

## Urinary Tract Strictures

### What is urethral stricture?

A urethral stricture is a scar that surrounds the urethra (the tube that carries urine from the bladder to the tip of the penis) for a short or long distance and blocks the flow of urine. It is caused by infection, inflammation, prior surgeries (hypospadias is the most common), instrumentation or trauma.

A common cause of urethral stricture in boys is trauma from straddle injury. Strictures can also be caused by pelvic fractures from major trauma. Hypospadias repair is the most common surgery to cause urethral stricture disease, but prior instrumentation can also cause stricture disease. Strictures can be prevented in people who intermittently catheterize by using liberal amounts of lubrication.

Stricture of the urethra in girls is rare and most often caused from prior surgery in that area or pelvic fractures from major trauma. Please ask your physician about further details regarding urethral stricture in girls.

### What are the symptoms of a urethral stricture in boys?

Symptoms of a stricture include pain with urination, slow urination, decreased bladder emptying, spraying of the urinary stream, blood in the urine, abdominal pain from a full bladder, urethral discharge, and bladder infections. The stricture can occur anywhere along the urethra from the opening at the tip of the penis all the way to the bladder.

### How are urethral strictures diagnosed in boys?

Strictures are typically diagnosed when a patient presents with urinary frequency, urinary tract infections, recurrent epididymitis, or blood in the urine. The urologist will use a urine flow test and a bladder scan after voiding to make sure the pattern of flow is normal and that the bladder is empty. Then the urologist will likely perform a retrograde urethrogram.

That is a study where dye is injected into the urethra from the opening at the tip to make sure that the caliber of the urethra is normal. In younger children cystoscopy (small camera is inserted into the urethra for direct visualization of stricture) under anesthesia may be performed in the operating room in place of a retrograde urethrogram.

### **How are urethral strictures in boys treated?**

Treatment is surgical. The initial approach to the stricture depends on the cause and the length of the stricture.

Often with short strictures the urologist can begin by incision of the stricture through a small cystoscope (small camera is inserted into the urethra for direct visualization and incision of stricture). This is usually an outpatient (come and go) surgery. A catheter will be placed for 5-7 days. Whether or not this surgery can be performed depends on the length of the stricture and how healthy the urethra is around the area of the stricture. We recommend only a single attempt at this type of surgery because the success is much lower with recurrent surgery.

The other option is open surgery where by the stricture is surgically removed. The edges of the surrounding healthy urethra are then sewn back together or occasionally if the stricture is very long the doctor may use tissue from other parts of your body (inside the mouth) to fill in the gap.

### **What happens after treatment of urethral stricture?**

Patients with urethral stricture need long-term follow-up because there is a risk that the stricture may return.

### **Links**

AUA and Urology Health (foundation):

<http://www.urologyhealth.org/urologic-conditions/urethral-stricture-disease>

**See the next page for contact information.**

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