

Surgical Management of BPH

Throughout a man's life, his prostate may grow and start to cause problems as he ages. But what are some of those problems? Why are many urologists recommending surgery as a way to fix those problems? What are some of the surgical options available? The following should help answer those questions.

What is the prostate?

The prostate is part of the male reproductive system, is about the same size and shape as a walnut and weighs about an ounce. It is located below the bladder and in front of the rectum and surrounds the urethra, the tube-like structure that carries urine from the bladder out through the penis. The main function of the prostate is to produce ejaculatory fluid.

What is BPH?

Benign prostatic hyperplasia (BPH), previously referred to as prostatism, is a common urological condition caused by the non-cancerous enlargement of the prostate gland in aging men.

What are some of the risk factors for BPH?

Risk factors for developing BPH include increasing age and a family history of BPH.

What are some of the symptoms associated with BPH?

Since the prostate surrounds the urethra just below the bladder, its enlargement can result in symptoms that irritate or obstruct the bladder. A common symptom is the need to frequently empty the bladder, especially at night. Other symptoms include difficulty in starting the urine flow or dribbling after urination ends. Also, size and strength of the urine stream may decrease.

How is BPH diagnosed?

In order to help assess the severity of such symptoms, the American Urological Association (AUA) BPH Symptom Score Index was developed. This diagnostic system includes a series of questions that target the frequency of the urinary systems identified above, and as a result, helps identify the severity of the BPH — ranging from mild to severe.

There are a number of diagnostic test procedures that can be used to confirm BPH. The tests vary from patient to patient, but the following are the most common: digital rectal examination (DRE), PSA test, rectal ultrasound, urine flow study, intravenous pyelogram and cystoscopy.

When is surgical treatment suggested as a form of treatment?

When medical therapy fails, surgery is required to remove the obstructing tissue. Surgery is almost always recommended for men who are unable to urinate, have kidney damage, frequent urinary tract infections, significant urethral bleeding or stones in the bladder.

What are the different surgical treatments available?

Removal of the prostate can be accomplished in several different ways. The location of the enlargement within the prostate and the patient's general health will help the urologist determine which of the three following procedures to use.

Transurethral resection of the prostate (TURP): Transurethral resection is the most common surgery for BPH. In the United States, approximately 200,000 people have TURPs performed each year. After the patient receives anesthesia, the surgeon inserts an instrument called a resectoscope through the tip of the penis into the urethra. The resectoscope contains a light, valves for controlling irrigating fluid and an electrical loop that cuts tissue and seals blood vessels. With this instrument, obstructive prostate tissue is removed one piece at a time. The removed tissue pieces are carried by the irrigating fluid into the bladder and then flushed out and sent to a pathologist for examination under a microscope. At the end of the procedure, a catheter is placed in the bladder through the penis. The bladder is continuously irrigated with fluid through the catheter in order to monitor bleeding and prevent blood from clotting and obstructing the catheter. Since there are no surgical incisions with this procedure, patients normally stay in the hospital only one to two days. Depending on surgeon preference, the catheter may be removed while the patient is still in the hospital or the patient may be sent home with the catheter in place, attached to a leg bag for convenience and removed several days later as an outpatient procedure.

Transurethral incision of the prostate (TUIP): Transurethral incision is used for men with smaller prostate glands who suffer from significant obstructive symptoms. Instead of cutting and removing tissue to relieve the obstructed bladder, this procedure widens the urethra by making several small cuts in the bladder neck where the urethra joins the bladder and in the prostate itself. This reduces the pressure of the prostate on the urethra and makes urination easier. Patients normally stay in the hospital one to three days. A catheter is left in the bladder for one to three days after surgery.

Open prostatectomy: When a transurethral procedure cannot be done, open surgery may be required. Open prostatectomy for BPH is also performed for a prostate that is too large to remove through the penis. Other reasons for choosing an open prostatectomy include patients with large bladder diverticula, with large bladder stones and who cannot physically tolerate having their legs placed in stirrups for TURP/TUIP surgery.

An incision is made in the abdominal wall from below the belly button to the pubic bone. The prostate gland can then be removed in its entirety through either an incision in the fibrous capsule surrounding the prostate (retropubic prostatectomy) or through an incision made in the bladder (suprapubic prostatectomy). Postoperative pain is mild to moderate. Patients usually stay in the hospital for several days and go home with a urinary catheter. In some cases a second catheter draining the bladder through the lower abdominal wall is used.

What can be expected after treatment?

Postoperatively, patients typically experience significant improvement in their symptoms (table 1). As with any operative procedure, complications do exist. Some occur in the early postoperative period (table 2) while others may occur many years later (table 3).

Table 1: Overall improvement in patient symptoms

TURP	TUIP	Open
88%	80%	98%

Table 2: Immediate post-operative complications

	TURP	TUIP	Open
Infection	15%	13%	13%
Bleeding requiring transfusion	5-10%	1%	8%
Impotence	14%	12%	17%
Retrograde ejaculation	73%	25%	77%
Incontinence	1%	<1%	<1%

Table 3: Late post-operative complications

	TURP	TUIP	Open
Stricture and bladder neck contracture (scar tissue causing obstruction)	4%	3%	4%
Additional surgery within 5 years	10%	9%	2%

Frequently asked questions:

Will surgery for BPH affect my ability to enjoy sex?

Most urologists say that even though it takes a while for sexual function to return fully, most men are able to enjoy sex again. Most experts agree that if you were able to maintain an erection shortly before surgery, you will probably be able to do so after surgery. Most men find little or no difference in the sensation of orgasm although they may find themselves suffering from retrograde ejaculation.

Is BPH a rare condition?

No, it is very common. It will affect approximately 50 percent of men between the ages of 51 and 60 and up to 90 percent of men over the age of 80.

Does BPH lead to prostate cancer?

No, BPH is not cancer and cannot lead to cancer, although both conditions can exist together. There are usually no symptoms during the early stages of prostate cancer, so yearly physical examinations and PSA testing are highly recommended.