EXTRA-ANATOMIC URINARY DIVERSION USING A STENT

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

http://www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/Extraanatomic stent insertion.pdf

Key Points

- Ureteric stents are normally used for obstruction (blockage) to one or both of your ureters (the tubes that carry urine from your kidneys to your bladder)
- Sometimes we cannot pass a standard ureteric stent due to a blockage
- An extra-anatomic stent is a tube that allows urine to drain from the kidney to the bladder through an alternative passage under the skin, bypassing the ureter itself
- The procedure is an alternative to percutaneous nephrostomy (a tube placed through the skin in your flank, directly into the kidney, draining into an external bag)
- Extra-anatomic urinary diversion stents need to be changed every 3 to 12 months

What does this procedure involve?

An extra-anatomic urinary diversion stent involves placing one end of a narrow tube in your kidney, then creating a tunnel under the skin of your abdomen. We pass the tube through this tunnel, above your hip bone, and insert the other end into your bladder. The whole tube is, therefore, situated under your skin.

It is usually done as an elective (planned) procedure, not as an emergency. It allows urine to drain from your kidney to your bladder, when the ureter is completely blocked and a stent will not pass within the ureter.

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What are the alternatives?

- **Percutaneous nephrostomy tube insertion** – puncturing your kidney through the skin of your loin, under local anaesthetic, to put a drainage tube into the kidney; it may actually be possible to put in a stent from above through the kidney puncture

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.

The procedure is usually performed by a urologist but can sometimes involve a doctor called a **radiologist.**

We may provide you with a pair of TED stockings to wear, and we may 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 normally do the stent insertion under a general anaesthetic (where you are asleep) or spinal anaesthetic (where you are awake but can feel nothing from the waist down);
- we usually give you an injection of an antibiotic after a careful check for any allergies
- we pass a guidewire through your existing percutaneous nephrostomy into your kidney
- we thread the extra anatomic stent over the guidewire so that one end is placed in the kidney
- we than make a few small incisions (cuts) in the skin on your abdomen (tummy)
- we create a tunnel under the skin of the abdomen, from the site of your nephrostomy down to your bladder and guide the stent through this tunnel
- we make a cut above your bladder and position the lower end of the stent in your bladder
- we close the cuts in your skin with dissolvable stitches

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- the procedure normally takes 45 minutes or so; occasionally, it may take longer
- you can expect to be in hospital for one night or less.

You may get some leakage of urine from the nephrostomy site. This usually stops within 24 to 48 hours.

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
Short-lived discomfort in your kidney and at the insertion sites (incisions) in your skin	Almost all patients
Minor bleeding from your kidney, or bruising under your skin around the stent tunnel	Between 1 in 2 & 1 in 10 patients
Blockage of the drainage tube requiring a further procedure	Between 1 in 2 & 1 in 10 patients
Displacement of the stent requiring a further procedure	Between 1 in 50 & 1 in 250 patients
Skin erosion over the tube	Between 1 in 50 & 1 in 250 patients
Infection in your bladder, or at the skin incision sites requiring treatment	Between 1 in 50 & 1 in 250 patients
Failure to position the tube satisfactorily in the kidney or bladder	Between 1 in 50 & 1 in 250 patients

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Leakage of urine from your bladder to form a urine collection (urinoma) that requires drainage	Between 1 in 50 & 1 in 250 patients
Inadvertent damage to adjacent organs (e.g. bowel, liver, spleen, lung)	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)

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 given a copy of your discharge summary, and a copy will also be sent to your GP
- any antibiotics or other tablets you may need will be arranged & dispensed from the hospital pharmacy
- you should put a sterile dressing around the wound areas
- you may shower or bathe 48 hours after the procedure: you can protect your skin with a dressing when showering or bathing
- if you experience a high temperature, back pain, abdominal pain, redness or swelling around the wounds or leakage of urine from the wounds, you should contact your doctor immediately
- your urologist will arrange a follow-up for you to review your symptoms, and to discuss when your extra-anatomic stent needs changing.

General information about surgical procedures

Before your procedure

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

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- 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.

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 **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.

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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.

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.

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