PENILE URETHROPLASTY

Information about your procedure from
The British Association of Urological Surgeons (BAUS)

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.

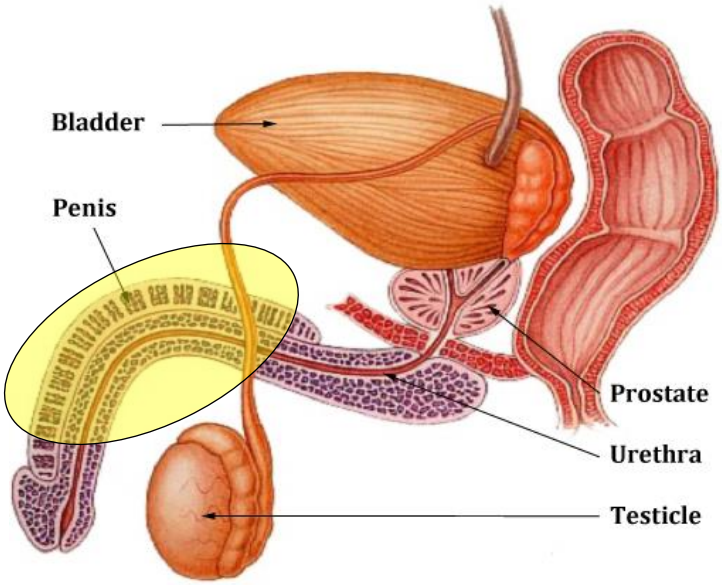
To view this leaflet online, scan the QR code (right) or type the short URL below it into your web browser.

http://rb.gy/qai7d

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

KEY POINTS

- Repair of the penile urethra (circled below) involves insertion of a graft or flap to widen the urethra
- The commonest method used is a "free graft" of buccal mucosa (the lining inside your cheek)
- Reconstruction may need both a urethral and suprapubic catheter to be put into your bladder after the procedure



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What does this procedure involve?

We perform penile urethroplasty to treat a stricture anywhere in the penis from the glans (head) to the front part of the scrotum. Many conditions cause penile strictures, for example:

- inflammatory conditions (lichen sclerosus / balanitis xerotica obliterans);
- previous passage of instruments or catheters; or
- sexually transmitted infections (STIs).

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. You may also be asked to attend for a urethroscopy (telescope examination of the urethra) to gain additional information about your stricture.

Rarely, urethral ultrasound is used as an alternative way of demonstrating the urethral stricture. We apply jelly to your penis and ask you to pass urine, whilst scanning your penis, so that the anatomy of your urethra (waterpipe) can be clarified. These tests help demonstrate that the problem you have with passing urine is localised to your penis.

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 recurring.

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.

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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 operation

- we usually carry out the procedure under a general anaesthetic
- you will be given an injection of antibiotics before the procedure, after you have been checked carefully for any allergies
- we make an incision either around your penis (where the head joins the shaft) or in your perineum (between the back of your scrotum and your anus)
- if you have a foreskin, we may advise you to have a circumcision
- we either strip back the skin covering the shaft of the penis to expose its full length, or we pull the penis out through the perineal incision
- we free your urethra from the two erectile cylinders inside the shaft of your penis and open it along the full length of the stricture
- we take a strip of the lining from inside your mouth (buccal mucosa) and sew it on to healthy tissue overlying the erectile cylinders
- we then sew the cut edges of your urethra directly on to the edges of the graft, which widens the urethra
- sometimes we use a skin flap (with its attached blood supply) from the penis itself or from the foreskin as a graft
- we stitch the skin back in place, either around the head of your penis or in your perineum, depending on the site of the initial incision
- your mouth wound (if present) will heal very quickly; some surgeons stitch the mouth defect whilst others leave it to heal on its own
- we close the skin with absorbable stitches which normally disappear within two to three weeks
- we bandage your penis firmly (for 48 hours)
- we put a catheter in your bladder which needs to remain for two to three weeks
- the procedure takes between two and three hours to complete
- you may be discharged the same day as your surgery, or kept in overnight

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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:

After-effect	Risk
Urinary tract infection requiring treatment with antibiotics	 Between 1 in 2 & 1 in 10 patients
Swelling & bruising of the wound site	 Between 1 in 2 & 1 in 10 patients
Discomfort or numbness in your mouth where the buccal mucosa graft was taken from inside your cheek	 Between 1 in 2 & 1 in 10 patients
Recurrent stricture formation requiring further surgery or other treatment	 Between 1 in 2 & 1 in 10 patients
Dribbling after urination due to "bagginess" of the graft or flap	 Between 1 in 2 & 1 in 10 patients
Wound infection requiring treatment with antibiotics	 Between 1 in 10 & 1 in 50 patients
Failure of the urethra to join completely resulting in urine leakage around the stitch line (fistula)	 Between 1 in 10 & 1 in 50 patients
Lost, altered or bent erections as a result of surgical scarring or post-operative infection	 Between 1 in 10 & 1 in 50 patients

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Shortening of the penis		Between 1 in 10 & 1 in 50 patients
Delayed bleeding requiring removal of clots or further surgery		Between 1 in 50 & 1 in 250 patients
Wound breakdown requiring further surgery		Between 1 in 50 & 1 in 250 patients
Persistence of suture material requiring later removal		Between 1 in 50 & 1 in 250 patients
Anaesthetic or cardiovascular problems possibly requiring intensive care (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack and death)		Between 1 in 50 & 1 in 250 patients (your anaesthetist can estimate your individual risk)
Spraying of urine		Between 1 in 50 & 1 in 250 patients

What is my risk of a hospital-acquired infection?

Your risk of getting an infection in hospital is between 4 & 6%; this includes getting *MRSA* or a *Clostridium difficile* bowel infection. This 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);
- 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

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- 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 (e.g. warfarin, aspirin, clopidogrel, rivaroxaban, 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.

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.

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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 Smoke-Free National Helpline on **0300 123 1044**.

Driving after surgery

It is your responsibility to make sure you are fit to drive after any surgical procedure. You only need to contact the DVLA 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 would like to have a copy for your own records. If you wish, the medical or nursing staff can also arrange to file a copy 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.

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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 have any questions, you should contact your Urologist, Specialist Nurse or GP in the first instance.

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