Introduction
This leaflet is about laser surgery for an enlarged prostate. It gives information on what the procedure involves, the benefits and risks of the operation and what happens after the operation.

We hope that this leaflet answers questions that you may have about your operation. However, if you would like more detailed information, please contact one of our urology clinical nurse specialists.

What is the prostate?
It is a walnut sized gland that sits at the base of your bladder surrounding the urethra, the tube through which you urinate (see figure 1). As you get older, the prostate gland grows and this can obstruct the flow of urine leaving the bladder. This causes problems with passing urine.

Figure 1 shows the male pelvic area including the prostate gland.
**What are the benefits?**
The surgery removes part of the enlarged prostate which eases the difficulties with passing urine.

**What are the advantages of having laser rather than standard prostate surgery?**
Laser surgery has a number of advantages over standard prostate surgery. These include:

- Less bleeding
- You will need a catheter in for less time after the operation
- Reduced time in hospital
- Quicker recovery time

**What are the risks?**
Most procedures have some risks and it is important that we make you aware of these. You may experience the following problems after this procedure:

**Common risks**

- Temporary mild burning, bleeding and increased need to pass urine after the procedure.
- Retrograde ejaculation – this is where semen does not come out of your penis during sex or masturbation, but flows into your bladder instead. It is caused by damage to the nerves or muscles surrounding the neck of the bladder, which is the point where the urethra connects to the bladder. It occurs in about three out of four men. Retrograde ejaculation is not harmful and you will still experience the pleasure associated with ejaculation (orgasm). However, your fertility may be affected, so you should speak to your surgeon if this is a concern for you.

- Treatment may not relieve all the urinary symptoms.
- Poor erections – impotence occurs in about 14 out of every 100 patients.
- Infection of the bladder, kidney or testes which will need treatment with antibiotics.
- Possible need to repeat treatment later due to re-obstruction (about one in every 10 people will get this).
- Injury to the urethra causing delayed scar formation.
- Loss of urinary control (incontinence) which reduces within six weeks. This affects about 10 to 15 patients out of every 100. It can usually be improved with pelvic floor exercises.

**Occasional risks**

- May need to use a catheter to empty your bladder fully if your bladder is weak.
- Failure to pass urine after surgery which may mean you need to have a new catheter fitted.
- Bleeding which may need surgery and/or a blood transfusion. This happens to less than two patients out of every 100.
Rare risks

- Finding unsuspected cancer in the removed tissue which may require further treatment. The prostate tissue removed is analysed to look for cancer.

- Prostate tissue may be left in the bladder after the procedure. This may have to be removed in another procedure using a telescope (a thin metal tube with a camera at the top).

- Very rarely, damage to the bladder which may need a temporary urinary catheter or open surgical repair.

- Persistent loss of urinary control which may require a further operation or management with incontinence pads or a long term catheter.

What are the alternatives to this procedure?
The alternatives are to:

- Treat your condition using drugs.

- Have a long term fitted catheter or use a catheter each time you need to pass urine.

- Have a different type of surgery such as open surgery, or transurethral resection of the prostate (TURP) – a more traditional prostate surgery which is still more suitable for some patients.

- Observe the symptoms to see what happens.

What happens before the operation?
You will need to come to hospital the day of your surgery. Your admission letter will contain the date and any instructions you must follow before your operation.

If you are taking warfarin, aspirin or clopidogrel (Plavix®) on a regular basis, you must discuss this with your consultant 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. Therefore, the risks and benefits of this will be discussed with you before your operation. We will tell you when you can safely start taking these medications again before you leave hospital.

If you smoke, try to cut down or preferably stop, as this reduces the risks of heart and lung complications during and after the operation. If you would like help with stopping smoking, please contact a member of the Hospital Stop Smoking Team on 01384 456111 ext. 2783.

Your admission letter will contain guidance about when you can eat and drink before your operation.

Pre-assessment
Before you have your operation, we will send you an appointment for pre-assessment to assess your general fitness. We will assess you to determine whether there are any reasons why you should not have the operation.
At this assessment, a range of investigations will be carried out such as:

- A blood test, if you take certain medications.
- You may have an ECG – a heart trace test. This is nothing to be alarmed about, just a routine test to check your heart.
- Your blood pressure, pulse and weight will be recorded.
- You will be screened for MRSA – a nasal and groin swab will be taken to see if you have any evidence of infection.
- A finger prick test to check your blood glucose levels.

You will have the opportunity to ask any questions or discuss any problems you may have.

At this assessment, please tell us if:

- You are diabetic
- You have a cold, cough or any type of infection
- You take any medications and what these are. You may need to stop taking some of these for a short period of time before you have the procedure

Please be sure to tell your consultant before the procedure 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 brain shunt
- Anything else that has been implanted such as metal pins
- A previous or current MRSA infection

- You have received a cornea transplant, a dural transplant in the brain or previous injections of human-derived growth hormone, as these can be associated with Creutzfeldt-Jakob Disease (CJD)

**Giving consent**

We will explain the procedure to you and check that you understand what is to be done. If you are happy to go ahead, we will ask you to sign a consent form giving permission for the procedure to take place. Please ensure that you have discussed any concerns and asked any questions you may have, before signing the form.

**What happens during the procedure?**

We will use 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). Either of these will take the pain away. Your anaesthetist will explain the benefits and risks of each type of anaesthetic to you before your surgery.
The operation is carried out through a tiny telescope passed up through the urethra into the bladder. Therefore, there are no external cuts or scars. The laser fibre is passed down the telescope and is used to carefully cut out the excess prostate. These pieces of prostate float into the bladder and, at the end of the operation, they are removed by the surgeon.

The operation takes about 60 to 120 minutes, depending on the size of your prostate. At the end of the operation, a catheter (fine tube) is passed into the bladder to drain the urine and any blood. This usually stays in place for 12 to 48 hours, but possibly longer, if necessary, until any bleeding settles.

This procedure is usually performed as a day case which means that you can go home on the same day as your operation. If it is necessary for you to stay in hospital overnight, your surgeon will discuss this with you. Please make arrangements to have a lift home after your operation.

What happens after the operation?
After your operation, you will normally go back to the urology ward. You can start eating and drinking as soon as you recover from the anaesthetic. We will tell you how the procedure went and what you can and cannot do. You should:

- Let the staff know if you are in any discomfort.
- 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 should happen next.

Bleeding
There is always some bleeding from the prostate area after the operation. The urine is usually reasonably clear of blood after 24 to 48 hours, although some patients may lose more blood for a longer period of time. It is unusual to need a blood transfusion after this type of surgery.

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

Passing urine
At first, it may be painful to pass urine and you may need to pass urine more frequently than normal. Any initial discomfort can be relieved by painkillers and the frequency usually improves within a few days, although it is not unusual for it to last longer.

Some of your symptoms, especially frequency, urgency and getting up at night to pass urine, may not improve for several months. This is because these symptoms are often caused by bladder over-activity, which takes time to get back to normal after prostate surgery, rather than prostate blockage. As a large portion of prostate tissue is removed with the laser technique, there may be some temporary loss of urinary control until your pelvic floor muscles strengthen and recover.

Catheter
A urinary catheter is a tube that runs from the bladder out through the tip of the penis and allows urine to drain into a bag. It is important to drain the bladder in this way until the urine is clear of blood.
The catheter is generally removed 12 to 48 hours after your operation, although sometimes it is necessary to leave it in place for longer. Some patients may go home with a catheter in place. If this is the case, your surgeon will discuss the reasons with you. We will make an appointment for you to attend a clinic at Corbett Outpatient Centre to have your catheter removed at the appropriate time.

It is not unusual for your urine to become bloody again for the first 24 to 48 hours after the catheter is removed. 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 people, particularly those with small prostate glands, are unable to pass urine at all after the operation due to temporary swelling of the prostate area. If this happens, we normally put a catheter in again to allow time for the swelling to go down and the bladder to work normally again. Having a second catheter fitted is successful in almost all cases. Usually, people who need to have another catheter fitted can go home with this in place. We will make an appointment for you to attend a clinic at Corbett Outpatient Centre to have this removed at the appropriate time.

**Pain management**
As there are no external cuts, this procedure is relatively pain free. You may experience some discomfort from the catheter, but this can usually be managed with painkillers such as paracetamol (always read the label; do not exceed the recommended dose).

**When can I leave hospital?**
You will generally be able to go home when:
- You can pass urine without too much difficulty
- You do not have excessive bleeding
- Your temperature is normal

When you leave hospital, we will give you a summary of your operation, known as a discharge summary. This holds important information about your operation. If you need to call your GP for any reason or to go to 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 leaving hospital.

**What happens when I get home?**

**Bleeding**
It is quite normal to see an occasional show of blood in your urine – this is due to the healing of the operation site. If you see blood, increase the amount you drink and take more rest until it has settled.

If you have prolonged bleeding (longer than 24 hours), increasing difficulty in passing urine or feel feverish or unwell, please ward C6 on 01384 244282.

**Bowels**
It is important that you do not get constipated. You do not have to eat a special diet but you should try to eat plenty of fruit and vegetables. If you feel that you may be constipated, please see your GP.

**Exercise**
You should avoid strenuous exercise for a week. However, it is important to get some gentle exercise like walking, as you will be at slight risk of developing a blood clot in your legs, as after any type of surgery.
During the first week after surgery you should not:

- Lift or move any heavy objects
- Dig the garden
- Do housework or carry heavy shopping
- Have sex

After the first week, you can usually go back to leading a normal life.

You should start pelvic floor exercises as soon as possible after the operation, as this can improve your bladder control when you get home. The symptoms of an overactive bladder may take three months to clear up although the flow is usually improved immediately. The ward staff will give you instructions on how to carry out these exercises.

**Work**
You should be able to return to work one to two weeks after your operation. If you have a manual job where you have to do heavy lifting, it may be advisable to stay off work longer. If you are unsure, please ask your consultant before leaving hospital.

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

**What else do I need to know?**
You may notice that you pass very small flecks of skin and other debris in your urine at times during the first month as the prostate area heals. This does not usually interfere with the urinary stream or cause discomfort.

Removal of part of your prostate should not affect your sex life, as long you are getting normal erections before the surgery. You can start having sex again as soon as you are comfortable, usually after three to four weeks.

**Follow up**
The analysis of the tissue removed from your prostate will be available 14 to 21 days after your operation. If there is anything that needs to be followed up or investigated further, we will contact you.

We may send you an appointment for a review in the outpatient clinic. You may need to have several tests repeated, including a flow rate, bladder scan and symptom score, to help assess the effects of the surgery.

**Medication**
Please make sure before you come into hospital you have enough of your regular medication to take when you leave hospital as it is unlikely that your regular medication will be changed.

Also, please make sure you have a supply of painkillers to take when you get home. We recommend paracetamol, if you can take it, or your usual painkillers (always read the label; do not exceed the recommended dose).

Getting medication from the hospital pharmacy can sometimes take a long time as they are very busy and this will delay you leaving hospital.
Is there any research being carried out in this area?
Before your operation, your surgeon or specialist nurse will tell you about any relevant research studies taking place. Sometimes surgically-removed tissue is needed for this research. If this is the case, we will ask if you wish to take part by giving us permission to store your tissue for further study and research. If you agree, we will ask you to sign a special form to consent to this.

All surgical procedures, even those not currently the subject of active research, are subject to strict clinical audits 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.

Can I find out more?
You can find out more from the following weblink:

NHS Choices
http://www.nhs.uk/Conditions/Prostate-enlargement/Pages/Treatment.aspx

Contact information for urology clinical nurse specialists
If you have any questions, you would like more information, or if there is anything you do not understand about this leaflet, please contact:

Urology clinical nurse specialists on 01384 456111 ext. 2873 or
mobile 07787 512834 (8am to 4pm, Monday to Friday)
Ward C6 on 01384 244282
Russells Hall Hospital switchboard number: 01384 456111

This leaflet can be downloaded or printed from:
http://dudleygroup.nhs.uk/services-and-wards/urology/

If you have any feedback on this patient information leaflet, please email
patient.information@dgh.nhs.uk
This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

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