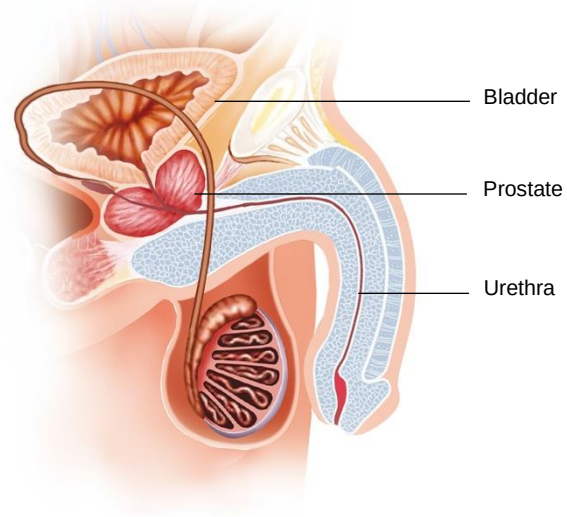
Holmium Laser Enucleation of the Prostate (HoLEP)

Procedure information



What is Holmium laser enucleation of the prostate (HoLEP)?

HoLEP is a minimally invasive operation to remove prostate tissue which is blocking the flow of urine from the bladder. It is also known as a “laser prostatectomy”.

Why is HoLEP required?

HoLEP is a surgical treatment for urinary symptoms which are due to enlargement of the prostate.

These symptoms may include:

- Waking through the night to urinate.
- Needing to pass urine frequently throughout the day.
- Having to pass urine urgently.
- Reduced urine flow.
- Difficulty starting urination.
- Stop-start flow.
- Dribbling after passing urine.
- A feeling of incomplete bladder emptying.

HoLEP is a good option for you if you have a large prostate (usually >80grams), and:

- You do not want to take or are unable to take medications for prostate enlargement (such as prazosin, tamsulosin, silodosin, dutasteride or finasteride); or
- Medications are no longer working; or
- You are catheter dependent due to urinary retention; or
- You have complications of your enlarged prostate including blood in the urine (haematuria), bladder stones, kidney failure or recurrent urinary tract infections; or
- You take blood thinning medication which makes other prostate surgery high risk.

HoLEP is a treatment for benign prostate enlargement. It is not a treatment for prostate cancer.

What does HoLEP involve?

HoLEP is performed under a general anaesthetic, through a telescope introduced into your bladder through your urethra. There are no incisions involved in the procedure.

A laser is used to core out the obstructing part of the prostate (adenoma) leaving the outer zone of the prostate behind (much like coring out the flesh of an orange and leaving the outer rind behind).

A morcellator is then used to chew up the prostate tissue so it can be removed via the urethra. A tissue sample is sent to pathology to be tested for prostate cancer.

A catheter will be left in your bladder at the end of the procedure with irrigating fluid to wash out any blood overnight. The catheter is removed the day after surgery and you will have a “trial of void” which tests your ability to urinate.

What is the recovery after HoLEP?

HoLEP usually requires a one-night stay in hospital.

You can return to sedentary work approximately 4-5 days after the operation. If your job involves physical work, please discuss this with your doctor.

You need to avoid lifting more than 10kg for 2 weeks following surgery. You also need to

Phone 07 3830 3300
www.brisbaneurologyclinic.com.au
Level 11, 135 Wickham Terrace Brisbane 4000

Brisbane Urology Clinic
Central Queensland Urology Clinic

avoid constipation and straining your pelvic floor.

It is usually safe to drive 48-72 hours after the procedure.

You may have discomfort when urinating and blood in the urine intermittently for a couple of weeks after the procedure.

Some patients experience transient urinary incontinence (leakage of urine). This usually resolves within three months with pelvic floor muscle exercises. We strongly recommend seeing a pelvic floor physiotherapist to learn pelvic floor muscle exercises prior to your HoLEP and doing these exercises once your catheter has been removed.

You can usually return to sexual activity approximately two weeks after the operation.

Most men (>80%) will experience retrograde ejaculation (ejaculate going into the bladder during orgasm) after HoLEP. This means you will no longer be able to father children naturally.

What are the benefits of HoLEP?

HoLEP has some benefits over other surgical treatments for prostate enlargement. These benefits include:

- HoLEP allows for the treatment of large prostates (>80 grams) through a minimally invasive technique, avoiding the need for incisions.
- The catheter is usually removed 1-2 days after the procedure, before you are discharged home (compared to 5-10 days with open or robotic procedures).
- The hospital stay after HoLEP is shorter than transurethral resection of the prostate (TURP) or simple prostatectomy (open or robotic).
- There is a lower risk of bleeding or blood transfusion compared to a TURP.
- The need for further treatment for prostate enlargement is very low (<4% at 10 years compared to 12-15% for TURP at 10 years).
- There is no risk of 'TUR Syndrome' which is an uncommon but serious complication associated with TURP.
- If you have stones in the bladder, these can be destroyed with the holmium laser at the same time as the HoLEP procedure.

What are the risks of HoLEP?

Very common risks (most men)

- Urinary frequency, burning and stinging for a few weeks after the operation.
- Blood in urine intermittently for a few weeks after the operation.
- Retrograde ejaculation.

Occasional risks (1/10 – 1/50)

- Transient urinary incontinence.
- Transient reduction in erectile function (normally resolves if your erections were good prior to surgery).
- Urinary tract infection.
- Inability to urinate after the catheter is removed following surgery, requiring the catheter to be reinserted.
- Failure to improve your urinary symptoms.
- Worsening of "storage symptoms" (including frequency, urgency and nocturia) requiring medication or other treatment.
- Scarring of the urethra (urethral stricture) or bladder neck (bladder neck contracture) requiring further surgery to correct.

Rare risks (1/50 – 1/250)

- Permanent erectile dysfunction.
- Permanent urinary incontinence.
- Injury to the ureters.
- Injury to the bladder during morcellation – requiring open operation to repair or prolonged catheter for 10-14 days.
- Significant bleeding requiring a blood transfusion.
- Inability to complete the operation as planned requiring conversion to TURP, an open incision, or delayed morcellation on another day.

Theoretical risks

- Rectal injury.

The risks of anaesthesia have not been listed here.

Phone 07 3830 3300
www.brisbaneurologyclinic.com.au
Level 11, 135 Wickham Terrace Brisbane 4000

Brisbane Urology Clinic
Central Queensland Urology Clinic

What are the alternative treatment options?

- Surveillance – no treatment.
- Lifestyle changes.
- Medication.
- Transurethral resection of the prostate.
- Greenlight laser photovaporisation of the prostate.
- Open or robotic simple prostatectomy.
- Prostate artery embolisation.
- Minimally invasive prostate surgeries such as water vapor therapy or a prostatic urethral lift treatment are an option for treating benign prostate enlargement but are usually not appropriate for large prostates.

See www.brisbaneurologyclinic.com.au or speak to your urologist for information regarding these alternative treatment options.

For more information please visit www.brisbaneurologyclinic.com.au.

This is general information only. Please consult your doctor for more information and treatment options.

For appointments and enquiries please contact 07 3830 3300.

References

1. Guideline Statement 5.3.3, *Management of Non-neurogenic Male LUTS*, European Association of Urology Guidelines, https://uroweb.org/guideline/treatment-of-non-neurogenic-male-luts/#5
2. Guideline Statement 21, *Benign prostate hyperplasia: Surgical Management of Benign Prostate Hyperplasia/Lower urinary symptoms*, https://www.auanet.org/guidelines/benign-prostatic-hyperplasia-(bph)-guideline
3. Holmium laser enucleation of the prostate for very large benign prostate hyperplasia (<200cc^3), https://mayoclinic.pure.elsevier.com/en/publications/holmium-laser-enucleation-of-the-prostate-for-very-large-benign-p
4. Holmium laser enucleation of the Prostate – Outcomes independent of size?, https://www.auajournals.org/doi/abs/10.1016/j.juro.2008.08.019
5. *Editorial: HoLEP is the complete technique for treating BPH*, https://bjui-journals.onlinelibrary.wiley.com/doi/pdf/10.1111/bju.15099
6. *Treating BPH: Comparing HoLEP, Rezum, Urolift and Aquablation*, https://www.youtube.com/watch?v=sJz2DA6YvYU

.

Phone 07 3830 3300

www.brisbaneurologyclinic.com.au

Level 11, 135 Wickham Terrace Brisbane 4000

Brisbane Urology Clinic

Central Queensland Urology Clinic