

Minimally Invasive treatments for Benign Prostatic Hyperplasia – which one may be appropriate for you?

An overview by Professor Richard Hindley

In determining suitable treatments in the first instance, two factors need to be considered

- How severe are your symptoms? This is calculated using the International Prostatism Symptom Score (IPSS) This form can be found here <https://www.uptodate.com/contents/calculator-international-prostatism-symptom-score-ipss>
- How big is your prostate? MRI is the gold standard to determine volume but Transrectal Ultrasound (TRUS) is very good and the most commonly used method. There are a new generation of scanners which are very easy and quick to use. Digital (finger) rectal examination (DRE) is sometimes used, though DRE tends to give a rather poor estimate of volume and should be avoided.

For mild symptoms (IPSS symptom score 7 or less), then lifestyle changes, pelvic floor exercises and bladder training are the recommended treatment.

Should improvements not be forthcoming, then treatment with medication is usually the next option. However some patients taking medication experience side effects, for example, headaches, dizziness as well as disturbing changes in sexual function including dry ejaculation and erectile dysfunction.

The chart on the following page gives a guide to the treatments that are suitable depending on the prostate volume and the severity of the symptoms.



Prostate volume/symptom severity	Moderate symptoms IPSS score 8 -19	Very poor flow rate and emptying IPSS score: 20 -25
Up to 40ml volume	Urolift** Rezum iTind*** Aquablation*	TURP (bipolar) Labour vaporization: Greenlight Laser enucleation : HoLEP PAE
40 – 80ml volume	Urolift** Rezum iTind*** Aquablation*	TURP (bipolar) Labour vaporization: Greenlight Laser enucleation : HoLEP and Green LEP PAE
80 – 100ml volume	Rezum iTind*** Aquablation* Labour vaporization: Greenlight Laser enucleation : HoLEP and Green LEP PAE	Labour vaporization: Greenlight Laser enucleation : HoLEP and Green LEP PAE
100 – 150ml volume	Labour vaporization: Greenlight Laser enucleation : HoLEP and Green LEP PAE	Labour vaporization: Greenlight Laser enucleation : HoLEP and Green LEP PAE
150 – 200ml plus volume	Laser enucleation : HoLEP and Green LEP PAE	Laser enucleation : HoLEP and Green LEP PAE Robot assisted laprascopic prostatectomy or open prostatectomy

Comments

* Aquablation is more suitable for prostate volumes above 50cc up to 100cc

** Urolift is not ideal if the middle (median) lobe is involved unless performed by an experienced expert surgeon, when outcomes mirror that of Rezum.

*** iTind is not suitable for men with an obstructive median lobe or previous prostate surgery but is suitable for prostates up to 60cc in volume

****GreenLEP is not available in the UK

There are then a set of questions that need to be answered to narrow down the best options.

Potential side effects

Is Fertility Important to you?

(Avoidance of dry or retrograde ejaculation where semen goes into the bladder rather than being ejected out of the penis.)

Incidence of dry or retrograde (backwards) ejaculation:

- >0% with Urolift, iTind and PAE
- 5% with Rezum
- 5 – 10% with TURP
- 65%+ with Open Prostatectomy, 40% with robotic surgery with nerve sparing

So for moderate symptoms and a prostate volume of less than 100ml, REZUM and Urolift are the best treatment options.

For larger prostates Greenlight, or HoLEP for very large prostates are the low risk options.

For the elderly or frail with potential risks from anaesthesia, PAE is a good option as it is very low risk as well as being a good treatment for large prostates.

Recurrence rates for each treatment

The other factor you may want to consider are recurrence rates for BPH symptoms. They are as follows:

- 10% recurrence after 10 years for Greenlight laser, HoLEP, GreenLEP and TURP



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- 5-10% recurrence after 5 years for REZUM (in the Pivotal 2 study it was 4.4%)
- 12.5% recurrence after 5 years for Urolift
- 20% recurrence after 1 year for PAE
- <5% recurrence at 2 years for Aquablation but will probably mirror TURP and Greenlight laser at 10 years

Finally, if you are worried about erectile function you can score yourself at this site

https://qxmd.com/calculate/calculator_377/international-index-of-erectile-function-iiief-5

For more information on all aspects of prostate disease and where to get treatments visit www.prostatematters.co.uk



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