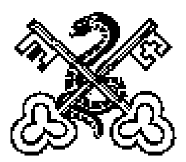

OPEN RECONSTRUCTION OF THE KIDNEY PELVIS (OPEN PYELOPLASTY)

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/Pyeloplasty open.pdf

Key Points

- The aim of this operation is to repair a narrowed area where your kidney joins your ureter (the pelviureteric junction)
- We usually put in a drainage tube or stent to help the repair heal; a tube will be removed after 10 – 14 days, and a stent after 4 weeks
- A radio-isotope scan after 12 weeks will be done to see how well your kidney function has recovered; in most patients, there is an improvement together with relief of the pre-operative pain
- In a small number of patients, the scan may show improvement but there is still some ongoing pain
- Some patients develop discomfort & bulging in the loin after open kidney surgery; the bulging can be improved by exercises
- A small number of patients may need another operation if the narrowing comes back
- Occasionally, we need to remove the affected kidney later because of damage caused by recurrent obstruction

What does this procedure involve?

This involves repair of narrowing or scarring at the junction of the kidney pelvis with the ureter (the pelvi-ureteric junction). It usually involves putting in a plastic tube (stent) or a kidney drainage tube (nephrostomy) to help healing.

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What are the alternatives?

- **Observation** – this may be an option when symptoms are minor and not felt to justify surgery
- **Telescopic incision (endopyelotomy)**– cutting open the narrowed area with an electric wire passed up from the bladder or through the skin over the kidney
- **Stretching of the area of narrowing** – using a balloon passed up from the bladder or through the skin over the kidney, under X-ray screening
- **Temporary stenting** – by placing a small plastic tube (stent) through the narrowed area
- **Laparoscopic (keyhole) surgery** – reconstruction of the narrowed area using a telescope passed through your tummy wall

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.

Details of the procedure

- we normally use a full general anaesthetic and you will be asleep throughout the procedure.
- we usually give you an injection of antibiotics before the procedure, after you have been checked for any allergies
- we normally put a catheter into your bladder, during the operation, to measure urine output
- the operation is performed through an incision (cut) in your loin
- we divide or cut away the narrowing at the pelvi-ureteric junction; we may need to fold down a flap of tissue from the kidney to widen the narrowing
- we normally put a stent in your ureter (pictured below) or a drainage tube into the kidney (a nephrostomy) to speed up healing

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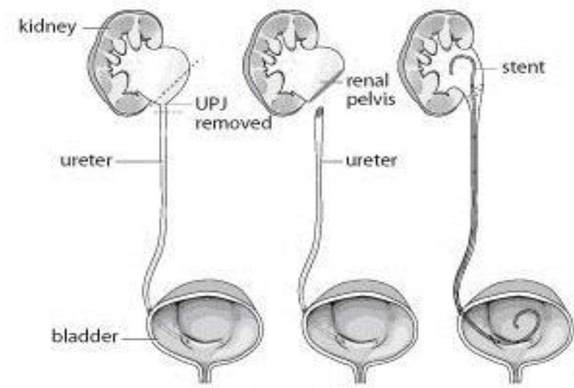
- we put a drain close to the kidney to collect any fluid which forms around the surgical site
- your drainage tubes will be collected to external drainage bags for monitoring
- we close your wound with absorbable sutures which do not require removal
- we will give you fluids to drink immediately after the operation and encourage you to move as soon as you are comfortable (to help prevent blood clots forming in your legs).
- we normally remove your wound drain and catheter after two to five days
- the average hospital stay is between four and six days



Following pyeloplasty, some urology units have introduced Enhanced Recovery Pathways. These actually start before you are admitted to hospital. After your surgery, they are designed to speed your recovery, shorten your time in hospital and reduce your risk of re-admission.

We will encourage you to get up and about as soon as possible. This reduces the risk of blood clots in your legs and helps your bowel to start working again. You will sit out in a chair shortly after the procedure and be shown deep breathing/leg exercises. We will encourage you to start drinking and eating as soon as possible.

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
A further procedure to remove the stent in your ureter, usually under local anaesthetic	Almost all patients

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Temporary insertion of a bladder catheter and wound drain	Almost all patients
Bulging of your wound due to damage to the nerves serving the abdominal wall	Almost all patients
Entry into the lung cavity requiring insertion of a temporary drain	Between 1 in 10 & 1 in 50 patients
Bleeding requiring further surgery or blood transfusion	Between 1 in 10 & 1 in 50 patients
Continuing pain, even when the post-operative scans show that your kidney drainage has improved	Between 1 in 10 & 1 in 50 patients
Recurring kidney or bladder infections	Between 1 in 50 & 1 in 250 patients
Recurrent narrowing or scarring requiring further surgery	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)
Need to remove the kidney at a later stage because of damage caused by recurrent blockage	Between 1 in 50 & 1 in 250 patients
Infection, pain or hernia in the incision, requiring further treatment	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 approximately 8 in 100 (8%); this includes getting *MRSA* or a *Clostridium difficile* bowel infection. This

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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
- it will be at least 6 weeks before healing of the wound occurs and it may take up to 2 months before you feel fully recovered from the surgery
- you may return to work when you are comfortable enough and when your GP is satisfied with your progress
- if you develop a temperature, increased redness, throbbing or drainage at the site of the operation, you should contact your GP immediately
- your stent may cause pain in your kidney area when you pass urine, or pain in your bladder; this usually settles quickly but, if you feel unwell or feverish, you should contact your GP to check for a urine infection
- if you have a stent, this will be removed 4 weeks after the procedure, usually under local anaesthetic
- if you have a nephrostomy drainage tube, we normally clamp it after eight to 10 days and remove it 24 hours later: some patients are discharged with the tube and brought back to the ward briefly for it to be clamped & removed
- we normally arrange a radio-isotope kidney scan 12 weeks after surgery, to assess the drainage of your kidney
- twinges of discomfort in your loin wound are very common and can continue for several months

After surgery through an incision in your loin, the abdominal wall below your scar will bulge; **this is not a hernia** but is caused by nerve damage. It can be helped by strengthening up the muscles of your abdominal wall. We can arrange for you to see a physiotherapist who will show you exercises to strengthen these muscles.

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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.

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 the DVLA if your ability to drive is

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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.

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