

## Pediatric Conditions Hypospadias

### What is hypospadias?

Hypospadias is a condition in which the urethral opening does not form completely at the tip of the penis. Instead, the opening may be located anywhere along the underside of the penis. This may cause the boy to not be able to urinate straight or needing or urinate sitting down, and when older it may affect the sexual and reproductive function.

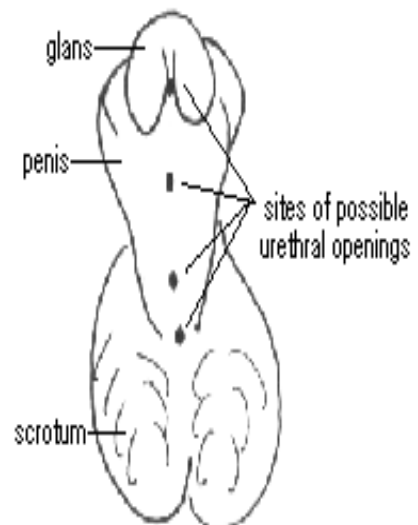
The most crucial steps in the development of the penis take place between nine and twelve weeks of pregnancy. During this time, male hormones act to stimulate formation of the penis and the foreskin. Various problems may result from inefficient hormone action. Those problems include *hypospadias*.

Hypospadias is a common birth defect. Most often if a child is born with this disorder, they will not have any other defects in the urinary system. Under normal conditions, the urethral opening (meatus) is located at the tip of the penis. In most boys with hypospadias, the meatus is located *near* the tip of the penis. In more severe cases, the meatus can be located at the middle of the penile shaft, the junction between the penis and scrotum, or possibly even behind the scrotum. Degrees of hypospadias are classified according to location, including anterior (50% of cases), middle (20% of cases), and posterior (30% of cases). Hypospadias may also cause a curvature of the penis (*chordee*), which is more common when the meatus is further away from the normal location. Chordee is sometimes evident only with an erection. Severe chordee may result in the inability to perform sexual intercourse.

Hypospadias is usually apparent at birth. Not only is the urethral opening in the wrong position, but usually the foreskin on the underside is underdeveloped, giving it the appearance of a hood.

### Features of Hypospadias

- Abnormal ventral displacement of the urethral opening
- Penile curvature (*chordee*), usually ventral
- Deficient ventral foreskin with hooded dorsal foreskin
- Penoscrotal transposition
- Penile rotation (torsion), usually counter-clockwise.



## **How is hypospadias treated?**

There are no medicines that can treat this condition. The only way to correct this condition is a surgical procedure. There are several different procedures that can be done, but the main goal is to create a normal straight penis with a urinary channel that ends at the tip of the penis. The procedure usually involves four steps:

- Straightening the shaft of the penis
- Creating the urinary channel
- Positioning the urethral opening in the head of the penis
- Either excising or reconstructing the foreskin

Hypospadias is best repaired between 6 months to 3 years of age. It is done under general anesthesia and the child can usually go home the same day. For more severe cases, the procedure is sometimes done in stages several months apart.

## **What can be expected after hypospadias repair?**

Sometimes a small catheter will be left in after the surgery for a few days. Antibiotics, pain medications, and sometimes bladder relaxants are given for a few days after the procedure.

Most hypospadias repairs achieve success in creating a good functioning penis that looks normal or at least close to looking normal.

## **What are the potential complications with a hypospadias repair?**

Complication rates are relatively low for distal hypospadias repair. There can be more complications when the hypospadias is more severe. The most common complication after surgery is the development of a fistula (hole), from the urinary channel to the skin. Scarring within the channel may also occur, causing a urethral stricture. If your child complains of any abnormal urinary symptoms, like urine draining from a separate hole, or decreased urinary stream, you should contact the surgeon for an evaluation. Most complications develop within the first few months after surgery, although some complications can occur years after surgery. Most complications are successfully repaired with additional surgery after the tissue has healed from the first operation.