This leaflet contains evidence-based information about your proposed urological procedure. We have consulted specialist surgeons during its preparation, so that it represents best practice in UK urology. You should use it in addition to any advice already given to you.

Further, general information about strictures can be found in the leaflet *Urethral Stricture Disease*.

To view the online version of this leaflet, type the text below into your web browser:

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**Key Points**

- The bulbar urethra (circled below) is the commonest site for urethral narrowing
- Bulbar strictures rarely have an identifiable cause
- Urethroplasty is the best form of treatment with a success rate of more than 85%
- Reconstruction involves either removing the stricture and re-joining the urethral ends or grafting the stricture, usually with buccal mucosa (the lining from the inside of the mouth)
- Bulbar urethroplasty can be done in most urological units or in a specialist reconstructive referral centre
What does this procedure involve?
We carry out this procedure for strictures of the bulbar urethra (between the scrotum and the anus). Most of these strictures do not have a clear underlying cause (referred to as idiopathic). Others may be due to the sexually-transmitted infections (STIs) or previous passage of instruments and/or catheters.

Because the bulbar urethra is relatively mobile, it is often possible to remove a narrowing less than 2cm long and re-join the ends over a catheter (anastomotic urethroplasty). Very short strictures can even be re-joined without removing any of the urethra (non-transecting anastomotic urethroplasty).

Longer, recurrent or complicated strictures need to be widened by cutting into the narrowed area and inserting a graft material (augmentation urethroplasty). For very long, scarred strictures, a combination of augmentation and re-joining (augmented anastomotic urethroplasty) may be needed.

Before agreeing to have the procedure, you may be asked to have a urethrogram. This is an X-ray that shows all your urethra and assesses the length of the stricture. It is done by placing a very fine catheter inside the tip of the urethra and injecting contrast medium (a dye that shows up on X-ray) whilst X-rays are taken.

What are the alternatives?
- **Observation** - “doing nothing”
- **Optical urethrotomy** – a telescopic operation to cut through the narrowed area internally
- **Dilatation** – repeated stretching using plastic or metal dilators which you may need to continue yourself (intermittent self-dilatation)

Both optical urethrotomy and repeated dilatation carry a high risk of the stricture returning.

What happens on the day of the procedure?
Your urologist (or a member of their team) will briefly review your history and medications, and will discuss the surgery again with you to confirm your consent.

An anaesthetist will see you to discuss the options of a general anaesthetic or spinal anaesthetic. The anaesthetist will also discuss pain relief after the procedure with you.
We may provide you with a pair of TED stockings to wear, and give you a heparin injection to thin your blood. These help to prevent blood clots from developing and passing into your lungs. Your medical team will decide whether you need to continue these after you go home.

**Details of the procedure**

- we usually carry out the procedure under a general anaesthetic
- you may be given an injection of antibiotics before the procedure, after you have been checked carefully for any allergies
- we make an incision in your perineum (between the back of your scrotum and your anus)
- we open the urethra lengthwise along the narrowed portion; this is usually on the part of the urethra nearest to the erectile tissue
- we identify the ends of your urethra, remove any scar tissue and sew the healthy ends back together over a catheter
- if a graft is required (augmentation), we remove a strip of buccal mucosa (the lining inside your mouth) and sew it to your urethra
- your mouth wound will heal very quickly; some surgeons stitch the defect in your mouth whilst others leave it to heal on its own
- we close the skin with dissolvable stitches
- we may put in a temporary drain
- we put a catheter in your bladder which needs to remain for one to three weeks
- the procedure takes two to three hours to perform
- you should expect to be in hospital one to two nights

**Are there any after-effects?**

The possible after-effects and your risk of getting them are shown below. Some are self-limiting or reversible, but others are not. We have not listed very rare after-effects (occurring in less than 1 in 250 patients) individually. The impact of these after-effects can vary a lot from patient to patient; you should ask your surgeon’s advice about the risks and their impact on you as an individual:

<table>
<thead>
<tr>
<th>After-effect</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urinary tract infection requiring treatment with antibiotics</td>
<td>Between 1 in 2 &amp; 1 in 10 patients</td>
</tr>
</tbody>
</table>
### What is my risk of a hospital-acquired infection?

Your risk of getting an infection in hospital is approximately 8 in 100 (8%); this includes getting MRSA or a *Clostridium difficile* bowel infection. This

<table>
<thead>
<tr>
<th>Condition</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swelling &amp; bruising of the wound site</td>
<td>Between 1 in 2 &amp; 1 in 10 patients</td>
</tr>
<tr>
<td>Discomfort or numbness in your mouth where the buccal mucosa graft was</td>
<td>Between 1 in 2 &amp; 1 in 10 patients</td>
</tr>
<tr>
<td>taken from inside the cheek</td>
<td></td>
</tr>
<tr>
<td>Spraying on passing urine</td>
<td>Between 1 in 2 &amp; 1 in 10 patients</td>
</tr>
<tr>
<td>Recurrent stricture formation requiring further surgery or other treatment</td>
<td>Between 1 in 10 &amp; 1 in 50 patients</td>
</tr>
<tr>
<td>Erectile dysfunction which may require further treatment after the</td>
<td>Between 1 in 10 &amp; 1 in 50 patients</td>
</tr>
<tr>
<td>procedure</td>
<td></td>
</tr>
<tr>
<td>Wound infection requiring treatment with antibiotics</td>
<td>Between 1 in 10 &amp; 1 in 50 patients</td>
</tr>
<tr>
<td>Failure of the urethra to join completely resulting in urine leakage</td>
<td>Between 1 in 50 &amp; 1 in 250 patients</td>
</tr>
<tr>
<td>around the stitch line (fistula)</td>
<td></td>
</tr>
<tr>
<td>Painful sexual intercourse with reduced ejaculation</td>
<td>Between 1 in 50 &amp; 1 in 250 patients</td>
</tr>
<tr>
<td>Restricted jaw opening or persistent numbness in your lip after buccal</td>
<td>Between 1 in 50 &amp; 1 in 250 patients</td>
</tr>
<tr>
<td>mucosal graft harvesting</td>
<td></td>
</tr>
<tr>
<td>Anaesthetic or cardiovascular problems possibly requiring intensive care</td>
<td>Between 1 in 50 &amp; 1 in 250 patients</td>
</tr>
<tr>
<td>(including chest infection, pulmonary embolus, stroke, deep vein</td>
<td>(your anaesthetist can estimate your individual risk)</td>
</tr>
<tr>
<td>thrombosis, heart attack and death)</td>
<td></td>
</tr>
</tbody>
</table>
figure is higher if you are in a “high-risk” group of patients such as patients who have had:

- long-term drainage tubes (e.g. catheters);
- bladder removal;
- long hospital stays; or
- multiple hospital admissions.

**What can I expect when I get home?**

- you will be given advice about your recovery at home
- you will be shown how to manage your catheter
- arrangements will be made for catheter supplies to be delivered to you, if required
- a date and venue for your catheter removal will be arranged
- you will be given a copy of your discharge summary and a copy will also be sent to your GP
- any antibiotics, tablets or mouthwashes you may need will be arranged & dispensed from the hospital pharmacy
- a follow-up appointment will be arranged

**General information about surgical procedures**

**Before your procedure**

Please tell a member of the medical team if you have:

- an implanted foreign body (stent, joint replacement, pacemaker, heart valve, blood vessel graft);
- a regular prescription for a blood thinning agent (warfarin, aspirin, clopidogrel, rivaroxaban or dabigatran);
- a present or previous MRSA infection; or
- a high risk of variant-CJD (e.g. if you have had a corneal transplant, a neurosurgical dural transplant or human growth hormone treatment).

**Questions you may wish to ask**

If you wish to learn more about what will happen, you can find a list of suggested questions called "Having An Operation" on the website of the Royal College of Surgeons of England. You may also wish to ask your surgeon for his/her personal results and experience with this procedure.

BAUS runs a national audit and collects data from all urologists undertaking this surgery. There are two reasons for this. First, surgeons are required by the Department of Health to look at how well the surgery is being done under their care and, second, to look at national trends for the procedure.
Some basic patient data (e.g. name, NHS number and date of birth) are entered and securely stored. This is required so that members of the clinical team providing your care can go back to the record and add follow-up data such as length of stay or post-operative complications. This helps your surgeon to understand the various outcomes of the procedure.

Although BAUS staff can download the surgical data for analysis, they cannot access any patient identifiable data. This information is used to generate reports on individual surgeons and units; these are available for the public to view in the [Surgical Outcomes Audit](#) section of the BAUS website.

**Before you go home**

We will tell you how the procedure went and you should:

- make sure you understand what has been done;
- ask the surgeon if everything went as planned;
- let the staff know if you have any discomfort;
- ask what you can (and cannot) do at home;
- make sure you know what happens next; and
- ask when you can return to normal activities.

We will give you advice about what to look out for when you get home. Your surgeon or nurse will also give you details of who to contact, and how to contact them, in the event of problems.

**Smoking and surgery**

Ideally, we would prefer you to stop smoking before any procedure. Smoking can worsen some urological conditions and makes complications more likely after surgery. For advice on stopping, you can:

- contact your GP;
- access your local [NHS Smoking Help Online](#); or
- ring the free NHS Smoking Helpline on **0800 169 0 169**.

**Driving after surgery**

It is your responsibility to make sure you are fit to drive after any surgical procedure. You only need to contact theDVLA if your ability to drive is likely to be affected for more than three months. If it is, you should check with your insurance company before driving again.

**What should I do with this information?**

Thank you for taking the trouble to read this information. Please let your urologist (or specialist nurse) know if you wish to have a copy for your own
records. If you wish, they can also arrange for a copy to be kept in your hospital notes.

**What sources have we used to prepare this leaflet?**

This leaflet uses information from consensus panels and other evidence-based sources including:

- the Department of Health (England);
- the Cochrane Collaboration; and
- the National Institute for Health and Care Excellence (NICE).

It also follows style guidelines from:

- the Royal National Institute for Blind People (RNIB);
- the Information Standard;
- the Patient Information Forum; and
- the Plain English Campaign.

**Disclaimer**

We have made every effort to give accurate information but there may still be errors or omissions in this leaflet. BAUS cannot accept responsibility for any loss from action taken (or not taken) as a result of this information.

**PLEASE NOTE**

The staff at BAUS are not medically trained, and are unable to answer questions about the information provided in this leaflet. If you do have any questions, you should contact your urologist, specialist nurse or GP.