



People First.

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If you have been diagnosed with a stricture, or you are close to someone who has been diagnosed, you may have many questions and concerns. You might be wondering how this condition will affect you. This booklet, which provides an overview of strictures, is meant to supplement a conversation you have with the clinician or physician.



Foreword

I feel very honoured to write the foreword in support of this patient education tool, and very pleased to endorse the information contained in the booklet.

The booklet offers a fundamental outline of the common areas for urethral stricture formation, causes, investigations, and the management of strictures in adult males and females. In my view, this information will not only help to alleviate anxiety, but will also support individuals through the journey of improving bladder dysfunction and associated adverse symptoms caused by a urethral stricture.

Many years of experience as a urological nurse in managing strictures led to my interest in this urological dysfunction. My views are supported by published literature. Urethral strictures are problematic to treat and are consistently reported to have a high reoccurrence rate. Lauritzen et al (2009), (Rijal et al 2008).

Therefore, whilst studying for a degree in urological nursing, my interest in stricture management led me to further review the evidence, with the aim being to identify and disseminate best practice from a Clinical Nurse Specialist perspective. My literature search centred upon Intermittent Self Dilatation, which is generally taught by the Nurse Specialists in the therapy area.

My findings demonstrated Nurse Specialists play a vital role in the ongoing support and education of patients, and peer groups in the management of urethral strictures.

The content of this Urethral Strictures booklet is informative and very reader friendly which hopefully will benefit and reassure you the reader. It is important for you to understand that there is not only surgical management available for you, but also simple interventions which may help to improve your quality of life, by maintaining the patency of the urethra, which may help to avoid further surgery.

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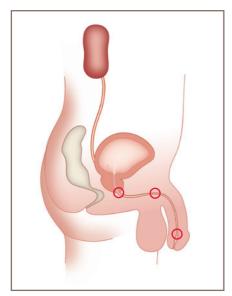
What is a urethral stricture?

A urethral stricture is a narrowing of the urethra, and can occur at any section of the urethra; however, there are common sites where strictures are found, resulting in difficulties in passing urine. Strictures can occur at any age; it is possible to have more than one stricture.

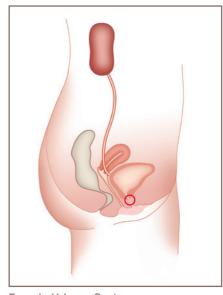
The urethra is a tube that carries urine from the bladder. In men the urethra passes through the penis and in women it ends just above the vagina. The length of the strictures can vary, from less than 1 cm to 4 cm or longer, and are more common in men than women because the male urethra is longer.

What are the common sites for strictures?

O indicates common sites for strictures



Male Urinary System



Female Urinary System

What causes strictures to occur?

Trauma, injury, and damage to the urethra are the most common causes of a urethral stricture. Any damage to the urethra can lead to a build-up of scar tissue causing narrowing and difficulty passing urine. For example, an injury may occur during medical procedures to look into the bladder via the urethra; radiotherapy treatment may cause damage to the urethra; a "fall astride" onto the frame of a bike can cause damage.

A less common cause of urethral strictures is infection. This could include sexually transmitted infections such as gonorrhoea or Chlamydia, or infection as a complication of long-term use of a catheter to drain the bladder. The infection may cause inflammation in the tissues in and around the urethra, which results in scar tissue at the site of the inflammation, causing a stricture.

Cancer is a much rarer cause, but cancer in the urethra can lead to the development of a stricture. In some cases, strictures will develop without a known cause.



What are the symptoms?



Portrait: Stephan Brook, Great Britain There's nothing like good mates for making light of things. Bad things happen, and when they do, laughter truly is the best medicine.

Symptoms vary by individual, but tend to increase in severity over time.

- The main symptom is generally reduced urine flow, and straining to pass urine; it may develop suddenly or gradually
- Spraying of urine or a "double stream"
- · Dribbling of urine after the main flow has finished
- Needing to pass urine more often than usual
- Urinary tract infections
- Pain when passing urine
- Blood in urine or semen

What are possible complications?

- More pressure is required from the bladder muscle to squeeze the urine through the stricture, as it acts like a bottle neck
- Consequently, some urine may "pool" in the bladder, which may lead to an increased risk of bladder, prostate, and kidney infections
- Rarely, an abscess (a ball of infection) can form above the stricture, causing further damage to the urethra
- Bladder stones due to chronic slowing or stopping of urinary flow or infection can result
- Cancer of the urethra is an extremely rare complication of a longstanding stricture

What investigations are required to diagnose a stricture?

Urologists use several tests to diagnose a stricture.

- Physical examination: may show an enlarged distended bladder; hardness, or redness on the underside of the penis; enlarged or tender prostate gland; or discharge from the urethra
- Cystoscopy: a look into the urinary system by a special thin telescope may be needed to see if there is a stricture present
- Urethroscopy: a similar test to Cystoscopy, but the telescope can identify the length and exact location of the stricture
- Flow test: a test to determine the flow rate of urine. If you have a stricture the flow rate will be reduced. Following this test you may have a bladder ultrasound scan to check how well you are emptying your bladder
- X-ray: a special X-ray may be required to determine the length of the stricture and its severity



What are available treatments?



Hans Peter Thomas, Germany Hans Peter has had his share of his life. Ask him and he will tell

Portrait:

loss and hardship, but he would never use such terms to describe you that he is blessed; he admits he has not always been inclined to see things that way. "The greatest lessons hit us hard. Not everyone is able to rebound," he says. "It's difficult to ask for help, sometimes even to know you need help, rougher still to accept help when it's offered."

Objectives of treatment can include:

- To improve the flow of urine
- To ease symptoms
- To prevent possible complications

Urethral Dilatation

This is usually done by passing a thin plastic or metal rod (boogie) into the urethra. This procedure may be done either under a local or a general anesthetic. The objective is to stretch and widen the stricture without causing additional scarring. A repeat dilatation is commonly needed every so often when symptoms reoccur. Generally, this procedure is most effective with the shorter strictures, but it is the least invasive option and is normally the first treatment option (Anderson 2012).

Urethrotomy

In this procedure a thin telescope is passed into the urethra to see exactly where the stricture is. This is done during a general anesthetic. A tiny knife is then passed down the telescope to cut along the stricture. This widens the narrowed stricture. However, like dilatation, the stricture may re-form and the procedure may have to be repeated from time to time (Rijal et al, 2008, Lauritzen et al, 2009).

Urethroplasty

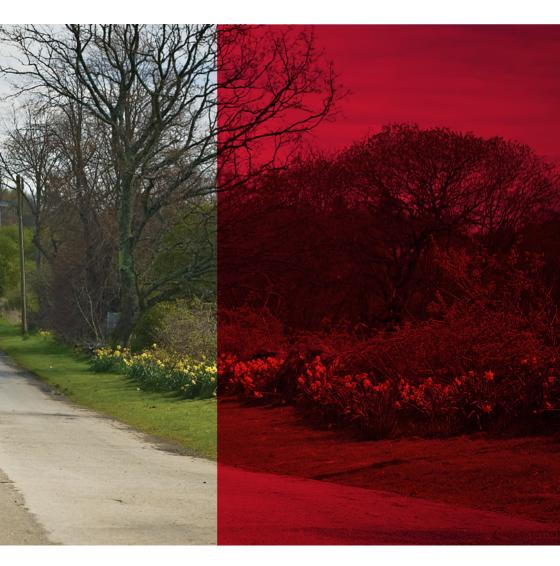
This is an operation where a short stricture can be cut out and the two ends of the urethra stitched together. If the stricture is longer, then an operation similar to "skin grafting" to the inside lining of the urethra may be an option. These operations are usually performed if a dilatation or urethrotomy would not ease the stricture, and have a high long-term success rate (Mundy and Andrich, 2011).

Intermittent Self-Dilatation (ISD)

ISD is a therapy used to reduce the risk of urethral strictures from recurring. Dilatation means "stretching" and it involves passing a catheter into the urethra to help it from narrowing again. The procedure of self-dilatation can be carried out at home.







This booklet is possible because of the insights and expertise shared by the following professionals:

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