
Transurethral resection of the prostate (for benign disease): procedure-specific information

What is the evidence base for this information?

This leaflet includes advice from consensus panels, the British Association of Urological Surgeons, the Department of Health and evidence-based sources; it is, therefore, a reflection of best practice in the UK. It is intended to supplement any advice you may already have been given by your GP or other healthcare professionals. Alternative treatments are outlined below and can be discussed in more detail with your Urologist or Specialist Nurse.

What does the procedure involve?

This operation involves the telescopic removal or incision of the obstructing, central part of the prostate with heat diathermy and temporary insertion of a catheter for bladder irrigation

What are the alternatives to this procedure?

Drugs, use of a catheter/stent, observation or open operation, laser enucleation of the prostate (HoLEP).

What should I expect before the procedure?

If you are taking Aspirin or Clopidogrel on a regular basis, you must discuss this with your urologist because these drugs can cause increased bleeding after surgery. There may be a balance of risk where stopping them will reduce the chances of bleeding but this can result in increased clotting, which may also carry a risk to your health. This will, therefore, need careful discussion with regard to risks and benefits.

You will usually be admitted on the same day as your surgery. You will normally receive an appointment for pre-assessment, approximately 14 days before your admission, to assess your general fitness, to screen for the carriage of MRSA and to perform some baseline investigations. After admission, you will be seen by members of the medical team which may include the Consultant, Specialist Registrar, House Officer and your named nurse.

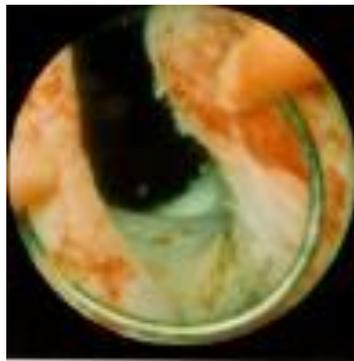
You will be asked not to eat or drink for 6 hours before surgery and, immediately before the operation, you may be given a pre-medication by the anaesthetist which will make you dry-mouthed and pleasantly sleepy.

Please be sure to inform your Urologist in advance of your surgery if you have any of the following:

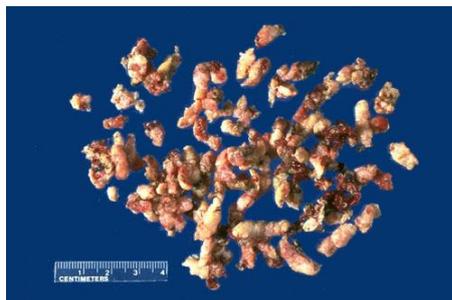
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- an artificial heart valve
 - a coronary artery stent
 - a heart pacemaker or defibrillator
 - an artificial joint
 - an artificial blood vessel graft
 - a neurosurgical shunt
 - any other implanted foreign body
 - a prescription for Warfarin, Aspirin or Clopidogrel (Plavix®)
 - a previous or current MRSA infection
 - high risk of variant CJD (if you have received a corneal transplant, a neurosurgical dural transplant or previous injections of human-derived growth hormone)

What happens during the procedure?

Either a full general anaesthetic (where you will be asleep throughout the procedure) or a spinal anaesthetic (where you are awake but unable to feel anything from the waist down) will be used. All methods minimise pain; your anaesthetist will explain the pros and cons of each type of anaesthetic to you.



A telescope is passed into the bladder and the central part of the prostate removed piecemeal using heat diathermy. The prostate fragments are evacuated using suction and sent for pathological analysis. A catheter is usually inserted after the procedure.



The procedure takes 45-60 minutes.

You will usually be given injectable antibiotics before the procedure, after checking for any allergies.

What happens immediately after the procedure?

There is always some bleeding from the prostate area after the operation. The urine is usually clear of blood after 48 hours, although some patients lose more blood for longer. If the loss is moderate, you may require a blood transfusion to prevent you from becoming anaemic. You will be able to eat and drink the morning after the operation although this may be allowed earlier after a spinal anaesthetic.

The catheter is generally removed after 2-4 days, following which urine can be passed in the normal way. At first, it may be painful to pass your urine and it may come more frequently than normal. Any initial discomfort can be relieved by tablets or injections and the frequency usually improves within a few days.

It is not unusual for your urine to turn bloody again for the first 24-48 hours after catheter removal. A few patients are unable to pass urine at all after the operation. If this should happen, we normally pass a catheter again to allow the bladder to regain its function before trying again without the catheter.

The average hospital stay is 2 days for a routine admission.

Are there any side-effects?

Most procedures have a potential for side-effects. You should be reassured that, although all these complications are well-recognised, the majority of patients do not suffer any problems after a urological procedure.

Please use the check boxes to tick off individual items when you are happy that they have been discussed to your satisfaction:

Common (greater than 1 in 10)

- Temporary mild burning, bleeding and frequency of urination after the procedure
- No semen is produced during an orgasm in approximately 75%
- Treatment may not relieve all the prostatic symptoms
- Poor erections (impotence in approx approximately 14%)
- Infection of the bladder, testes or kidney requiring antibiotics
- Bleeding requiring return to theatre and/or blood transfusion (5%)
- Possible need to repeat treatment later due to re-obstruction (approx 10%)
- Injury to the urethra causing delayed scar formation

Occasional (between 1 in 10 and 1 in 50)

- Finding unsuspected cancer in the removed tissue which may need further treatment
- May need self catheterisation to empty bladder fully if the bladder is weak
- Failure to pass urine after surgery requiring a new catheter
- Loss of urinary control (incontinence) which may be temporary or permanent (2-4%)

Rare (less than 1 in 50)

- Absorption of irrigating fluids causing confusion, heart failure (TUR syndrome)
- Very rarely, perforation of the bladder requiring a temporary urinary catheter or open surgical repair

Hospital-acquired infection (overall risk for Addenbrooke's)

- Colonisation with MRSA (0.02%, 1 in 5,000)
- Clostridium difficile bowel infection (0.04%; 1 in 2,500)
- MRSA bloodstream infection (0.01%; 1 in 10,000)

(These rates may be greater in high-risk patients e.g. with long-term drainage tubes, after removal of the bladder for cancer, after previous infections, after prolonged hospitalisation or after multiple admissions)

What should I expect when I get home?

When you leave hospital, you will be given a "draft" discharge summary of your admission. This holds important information about your inpatient stay and your operation. If, in the first few weeks after your discharge, you need to call your GP for any reason or to attend another hospital, please take this summary with you to allow the doctors to see details of your treatment. This is particularly important if you need to consult another doctor within a few days of your discharge.

Most patients feel tired and below par for a week or two because this is major surgery. Over this period, any frequency usually settles gradually.

What else should I look out for?

If you experience increasing frequency, burning or difficulty on passing urine or worrying bleeding, contact your GP.

About 1 man in 5 experiences bleeding some 10-14 days after getting home; this is due to scabs separating from the cavity of the prostate. Increasing your fluid intake should stop this bleeding quickly but, if it does not, you should contact your GP who will prescribe some antibiotics for you. In the event of severe bleeding, passage of clots or sudden difficulty in passing urine, you should contact your GP immediately since it may be necessary for you to be re-admitted to hospital.

Are there any other important points?

Removal of your prostate should not adversely affect your sex life provided you are getting normal erections before the surgery. Sexual activity can be resumed as soon as you are comfortable, usually after 3-4 weeks.

It is often helpful to start pelvic floor exercises as soon as possible after the operation since this can improve your control when you get home. The symptoms of an overactive bladder may take 3 months to resolve whereas the flow is improved immediately.

If you need any specific information on these exercises, please contact the ward staff or the Specialist Nurses. The symptoms of an overactive bladder may take 3 months to resolve whereas the flow is improved immediately.

It will be at least 14-21 days before the pathology results on the tissue removed are available. It is normal practice for the results of all biopsies to be discussed in detail at a multi-disciplinary meeting before any further treatment decisions are made. You and your GP will be informed of the results after this discussion.

Most patients require a recovery period of 2-3 weeks at home before they feel ready for work. We recommend 3-4 weeks' rest before resuming any job, especially if it is physically strenuous and you should avoid any heavy lifting during this time. You should not drive until you feel fully recovered; two weeks is the minimum period that most patients require before resuming driving.

Driving after surgery

It is your responsibility to ensure that you are fit to drive following your surgery. You do not normally need to notify the DVLA unless you have a medical condition that will last for longer than 3 months after your surgery and may affect your ability to drive. You should, however, check with your insurance company before returning to driving. Your doctors will be happy to provide you with advice on request.

Is there any research being carried out in this field at Addenbrooke's Hospital?

Yes. As part of your operation, various specimens of tissue will be sent to the Pathology department so that we can find out details of the disease and whether it has affected other areas. This information sheet has already described to you what tissue will be removed.

We would also like your agreement to carry out research on that tissue which will be left over when the pathologist has finished making a full diagnosis. Normally, this tissue is disposed of or simply stored. What we would like to do is to store samples of the tissue, both frozen and after it has been processed. Please note that we are not asking you to provide any tissue apart from that which would normally be removed during the operation.

We are carrying out a series of research projects which involve studying the genes and proteins produced by normal and diseased tissues. The reason for doing this is to try to discover differences between diseased and normal tissue to help develop new tests or treatments that might benefit future generations. This research is being carried out here in Cambridge but we sometimes work with other universities or with industry to move our research forwards more quickly than it would if we did everything here.

The consent form you will sign from the hospital allows you to indicate whether you are prepared to provide this tissue. If you would like any further information, please ask the ward to contact your Consultant.

Who can I contact for more help or information?

Oncology Nurses

- Uro-Oncology Nurse Specialist
01223 586748
- Bladder cancer Nurse Practitioner (haematuria, chemotherapy & BCG)
01223 274608
- Prostate cancer Nurse Practitioner
01223 247608 or 216897 or bleep 154-548
- Surgical Care Practitioner
01223 348590 or 256157 or bleep 154-134

Non-Oncology Nurses

- Urology Nurse Practitioner (incontinence, urodynamics, catheter patients)
01223 274608 or 586748
- Urology Nurse Practitioner (stoma care)
01223 349800

Patient Advice & Liaison Centre (PALS)

- Telephone
+44 (0)1223 216756 or 257257
+44 (0)1223 274432 or 274431
- PatientLine
*801 (*from patient bedside telephones only*)
- E mail
pals@addenbrookes.nhs.uk
- Mail
PALS, Box No 53
Addenbrooke's Hospital
Hills Road, Cambridge, CB2 2QQ

Chaplaincy and Multi-Faith Community

- Telephone
+44 (0)1223 217769
- E mail
derek.fraser@addenbrookes.nhs.uk
- Mail
The Chaplaincy, Box No 105
Addenbrooke's Hospital
Hills Road, Cambridge, CB2 2QQ

MINICOM System ("type" system for the hard of hearing)

- Telephone
+44 (0)1223 274604

Access Office (travel, parking & security information)

- Telephone
+44 (0)1223 586969

What should I do with this form?

Thank you for taking the trouble to read this information sheet. If you wish to sign it and retain a copy for your own records, please do so below.

If you would like a copy of this form to be filed in your hospital records for future reference, please let your Urologist or Specialist Nurse know. If you do, however, decide to proceed with the scheduled procedure, you will be asked to sign a separate consent form which will be filed in your hospital notes and you will, in addition, be provided with a copy of the form if you wish.

I have read this information sheet and I accept the information it provides.

Signature.....Date.....

How can I get information in alternative formats?

Please ask if you require this information in other languages, large print or audio format: 01223 216032 or patient.information@addenbrookes.nhs.uk

- Polish** Informacje te można otrzymać w innych językach, w wersji dużym drukiem lub audio. Zamówienia prosimy składać pod numerem: 01223 216032 lub wysyłając e-mail: patient.information@addenbrookes.nhs.uk
- Portuguese** Se precisar desta informação num outro idioma, em impressão de letras grandes ou formato áudio por favor telefone para o 01223 216032 ou envie uma mensagem para: patient.information@addenbrookes.nhs.uk
- Russian** Если вам требуется эта информация на другом языке, крупным шрифтом или в аудиоформате, пожалуйста, обращайтесь по телефону 01223 216032 или на вебсайт patient.information@addenbrookes.nhs.uk
- Cantonese** 若你需要此信息的其他語言版本、大字體版或音頻格式，請致電 01223 216032 或發郵件到: patient.information@addenbrookes.nhs.uk
- Turkish** Bu bilgiyi diğer dillerde veya büyük baskılı ya da sesli formatta isterseniz lütfen su numaradan kontak kurun: 01223 216032 veya aşağıdaki adrese e-posta gönderin: patient.information@addenbrookes.nhs.uk
- Bengali** এই তথ্য বাংলায়, বড় অক্ষরে বা অডিও টেপে পেতে চাইলে দয়া করে 01223 216032 নম্বরে ফোন করুন বা patient.information@addenbrookes.nhs.uk ঠিকানায় ই-মেইল করুন।



Addenbrooke's is smoke-free. You cannot smoke anywhere on the site. Smoking increases the severity of some urological diseases and increases the risk of post-operative complications. For advice on quitting, contact your GP or the NHS smoking helpline free on 0800 169 0 169

Document history

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