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GREENLIGHT PHOTOSELECTIVE VAPORISATION PROSTATECTOMY (PVP)

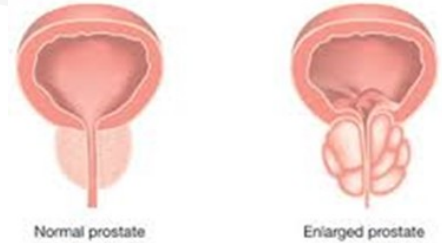
Providing Specialist Care in South Australia & Northern Territory

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What is the prostate?

The prostate sits below the bladder and forms the beginning of the urethra (water-pipe). It produces part of the seminal fluid which is important for reproduction. As men age, the prostate can enlarge and this can lead to restriction of the urinary flow. It may lead to symptoms including poor stream and incomplete emptying. Other symptoms may include frequency, urgency and getting up at night to void.



Why do people get surgery for the prostate?

People get surgery for the prostate if they continue to have trouble with urination (slow stream, dribbling, incomplete emptying) thought to be due to an enlarged prostate, which persists despite intervention with medications such as alpha-blockers (Tamsulosin) or combination therapy (Duodart).

Other indications for surgery are if a man goes into urinary retention and is unable to pass urine and requires placement of a urethral catheter, or if they have a large amount of urine in their bladder (usually in excess of 500-1000mls) and are putting back-pressure and getting swelling of their kidneys.

What is a PVP and how does it differ from a TURP (Transurethral resection of prostate) or a HoLEP (Holmium Laser Enucleation Prostatectomy)?

A PVP is a vaporisation technique for the prostate which means that a surgeon does not need to physically remove fragments of prostate tissue, which is what occurs with a TURP or HoLEP.

The Photoselective Vaporisation is absorbed by haemoglobin (found in blood), and can be utilised in certain scenarios for patients on blood thinners such as aspirin, warfarin and clopidogrel without ceasing these medications.

What is a PVP and how does it differ from a TURP (Transurethral resection of prostate) or a HoLEP (Holmium Laser Enucleation Prostatectomy)? Cont.

PVP has been compared to TURP in a recent study (Goliath Study) which concluded that Photoselective Vaporisation therapy has;

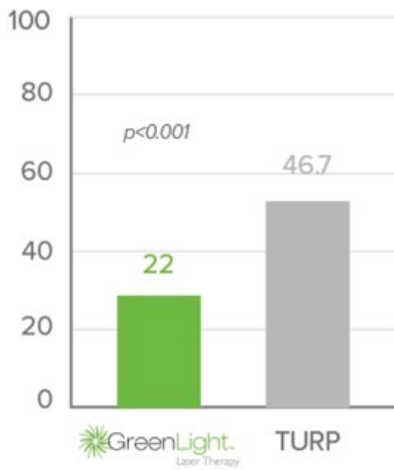
- Equivalent outcomes to transurethral resection of the prostate (TURP).
- Shorter patient recovery.

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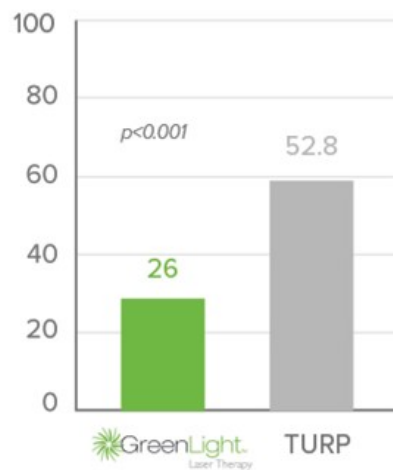
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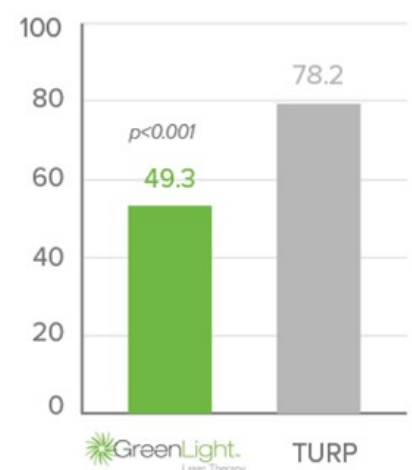
COMPARISON CHART



Median Length of Catheterization (Hours)



Median Time Until Stable Health (Hours)



Median Length of Hospital Stay (Hours)

Reference:

1. Bachmann A, et al. 180-WXPS GreenLight Laser Vaporization Versus Transurethral Resection of the Prostate for the Treatment of Benign Prostatic Obstruction: 6-Month Safety and Efficacy Results of a European Multicentre Randomized Trial—The GOLIATH Study. *Eur Urol* (2013).

What are the risks of PVP surgery?

Temporary difficulty urinating

This can be burning or stinging when passing urine or difficulty emptying your bladder. Depending on your pre-operative bladder function, some patients are not able to pass urine following the procedure, especially those who had a urinary catheter pre-op, and may need a catheter following the procedure for a period of time.

Urinary tract infection

Urinary tract infections are a possible complication after any prostate procedure. Infections are more common the longer you have a catheter in place, and may require antibiotics or other treatment.

Dry orgasm (retrograde ejaculation)

Any prostate surgery can cause retrograde ejaculation, which means semen being released during sexual climax (ejaculation) enters your bladder rather than exiting the penis. Retrograde ejaculation is not harmful, and generally doesn't affect sexual pleasure. This is a common long-term side effect of procedures to treat an enlarged prostate.

Erectile dysfunction

There is a small risk that ablative procedures could cause erectile dysfunction — the inability to maintain an erection firm enough to have sex. This is generally less of a risk with laser surgery compared with traditional surgery.

Need for further surgery

Some men require follow-up treatment after Greenlight laser surgery because due to regrowth of the prostate or continued obstruction. Scarring of the urethra can also occur following the procedure which may also require further surgery.

Incontinence

Incontinence can be related to either urinary urgency (especially if this was an issue prior to surgery), or stress incontinence.

Overall complication rates with PVP surgery are thought to be non inferior (comparable) to TURP.

Preparation for your procedure

We will provide you with instructions regarding all aspects of preparing for your operation;

- *Pre-operative blood and urine tests.*
- *Details of admission to hospital.*
- *Information regarding fasting and medications.*

What to expect afterwards

You will have a catheter following the procedure which is usually removed the following morning and you generally go home later that day.

Like any other prostate operation there is a risk of burning and stinging in the urine following catheter removal as well as urinary urgency and frequency.

You are usually able to eat and drink what you feel like after the surgery. Pain relief is always available; however, it is not usual to have significant pain after this procedure. A combination of the surgery and the catheter can cause bladder irritation and sometimes bladder spasm.

After discharge from hospital

The blood in the urine may take two or three weeks to clear completely. You should drink extra fluid over the first week or two after surgery. Drinking 1500ml - 2000ml per day is usually satisfactory. Do not drink excessively.

If you do notice an increased amount of blood in the urine, then drink extra water to dilute the urine. Occasionally there is more excessive bleeding, and maybe clots in the urine that make it difficult to void. If this occurs then please contact our office or present to a hospital emergency department for assessment.

The main benefit should be an improvement in urinary flow. In the first few days to weeks there is likely to be irritating symptoms of frequent voiding and a need to get to the toilet quickly (urgency). There can be some discomfort or burning when passing urine for as long as six weeks after the operation. It often resolves more quickly than this and will gradually diminish.

If you find it is not improving, or becomes worse, then you could have a urine infection. Either contact our office or see your GP to organise a urine test.

You should be able to recommence most of your usual activities shortly after surgery. Please avoid heavy lifting or straining for about four weeks after surgery. Sexual activity can be recommenced once the bleeding settles.

Driving

You should not drive for at least 2 weeks after the operation
(or as instructed by your Urologist).

Patients who are travelling outside the metropolitan area are required to check when they are able to travel, and will be required to stay in the metropolitan area for 24 hours (or as instructed by your Urologist).

Emergency Contacts

In the event of an emergency, please call our office within business hours. If assistance is required out of hours, please call our On-Call Urologist via our Tennyson office OR present to your nearest Emergency Department.

Ashford Hospital

55 Anzac Highway, Ashford SA 5035 8375 5205 Until 10:00 PM

Flinders Medical Centre (access to Flinders Private Hospital)

Flinders Drive, Bedford Park SA 5042 8204 5511 24 Hours

Calvary Adelaide Hospital

120 Angus Street, Adelaide SA 5000 8227 7027 24 Hours

Royal Darwin Hospital

Rocklands Drive, Tiwi NT 0810 8922 8888 24 Hours

**For patients outside the Metropolitan area, please present to your nearest hospital emergency department.

Follow up

You will receive a post operative phone call from the practice nurse three weeks after your surgery. You will also be required to do a urine test one week prior to your follow up appointment. This appointment will be made for six weeks after your surgery and you need to arrive with a full bladder for a flow test and bladder ultrasound.

If you have any concerns after your procedure, then please contact us at Urological Solutions.

The content provided within this document is intended as a guide only and does not apply to all patients. Additional information, including patient specific potential risks, must be obtained during consultation with your Urologist.