadol') should be given regularly for the first 48 hours after surgery. Children over 12 months of age may require additional pain relief with ibuprofen ('Neurofen'). Follow the manufacturer's dose instructions for your child's weight. Paracetamol (no more than 4 doses in 24 hours) and ibuprofen (no more than 3 doses in 24 hours) can be given together if required. Older boys may also require stronger analgesia with codeine. My anaesthetist will provide you with a prescription for this medication if it is required.

Because of the tube in the penis and the risk of infection in the urine, you will have been prescribed some oral antibiotics for your child to take at home until this tube has been removed. These usually need to be taken twice a day.

Your child should not be bathed for the first 48 hours, but nappies can be changed as required and a 'wet-wipe' of similar cloth used. On the second post-operative day (48 hours after surgery) your child should have a bath at home and the dressing removed completely once it has been thoroughly soaked. This process is often made more comfortable by a painkiller one hour before the bath. It is also very important to do this with two adults: one to look after the child and one to remove the dressing. Remember that the penis and scrotum will appear very bruised and swollen at this time. After the bath it is important to apply the tube of topical antibiotic cream ('Chlorsig') supplied to the wound 2 times a day for 1 week. In addition, to help prevent the tip of the penis from sticking to underpants or nappies, a thin layer of Vaseline or petroleum jelly is helpful.

Normal bathing is safe from the next day onwards. Often the penis will appear red, swollen and ulcerated in the first few weeks after surgery. This is normal and does not represent infection. The swelling improves considerably after the first few weeks but does not resolve completely for up to one year after surgery.

Your child can begin eating when he gets home. Start with clear liquids (apple juice, iceblocks) and add solid food slowly and in small amounts. Your child may vomit from the anaesthesia on the day of surgery. This should stop by the morning after surgery.

Return to Activity

Your child may return to day care or school when comfortable, usually within 5 days. He should not participate in sports or swimming for 3 weeks after the surgery and should not ride straddle toys (bikes, walkers) for 2 full weeks after surgery. You should continue to use your car seat.

Call our office if:

- You see any signs of infection
- Your child's pain gets worse or is not relieved by painkillers
- There is continuous bleeding (small ooze of blood in the first day or two is normal)
- Your child has a high temperature
- Vomiting continues on the day after surgery

Catheter removal

An appointment will be made to see you in the outpatient clinic or rooms to remove the tube in the penis about one week after the surgery. It is helpful to give a dose of 'Panadol' one hour before your appointment time. At this visit the tube will be removed by cutting the securing stitch. You should continue antibiotics for a further 24 hours and then stop. If the tube falls out prior to your appointment you should contact the hospital or rooms to arrange a review to make sure that all is well. When your son first passes urine after removal of the catheter this may be painful. Usually this improves dramatically after the second or third time that they pass urine.

Follow-up

Normally I see you and your child about 4 weeks following surgery. This is both to ensure that the wound has healed and that you and your son are satisfied with the results of the operation. For patients from rural areas, this review may be deferred to your own general practitioner if you prefer. Please ring soon after the operation to book the post operative appointment to arrange a convenient time.

Problems & further surgery

Hypospadias surgery is technically demanding and not all children will achieve an ideal outcome after their first operation. We now know that the skin and tissues of the penis in boys with hypospadias does not heal quite normally even when the surgery appears to have gone well. In about 10% to 20% of cases a leak will occur between the original position of the urethra and its new position near the tip of the penis. This is called a 'fistula'. Nearly always a further operation will be required to repair this hole and for the best chance of success we generally recommend deferring this operation for a year. Although this second procedure is generally much less painful for your son, there is still a chance (about 20%) that this will not be successful. Another common indication for further surgery may be the presence of any excess skin or bulky scar tissue, best assessed at about one year after the original procedure. As with any surgical procedure, there is always a 2-3% risk of a wound infection or bleeding after surgery.