

Children's Services

Hypospadias - parent information

What is hypospadias?

Hypospadias means that the hole ('meatus') through which your son passes urine is not at the tip of the penis as it should be. Hypospadias occurs during development before birth and affects approximately three per 1000 births. Hypospadias can be corrected by surgery.

What surgery will be needed?

The operation that will be needed will depend on how far down the shaft of the penis the opening is. The following are names of different types of hypospadias surgery that can be carried out:

- 'MAGPI' or 'GAP' repair (for the minor type of hypospadias)
- 'Snodgrass' or 'Distal Tubed' Repair
- Mathieu (flip flap repair)
- 'Duckett' repair
- Two stage repair (for the boy with a meatal opening nearer the scrotum than the tip of the penis. This procedure takes place in two stages, six months apart.)

There are many different operations for hypospadias (see above), but each has common elements. Your son will require a general anaesthetic and sometimes a local anaesthetic or an injection into the lower back is also given to make his penis numb. Any bend in the penis must be straightened. For severe hypospadias a graft is placed underneath the penis to allow for a second operation at least six months later. In more straightforward cases (85%) the urethra (the hole that urine passes through) is moved to the tip. Sometimes the foreskin is then reconstructed. Your surgeon will discuss which type of operation your son is likely to need. The length of the operation itself will be between one and three hours depending on which procedure is required.

Depending on the type of hypospadias surgery your son has, a special catheter (often called a 'stent') may be left in place for five to ten days. A catheter is rarely left in place after a MAGPI or GAP hypospadias repair because of the relatively minor surgery involved. A stent is usually left in place after all other types of hypospadias repair because these involve creating a 'new' urethra (tube which your son wees through) and this needs time to heal without being contaminated with urine.

Admission to hospital

Hypospadias surgery usually takes place when the child is aged between 12 and 18 months of age.

Most children 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.
- To ensure your child's hospital stay is as straight forward and seamless as possible.

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.

You will be asked to bring your son to one of our children's wards, usually early in the morning on the day of surgery. 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.

When you arrive you will be seen by the nursing staff plus a doctor and an anaesthetist (if not seen by these persons at the preoperative assessment clinic).

A parent will be able to accompany your son when he goes to the anaesthetic room to go to sleep for his operation and also be present in the recovery area when he wakes.

What happens after the operation?

Most children start to drink and eat quite quickly following surgery. Once fully awake, your son will be moved back to the ward. You will be taught how to look after your son at home by the nurses and nurse specialist. If your son needs to stay in hospital overnight a bed will be provided for a parent to stay.

Looking after your son at home

Your nurses and nurse specialist will teach you how to look after your son at home. The following describes care required for the boy without a catheter ('stent') and for boys with a catheter ('stent'):

The child without a catheter ('stent')

- Most boys who have hypospadias surgery and do not require a catheter will be able to go home on the same day as the operation. Before going home your son must have tolerated drinks and had something to eat and have passed urine.
- It is normal for bruising and swelling to the penis to develop within the first 24 hours. This will take a few weeks to settle. If your son is of an appropriate age, this should be explained to him.

- Sometimes there is a small amount of blood to be seen but this should settle very quickly. If further bleeding occurs you should contact the ward/nurse specialist. (See contact details at the end of this leaflet).
- If your son wears nappies these should be changed regularly and, with each change, it is useful to smear a coating of Vaseline onto the inside of the nappy. This helps to prevent any friction between the wound and the nappy.
- We advise that your son wears loose fitting clothing to travel home in and for the next few days after surgery to help prevent discomfort.
- Before leaving hospital you may be given some antibiotic ointment. This should be applied twice daily to the tip of your son's penis for five days or until the tube is empty. Usually no other antibiotics are needed.
- Your son will need to have pain killing medicine. This should be given regularly for the first few days to prevent the discomfort/pain and then the regularity can be reduced. Your nurse will explain about the medicines and doses before you leave hospital.
- Your son should not be bathed for five days but sponge washes are allowed. If your son is in nappies and faeces ('poo') gets on the wound it is best to shower over the area with warm water and gently pat dry to prevent infection. (Shower water runs clean all of the time whereas bath water does not).
- Occasionally a dressing is put on over the penis. This dressing usually falls off on its own. However, if it is still in place by the time your son is allowed a bath, the dressing can be soaked off in the bath. Sometimes it may take a few consecutive baths before the dressing comes off completely.
- Your son should rest at home for a few days and should not take part in any sport or sit astride any toys until all the bruising and swelling has resolved. This may take up to six weeks. This is to prevent the wound getting knocked which may lead to bleeding and damage to the hypospadias repair.

The child with a catheter ('stent')

Your son will be able to go home with the catheter ('stent') in once you have been taught about caring for it and feel confident with this (this is usually the day after the operation). Your son will need to return to the ward to have the stent removed by a trained nurse between five and ten days after surgery. This will be organised with you before discharge.

Types of stent

Firlit-Kluge stent

A Firlit Kluge stent is a small tube which passes from the bladder down the urethra (tube inside the penis) and drains into a nappy. A Firlit-Kluge stent has a small bead which sits at the tip of the penis and a stitch goes through this bead into the penis to hold the stent in place. Usually the child with a Firlit Kluge stent does not have a dressing and so you will be able to see the bead and tip of the stent clearly. Boys with a Firlit-Kluge stent usually wear two nappies (called the 'double nappy technique'). The inner most nappy has a small circular hole cut into it.

The tip of the stent passes through this hole so that the urine drips into the outer most nappy and hence keeps the urine away from the wound itself. (See section on 'double nappy technique').

Stent with urine bag

For boys who are too old to wear nappies a stent will be used which can have a catheter bag attached to it. In the day time the urine collection bag can be attached with Velcro straps to your son's leg so he can mobilise but overnight a 'night bag' is also attached because your son may produce more urine over night than the day bag can hold. (See section on caring for leg and night bags).

Suprapubic catheter

Occasionally it is necessary for a boy to have a suprapubic catheter in addition to a stent. A suprapubic catheter is a flexible tube that is passed through the abdominal wall (skin and muscle layers) via a small cut below the belly button, directly into the bladder. It is designed to drain urine directly from the bladder out into a bag rather than via the penis and is used in boys who have more extensive surgery. The suprapubic catheter drains the urine into a bag which can be worn on your son's leg during the day time but overnight a 'night bag' is also attached because your son may produce more urine overnight than the day bag can hold. (See section on caring for leg and night bags).

Double nappy technique

The double nappy technique is used for boys who have a Firlit-Kluge stent and wear nappies (see above).

Equipment needed

- Two nappies of an appropriate size
- Sharp pair of scissors
- Suitable tape as provided (Elastoplast should not be used in boys without dressings as it can cause too much friction on the wound and therefore bleeding)
- Vaseline
- Antibiotic ointment (if provided).

Procedure

- Take a nappy from the packet and before unfolding it, mark the centre.
- Draw a cross (+) shape approximately 3 cms in length and width at this point.
- With a sharp pair of scissors, cut along this line. This makes four triangle shapes.
- Cut eight strips of tape approximately 1.5 cms wide and 8 cms long.
- Fold one of the triangle shapes into the nappy. Hold it in place with a piece of the tape.

- Repeat until all four of the triangle shapes have been taped down.
- Now stick a strip of tape between the four already stuck down. This will ensure there is a complete circle of tape. (If there is not a complete circle of tape, add more tape because this will prevent the gel beads contained within the nappy from falling out and causing irritation to the wound).
- Smear Vaseline around the inside of this hole.
- Lay your son on the nappy with the hole at the front.
- If provided, squirt a small amount of antibiotic ointment onto the tip of the penis. Do not attempt to rub this ointment in as this will cause discomfort.
- Carefully position the tip of the stent so that it passes through the hole in the nappy.
- Use the Velcro tabs on the nappy as normal to hold the nappy in place.
- Lay your son on the second nappy (without a hole) and do this up as you do with a normal nappy over the stent. It is important to ensure that the stent does not get too bent or else it will not be able to drain urine properly.
- The inner nappy should be changed daily/with each bowel motion ('poo') being passed. The outer nappy should be changed regularly as it should be as wet as normal nappies.

Caring for leg and night bags (for child who does not wear nappies)

Leg bags

- Urine should run consistently into the leg bag and it should be emptied every two hours. Your nurse will show you how to empty the catheter bag. To prevent infection it is important to wash your hands before and after emptying the bag and to dry the tap through which the urine is emptied on a piece of toilet tissue.
- The leg bag should be securely attached to your child's leg using the Velcro strapping provided. Usually one strap is kept just above the knee and the other below. It is very important that the catheter bag is securely strapped to prevent the catheter bag 'dragging down' which will pull on the penis.
- The leg bag should not become detached from the catheter ('stent') itself. However, should this happen, a new leg bag should be applied and a spare will be provided for your use.

Night bags

- Overnight your son may produce more urine than the leg bag will hold and therefore another, larger, bag (called a 'night bag') will need to be used.
- The night bag should be attached onto the emptying port of the leg bag when your son goes to bed and disconnected again in the morning. Your nurse will show you how to do this. Important points to remember are:
 1. Wash your hands before connecting the night bag.
 2. Remove the protective cover from the night bag and, without touching the tip of the night bag, push it into the flexible plastic emptying port of the leg bag.

3. Open the tap on the leg bag to allow urine to then drain through the leg bag and into the night bag.
4. In the morning, wash your hands and then close the tap on the leg bag.
5. Carefully pull the night bag out of the flexible plastic emptying port of the leg bag, being careful not to remove this flexible port from the leg bag itself.
6. Use a piece of toilet tissue to ensure the emptying port on the leg bag is dry.
7. Take the night bag to your toilet and empty the urine down the toilet. Once the night bag is empty it can be disposed of in your household bin.
8. Use a clean night bag every night to prevent infection.

Medicines for the child with a catheter ('stent')

If your son is going home with a catheter ('stent') in, he will be given a number of different medicines to take home and it is important that these are given. Your nurse will discuss these with you and it is important to read the instructions on the bottle carefully. You may also find the table at the back of this leaflet useful to help you.

- **Antibiotics:** To prevent infection. These should be given regularly
- **'Pain killers':** These should be given regularly to prevent pain.
- **Oxybutynin:** Medicine to help stop bladder spasm. Bladder spasm occurs when the catheter moves inside the bladder and touches the bladder wall. Some boys are troubled by bladder spasm more than others and so you will only need to give this medicine if your son is experiencing bladder spasm. Symptoms include intermittent, short lasting episodes of distress and upset.

Restrictions on activities for the child with a catheter ('stent')

- Your son should not be bathed for five days but sponge washes are allowed. If faeces ('poo') gets on the wound it is best to shower over the area with warm water and gently pat dry to prevent infection (shower water runs clean all of the time whereas bath water does not).
- Whilst the catheter ('stent') is in place **and** for six weeks after it is removed, your son should be prevented from participating in any physical activities such as climbing, PE or sport and must not sit astride items such as bicycles or toys such as rocking horses. This is to prevent the penis being accidentally knocked which can result in bleeding of the wound and /or damage to the repair.

'Problems' that can occur while the catheter/stent is in and action needed:

'Problem'	Action required
Blood can be seen in the urine coming into the nappy/catheter bag	This is common whilst the catheter is in place and is most commonly due to bladder spasm. No action is needed. The blood in the urine will settle once the catheter is removed

<p>The wound on the penis is bleeding</p>	<p>A small amount of bleeding is not unusual. If your son is in nappies, ensure that appropriate amounts of Vaseline are being used to prevent friction and if your son is not in nappies, ensure his clothing is not rubbing. If the bleeding persists phone for advice (see numbers at end of leaflet).</p>
<p>A dressing was applied to my son's penis and this has fallen off</p>	<p>Where dressings are used your nurse will give you advice regarding what to do if it falls off. In most cases the dressings will fall of by themselves and no action is required.</p>
<p>Your son develops a fever</p>	<p>If your son has no obvious cause for his fever (for example, has he developed a cough or cold?) then it is important to contact the ward. The wound will be checked and a urine sample collected to check for a urine infection.</p>
<p>Your son has intermittent episodes of short lived acute pain</p>	<p>This is likely to be caused by bladder spasm (ie the catheter moves inside the bladder and when it touches the bladder wall, the bladder spasms). Give the Oxybutynin medication provided.</p>
<p>Your son has pain despite all the medications having been given</p>	<p>Phone for advice (see numbers at end of leaflet).</p>
<p>Your son's nappy is not wet/there is no urine in the urine bag</p>	<p>Check for any twists in the tubing that might be preventing the urine from flowing freely. If there are no twists, phone the ward as the tube may be blocked. You will need to return to the ward.</p>
<p>The catheter ('stent') has fallen out</p>	<p>Don't panic! Occasionally a catheter ('stent') can fall out. Telephone the ward and you will be asked to bring your son to the ward for observation. Your son should be encouraged to drink and if your son is passing urine normally he will be discharged home. If he does not pass urine your doctor will be called to see you.</p>
<p>My son appears to be constipated</p>	<p>Some boys will get constipated whilst they have a catheter ('stent') in place. Most commonly this is because the child gets bladder spasm whilst straining to open their bowels ('poo') and so they avoid 'pooing'. It is important to encourage your son to drink plenty and eat lots of fruit. In some cases laxative medication may be required, particularly if your son had previously suffered from constipation before the surgery.</p>
<p>Faeces ('poo') is on the wound</p>	<p>Shower your son down with warm water. A shower will run clean water continuously over the wound and this is preferable to soaking the area in bath water. Pat gently dry afterwards.</p>

Removal of catheters/stents

You will be given an appointment to return to the ward for your son to have his catheter ('stent') removed. How long after the operation this takes place depends on the type of hypospadias repair that your son had but is usually between five and ten days.

In most cases, catheters ('stents') are removed whilst your son is awake on our children's day ward by a trained nurse. You should give your son his pain killing medication before you leave home and then, on your arrival, one of the nurses will cut any stitch present which keeps the catheter ('stent') in place. The tube is then gently pulled out. This takes only a minute or two but your son will need to be encouraged to lie still whilst this happens. Distraction with toys/books can help with this.

Once the catheter ('stent') has been removed your son will need to stay in the hospital until he has passed urine. This may take a few hours and you should encourage your son to drink plenty to help this. It is usually not painful to actually pass urine after the catheter has been removed but it may feel strange for your son to have the sensation of needing to pass urine again after catheter removal and this can upset young boys.

Care after catheter ('stent') removal

- Your son can bath once the catheter ('stent') is removed but bubble bath should not be used for a few weeks as this can cause a 'stinging sensation' at the wound.
- Pain killing medicines may be needed but no longer on a regular basis. The Oxybutynin medications will no longer be required as the catheter which caused the bladder spasm has been removed.
- Your nurse will advise you regarding any antibiotic treatment your son was receiving.
- Your son must continue to refrain from activities where he is sitting astride something (for example, bikes/rocking horses etc) and physical activities such as climbing/sport until all the swelling and bruising has settled. This may take six to eight weeks. This is important because such activities can prevent the wound from healing appropriately, lead to bleeding or damage the hypospadias repair.
- Your son's urinary stream may 'spray' or be passed in an altered direction initially (for example, to one side). This is due to the swelling and should have settled by the time your son is reviewed in the outpatient department.

What are the benefits related to hypospadias surgery?

Surgery is undertaken to both give the penis a more normal appearance and to allow the boy to pass urine in a standing position when he is older.

What are the complications/risks related to hypospadias surgery?

Complications are not common but include:

- Bleeding**
 A small amount of bleeding is not unusual but if further bleeding occurs, intervention may be required (for example, further observation on the ward, use of a dressing or further surgery).
- Infection**
 Where infection occurs this will need to be treated with further antibiotics. Infection can lead to the hypospadias repair not healing properly ('breaking down') and thus further surgery being required.
- Hypospadias Fistula**
 A hypospadias fistula is a tiny hole that appears after the operation where the repair has been carried out. This will require a further, although usually much smaller, operation to correct it.
- Meatal stenosis**
 Meatal stenosis is a narrowing along the inside of the penis which results in urine being passed with a narrow stream and therefore under increased pressure. Meatal stenosis can occur within a few months or some years after the initial surgery to correct the hypospadias and will require intervention to correct it.

Follow up

Your son will be followed up in the outpatient department. The first appointment will take place approximately three to four months after surgery. By this time the healing process will have completed sufficiently for the surgeon to be able to advise as to whether any further surgery is likely to be needed in the future.

If you have any queries or need further information:

The ward you were on:	
Your nurse specialist:	01223 586973 (Mon to Fri 08:00 to 18:00)

Please note, if you have any queries/problems it is important to seek advice from the team at Addenbrooke's Hospital as we will know about the hypospadias surgery your child has had.

Medication chart for:

Medication:	Date:	Date:	Date:	Date:	Date:	Date:	Date:
Paracetamol Dose: Maximum four x per day							
Ibuprofen Dose: Maximum three x per day							
Codeine Dose: Maximum --x per day							
Oxybutynin Dose: Maximum---x per day							
Trimethoprim Dose: Once per day (bedtime)							



We are currently working towards a smoke-free site. Smoking is only permitted in the designated smoking areas.

For advice and support in quitting, contact your GP or the free NHS Stop Smoking helpline on 0800 169 0 169

Help with this leaflet:



If you would like this information in another language, large print or audio format, please ask the department to contact Patient Information: 01223 216032 or

patient.information@addenbrookes.nhs.uk



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