



HOLMIUM LASER ENUCLEATION OF THE PROSTATE (HoLEP)

Procedure Specific Information

What is the evidence base for this information?

This publication 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 urological 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 of obstructing prostate tissue using a laser and temporary insertion of a catheter for bladder irrigation

What are the alternatives to this procedure?

Drugs, use of a catheter/stent, observation,, conventional transurethral resection or open operation.

What should I expect before the procedure?

If you are taking Clopidogrel on a regular basis, you must stop 10 days before your admission. This drug can cause increased bleeding after prostate surgery. Treatment can be re-started safely about 10 days after you get home. If you are taking Warfarin to thin your blood, you should ensure that the Urology staff are aware of this well in advance of your admission.

You will usually be admitted on the day before your surgery although some hospitals now prefer to admit patients on the day of surgery. You will normally receive an appointment for pre-assessment 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 surgeon in advance of your surgery if you have any of the following:

- 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 regular prescription for Warfarin, Aspirin or Clopidogrel (Plavix®)
- a previous or current MRSA infection
- a high risk of variant-CJD (if you have received a corneal transplant, a neurosurgical dural transplant or previous injections of human-derived growth hormone)

At some stage during the admission process, you will be asked to sign the second part of the consent form giving permission for your operation to take place, showing you understand what is to be done and confirming that you wish to proceed. Make sure that you are given the opportunity to discuss any concerns and to ask any questions you may still have before signing the form.

Fact File 1 • The NHS Constitution **Same-Sex Accommodation**

As a result of the new NHS constitution, the NHS is committed to providing same-sex accommodation in hospitals by April 2010. This is because feedback from patients has shown that being in mixed-sex accommodation can compromise their privacy. The NHS pledges that:

- sleeping and washing areas for men and women will be provided
- the facilities will be easy to get to and not too far from patients' beds

To help accomplish this, the Department of Health has announced specific measures designed to “all but eliminate mixed-sex accommodation” by 2010. These include:

- more money for improvements in hospital accommodation
- providing help and information to hospital staff, patients and the public
- sending improvement teams to hospitals that need extra support
- introducing measures so that the Department can see how hospitals are progressing

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. The operation, on average, takes 60-120 minutes, depending on the size of your prostate.



You will usually be given an injectable antibiotic before the procedure after checking for any drug allergies.

The laser is used to separate the obstructing prostate tissue from its surrounding capsule and to push it in large chunks into the bladder. An instrument is then used through the telescope to remove the prostate tissue from the bladder. A catheter is normally left to drain the bladder at the end of the procedure.

What happens immediately after the procedure?

In general terms, you should expect to be told how the procedure went and you should:

- ask if what was planned to be done was achieved
- let the medical staff know if you are in any discomfort
- ask what you can and cannot do
- feel free to ask any questions or discuss any concerns with the ward staff and members of the surgical team
- ensure that you are clear about what has been done and what is the next move

There is always some bleeding from the prostate area after the operation. The urine is usually clear of blood after 12 hours, although some patients lose more blood for longer. It is unusual to require a blood transfusion after laser surgery.

It is useful to drink as much fluid as possible in the first 12 hours after the operation because this helps the urine clear of any blood more quickly. Sometimes, fluid is flushed through the catheter to clear the urine of blood.

You will be able to eat and drink on the same day as the operation when you feel able to.

The catheter is generally removed at midnight on the first night after surgery. This allows your bladder to fill overnight so that, in the morning, the doctors can decide whether you may go home without the catheter. 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. Some of your symptoms, especially frequency, urgency and getting up at night to pass urine, may not improve for several months because these are often due to bladder over-activity (which takes time to resolve after prostate surgery) rather than prostate blockage. Since a large portion of prostate tissue is removing with the laser technique, there may be some temporary loss of urinary control until your pelvic floor muscles strengthen and recover.

It is not unusual for your urine to turn bloody again for the first 24-48 hours after catheter



removal. Some blood may be visible in the urine even several weeks after surgery but this is not usually a problem. Let your nurse know if you are unable to pass urine and feel as if your bladder is full after the catheter is removed. Some patients, particularly those with small prostate glands, are unable to pass urine all after the operation due to temporary swelling of the prostate area. If this should happen, we normally pass a catheter again to allow the swelling to resolve and the bladder to regain its function. Usually, patients who require re-catheterisation go home with a catheter in place and then return within a week for a second catheter removal which is successful in almost all cases.

The average hospital stay is 1-2 days.

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.

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% If the prostate is fully enucleated
- Treatment may not relieve all the urinary symptoms
- Poor erections (impotence in approx approximately 14%)
- Infection of the bladder, testes or kidney requiring antibiotics
- Possible need to repeat treatment later due to re-obstruction (approx 10%)
- Injury to the urethra causing delayed scar formation
- Loss of urinary control (incontinence) which reduces within 6 weeks (10-15%); this can usually be improved with pelvic floor exercises

Occasional (between 1 in 10 and 1 in 50)

- May need self catheterisation to empty bladder fully If bladder weak
- Failure to pass urine after surgery requiring a new catheter
- Bleeding requiring return to theatre and/or blood transfusion (less than 2%)

Rare (less than 1 in 50)

- Finding unsuspected cancer in the removed tissue which may need further treatment
- Retained tissue fragments floating in the bladder which may require a second telescopic procedure for their removal
- Very rarely, perforation of the bladder requiring a temporary urinary catheter or open surgical repair
- Persistent loss of urinary control which may require a further operation (1-2%)



Hospital-acquired infection

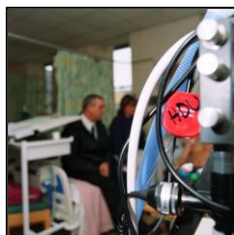
- Colonisation with MRSA (0.9% - 1 in 110)
- Clostridium difficile bowel infection (0.2% - 1 in 500)
- MRSA bloodstream infection (0.08% - 1 in 1250)

The rates for hospital-acquired infection 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?

By the time of your discharge from hospital, you should:

- be given advice about your recovery at home
- ask when to resume normal activities such as work, exercise, driving, housework and sexual intimacy
- ask for a contact number if you have any concerns once you return home
- ask when your follow-up will be and who will do this (the hospital or your GP)
- ensure that you know when you will be told the results of any tests done on tissues or organs which have been removed



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 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. You may notice that you pass very small flecks of tissue in the urine at times within the first month as the prostate area heals. This does not usually interfere with the urinary stream or cause discomfort.

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.

The results of any tissue removed will be available after 14 – 21 days and you and You and your GP will be informed of the results by letter.

You will be reviewed in the outpatient clinic and several tests repeated (including a flow rate, bladder scan & symptom score) to help assess the effects of the surgery.

Most patients require a recovery period of 1-2 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.

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 area?



Before your operation, your surgeon or Specialist Nurse will inform you about any relevant research studies taking place, and, in particular, if any surgically-removed tissue may be stored for future study. If this is the case, you will be asked if you wish to participate and, if you agree, to sign a special form to consent to this.

All surgical procedures, even those not currently the subject of active research, are subjected to rigorous clinical audit so that we can analyse our results and compare them with those of other surgeons. In this way, we can learn how to improve our techniques and our results; this means that our patients will get the best treatment available.



Who can I contact for more help or information?

For further information on the internet, here are some useful sites to explore:

[Best Health](#) (prepared by the British Medical Association)

[NHS Clinical Knowledge Summaries](#) (formerly known as Prodigy)

[NHS Direct](#)

[Patient UK](#)

[Royal College of Anaesthetists](#) (for information about anaesthetics)

[Royal College of Surgeons](#) (patient information section)

What should I do with this information?

Thank you for taking the trouble to read this publication. 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 publication to be filed in your hospital records for future reference, please let your Urologist or Specialist Nurse know. However, if you do agree to proceed with the scheduled procedure, you will be asked to sign a separate consent form which will be filed in your hospital record. You will, if you wish, be provided with a copy of this consent form.

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

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



How can I get information in alternative formats?

Please ask your local NHS Trust or PALS network if you require this information in other languages, large print, Braille or audio format.



Most hospitals are smoke-free. Smoking increases the severity of some urological conditions 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**

Disclaimer

While every effort has been made to ensure the accuracy of the information contained in this publication, no guarantee can be given that all errors and omissions have been excluded. No responsibility for loss occasioned by any person acting or refraining from action as a result of the material in this publication can be accepted by the British Association of Urological Surgeons Limited.

Fact File 2 • The NHS Constitution Patients' Rights & Responsibilities

The constitution, as a result of extensive discussions with staff and the public, sets out new rights for patients which will help improve their experience within the NHS. These new rights include:

- a right to choice and a right to information that will help them make that choice
- a right to drugs and treatments approved by NICE when it is considered clinically appropriate
- a right to certain services such as an NHS dentist and access to recommended vaccinations
- the right that any official complaint will be properly and efficiently investigated, and that they be told the outcome of the investigations
- the right to compensation and an apology if they have been harmed by poor treatment

The constitution also lists patient responsibilities, including:

- providing accurate information about their health
- taking positive action to keep themselves and their family healthy
- trying to keep appointments
- treating NHS staff and other patients with respect
- following the course of treatment that they are given
- giving feedback, both positive and negative, after treatment