
Transurethral Greenlight Laser Vaporisation of the Prostate Gland

(For Benign Disease)

This operation involves the telescopic vaporization of the obstructing, central part of the prostate and the temporary insertion of a bladder catheter

This patient information leaflet is drawn from the consensus panels of many worldwide urological societies, as a supplement to any advice that you may already have been given. Alternative treatments are outlined below and can be discussed in more detail with Dr Campbell.

What are the alternatives to this procedure?

- ~ Drugs
- ~ Use of a catheter/stent
- ~ Observation
- ~ Transurethral resection of the prostate gland
- ~ Transurethral laser enucleation of the prostate gland (HoLEP).
- ~ Transurethral radiofrequency ablation of the prostate (prostatic) (prostatic)
- ~ An open operation to remove the prostate gland

Before the procedure

Please be sure to inform Dr Campbell in advance of your procedure if you have any of the following:

- ~ An artificial heart valve
- ~ A coronary artery stent
- ~ A heart pacemaker or defibrillator
- ~ An artificial blood vessel graft
- ~ A neurosurgical shunt
- ~ Any other implanted foreign body
- ~ Blood thinning medications, particularly
 - ~ Asasantin
 - ~ Aspirin
 - ~ Fish oil
 - ~ Iscover
 - ~ Persantin
 - ~ Plavix
 - ~ Warfarin

- ~ Angina
- ~ Hypertension
- ~ Diabetes
- ~ Recent heart attack

You will usually be admitted on the day of surgery. You may be asked to attend a pre-admission clinic 5–10 days before the procedure to assess your general fitness and to perform some baseline investigations.

If you are taking warfarin, Clopidogrel, iscover, asaantin, or persantin on a regular basis, you must discuss this with Dr Campbell 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. The greenlight laser surgery was designed to be performed on people who are still taking blood thinning medications. It is therefore most probable that these medications will not need to be stopped prior to your procedure.

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

You will be given an injection under the skin of a drug (heparin), that along with the help of elasticated stockings fitted on admission, will help prevent thrombosis (clots) in the veins of the legs.

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After admission, you will be seen by members of the urological team which may include not only Dr Campbell, but the specialist registrar, the intern, your named nurse, and the physiotherapist. The specialist registrar may perform the operation in conjunction with Dr Campbell and with your permission.

Where do I go for my procedure?

The admissions section of the hospital at the appointed time, on the appointed day. The admissions section of the particular hospital will give you instructions well in advance of the operation. If no contact has been made telephone Dr Campbell's secretary on (07) 3367 6708, and the problem will be addressed.

Do I need to do anything special before my procedure?

Apart from a sip of water with your medications, You will need to not drink or eat anything for 6 hours prior to the procedure.

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. Both methods minimize pain; your anaesthetist will explain the pros and cons of each type of anaesthetic to you.

The procedure takes 60–120 minutes.

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

In this operation, the central portion of the prostate causing the obstruction is vaporized telescopically using greenlight laser energy. A temporary catheter is inserted after the operation for comfort and removed the next day.

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 1 day, 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 re-insert a catheter again and allow the bladder to regain its function before trying again without the catheter.

The average hospital stay is 1 day for a routine admission and 3 days for an emergency admission.

Are there any side-effects?

Most procedures have a potential for side-effects and these are outlined below. Please use the check circles 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 (approx 75%)
- Treatment may not relieve all the prostatic symptoms
- Poor erections (impotence in approx 5-10%)
- Infection of the bladder, testes or kidney requiring antibiotics
- Possible need to repeat treatment later due to re-obstruction (approx 10%)

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Occasional (between 1 in 10 & 1 in 50)

- Bleeding requiring return to theatre and/or blood transfusion (5%)
- May need self catheterisation to empty bladder fully if bladder muscle 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)

- Very rarely, perforation of the bladder requiring a temporary urinary catheter or open surgical repair
- Very rarely injury to the ureters requiring an open operation
- Injury to the urethra causing delayed scar formation

General side-effects of any procedure

Any operative procedure that involves regional (spinal) or general anaesthetic can have side-effects. These are explained in the leaflet on anaesthesia.

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 1,250)

(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?

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.

When you leave hospital, a discharge summary of your admission will be sent to your family doctor. This holds important information about your inpatient stay and your operation.

What else should I look out for?

If you experience increasing frequency, burning or difficulty on passing urine or worrying bleeding, contact your family doctor. If you develop a temperature, increased redness, throbbing or drainage at the site of the operation, please contact your family doctor.

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 family doctor 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 Dr Campbell immediately or present to the nearest emergency department since it may be necessary for you to be re-admitted to hospital.

For after hours emergencies Dr Campbell can be contacted on (07) 3367 1608.

The Wesley Hospital Emergency Centre (07) 3232 7333, and The Greenslopes Private Hospital Emergency Centre (07) 3394 7111 are other resources that are also available.

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Are there any other specific 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 specialist nurses.

In the standard transurethral resection of the prostate gland, tissue from the prostate gland is normally sent to the pathologist to check for cancer. With the greenlight laser, this tissue is vaporized and thus not available for testing. If there are any concerns regarding prostate cancer, such as an elevated PSA blood test or an abnormal feeling prostate gland, then a biopsy of the prostate can be performed prior to the procedure.

A biopsy of the prostate is a more accurate means of checking for prostate cancer. It is possible that a standard resection of the prostate gland could detect cancer that a biopsy would miss. However this situation is very rare and a transurethral removal of tissue is not recommended by any urological society as a method of prostate cancer detection.

Your family doctor will be informed of all results. It may not be necessary for you to be reviewed after discharge from the hospital, but you will be given the follow-up plan when you leave hospital.

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.

Is there any research being carried out in this field?

Yes. This technology is being introduced into Queensland for the first time and you are one of the first patients to experience the treatment. The treatment has been available overseas and interstate for many years.

First and foremost we believe that this technology is safe in trained hands. The specialists who will be performing your treatment have been trained in this procedure and will be training others in the procedure so that the technology can be introduced into the health care system with the utmost patient safety. Many generations of the equipment have been developed and improved over the years and we now believe that this technology offers us an advantage in the treatment of men with your condition. As such we are prepared to spend the time and money in establishing the treatment here in Queensland.

The QEII Hospital has been chosen to evaluate and introduce this technology. New technology is subject to intense scrutiny and as such we will be asking you to participate in this trial by answering questions before and after your treatment. We will also with your permission be collecting data before, during and after your stay in hospital.

If you would like any further information, please contact Dr Campbell.

All operative procedures performed are subject to rigorous audit at monthly Audit & Clinical Governance meetings.

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Who can I contact for more help or information?

Dr Peter Campbell

Suite 9, level 9, Evan Thomson Building, The Wesley Hospital,
Chasely St,
Auchenflower, QLD 4066
(07) 3367 1608,
www.campbellurology.com.au

The Wesley Hospital, Urology Ward

451 Coronation Drive,
Auchenflower, QLD 4066
(07) 3232 7168
www.uhc.com.au/wesley

The Wesley Emergency Centre

451 coronation Drive,
Auchenflower, QLD 4066
(07) 3232 7333

Greenslopes Private Hospital, Continence Advisor

Newdgate St,
Greenslopes, QLD 4120
(07) 3394 7978
www.greenslopesprivate.com.au

Greenslopes Private Hospital Urology Ward

Newdgate St,
Greenslopes, QLD 4120
(07) 3394 7261
www.greenslopesprivate.com.au

Greenslopes Private Hospital Emergency Centre

Newdgate St,
Greenslopes, QLD 4120
(07) 3394 6777
www.greenslopesprivate.com.au

**The Queen Elizabeth II Jubilee Hospital,
Urodynamics Department**

Kessels Rd,
Coopers plains, QLD 4108
(07) 3275 6346

American Urological Association Foundation

1000 Corporate Blvd, Suite 410,
Linthicum, MD 21090
1800 828 7866
www.urologyhealth.org

Thank you for taking the trouble to read this information sheet. If you are satisfied with the explanation of the test, please sign below and this leaflet will be filed in your chart.

If you wish to retain a copy for you own records, one will be provided.

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

Signature

Date