Hypospadias

What is Hypospadias?
Hypospadias is a congenital defect of the penis characterized by an incorrect position of the meatus (the opening from which the urine comes out). Instead of being located at the tip of the penis, the meatus may be in various locations on the bottom or underside of the penis (see figure 1). Other findings with hypospadias may include: chordee (curvature of the penis during an erection), incomplete foreskin (foreskin extends only around the top of the penis) and abnormal position of the scrotum with respect to the penis.

What Causes Hypospadias?
There is no known cause for hypospadias. Normal urethra closure is interrupted during the 8th-10th week of fetal life which results in hypospadias. It is also sometimes inherited.

How Common is this Condition?
It occurs in about 16 of every 1,000 newborns. There is an increased incidence noted in boys whose father or brothers have hypospadias.

What Problems May Result from Hypospadias?
Your child may have a deviated urinary stream or difficulty urinating. The appearance of the penis will not look “normal” anatomically. If chordee is present, the curvature of the penis during erection may affect or limit sexual function. Fertility in boys with hypospadias, to our knowledge, is not different from that of boys without hypospadias.

How is Hypospadias Corrected?
Hypospadias is corrected surgically. There are multiple techniques used for correction based upon the type and severity of hypospadias. Most of the time, surgical repair can be achieved in a single outpatient operation in about 1-3 hours duration. If the degree of hypospadias is severe, the child may require a 2 stage operation.

When is Surgery Performed?
Surgery is optimally performed between the ages of 6-18 months. It is generally a “same day” operation where the child undergoes the procedure and is sent home the same day.

Will my Child be Asleep for the Procedure?
The procedure is performed under general anesthesia by a pediatric anesthesiologist. A nerve block may also be used during the surgery so that the child may not awaken in pain. Also please refer to the handout on Pediatric Anesthesia.

What are the Goals of Surgery?
The goals of surgery are: (1) to bring the meatus (the opening from which the urine comes out) to the tip of the penis, (2) to straighten the penis (if chordee is present), (3) to enable the child to urinate with a controlled urinary stream, while standing, with normal sexual capability, and (4) to create a cosmetically “normal” appearance of the penis similar to that of a circumcised male.

How is the Surgery Performed?
There are various types of surgical procedures used for correction based upon the type of hypospadias. Generally, during surgery, the penile skin is often used to create a new “tube” or urethra that opens at the tip of the penis. The foreskin, if present, is used to provide secondary coverage over the urethral repair to help decrease the risk of complications and to improve the cosmetic appearance of the penis. If chordee is present, the penis is straightened at this time. In some cases a small tube or “stent” (see Figure 2) is inserted through the new urethra into the bladder and will remain in place for
approximately 4-7 days. It will be held in place by sutures which will be removed in the office at your first post-operative visit. All sutures placed for the penile reconstruction are dissolvable. A clear dressing is placed around the penis which will fall off on its own in approximately 3-4 days. If it does not fall off on its own after day 4, you will need to place your child in a warm bath for 5-10 minutes and then remove the dressing. A gray dressing (called surgical) may also be used to help minimize any bleeding.

**Can I Stay with my Child?**

You will be able to stay with your child up until the time the child is taken back to the operating room. After surgery is complete, the physician will meet with you to discuss the details of the procedure. Your child will go to a postoperative care unit (PACU) for close monitoring and then back to the same day unit or 2nd stage recovery area before discharge. You may be able to see your child in the PACU depending on the circumstances of the unit. Otherwise, you will be reunited with your child in the same day unit or 2nd stage recovery area.

**What are the Post-Operative Complications that May Arise?**

There are various complications that may arise. One complication is a fistula, which is a communication between the new urethra and the penile skin. Typically, urine will come out through this hole as well as the tip. This complication requires operative closure approximately 6 months after the initial operation when tissue swelling has subsided. Another complication which may arise is meatal stenosis or a narrowing of the urethra. This also may require a surgical procedure to increase the size of the opening. Other complications which may arise include: urethral diverticulum (a large outpouching or ballooning of the urethra secondary to too large of an opening or an obstruction distally), superficial skin loss (skin will heal spontaneously over time), residual penile curvature (may require re-operation if severe), infection and bleeding. Fortunately, complications are uncommon.

**Will my Child have Pain after Surgery?**

Tylenol or Tylenol with codeine will be ordered for post-operative pain. Also, medications given operatively, such as penile nerve blocks and/or caudal blocks, may allow for pain-free urination for a few hours beyond the surgical procedure.

**Will My Child be on Any Other Medications?**

An antibiotic will be prescribed upon discharge. Your child may also be prescribed a medication called Ditropan. This may be given to children that may have a stent in place. It is prescribed for bladder spasms which may occur until the stent is removed. This medication may also cause flushing of the face and a dry mouth. Increased fluids should be encouraged. Older children may receive a mediation called Pyridium for one dose prior to surgery and 3 days post-operatively. This medication provides analgesia during urination. It also turns the urine orange in color. Also, antibiotic ointment should be applied to the suture site after the dressing is removed and to the new urethral opening.

**How Will I Care for my Child When we Go Home?**

Many children are back to normal activity the same day or the following day. Straddle toys should be avoided for approximately 2 weeks. If a stent is in place, the stent will drain into the diaper. The clear dressing will fall off on its own or will be removed by soaking the child in a warm bath. Tub baths can begin after the 3rd post-operative day. The area can be cleansed with warm water. Antibiotic ointment such as Neosporin should be applied to the new urethral opening and to the incision after the dressing is off twice a day for 1 week. Also, please refer to the post-operative instructions.

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Figure 1. Various locations of the urethral opening or meatus

Figure 2. Zaontz urethral stent

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