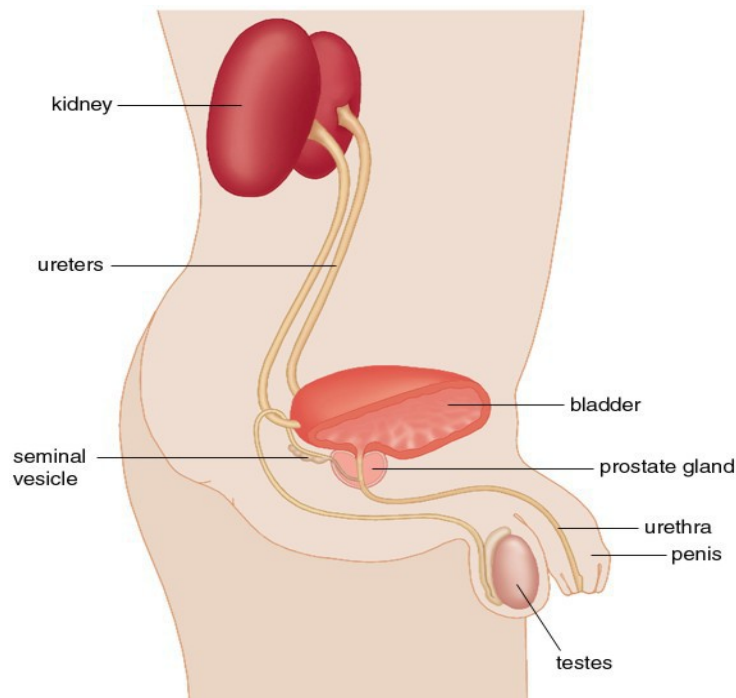


## Department of Urology

# Holmium Laser Prostatectomy (HoLEP)

### What is the Prostate Gland?

The Prostate Gland is the size and shape of a large walnut. It lies just beneath the bladder, and is wrapped around the urethra, the water pipe through which your bladder empties.



The main job of the prostate is to produce fluid to nourish and carry the sperm.

The bladder neck contracts around the urethra when you ejaculate. This prevents the sperm from “backfiring” into the bladder.

### Why do I need Prostate Surgery?

Your Urologist will have explained that you cannot empty your bladder properly due to bladder outflow obstruction.

This occurs when the prostate gland becomes enlarged. This is usually due to a condition called Benign Prostatic Hyperplasia (BPH). This operation is also

performed for men with bladder outflow obstruction caused by cancer of the prostate gland.

Almost all men over the age of 45 have BPH to some extent. Drug therapy may have been tried but did not work or your symptoms have returned.

This operation aims to relieve symptoms of bladder outflow obstruction. The Holmium laser prostatectomy is a technique used to remove some of the prostate with the aim of improving the flow of urine through the urethra.

### **What are the alternatives?**

Drug therapies, use of a catheter, observation, minimally invasive surgical options (such as Urolift, Rezum, iTind), Aquablation, open operation to remove prostate or conventional transurethral resection of the prostate (TURP).

### **What preparations should be made**

You will receive an appointment for pre-assessment to assess your general fitness, to screen for MRSA and to perform some baseline investigations.

Please can you bring a list of all your current medication with you when you attend your pre-assessment. If you take **Aspirin, Warfarin, Acenocoumarol, Nicoumalone, Rivaroxaban, Apixaban, Phenindione, Clopidogrel, Dipyridamole, Prasugrel or Ticagrelor** please ensure that your consultant is aware, as these may have to be stopped before the operation but this information will be given to you at the pre- assessment.

We will be given instructions on when to stop eating and drinking once you have your operation date and time of admission.

You will come into the hospital to the Day Procedure Unit (DPU) on the day of surgery.

After admission, you will be seen by members of the medical team and nursing staff. During the admission process you will be asked to sign a 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.

You may be given elasticated stockings provided by the ward to wear which will help prevent thrombosis (clots) in the veins.

### **How is the operation performed?**

The operation is usually performed as a day case, but in some cases it might be better to plan to stay in hospital overnight. This will be discussed with you by your surgeon.

The operation is either performed under a general anaesthetic (when you are put to sleep), or a spinal anaesthetic (which numbs the body from the waist down).

The surgeon uses a telescope to see the enlarged prostate then by passing a laser fibre through the telescope can heat the tip of the laser fibre, which then separates the obstructing prostate tissue from the capsule of the prostate.

The tissue is then “morcellated” into small pieces and removed from the bladder. Any tissue removed will be sent away for analysis in the laboratory. The operation

takes approximately 40-90 minutes depending on the size of the prostate.

At the end of the operation a catheter tube is placed into the bladder through your water pipe. Irrigation is sometimes attached to flush blood through your bladder for a few hours and this is collected in a catheter bag.

### **What happens afterwards?**

After your operation you will be recovered on the day unit ward, and you will be able to eat and drink as soon as you feel able.

You may have a drip in your arm to keep you hydrated, which will be stopped when you are eating and drinking normally.

The catheter tube drains blood and urine from the bladder and arrangements will be made for the district nurses to remove your catheter at home after 24-48 hours.

Occasionally, there is some bleeding from the operation site requiring irrigation of the bladder overnight with fluid through the catheter. If this is the case it will be necessary to stay in hospital overnight.

If you stay in hospital overnight then the catheter may be removed the next morning. It does not usually cause pain but can be uncomfortable when moving and occasionally bladder spasm can occur, but this can be treated with tablets.

You will remain in hospital for a further 2-3 hours to ensure that all is well before going home.

When the catheter is removed the urine may be blood stained and the desire to pass urine may be surprisingly urgent. Both these features are common and should subside over the next 2 - 4 weeks, although occasionally some patients experience bothersome symptoms for up to three months.

### **Are there any side effects?**

Most procedures have a potential for side effects but the majority of patients do not suffer any problems after a urological procedure. HoLEP is a commonly performed operation. Approximately 300 procedures have been performed at the NNUH in the last 3 years.

#### **Common side effects (greater than 1 in 10)**

- Temporary mild burning, bleeding and frequency of urination after the procedure
- No fluid is produced during an orgasm in approximately 75% this is called "Retrograde Ejaculation" or dry orgasm. Where the prostate tissue has been removed, it is less effective at contracting the water pipe when you ejaculate. Therefore, although the sensation of orgasm is usually unaltered, the sperm may leak backwards into the bladder, rather than through the water pipe. You will pass the sperm when you next pass urine. This does not necessarily mean you are sterile, and therefore is not to be used as reliable contraception.

- Treatment may not relieve all the prostatic symptoms
- Failure to pass urine immediately after surgery requiring placement of a new catheter which is then removed (almost always successfully) within a week (10-15%)
- Infection of the bladder, testes or kidneys requiring antibiotics
- 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 and 10 and 1 in 50)**

- Finding unsuspecting cancer in the removed tissue which may need further treatment.
- May need self-catheterisation to empty the bladder if the bladder is weak.
- Weaker or no erections. 2 recent studies have shown no significant difference in ability to have an erection in men before and after HoLEP surgery but there is still a small risk (probably less than 5%) of a decreased ability to have an erection. Some men's erections improve after surgery.

#### **Rare (less than 1-50)**

- Need to repeat treatment later due to re-obstruction from prostate regrowth (approx 1% in the first 7 years after surgery)
- Self-catheterisation or permanent catheter to empty bladder if the bladder is weak (1%)
- Persistent loss of urinary control which may require a further operation (less than 1%)
- Retained tissue fragments floating in the bladder which may require a second telescopic procedure for their removal (less than 1%)
- Very rarely, perforation of the bladder requiring a temporary urinary catheter or open surgical repair (less than 0.5%)
- Bleeding requiring return to theatre and/or blood transfusion (less than 0.5%)

Holmium laser prostatectomy is a relatively new procedure and an alternative for the more conventional Transurethral resection of prostate (TURP). The laser prostatectomy works just as well as the TURP and studies have shown that men do not have to use a catheter for as long after surgery and may have a shorter stay in hospital. It is just as safe as a TURP and patients experience less bleeding with the holmium laser prostatectomy than the after a TURP.

#### **At Home**

It may take several weeks for you to fully recover from this surgery.

A stronger than usual desire to pass urine can occur quite commonly in the first

month following surgery. A small number of men have some leakage and may be required to wear pads, but this will improve with pelvic floor exercises. A little bleeding can occur for a couple of weeks and can look dramatic, as a drop of blood colours a large volume of urine red. You should drink plenty of fluid to flush the system.

Should the bleeding persist and become heavier then you may need to contact your G.P.

Some discomfort on passing urine may also persist for 2-3 weeks. Mild painkillers such as paracetamol may be helpful.

Most men return to work 2 weeks after their operation. It is important to avoid heavy lifting and strenuous exercise (bicycle riding and sport) for the first 4 weeks after surgery.

We recommend that you should avoid driving for at least 2 weeks or until you are able to do an emergency stop without hesitation.

Normal sexual activity can be resumed as soon as you feel comfortable usually after 3- 4 weeks.

If you have been taking medication for your urinary symptoms such as Tamsulosin or Finasteride you will be able to stop taking these tablets after your operation.

### **What about my results?**

As mentioned earlier, the laboratory will send your tissue results to your Urologist. You may be sent a clinic appointment for your urologist to discuss your results with you. If he feels this is not necessary you will be telephoned after 3 months by one of the nurse practitioners to check your progress and recovery.

### **Points of contact**

If you have any other questions, or require more information prior to your treatment, please contact the Urology nurse practitioners on 01603 289410, between the hours of 08.30 to 16.30 or leave a message on the answer machine.

If you have any questions, or require more information following your surgery please contact Edgefield ward on 01603 289962

### **Further information and support**

Prostate help Association – [www.prostate-help.co.uk](http://www.prostate-help.co.uk)

**Prostate Matters-** <https://prostatematters.co.uk>

NICE - National Institute for Clinical Excellence and the Interventional Procedure Programme. [www.nice.org.uk/IPG017guidance](http://www.nice.org.uk/IPG017guidance)

BAUS (British Association of urological surgeons)-  
[www.baus.org.uk/patients/conditions/9/prostate\\_symptoms\\_bladder\\_outlet\\_obstruction/](http://www.baus.org.uk/patients/conditions/9/prostate_symptoms_bladder_outlet_obstruction/)

[www.baus.org.uk/\\_userfiles/pages/files/Patients/Leaflets/HoLEP.pdf](http://www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/HoLEP.pdf)

NHS England Patient Decision Aids-  
[www.england.nhs.uk/publication/decision-support-tool-making-a-decision-about-enlarged-prostate-bpe/](http://www.england.nhs.uk/publication/decision-support-tool-making-a-decision-about-enlarged-prostate-bpe/)

This sheet describes a surgical procedure. It has been given to you because it relates to your condition and may help you understand it better. It does not necessarily describe your problem exactly. If you have any questions please ask your doctor.

