



BENIGN PROSTATIC HYPERPLASIA (BPH)

is a non-cancerous enlargement of the prostate, which affects a majority of men over age 50. Armed with the latest technology, the urologists at UCA lead the way in the diagnosis and treatment of BPH.

The symptoms of Benign Prostatic Hyperplasia usually begins with urinary frequency, having to get up at night, and other minor inconveniences. Many men who have enlarged prostates never experience any symptoms, but the likelihood of developing symptoms increases as men age.

The prostate is an internal gland of the male reproductive system that is located in front of the rectum and below the bladder. The prostate gland wraps around the upper part of the urethra, the tube that carries urine out of the bladder. Benign Prostatic Hyperplasia affects the innermost part of the prostate first, so the enlargement frequently results in a gradual squeezing of the urethra where it runs through the prostate, sometimes causing difficulty urinating or other urinary problems.

Physicians have more resources and treatment options available today than ever before to help patients manage their BPH symptoms. The UCA BPH Center of Excellence is here to help you explore all potential treatments and evaluate what the best treatment(s) will be for you.

Our BPH Health Navigator will work together with your Urologist to evaluate your symptoms and walk you through the treatment options available. Every individual's symptoms are different and there is not a "one size fits all" medication or treatment that works for every patient. It is important to communicate with your physician and the navigator about noticed improvements or unchanging to worsening symptoms after trying a treatment option. We ask you to be honest if a treatment is not working so that we can look at additional treatment options for you.



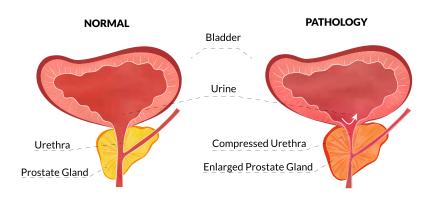


SYMPTOMS

Many men with BPH may have no significant symptoms, but the most common symptom that men first notice as prostate enlargement progresses is difficulty in urination. Characteristic symptoms of BPH include:

- · A weak urinary stream
- A feeling that the bladder is not completely emptied after urination
- · Difficulty starting urination
- Urgency (difficulty postponing urination)
- Frequent urination
- Nocturia (getting up at night to urinate)
- · Dribbling at the end of urination
- Interruption of the stream (stopping and starting)

As the prostate gland enlarges, the urethra is squeezed more tightly and it becomes difficult for the bladder to empty completely. In a small percentage of men, this leads to urinary tract infections or gradual bladder and/or kidney damage.



DIAGNOSING BPH

If you are experiencing any of the symptoms listed above or burning or pain during urination you should see your urologist. Your doctor may ask you questions about how you void or want you to fill out a questionnaire to help evaluate the severity of your symptoms. Depending on the symptoms, some additional tests may be ordered to see if you have an obstruction. A rectal examination and a blood test to check for prostate cancer (PSA test) will most likely be done on the initial visit to the urologist. The American Urological Association recommends that men age 50 and over have a prostate exam with PSA every year.

DIAGNOSTIC STUDIES

POST VOID RESIDUAL (PVR)

An ultrasound measurement of the amount of urine remaining in the bladder after an attempt at voiding. Ideally, the volume should be less than 60cc (2oz) after urination.



UROCUFF

A test designed to help your provider evaluate how your bladder contracting and bladder emptying abilities are functioning. The test usually takes about 10 minutes to complete. You will be asked to drink 24oz of water 30 minutes prior to arriving to the clinic. When you have an uncomfortably full bladder, you will be brought to a treatment room for the test. A small cuff, similar to a blood pressure cuff, will be placed around your penis. Small electrodes will be placed on your abdomen and next to your anus. While you void, the cuff will slowly inflate and deflate a series of times until you have completely emptied your bladder. This exam may be completed more than once throughout your treatment in order to track the progress of your symptoms and recovery.





URODYNAMIC STUDY

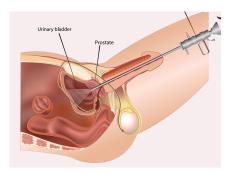
A test designed to help your provider understand how well your bladder stores and empties urine along with functional capacity. During the test, a small catheter will be inserted into both the bladder and the rectum. The bladder will slowly be filled with water and you will be asked a series of questions about your sensation as this occurs. During the filling, you will also be asked to cough and bear down so leakage can be assessed. After your bladder has been filled, you will be asked to urinate.

CYSTOSCOPY

A flexible tube inserted through the penis, past the prostate and into the bladder. This will give the provider valuable information regarding the urethra, any obstruction being caused by the prostate gland and the health of the bladder.

TRANSRECTAL ULTRASOUND

Transrectal ultrasound (TRUS) a 5- to 15-minute outpatient procedure that uses sound waves to create a video image of the prostate gland. In short, it is a method of creating an image of organs in the pelvis, most commonly used to perform an ultrasound-guided needle biopsy evaluation of the prostate gland in men with enlarged prostates, elevated prostate specific antigen (PSA) or prostatic nodules on digital rectal exam.



CYSTOSCOPY

BPH TREATMENTS

Benign Prostatic Hyperplasia requires treatment only if the symptoms are bothersome or urinary function is seriously affected. If your symptoms are not bothersome enough, you and your doctor may decide on a course of "watchful waiting" – involving yearly or more frequent checkups. If your symptoms are more bothersome, there are several methods of treatment available to men affected by BPH. Your doctor can discuss these treatments with you to determine which is most appropriate for your condition.



MEDICATION: FOUR TYPES OF MEDICATION ARE CURRENTLY BEING USED IN THE TREATMENT OF BPH.

Alpha-blockers are medications that can relax the muscle tissue in the prostate and, in this way, may relieve part of the blockage.

The second type of medication, 5-alpha-reductase inhibitors, partially shrinks the enlarged prostate by blocking the effect on the prostate of the major male hormone, testosterone.

The third medicine is a specific phosphodiesterase inhibitor called Cialis (and actually it is the daily, ow-dose form of this medication indicated for the treatment of BPH). The exact mechanism of action is not clear but it has the added benefit of also potentially improving the patient's erectile function.

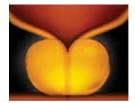
The final category of "medication" is herbal products, the most commonly used being saw palmetto. Many men get significant symptom relief with these over the counter "supplements." One drawback to herbal products is the lack of standardization of their content and labeling since they are not regulated closely by the FDA.

THE UROLIFT® SYSTEM

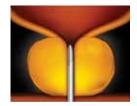
The UroLift® System is a innovative approach to treating BPH that lifts and holds the enlarged prostate tissue out of the way so it no longer blocks the urethra. It is the only BPH procedure that does not require ongoing BPH medications, cutting, heating or removal of the prostate tissue.

Treatment with the UroLift® System is typically a one-time, in-office solution that provides rapid relief and recovery of BPH symptoms. It can break the cycle of medications and how they make a person feel, all without the risks of more invasive surgery. The goal of the UroLift System treatment is to relieve symptoms so you can get back to your life and resume your daily activities.

Benefits of the UroLift System include: does not cause new onset, sustained erectile or ejaculatory dysfunction, minimally invasive, minimal downtime, durable results, rapid symptom relief and recovery, and significant improvement in quality of life.



Enlarged Prostate
An enlarged prostate
can narrow or even block
the urethra.



Step 1
The Urolift Delivery Device is placed through the obstructed urethra to access the enlarged prostate.



Step 2
Small Urolift implants are
permanently placed to lift and
hold the enlarged prostate
tissue out of the way.



Step 3
The Urolift Delivery Device is removed, leaving an open urethra designed to provide symptom relief.

RF7ŪM

Rezūm is a minimally invasive procedure used to reduce the symptoms of BPH, by using water vapor therapy. It is an is an outpatient procedure, which is performed in one visit. This treatment does not require general anesthesia. Symptoms of BPH may improve in as little as two weeks. If you have BPH or are experiencing symptoms, speak with your Urology Centers of Alabama physician, to see if Rezūm is the right treatment option for you.

The treatment involves applying small amounts of steam to the prostate. When this occurs, the cells causing the obstruction are damaged, which helps reduce the overall size of the prostate. Rezūm not only reduces the size of the prostate, but also the symptoms associated with BPH such as:

- A weak urine stream
- · Trouble starting the flow of urine
- Starting and stopping again when urinating
- Not emptying your bladder completely
- · Urinating more often, especially at night
- Sudden urges to urinate
- Leaking or dribbling after you urinate
- · Straining to urinate

TRANSURETHRAL RESECTION OF THE PROSTATE (TURP OR "STANDARD" TURP)

Transurethral resection of the prostate is a surgical procedure, which has been done for decades. It involves inserting a scope into the urethra (the tube inside of the penis) and surgically removing a portion of the obstructing prostate tissue. This procedure reduces pressure on the urethra, which is being "pinched" by the enlargement of the surrounding prostate. No external incisions are made, it is all done through the scope inside the urethra. TURP remains an excellent treatment for BPH although it does introduce some surgical risk. A newer technology which decreases bleeding and speeds healing is called a "bipolar TURP." What makes this different is the electrical energy source used to cut through the tissue being removed and the ability to be done as an outpatient. Both forms of the TURP have the slight advantage of providing tissue to examine under the microscope. In uncommon instances where the possibility of prostate cancer is an unanswered question, this can be desired.

VISUAL LASER ABLATION OF PROSTATE (VLAP), ALSO CALLED A "LASER TURP/GREEN LIGHT"

Like a TURP as described above, the VLAP eliminates the obstructing prostate tissue. This is achieved by vaporizing the tissue with high energy from a laser inserted and directed through the scope. It generally involves less bleeding, less pain and a shorter recovery time than a standard TURP, although it still requires an anesthetic. Its disadvantage is that a very large prostate may not be adequately treated with this procedure. The most commonly used laser for this procedure is the "Green Light".

TRANSURETHRAL VAPORIZATION OF PROSTATE (TUVP)

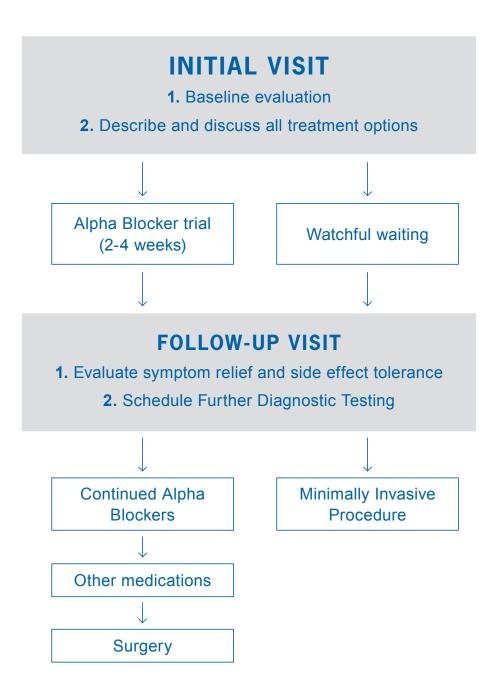
This is basically the same as the VLAP, except that the energy source used to vaporize the obstructing prostate tissue is electrical instead of laser.

SUBTOTAL PROSTATECTOMY

If the prostate is really large, the above options are less successful than desired. For such prostates a "subtotal" is a better choice. If you think of the prostate like an orange with the urethra running through its middle, it is the pulp that blocks the flow of urine. All of the above procedures remove the "pulp" while leaving the "peel" intact. A subtotal prostatectomy utilizes a laparoscopic approach requiring several small (1/2 - 1") lower abdominal incisions. The surgeon uses lighted instruments to open the "peeling" and remove the "pulp." The peeling is then sewn back together. This is very effective for very large prostates.

CARE PATHWAY: ENLARGED PROSTATE

Rest assured that our team of specialists can guide you through the available treatment options to find the solution that is right for you.



INTERNATIONAL PROSTATE SYSTEM SCORE (IPSS)

The American Urological Association (AUA) created a questionnaire to help men determine how bothersome their urinary symptoms are and to check how effective their treatment is.

Could you benefit from treatment for BPH? Please pick the answer that best describes your response to each of the following questions.

0=Not at All 3=About half the time 1=Less than 1 time in 5 4=More than half the time 2=Less than half the time 5=Almost Always Incomplete emptying over the past month, how often have you had a sensation of not emptying your bladder completely after you have finished urinating? 0 1 2 3 4 5 Frequency over the past month, how often have you had to urinate again less than 2 hours after you have finished urinating? 0 1 2 3 4 5 3 Intermittency over the past month, how often have you found you stopped and started again several times when you urinated? 0 1 2 3 4 5 Urgency over the past month, how often have you had a weak urinary stream? 0 1 2 3 4 5 5 Weak Stream over the past month, how often have you had a weak urinary stream? 0 1 2 3 4 5 Straining over the past month, how often have you had to push or strain to begin urination? 0 1 2 3 4 5 Nocturia over the past month, how many times did you most typically get up to urinate from the time you went to bed at night until the time you got up in the morning? 0 1 2 3 4 5 SCORE

Add the numbers from your answers to questions 1 through 7. The maximum possible score is 35. Remember: This information is not intended as a substitute for medical treatment.

Note: This test is used to measure the severity of your symptoms. This is not a diagnostic test. In other words, it will not tell you whether or not you have BPH. Talk to your doctor to determine if your symptoms are due to BPH. Adapted from Barry MJ, et al. The American Urological Association symptom index for benign prostatic hyperplasia. J Urol. 1992; 148: 1549-1557.

NOTES:

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