

Hypospadias

Hypospadias (hi-poe-SPAY-dee-us) is a condition in which the opening of the urethra is on the underside of the penis, instead of at the tip. The urethra is the tube through which urine drains from your bladder and exits your body.

You may feel distressed if your son is born with hypospadias. However, hypospadias is common and doesn't cause difficulty in caring for your infant. In fact, surgery usually restores the normal appearance of your child's penis. With successful treatment of hypospadias, most males can eventually have normal adult sexual function.

In hypospadias, the opening of the urethra is located on the underside of the penis instead of at the tip. The severity of the condition varies. In most cases, the opening of the urethra is near the head of the penis. Less often, the opening is at midshaft or at the base of the penis. Rarely, the opening is in or beneath the scrotum.

Signs and symptoms of hypospadias may include:

- Opening of the urethra at a location other than the tip of the penis
- Downward curve of the penis (chordee)
- Hooded appearance of the penis because only the top half of the penis is covered by foreskin
- Abnormal spraying during urination

When to see a doctor

Most infants with hypospadias are diagnosed soon after birth while still in the hospital.

However, it's possible that less severe hypospadias may be overlooked. Call your doctor if you notice your son's urethral opening is not at the tip of the penis, his foreskin is not fully developed or his penis curves downward.

Hypospadias is present at birth (congenital). The exact reason this defect occurs is unknown. Sometimes hypospadias is inherited.

As the penis develops in a male fetus, certain hormones stimulate the formation of the urethra and foreskin. Hypospadias results when a malfunction occurs in the action of these hormones, causing the urethra to develop abnormally.

Though the cause of hypospadias is unknown, both environmental and genetic factors have been associated with the condition, including:

- **Family history.** This condition is more common in infants with a family history of hypospadias.

- **Maternal age over 40.** Some research suggests that there may be an increased risk of hypospadias in infant males born to women of an advanced age.
- **Exposure to smoking and chemicals.** There is some speculation about an association between a mother's exposure to pesticides and hypospadias, but further studies are needed to confirm this.
 - If hypospadias is not treated, a child may have problems learning to use a toilet properly. During adulthood, untreated hypospadias can cause difficulty in achieving an erection.

Your son's doctor can diagnose hypospadias based on a physical examination. In cases of severe hypospadias, such as the absence of testicles in the scrotum, a sex determination evaluation may be performed. Treatment involves surgery to reposition the urethral opening and, if necessary, straighten the shaft of the penis.

What happens during surgery

During surgery, a pediatric urology surgeon uses tissue grafts from the foreskin or from the inside of the mouth to reconstruct the urinary channel in the proper position, correcting the hypospadias. The surgery usually takes from one to three hours and is done while the child is unconscious (general anesthesia). Rarely, the repair may require two or more surgeries.

When surgery is performed

Surgery is best done at an early age — usually between ages 3 months and 18 months. Generally, the earlier the surgery is done, the less traumatic it is for the child. But the procedure can be completed at any age and even into adulthood. Infants should not be circumcised before the procedure because the foreskin tissue may be needed for the surgery.

Complications of surgery

In most cases, surgical repair results in a penis with normal or near-normal function and appearance and no future problems. However, in a small number of cases, a hole (fistula) or scarring may develop along the underside of the penis where the new urinary channel was created. This can result in urine leakage and require an additional surgery for repair.

Learning that your son has hypospadias and will likely need surgery may cause you to worry or be anxious. Don't hesitate to ask your child's doctor any questions you have, and if possible, have a family member or friend with you for support on the day of the surgery. The good news is that the surgery for hypospadias is usually very successful, and your very young child will probably not recall having the procedure.