

## **Urethral Stricture**

The urethra (u-REE-thra) is the opening that allows urine to leave the bladder. The urethra connects the bladder to the outside of the body. It ends at the tip of the penis in men and in the area just in front of the vaginal opening in women. The male urethra also transports semen to the outside of the body. The urethra has a sphincter that is normally closed to keep urine inside the bladder. When the bladder fills with urine, there are both voluntary and involuntary controls to open the urethral sphincter to allow urine to come out.

A urethral stricture is an abnormal narrowing of the urethra that slows or blocks the stream of urine exiting the body. This can cause a variety of medical problems in the urinary tract, including inflammation or infection. Urethral strictures can affect people of all ages, but it isn't a common condition. It is more likely to occur in men more than women due to the differences in their anatomy.

### **Cause**

Urethral stricture may be caused by inflammation or scar tissue from infection, surgery, disease, or injury. A stricture can also be caused by pressure from a growing tumor near the urethra, although this is rare. Urethral strictures can affect any portion of the urethra. They can also range in length depending on the type and severity of the underlying cause. In some cases no identifiable cause is found.

### **Symptoms**

Symptoms of urethral stricture can range from no symptoms at all (asymptomatic), to mild discomfort, to complete urinary retention (inability to urinate).

- Difficulty starting urine stream
- Pain &/or burning with urination
- Bladder or Urinary tract infection
- Urinary retention (inability to empty bladder)
- Incomplete emptying of bladder
- Slow or weak urine stream
- Frequent or urgent need to urinate
- Dribbling of urine
- Spraying or split urine stream
- Blood in the urine
- Urinary incontinence (leakage of urine)
- Pelvic or low abdominal pain
- Blood in the ejaculate
- Reduced ejaculation force

### **Diagnosis**

The provider will review your symptoms and your medical history and may do a physical exam. Additional testing may be needed to evaluate the location and extent of the stricture. These tests could include:

Urinalysis –to identify if there is infection and/or blood in the urine

Urinary flow test -measures the strength and amount of urine flow

Pelvic ultrasound (Bladder Scan or Bladder Volume Index) - evaluates your ability to empty your bladder by measuring the amount of urine leftover in your bladder after you have urinated.

Retrograde urethrogram - uses X-ray images to check for a structural problem or injury of the urethra.

Cystoscopy – a procedure that lets your doctor look directly inside your urethra and bladder. A cystoscope is used to do a Cystoscopy. It is a telescope-like instrument that contains a special lens. The cystoscope also contains fiber optics, small wires that make a very bright light. The cystoscope may be straight and rigid, or it may be flexible to bend around curves in the urethra. This exam is done with local anesthesia

## **Treatment**

There are essentially no medications that can be used to treat urethral strictures. Medications may be used in some cases to treat symptoms caused by the stricture. Surgery remains the only treatment for patients with symptoms from urethral stricture.

- **Urethral Dilatation** - This is an office or outpatient procedure to stretch the urethra. This can potentially be curative when used to treat short strictures, but may only provide temporary relief of symptoms.
- **Direct Visual Internal Urethrotomy (DVIU)** - This is an outpatient surgery. A telescope is advanced into the urethra and under direct vision, a knife or laser fiber is used to open the stricture. This procedure, like dilation, may be curative when used to treat short strictures, but the stricture can recur.
- **Urethroplasty** - An open Urethroplasty may be done for longer strictures. This surgery involves removal of the diseased (strictured) part followed by reconstruction of the urethra.

In cases of acute urinary retention, a suprapubic catheter may be placed as an emergency treatment. This allows the bladder to drain through the abdomen.