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:

Key Points

- The procedure involves diversion of urine from your kidneys to your skin through a short segment of small intestine (commonly called a urostomy)
- It is often combined with removal of the bladder, as treatment for bladder cancer (radical cystectomy with urinary diversion in men & in women)
- It is also used for benign conditions (e.g. intractable incontinence & painful bladder conditions) that have failed to respond to less invasive treatments
- Formation of an ileal conduit is major surgery with significant risks as well as potential benefits

What does this procedure involve?
The procedure involves creating a channel for urine to reach the skin, through a short piece of small intestine (called a conduit).

We re-join the ends of the intestine and the bring the conduit out through your abdominal (tummy wall). The final result is often referred to as a urostomy.
What are the alternatives?

- If the urostomy is performed for bladder cancer (with cystectomy):
  - **Continent urinary diversion** – construction of a catheterisable urinary stoma
  - **Formation of a new (neo)bladder in men or in women** - usually constructed from an isolated segment of small bowel

- If the urostomy is performed for a benign condition:
  - **Intermittent self-catheterisation in men or women**
  - **Suprapubic catheterisation or a long-term urethral catheter**
  - **Surgical enlargement of the bladder** – using an isolated segment of bowel sewn on to your bladder to increase its capacity

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 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.

Some urology units admit you the day before your procedure to administer laxatives to clear your bowel; others will admit you on the day of surgery and will not use laxatives. Your urologist will advise on which protocol will be used.

Will I have any say in where my urostomy is sited?

Before your procedure we will arrange for you to see a **Stoma Nurse Specialist**. Their job is to help you decide on the ideal site for your stoma. They will then mark this on the skin of your abdomen. The surgeon needs to see this mark during the procedure, so it is important not to wash it off. If you wish, we will give you the opportunity to meet someone who already has a urostomy.
Details of the procedure

• we normally do the procedure through an incision in the lower part of your abdomen (tummy); some units now do it using keyhole surgery a surgical robot (robotic-assisted surgery)
• we divide the ureters (tubes that drain from the kidneys to the bladder) close to the bladder
• we pass the left ureter behind the bowel so it can be joined to the right ureter
• we isolate a short section of small intestine, taking care to preserve its blood supply
• we join the ends of the intestine back together
• we join both ureters to one end of the tubular piece of small intestine (conduit)
• we bring the other end out through your abdomen at the pre-marked site
• we create a spout which is fixed to the skin with absorbable stitches (a urostomy, pictured right)
• we normally insert a drain so any fluid from the operation site can drain away; this is usually removed a day or two after the procedure
• we also leave two small tubes (stents) coming out of the urostomy (pictured); they are removed 1 to 3 weeks after the procedure
• you will be encouraged to mobilise as soon as possible; this stimulates your bowel to begin working again
• once your bowel starts working again, we will start you on drinks and food
• a physiotherapist will show you some deep breathing and leg exercises, and you will sit out in a chair for a short time soon after your operation
• you (or your carer) will be shown how to empty and change your stoma bags by the Stoma Care Nurse; you must be confident of doing this before you go home
• the time spent in hospital is variable but is usually around seven to 12 days
• it will take at least three to six months for you to recover fully, although much of the recovery comes a good deal sooner than this
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>
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<tbody>
<tr>
<td>Recurrent urinary infections</td>
<td>Between 1 in 2 &amp; 1 in 10 patients</td>
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<tr>
<td>Decreased kidney function with time</td>
<td>Between 1 in 2 &amp; 1 in 10 patients</td>
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<tr>
<td>Blood loss requiring transfusions or further surgery</td>
<td>Between 1 in 10 &amp; 1 in 50 patients</td>
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<tr>
<td>Scarring, narrowing or hernia formation around the urostomy requiring revision</td>
<td>Between 1 in 10 &amp; 1 in 50 patients</td>
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<tr>
<td>Infection or hernia of the incision requiring further treatment</td>
<td>Between 1 in 10 &amp; 1 in 50 patients</td>
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<tr>
<td>Diarrhoea/vitamin deficiency/constipation due to shortened bowel</td>
<td>Between 1 in 10 &amp; 1 in 50 patients</td>
</tr>
<tr>
<td>Anaesthetic or cardiovascular problems possibly requiring intensive care admission (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack and death)</td>
<td>Between 1 in 10 &amp; 1 in 50 patients (your anaesthetist can estimate your individual risk)</td>
</tr>
<tr>
<td>Temporary (or long-term) tendency for the blood to be more acidic than normal, requiring temporary or long-term medication</td>
<td>Between 1 in 10 &amp; 1 in 50 patients</td>
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### Development of stones in the kidneys that may result in infection or damage to the kidneys
- Between 1 in 10 & 1 in 50 patients

### Scarring of the bowel or ureters requiring further treatment including possible surgery
- Between 1 in 10 & 1 in 50 patients

### Late problems caused by conduit narrowing which may block the drainage of urine
- Between 1 in 10 & 1 in 50 patients

### Leakage of urine or bowel contents from the anastomosis requiring re-operation
- Between 1 in 50 & 1 in 250 patients

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**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);
- 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 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
- a follow-up appointment will be made for you to see the Stoma Nurse as well as an appointment in your Consultant’s clinic
- you should avoid heavy lifting for six weeks
- you may see blood in your urine for up to a month after surgery
- if your bladder has also been removed, you may notice a discharge from your penis or vagina; this usually stops three to four weeks after the procedure
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.

**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](https://www.nhs.nhs.uk/smoking-help); 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.

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.