



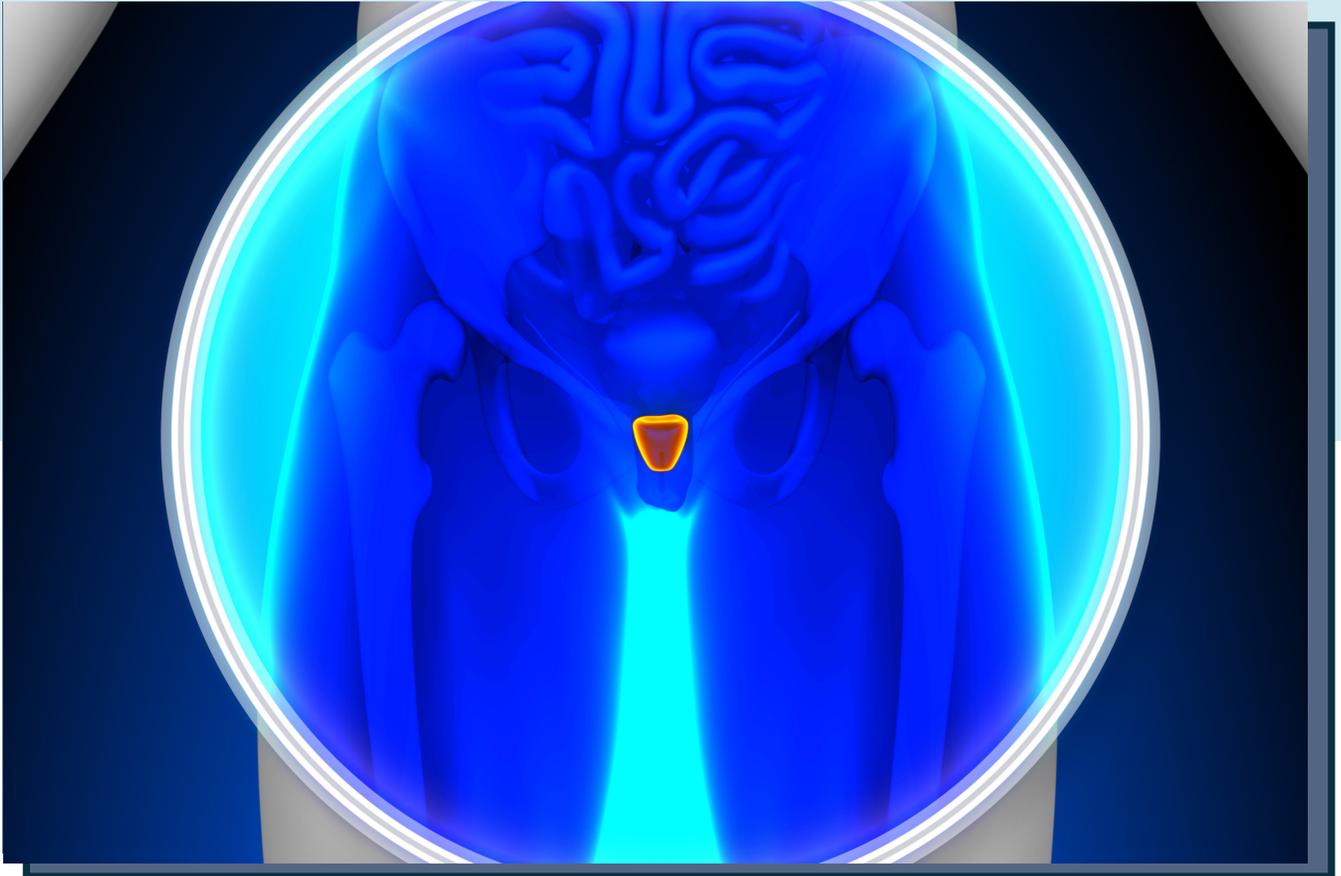
BENIGN PROSTATIC HYPERPLASIA & PROSTATIC ARTERY EMBOLIZATION



ADVANCED VASCULAR
CENTERS

Written by the physicians of
Advanced Vascular Centers

Benign Prostate Hyperplasia (BPH)



BENIGN PROSTATIC HYPERPLASIA (BPH) is a common non-cancerous increase in prostate size causing obstruction of urine which affects 50% of men over 60 and 80% of men over 70. BPH commonly leads to urinary problems known as lower urinary tract symptoms (LUTS).

The prostate is a walnut sized gland located between the bladder and the penis. The urethra, a channel bringing urine from the bladder to the penis, can become blocked as the prostate enlarges and leads to LUTS.

Increased frequency and/or incomplete urination, night-time urination, weak urinary stream and feeling an urgent need to urinate are some symptoms of LUTS. Having BPH does not increase your risk for prostate cancer.

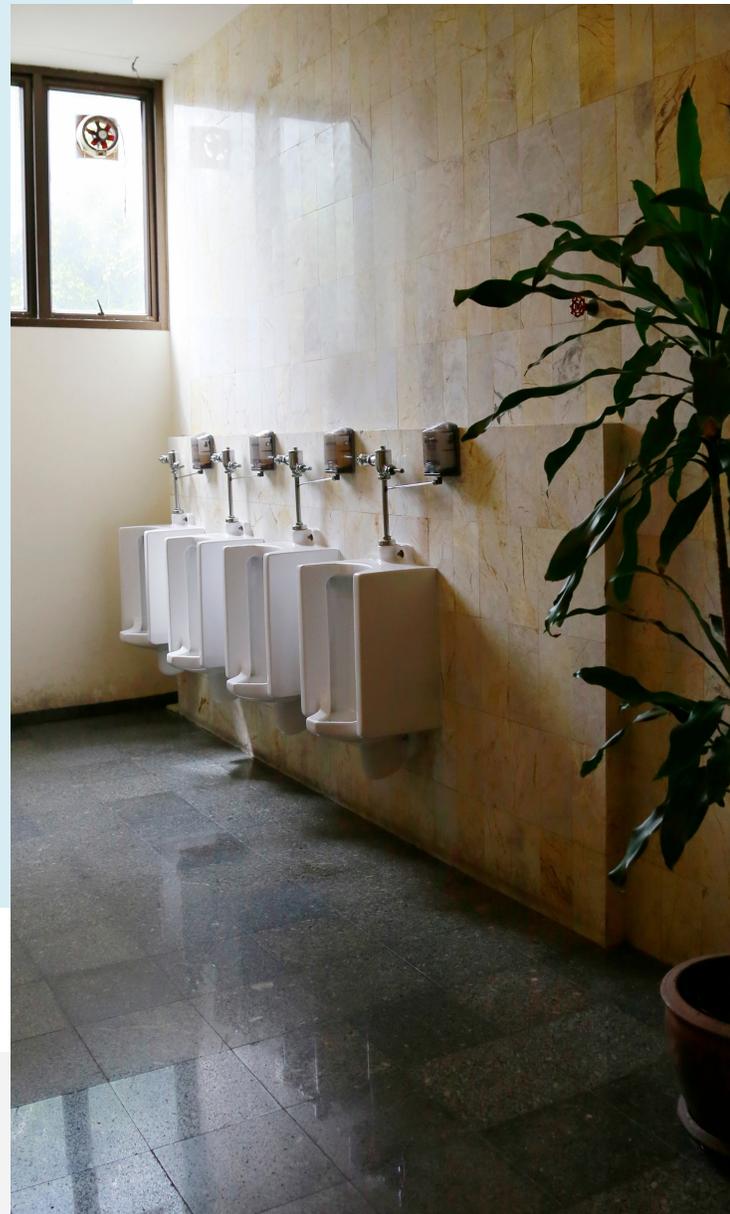
WHAT ARE THE SYMPTOMS OF BPH/LUTS?

- Frequent or urgent need to urinate
- Increased frequency of urination at night
- Hesitancy - Difficulty starting urination
- Weak urine stream or a stream that stops and starts
- Dribbling at the end of urination
- Inability to completely empty the bladder
- Feeling an urgent need to urinate
- A short period of time between the urges to urinate

Untreated BPH may lead to severe issues such as urinary tract infections, bladder stones, blood in urine, & kidney failure.

HOW TO GET A BPH DIAGNOSIS

BPH is diagnosed based on medical history, blood tests (e.g., Prostate Specific Antigen (PSA)), & rectal exam (e.g., digital, ultrasound). If you have symptoms of LUTS, you may be eligible for a non-surgical treatment called prostate artery embolization (PAE).



It is not clear why some men develop symptoms of BPH and others do not. The prostate normally enlarges in all men with advancing age, although not all men require treatment. Some experts believe that a family history increases the risk of developing BPH whereas frequency of sex and having a vasectomy do not increase the risk of developing BPH.



Medicines & surgery have traditionally been the only treatments until PAE became available as a proven advanced option. You may be eligible for PAE if medicines are not effective, surgery is not desired or contraindicated, you don't have prostate cancer and you pass screening tests. AVC physicians are experts in performing PAE to improve LUTS.

WHAT ARE THE TREATMENT OPTIONS FOR BPH?

BPH TREATMENTS include lifestyle modifications (mild symptoms), medications (moderate symptoms) PAE (moderate/severe symptoms) or surgery (severe symptoms).

Lifestyle Changes

Some men have success managing frequent urination by: (1) stopping drinking fluids a few hours before bedtime or going out; (2) avoiding or drinking less fluids that can make you go more often, like caffeine and alcohol; and (3) "double voiding" - after you empty your bladder, you wait a moment and try to go again.

Medicines

The types of medicine used to treat BPH include alpha blockers, phosphodiesterase inhibitors, and alpha-reductase inhibitors. Medicines are chosen depending on your medical history and medicine side effects such as dizziness and erectile dysfunction. Men who have erectile dysfunction may consider a phosphodiesterase inhibitor over the other options. Most men with BPH who start taking a medicine will need to take it forever to relieve symptoms unless they have a more definitive treatment such as surgery or PAE.

Surgery

Most surgeries are performed by insertion of surgical tools through the penile urethra. The different surgeries have their own advantages and disadvantages. The best surgical option depends upon the size and location of enlarged prostate tissue, the surgeon's expertise, and your preferences. Transurethral resection of the prostate (TURP) has been used extensively in the past and remains a common transurethral procedure for moderately enlarged BPH. The Urologist inserts special instruments through the urethra to cut and remove pieces of the enlarged prostate. Most men stay in the hospital overnight after the surgery and complications can include bleeding, sexual dysfunction including retrograde ejaculation, and problems with urination. Other surgical options include total prostatectomy, prostate ablation, and laser enucleation of the prostate.

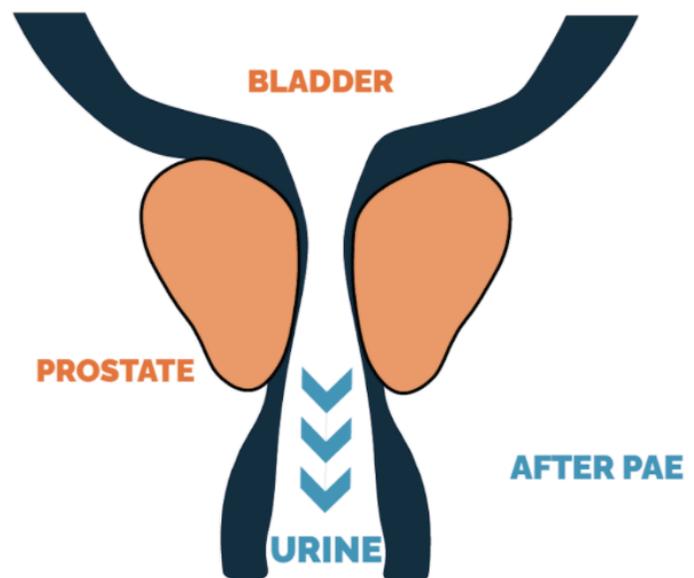
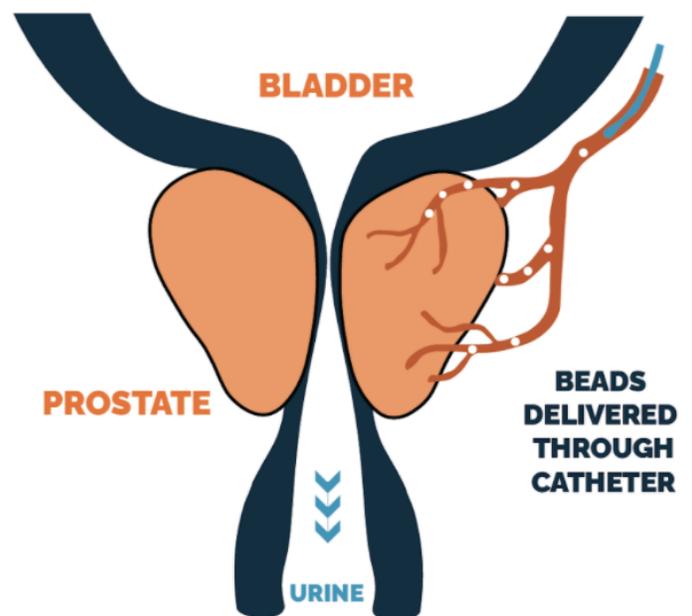
PROSTATE ARTERY EMBOLIZATION

Candidates for the procedure typically meet the following conditions:

- Men over the age of 40
- Have lower urinary tract symptoms, such as difficulty urinating, frequent urination or urinary retention requiring catheterization, caused by an enlarged prostate
- Have not responded to medical therapy or have side effects from medication such as dizziness, fatigue or sexual dysfunction
- Have been screened for prostate cancer risk

PROSTATE ARTERY EMBOLIZATION (PAE) is a non-surgical procedure, performed through a tiny pinhole in the skin. Advanced state-of-the-art imaging is used to guide a small catheter to the prostate arteries. Then tiny beads—the size of grains of sand—are released to block the blood flow to the prostate causing it to shrink & improve urine flow.

PAE is a proven, safe, same-day procedure. The majority of patients have no or mild soreness after the procedure. Most patients are back to their baseline level of activity 1-2 days after the procedure. Studies demonstrate >80% of patients have significant improvement of their urinary symptoms after PAE. All surgical options are preserved after PAE for the small number of patients whose symptoms do not improve after treatment.



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THE OUTPATIENT DIFFERENCE

When you get treatment at one of AVC's outpatient labs, you will receive the highest level of exceptional care.

- cutting edge non-surgical procedure
- solves urination problems
- reduced pain & fast recovery
- safe with low rate of side effects
- erectile & sexual functions are maintained
- effective lasting results
- same-day outpatient care
- comfortable sedation/anesthesia

We hope that this information has been useful and has helped you better understand the common symptoms and current treatment options for benign prostatic hyperplasia. Advanced Vascular Centers is a national medical group specializing in interventional radiology. Our team of highly skilled physicians, dedicated providers, and creative administrators are committed to creating an environment that prioritizes patient experience, positive results, and advanced care.



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