

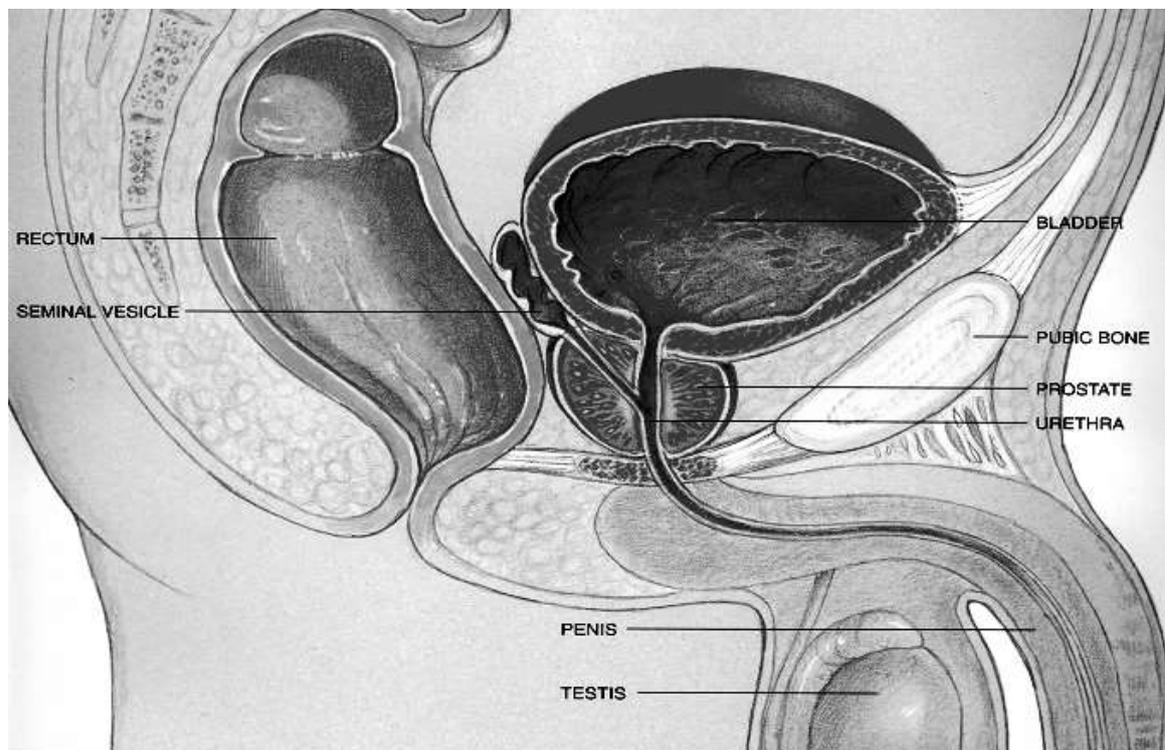
The Prostate Centre Guide to:

GREENLIGHT LASER PHOTOSELECTIVE VAPORISATION OF THE PROSTATE (PVP) M6760

This leaflet is designed to give you information on why this procedure may be suitable for you and what to expect from it. It outlines the advantages and possible risks. It will hopefully answer the common questions usually raised. More detailed information is available from your consultant if you wish.

WHAT AND WHERE IS MY PROSTATE?

The prostate is a gland in the male reproductive system located just below the bladder and in front of the rectum. It is about the size of a walnut and is located in the pelvis, at the exit of the bladder, and surrounds the tube known as the urethra (through which urine flows from the bladder to the outside of the body). The prostate gland manufactures an important liquefying component of semen. Sperm are produced in the testicles then stored just behind the prostate in a jelly-like substance. At the time of orgasm, the prostate and seminal vesicles contract, mixing their respective contents. The fluid in the prostate contains large amounts of the substance we know as prostate-specific antigen (PSA), which liquefies the sperm mixture, allowing the sperm to move freely in search of an ovum to fertilise.

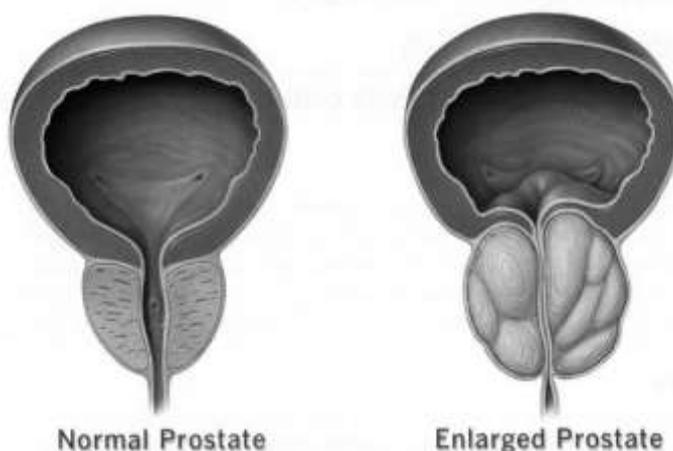


Anatomy of the male reproductive system.

WHAT IS BENIGN PROSTATIC HYPERPLASIA (BPH)?

This common condition develops in the area of the prostate that lies in the middle of the gland and surrounds the urethra. The non-cancerous enlargement of the prostate in BPH causes pressure on the urethra which in turn leads to problems with urinary flow and difficulty emptying the bladder. Over time this leads to the bladder being less able to hold urine resulting in frequency, urgency and having to wake up at night to pass urine (nocturia).

It is not known what actually starts off this process or allows it to progress but we do know that the male hormone testosterone is involved, as men who have been castrated at an early age (and so don't produce testosterone) never develop BPH. We also know that testosterone triggers the release of substances in the body called growth factors which can stimulate tissue growth. But why this happens in some men and not others is still not clear. The condition does seem to run in families.

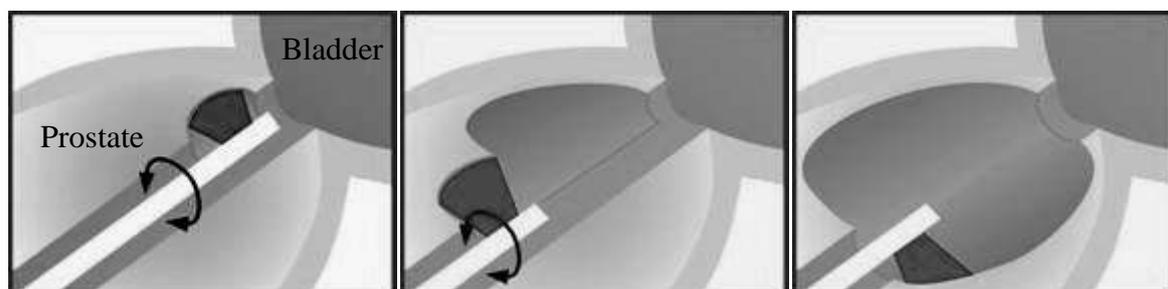


WHAT IS DONE DURING SURGERY?

Greenlight laser PVP is a procedure to remove obstructing prostate tissue.

Under a general or spinal anaesthetic, a telescopic camera with a laser probe is inserted through the penis. When the probe is in position alongside the prostate, a foot switch activates the laser energy which is absorbed into the overgrown tissue under guidance of the surgeon. The energy it generates destroys prostate tissue by vaporisation. The laser energy penetrates the prostate tissue and seals blood vessels, and so stops any tissue bleeding very effectively.

When the surgeon is happy that a suitably clear tract has been made and the urethra is clear of obstructive prostate tissue, the probe is removed and a catheter is placed into the bladder to drain the urine post operatively. Depending on the size of the prostate the procedure takes 30-90 mins and can often be performed as a day case.



Greenlight PVP of the prostate.

HOW DOES THIS COMPARE TO OTHER TREATMENTS SUCH AS TRANS URETHRAL RESECTION OF THE PROSTATE (TURP)?

Green light laser PVP is approved by NICE, and is a safe and effective alternative to TURP. Randomised controlled trials comparing Green Light laser PVP and TURP have shown equivalence in terms of reducing symptoms, but the Green Light laser patients had shorter catheterisation times, less bleeding and shorter hospital stay. As with all forms of prostate surgery for BPH the procedure may need to be repeated as the prostate slowly grows, this is typically more than 10 years from the original operation.

ARE THERE ANY SIDE EFFECTS FROM THIS OPERATION?

In any surgery there are always the potential of risks and side effects. These will be explained to you prior to having the operation.

Anaesthetic – A nurse led pre-assessment takes place designed to highlight any issues that the your anaesthetist needs to know and optimise in advance such as high blood pressure.. You will need to avoid driving or operating heavy machinery within 48 hours of having an anaesthetic.

Bleeding – it is normal to have some blood in the urine after this operation. It may be intermittent but should be quite clear or light red. You may notice more bleeding after exertion or with coughing or straining such as opening bowels. This should clear quickly. Drink a little more water to dilute your urine if you have any bleeding. At 10 – 14 days after the operation, you may pass some small clots and debris in the urine. This is part of the normal healing process and should not be of concern.

Infection – with any operation or invasive procedure, there is always a risk of infection. A urine test is sent before the operation to exclude current infection. The operation is done under strict sterile conditions and prophylactic antibiotics are given during the operation. There is still a small chance however that you may get a urinary infection. Signs of a urinary infection are frequency, urgency and pain or a burning sensation on voiding, cloudy or smelly urine. You may also have a temperature. If you have any of these symptoms, please call your consulting team. You may need a course of antibiotics.

Discomfort and / or urinary frequency – the laser leaves a thin layer of dead tissue on the inside surface of the prostate, which is effective in stopping bleeding but can cause symptoms of burning on urination and / or urinary frequency after the operation when the catheter is removed. As this layer of tissue heals, these symptoms will improve and subside. While these symptoms are common up to ten days after surgery, some patients experience irritation up to one month after surgery. Talk to your surgeon to discuss medications that may relieve this.

Retrograde ejaculation (dry orgasm) – this is a common side effect with all surgical prostate treatments including TURP but is less common with Greenlight laser PVP. The prostate contracts during orgasm, preventing the semen back-flowing into the bladder. After the inside of the prostate has been sculpted away, this contraction may not completely block the entrance to the bladder. Some or all of the semen then passes into the bladder during orgasm, rather than out the penis. If this happens, you will pass the semen the next time you urinate. This is not harmful and most men do not find it bothersome. Retrograde ejaculation may reduce your fertility, but does not make you reliably sterile.

All forms of treatment can affect sexual function. Temporary use of drug therapy and mechanical aids can be helpful, and men can regain normal function over time – although some may need to continue with their preferred therapy in the long-term. In addition, the emotional impact of your diagnosis and treatment on both you and your partner, if you are in a relationship, should not be underestimated. So it is good idea to be aware of the changes that may occur, to manage your expectations and to understand what can be done to help you and your partner overcome any problems.

We take your sexual wellbeing very seriously at The Prostate Centre, because we know what a difference good advice and appropriate guidance can make. We are very fortunate to have on our team two dedicated and knowledgeable specialists; **Mrs Lorraine Grover and Dr Kam Mann**. We do strongly advise all patients that to give yourself the best possible chance of sexual recovery, you should address these issues early and consult Lorraine or Kam before as well as after your operation – maybe even while you are still weighing up your treatment options. We like to include your partner, but it is important even if you are not currently in a relationship.

PREPARING FOR YOUR SURGERY

Consent – Prior to your surgery you will need to sign a consent form. This gives the surgeon permission to operate on you. Before you sign this, please ensure that you fully understand the procedure you are about to undergo. If you do have any questions or concerns, please do ask for clarification.

Pre-operative tests and assessment – You will be required to have some pre-operative tests (bloods, urine, ECG, MRSA swabs). These will normally be done at The Prostate Centre in advance of your operation in order to identify any problems with your general health and to help ensure your safety throughout the surgery and anaesthetic. If you have recent blood or urine results please bring these in with you.

Diet – you will not be able to eat, drink or chew gum from midnight the night before your surgery if your operation is scheduled for the morning. If you are having your operation in the afternoon, you will be allowed to have a light breakfast before 7.00am before being nil by mouth (NBM). You will be given specific instruction regarding this by your nurse.

Medicines – Please bring all medications that you are on including inhalers and sprays, in their labelled containers with you to hospital. Please ask which medicines you should take on the day of surgery as some need to be avoided. If you are on any medications to thin the blood, you must let us know as you will have to stop taking them before the procedure and may need an interim coagulation bridging plan.

- Warfarin: stop **five days** beforehand. We will need to re-check your clotting profile the day before the procedure
- Dabigatran (Pradaxa), apixaban (Eliquis), rivaroxaban (Xarelto) and edoxaban (Lixinia) : stop **two days** beforehand
- Antiplatelet medication – clopidogrel (Plavix) and/or high dose aspirin: stop **seven to ten days** beforehand following the advice of your urologist/cardiologist.

PLEASE MAKE SURE YOU CHECK WITH YOUR CARDIOLOGIST, GP OR OTHER PRESCRIBING DOCTOR THAT IT IS SAFE FOR YOU TO STOP TAKING YOUR MEDICATION.

WHAT TO EXPECT IN HOSPITAL

You will go through the admissions process and be shown to your room where you will have a shower and put on a surgical gown. You need to be ready one hour prior to theatre. When you are due to go to theatre, the nurses will complete a theatre checklist and escort you to the theatre. You will enter the theatre anaesthetic room where you will be once again checked by the theatre staff and anaesthetist. They will put a drip in your arm to allow them intravenous access during the operation. You will be anaesthetised and taken through to the operating theatre; you will not know that the operation is taking place.

WHAT CAN I EXPECT AFTER SURGERY?

You will be taken to recovery after theatre until you are feeling comfortable and warm. You will then be transferred back to your room to recuperate. You will be receiving intravenous fluids but once you are fully awake and ready, you will be allowed to start drinking. The nurses will monitor the drainage from your catheter bag and encourage you to drink fluids to keep any blood in the urine dilute.

You will be able to mobilise after 2-3 hours and you will normally stay overnight. The catheter will stay in until early the next morning. After your urine is a clear pink or pale yellow colour, the catheter will be removed. You will be asked to measure the first amounts of urine you pass to ensure you are emptying well.

COMMONLY ASKED QUESTIONS

How much pain will I be in?

There can be discomfort in the urethra from the passing of instruments and from the raw surface on the prostate. This can present as stinging or burning when passing urine or pain at the tip of the penis. However, this should be able to be controlled with simple pain relief medication such as Paracetamol or Ibuprofen.

When can I exercise?

Light walking is encouraged right after your operation. You may be able to resume non-strenuous activities after 48 hours unless directed otherwise by your surgeon. You will need to avoid heavy lifting or strenuous exercise for 2 weeks.

When can I resume sexual activity?

As soon as you feel able. You may pass blood with your semen for the first few weeks or no semen at all. Please see the above passage regarding retrograde ejaculation under side effects.

When can I return to work?

Please allow one week's recuperation before returning to work. If your work entails heavy lifting, please speak to your consultant prior to leaving hospital. Do not drive or operate heavy machinery for 48 hours after anaesthesia.

For urgent medical assistance

Contact us **immediately** if you are experiencing:

- Any pain that medication does not relieve

- Large amounts of clots in the urine that seem to be blocking the passage of urine
- Bladder spasms that are not relieved with pain medication
- Nausea or vomiting
- High temperature or sweats

Contact numbers

There is a urology nurse specialist available during working hours at The Prostate Centre. Please call if you have any concerns regarding your health or progress.

Please call to speak to our booking or accounts staff if you would like to make or change an appointment or have any queries regarding payments.

- **The Prostate Centre** **020 7935 9720**
(9am-5pm Monday-Friday)
- **The Princess Grace Hospital 5th Floor** **020 7908 2475**
- **The London Bridge Hospital Urology Ward** **0203 905 4231**

For any urgent medical problems out of office hours please contact your surgeon:

- **Mr Christian Brown on**

If you have any further questions that you wish to ask, please do not hesitate to speak to your consultant or the nurses.

If you feel that there are some questions that should be placed in this information leaflet, please let us know.