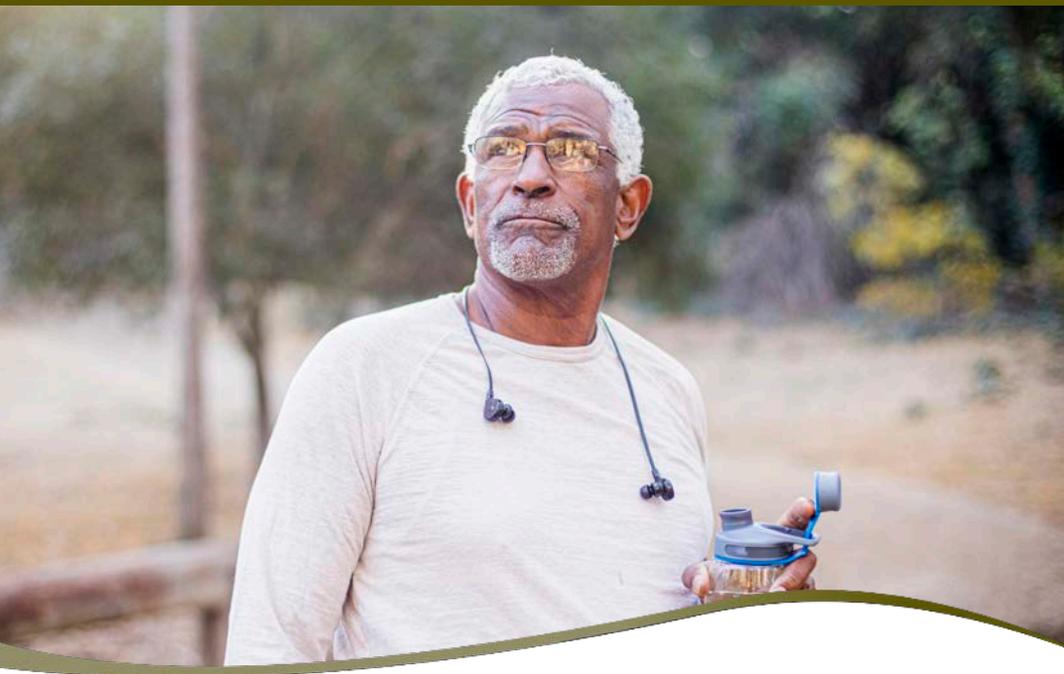


BENIGN PROSTATIC HYPERPLASIA (BPH)



A Guide for Patients

THEUROLOGY
Advanced Care. Improving Lives. **GROUP**

ABOUT THIS GUIDEBOOK

Facing a medical condition can often feel overwhelming and sometimes even scary. At The Urology Group we want you to know that you are not alone and that we have a caring team ready to help you.

This Guidebook provides information on benign prostatic hyperplasia (BPH) so that you understand more about the condition and treatment.

YOUR IPSS NUMBER: _____

The International Prostate Symptom Score (IPSS) is a scoring system used to screen for and diagnose BPH as well as to monitor symptoms and guide decisions about how to manage the disease.

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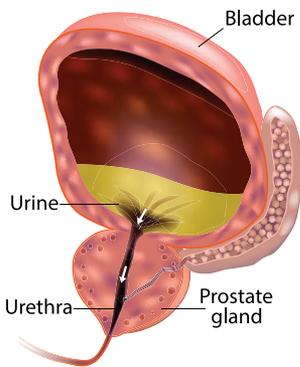
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Overview and Symptoms

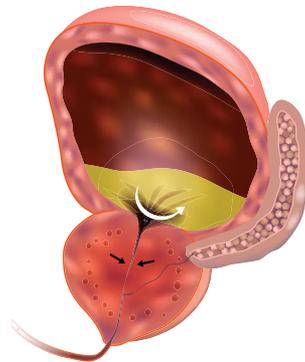
Your prostate

Before we talk about benign prostatic hyperplasia (BPH), it's important to understand a bit about your prostate. The prostate is a walnut-size gland that sits below the bladder. The urethra runs through the middle of it, down to the end of the penis, allowing urine to flow. The prostate has a role in reproduction, producing fluid that makes up a portion of semen volume, and protecting sperm.

In many men, starting around age 40-50, the prostate can grow. BPH is a common, benign (non-cancerous) condition. However, this growth may block the urethra and the flow of urine out of the body.



Normal prostate



Enlarged prostate gland

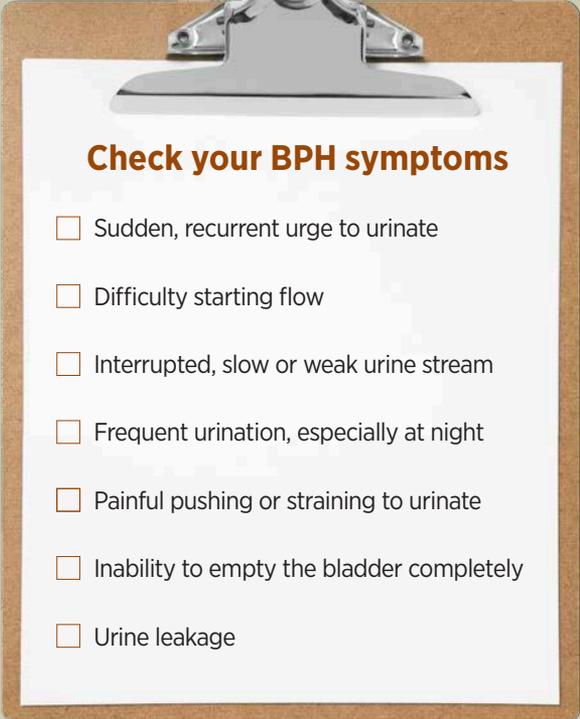
Having BPH does not increase your chance of getting prostate cancer.



Some men with BPH feel the need to urinate every 1 to 2 hours, especially at night.

50% of U.S. men between ages 51-60 experience BPH.

90% of U.S. men over the age of 80 experience BPH.



Check your BPH symptoms

- Sudden, recurrent urge to urinate
- Difficulty starting flow
- Interrupted, slow or weak urine stream
- Frequent urination, especially at night
- Painful pushing or straining to urinate
- Inability to empty the bladder completely
- Urine leakage

Your bladder

Your bladder is a pump that pushes out your urine. The longer you have BPH symptoms, the more likely your pump will stop working.

Without treatment, the pump fails, and you can have the following medical problems:

- Infections
- Urine incontinence or leakage
- Kidney failure
- Bladder damage, requiring a catheter (tube that drains urine from the bladder)
- Bladder stones

Diagnosis

How BPH is diagnosed

To diagnose BPH we generally use a combination of tests, starting with an exam. Together, these tests can help your urologist figure out the cause of your symptoms and create a customized treatment plan.

3 types of testing

1 Visit with Provider

- **Digital Rectal Exam (DRE)** – to feel for size of prostate and for lumps that may be a concern
- **PSA Blood Test** – to help determine your risk for prostate cancer
- **Urine Test** – to see if you have blood or an infection in your urine
- **Bladder Scan** – to measure the volume of urine in the bladder after urination

2 Bladder Function Studies

- **UroCuff® Testing** - quickly determines how well your bladder functions and empties
- **Urodynamics Testing** - similar to UroCuff but uses a catheter and provides more information

UroCuff Test Overview

A UroCuff Test determines how well your bladder functions and gauges its ability to effectively empty. Your urologist uses this information to better understand the causes of your symptoms and determine a treatment plan.

How UroCuff Works

It is very important that you arrive to your appointment with a comfortably full bladder. When you are ready for the test, we will place surface electrodes (similar to stickers) on your lower abdomen and/or perineum (the tiny patch of sensitive skin between your scrotum and anus).

You will urinate into a small funnel, which will stop and start your flow in order to determine flow rate and bladder pressure. You will continue to urinate until you've emptied your bladder completely.

Take any current medication as prescribed unless directed otherwise by your urologist.

3 Advanced Testing

- **Cystoscopy** – a small camera used to see if the prostate is enlarged and blocking the urethra; will also look for stones or tumors in the bladder
- **Transrectal Ultrasound** – an ultrasound placed in the rectum to determine the size and shape of the prostate
- **Prostate Needle Biopsy** – to take a sample of prostate tissue to check for cancer; this is only done if you have an abnormal PSA blood test or abnormal DRE.

Your Patient Navigator

Patient navigators are here for you

There are many ways to treat BPH – from lifestyle modifications to oral medications to a procedure. Sometimes making decisions can feel overwhelming and confusing.

The Patient Navigators are here to help coordinate all aspects of your treatment and make the journey easier. They can help get answers to all your questions.

Your Patient Navigators

BPH@urologygroup.com



Ashley Hargrove, MA
513-841-7538



Rene Solomon, MA
513-841-7421

“Whenever I call Ashley, she takes care of me. Even if she doesn’t know the answer, she’ll find it for me!”

– Carl B. (Eastgate)



Dedicated point of contact

Your Patient Navigator helps you throughout the treatment process by:

- Answering questions about medication or other treatments, especially when you are in between office visits.
- Directing you to other departments, such as billing.
- Coordinating with your urologist to help find a long-term solution to your condition.

Working with your Patient Navigator will help you and your urologist make the right decisions for your treatment. You should always feel comfortable calling for help, no matter the reason.

Treatment Options – LIFESTYLE

Lifestyle modifications

One of the best ways to treat a chronic condition is to see if making changes in your everyday life will help. It is less invasive, less costly, and may give you the relief you need.

Here are some simple steps you can take to potentially improve your symptoms:

Consider bathroom habits

Changing how you go to the bathroom may sound strange, but it can help. Follow these tips:

- Double void - After urinating, try to urinate again 15-20 minutes later. This may empty your bladder more completely.
- Relax while you urinate; do not try to force the urine out.

Monitor medications

Medications can help many conditions. However, some medicines can affect how you urinate. If you are having urinary symptoms, try not to use these:

Antihistamines

- Diphenhydramine/Benadryl®
- Fexofenadine/Allegra®
- Cetirizine/Zyrtec®

Decongestants

- Pseudoephedrine/Sudafed®

Other

- Diazepam/Valium®
- Opioids/Narcotics

Beware of over-the-counter medications

Over-the-counter medications labeled “to help with your prostate or bladder” may not be as helpful as advertised. “Natural” does not mean it is always safe for you, as these products are not regulated by the FDA. Ask your doctor if you are not sure about a medication and how effective it is.



Examine your diet

Try not to drink liquids after dinner so you can reduce the number of nighttime bathroom trips. You should also avoid foods and drinks that can irritate your bladder and increase the feeling of needing to urinate.

The foods and drinks to avoid include:

- Coffee, tea, and carbonated drinks – even without caffeine
- Alcohol
- Citrus fruits and juices
- Spicy foods
- Tomato-based products
- Chocolate

Treatment Options – MEDICATION

Medicine is one of the most common ways to treat mild to moderate BPH. Your urologist might suggest taking a medication, so we want you to understand what they are, how they work, and a few cautionary points.

Alpha blockers

These medicines relax muscles in your bladder and prostate, improving your urine flow. They don't change the size of your prostate, but they may help reduce the need to get up at night to urinate.

Common alpha blockers include:

- Tamsulosin/Flomax®
- Silodosin/Rapaflo®
- Alfuzosin/Uroxatrol®
- Terazosin/Hytrin®
- Doxazosin/Cardura®

Side effects/cautions

- Alpha blockers may affect your blood pressure and can make you feel tired, dizzy, or lightheaded.
- They can also lead to “retrograde ejaculation.” This is when the sperm and fluid travel backward into your bladder instead of out through your penis. It doesn't cause any harm, but it means you may not have any sperm when you ejaculate. Men who still want to have children should keep this in mind.
- Alpha blockers can lead to problems during eye surgery. Be sure to tell your eye doctor if you have taken or are currently taking alpha blockers. It is best to avoid them if you plan on having cataract or any eye surgery soon.

5-Alpha Reductase Inhibitors (5-ARI)

These medicines work by shrinking your prostate over many months. It may take up to 6-12 months to notice improvement in your symptoms.

Common 5-ARIs include:

- Finasteride/Proscar®
- Dutasteride/Avodart®

Side effects/cautions

- These medicines could cause decreased erections and libido (or sex drive).
- They may lead to increased size of breasts.
- They will decrease your PSA blood test number by about half.
- A study has shown that these medicines could increase your risk of high-grade prostate cancer; however, most urologists do not believe this to be true.



Treatment Options – PROCEDURES



When is it appropriate?

Lifestyle changes and medications may be the first course of treatment for an enlarged prostate. However, if your symptoms continue to bother you, you may want to explore an alternative treatment, such as a procedure.

The treatments described in this section are somewhat similar but use different techniques to address BPH. Your doctor can talk with you about which procedure is best for your symptoms.

Before your procedure

Prior to proceeding, your urologist will usually need to evaluate your prostate to determine if a specific procedure is the best option for you. This may include cystoscopy, prostate ultrasound, or urodynamics (mentioned on page 5 of this booklet).

Insurance

Medicare and most major insurance carriers cover the procedures described in this section, subject to any copays or deductible.

The Urology Group will check with your insurance company to verify coverage before your procedure.

Treatment Options – PROCEDURES

UroLift® System

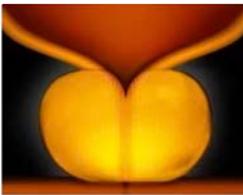
This is a minimally invasive procedure that lifts the prostate tissue out of the way instead of removing it. This may be a good option if medications are not a good fit for you.

The small UroLift implants are made of nickel titanium and stainless steel. They measure only 8mm tall (shown below to scale).



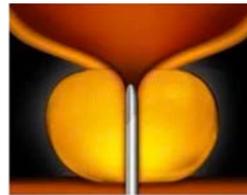
The Facts

- This procedure is outpatient and does not require an overnight stay.
- Patients usually only require a short sedation, not a general anesthesia.
- In many situations, NO CATHETER is required.
- Typically, this procedure does NOT cause new erectile dysfunction (ED) or ejaculatory dysfunction.
- Only one week of decreased activity is required.
- Some blood in the urine is expected for 1-2 weeks.
- Burning with urination typically stops by one week.
- Increased urinary frequency and urgency may last 2-4 weeks, in most situations.
- No prostate tissue is removed, so it will not be examined for cancer.



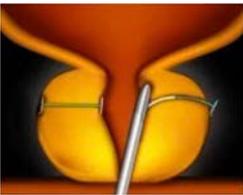
Enlarged Prostate

An enlarged prostate can narrow or even block the urethra, causing bothersome urinary symptoms.



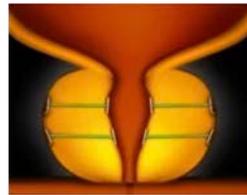
Step 1

The UroLift Delivery Device is placed through the obstructed urethra to access the enlarged prostate.



Step 2

Tiny UroLift Implants are permanently placed to lift and hold the enlarged prostate tissue out of the way and increase the opening of the urethra.



Step 3

The UroLift System treatment provides fast and reliable symptom relief by opening the obstructed urethra.

Treatment Options – PROCEDURES

Prostate Artery Embolization (PAE)

Prostate artery embolization (PAE) is a minimally invasive, non-surgical procedure that shrinks the prostate by decreasing its blood supply.

This treatment is offered at our Interventional Radiology Center, located near our Norwood campus:

4746 Montgomery Road
Suite 201
Cincinnati, OH 45212



The Facts

Prostate artery embolization:

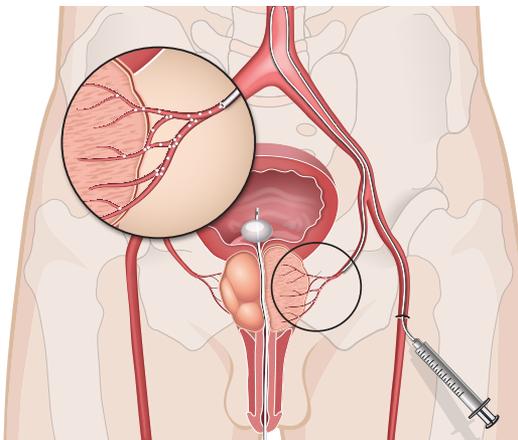
- Is less invasive than BPH surgery.
- Doesn't cause erectile dysfunction or bladder control issues.
- General anesthesia is not needed, only "twilight sleep."
- Overnight stay is rarely necessary.
- Side effects are temporary and manageable: soreness in pelvic area, possible nausea or fever.
- Improvement in urination usually.

How PAE Works

Your doctor makes a small puncture in an artery in your thigh or wrist to guide a microcatheter (tiny flexible tube) into the prostate arteries.

Tiny beads are inserted into the tube. The beads become lodged in the prostate arteries and block blood flow to the prostate.

Since blood flow is blocked, excess prostate tissue shrinks, reducing the size of your prostate.



Treatment Options – PROCEDURES

Transurethral Resection of the Prostate (TURP)

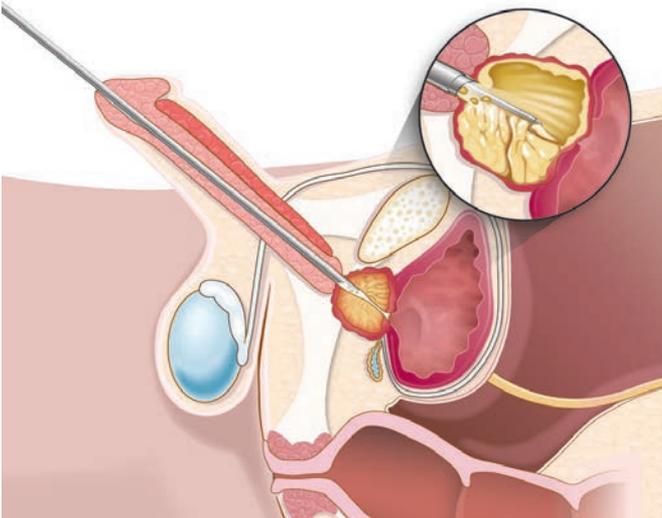
This is the traditional, “gold standard” treatment that has been around for decades. Although there are newer, less-invasive procedures available, this remains an effective and well-proven option for men with BPH.

A small camera and an instrument that removes tissue (resectoscope) is inserted into the urethra. This resectoscope is used to remove or “scrape” away the enlarged prostate tissue that is blocking your urine flow.



The Facts

- Many TURP procedures are handled as outpatient, but some may require an overnight hospital stay.
- The procedure typically requires a general anesthesia.
- A catheter is required for at least one night, sometimes longer.
- Most men will experience ejaculatory dysfunction, specifically retrograde ejaculation (see page 10 of this book for a description).
- The risk of erectile dysfunction is very low.
- The procedure requires decreased activity for 2-4 weeks.
- Blood in the urine is expected for 1-2 weeks, although it may come and go for longer.
- Burning with urination, and/or urinary frequency and urgency may last for a few weeks.
- Prostate tissue is removed and will be checked for cancer by a pathologist.



Treatment Options – PROCEDURES

GreenLight™ Laser Therapy

This procedure uses laser technology to remove the enlarged prostate tissue. It is very similar to a TURP as it removes the tissue, but it vaporizes the prostate instead of “scraping” it away.

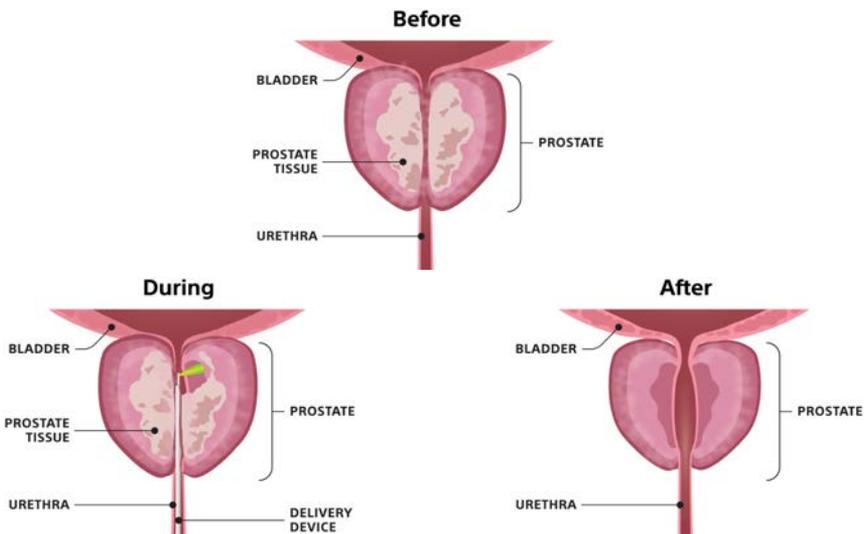
This procedure is often used for those who must remain on certain medications, like anticoagulants or blood thinners. Otherwise, many of the side effects are similar to a TURP.



Images courtesy of Boston Scientific Corporation

The Facts

- Many GreenLight procedures are handled as outpatient, but some may require an overnight hospital stay.
- The procedure typically requires a general anesthesia.
- A catheter is required for at least one night, sometimes longer.
- Many men will experience ejaculatory dysfunction, specifically retrograde ejaculation (see page 10 of this book for a description).
- The risk of erectile dysfunction is very low.
- The procedure requires decreased activity for 2-4 weeks.
- Blood in the urine is expected for 1-2 weeks, although it may come and go for longer.
- Burning with urination, and/or urinary frequency and urgency may last for a few weeks.
- This procedure works for small and moderate-sized prostates.
- GreenLight offers less bleeding on anticoagulants and blood thinners in some situations.
- Prostate tissue is removed but vaporized so it cannot be checked for cancer.



Treatment Options – PROCEDURES

Aquablation Therapy

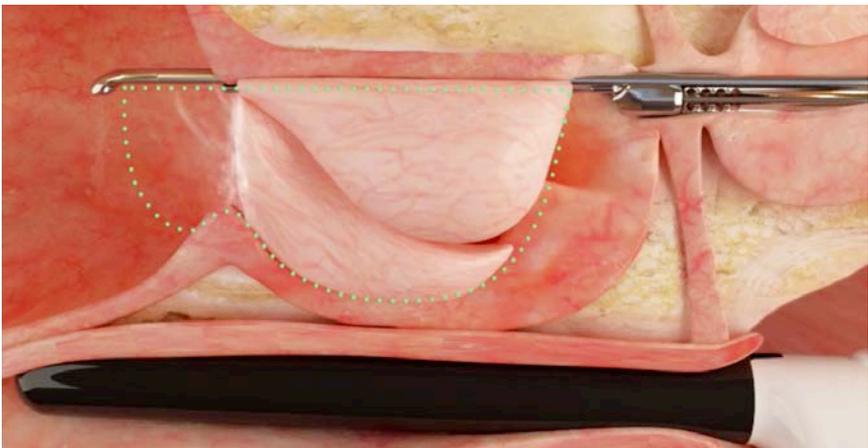
This minimally invasive treatment for BPH uses the power of water to remove prostate tissue. The prostate is accessed through your urethra; no abdominal incision is needed.

During the procedure, excess prostate tissue is removed with powerful heat-free water jets. The surgeon is assisted by robotic technology, which provides precision and minimizes human error.



The Facts

- The procedure is performed in a hospital under anesthesia and takes less than an hour to complete.
- First, your surgeon will use ultrasound to map the area of your prostate to be treated.
- Then, assisted by robotic technology, your surgeon will go through your urethra to reach the treatment area.
- Powerful heat-free water jets will remove the excess prostate tissue that is obstructing urine flow.
- A temporary catheter will be inserted to let urine drain from your bladder.
- An overnight stay in the hospital is typically needed. Some patients stay a second night in the hospital.
- You may be sent home with a catheter if you are unable to empty your bladder after the procedure.
- You may experience mild burning during urination for a couple of weeks after the procedure. This can be managed with mild pain medication.
- No impact on erectile function, orgasmic function, sexual desire, intercourse satisfaction, or overall sexual satisfaction.
- Nearly all men with BPH preserved ejaculatory function.
- 99% did not experience incontinence.



Treatment Options – PROCEDURES

Holmium Laser Enucleation of the Prostate (HoLEP)

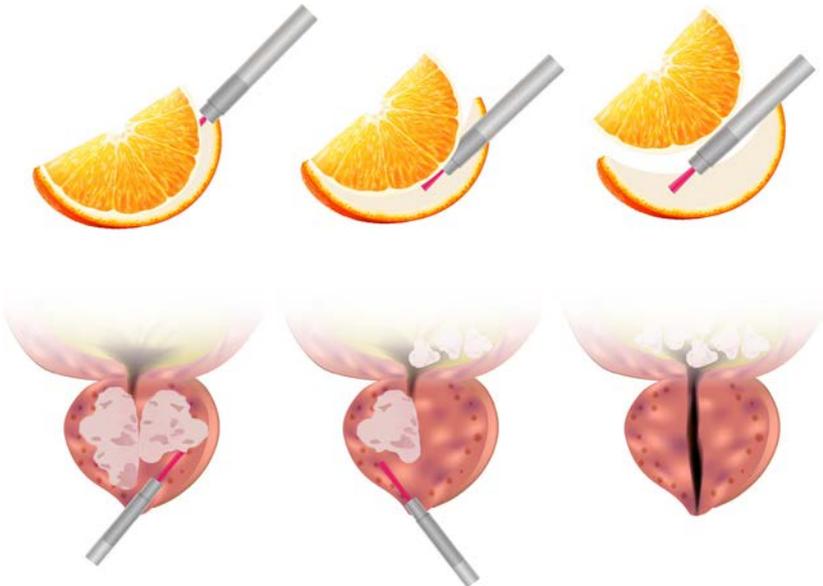
This procedure also uses laser technology but in a different method. The laser is used to enucleate, or core-out, the prostate in one piece. A separate instrument is then used to cut the prostate tissue into smaller fragments that are easily removed.

Imagining an orange, a HoLEP would be similar to removing the inside of the orange but leaving behind the peeling. This option is typically used for the largest prostates.



The Facts

- Many men will go home the same day as the procedure.
- The procedure typically requires a general anesthesia.
- A catheter is required for at least one night, sometimes longer.
- Most men will experience ejaculatory dysfunction, specifically retrograde ejaculation (see page 10 of this book for a description).
- The risk of erectile dysfunction is very low.
- The procedure requires decreased activity for 2-4 weeks.
- Blood in the urine is expected for 1-4 weeks, although it may come and go for longer.
- Burning with urination and/or urinary frequency and urgency may last for a few weeks.
- This procedure is best for very large prostates, as it removes the most prostate tissue.
- Prostate tissue is removed and will be checked for cancer by a pathologist.



Treatment Options – PROCEDURES

Robotic “Simple” Prostatectomy

This surgery removes the inside of the prostate. It is similar to a HoLEP but requires cutting of the skin. For men with very large prostates, this is a good option to remove a larger portion of the prostate.

It is done with the help of robotic technology to minimize the incisions and recovery. Although it is similar, this is not the same surgery that is done for prostate cancer.



Images courtesy of Intuitive Surgical

The Facts

- Most men require an overnight hospital stay.
- This procedure requires a general Anesthesia
- A catheter is required for about seven days.
- Some men will experience ejaculatory dysfunction, specifically retrograde ejaculation (see page 10 of this book for a description).
- The risk of erectile dysfunction is very low.
- The procedure requires decreased activity for 2-4 weeks.
- Blood in the urine is expected for 1-2 weeks, although it may come and go for longer.
- Burning with urination and/or urinary frequency and urgency may last for a few weeks.
- This procedure is best for the largest prostate sizes, as it removes the most prostate tissue.
- Prostate tissue is removed and will be checked for cancer by a pathologist.





The Urology Group is one of the largest single specialty groups of urologists in the United States.

Our group consists of more than 35 board-certified urologists with convenient neighborhood offices and a state-of-the-art outpatient surgery center in Norwood.

Together, we offer our patients a comprehensive team of urologic healthcare providers – Greater Cincinnati’s and Northern Kentucky’s premier healthcare resource in this specialty.



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