

PROSTATE DISORDERS OTHER THAN CANCER

BENIGN PROSTATIC HYPERPLASIA (BPH)

by Stanley Brosman M.D.

Our prostates begin to grow when we are around 40 years old. There are usually no symptoms until our pattern of urination begins to change. Our urine flow becomes weaker; we have to urinate more often during the day and especially at night. It may take longer to start urinating and the flow doesn't stop as quickly as it once did. The changes are subtle but by the time we are in our 60's, we discuss our symptoms with our doctor.

The change in the prostate is known as BPH which is a benign growth that develops in one particular portion of the prostate in response to hormonal changes. This segment of the prostate surrounds the urethra and is the only part of the prostate that gets bigger. It rarely develops a cancer. The portion of the prostate that does develop cancer is located on the outside edge and ordinarily this part of the prostate does not grow unless there is a cancer.

The symptom complex associated with BPH varies and several terms are used to describe the condition. LUTS (Lower Urinary Tract Symptoms) is the general term used by urologists. We may also have an overactive bladder (OAB) with or without BPH and a bladder outlet

obstruction (BOO) with or without BPH. Our doctor may prescribe some medications or refer us to a urologist for further evaluation and treatment.

There are two main classes of drugs that are prescribed. The first group are known as alpha-blockers that work by producing relaxation of the muscles around the urethra and contained within the enlarged



segment of the prostate. These agents include generics such as tamsulosin (FLOMAX®), and doxazosin and brand name drugs such as Uroxatrol® and Rapaflo®. They are taken daily and their effect is noticed in a few

days. There is less frequency and urgency and the urine flow is stronger.

The second class of drugs is known as 5-alpha-reductase inhibitors and the two agents in this category are finasteride (Proscar®) and dutasteride (Avodart®). They make the prostate smaller and once the reduction in size occurs over 4-6 months, the prostate will exhibit no further growth. As a result of the reduction in prostate size, the PSA declines around 50%. The alpha blockers do not affect the PSA.

Depending upon many factors one or both agents may be prescribed. There is usually little change in symptoms associated with finasteride or dutasteride. If your primary care physician or internist has prescribed these medicines, they will decide the value of their long-term use that will be related to their effectiveness. If these medications do not alter the symptoms, a referral to a urologist is recommended.

The urologist will conduct several studies to learn more about the condition. Symptoms are quantified by the use a questionnaire known as the American Urological Symptom Score (See Figure 1).

| FIGURE 1. AMERICAN UROLOGICAL ASSOCIATION PROSTATE SYMPTOM SCORE | | | |
|---|---|----------|--------------------------------|
| For questions 1-7, answer as follows: | | | |
| 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 |
| 1 | Over the past month, how often have you had the sensation of not emptying your bladder completely? | | |
| 2 | Over the past month, how often have you had to urinate again less than two hours after you finished urinating? | | |
| 3 | Over the past month, how often have you stopped and started when urinating? | | |
| 4 | Over the past month, how often have you found it difficult to postpone urinating? | | |
| 5 | Over the past month, how often have you had a weak urinary stream? | | |
| 6 | Over the past month, how often have you had to push or strain to begin urinating? | | |
| 7 | Over the past month, how many times did you most typically get up to urinate from the time you went to bed until the time you got up in the morning? Answer 0 - 5 (max) | | |
| Your AUA Prostate Symptom Score – total of above | | | |
| Mild BPH = 1 to 7 Moderate = 8 to 19 Severe = 20 to 35 | | | |

There are seven questions with a total score ranging from 0-35. A score of less than 7 indicates a mild problem requiring no therapy whereas a score greater than 20 indicates a potentially serious problem. The urine flow rate will be measured, the ability to empty the bladder will be assessed, the size of the prostate is determined by ultrasound and a rectal exam is made to feel for “lumps” or “hard” areas. The PSA is evaluated and the testosterone level may be checked. The PSA often correlates with the size of the prostate in that a bigger prostate usually produces more PSA. With this information, the urologist can suggest a plan of management.

For most men, a trial of medical therapy is initiated and after several months another assessment is made

to determine the response on both the subjective symptoms and objective data. If the therapy is effective and well tolerated, the medications are continued indefinitely because if they are stopped, the symptoms will rapidly recur.

In some men, the condition has progressed to the stage that an additional intervention in the form of a procedure is necessary. Examples include the inability to urinate at all, urinary retention, a bladder that has gotten so weak that only a small portion of its contents are being evacuated and if there is evidence of damage to the kidneys.

The interventions include the immediate need to place a catheter into the bladder in order to drain the urine, a microwave procedure, a

laser procedure to eliminate the inner portion of the prostate, transurethral resection of the prostate (TUR-P) in which the inner portion of the prostate is removed by cutting away small pieces. In men with very large prostates, a surgical incision in the lower abdomen is needed to remove the enlarged segment of the prostate. In none of these procedures is the entire prostate removed. These are not cancer surgeries although the tissue is inspected by the pathologist for signs of cancer. Some of the laser surgeries vaporize the prostate and there is no tissue for the pathologist to examine.

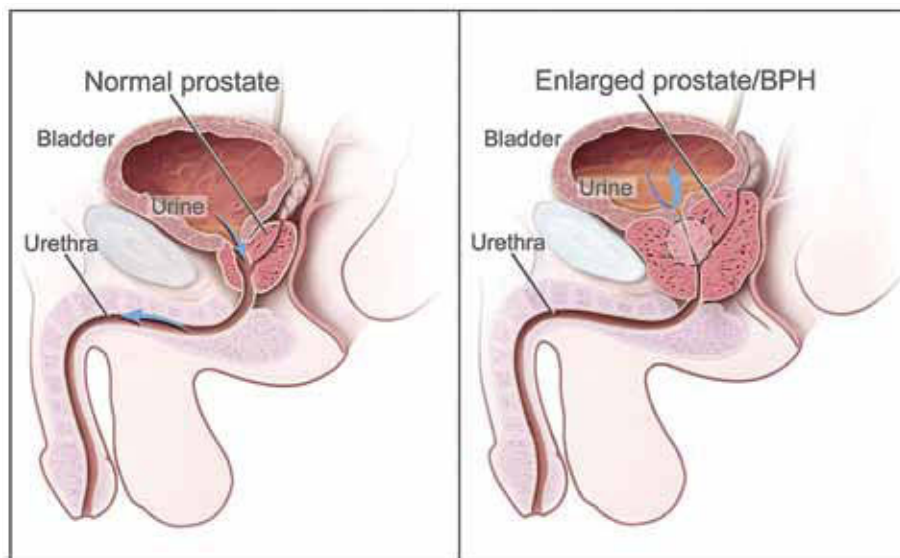
Regardless of which procedure is performed, the intent is to remove the enlarged segment of the prostate and eliminate the obstruction. A catheter is usually necessary afterwards until some healing has occurred. This can range from days to weeks depending on the condition of the bladder. It takes six to eight weeks before the prostate and urethra has healed. It may take longer for bladder function to improve. After recovery is completed, function is expected to be that of a 20 year old and usually no more medication is necessary.

Let’s talk about side-effects. There are no free rides and any intervention, be it medical or surgical, may produce side-effects. The alpha-blockers may cause a drop in blood pressure men may experience “light headedness”. They may also produce a condition known as retrograde ejaculation in which no semen is expelled with ejaculation. Finasteride and Avodart may suppress sexual function and cause breast enlargement. In a small number of men, libido and erectile function are compromised.

The microwave procedure is usually done in the office with local anesthesia. A special catheter is placed into the bladder. Its heating coil raises the internal (Continued on page 22)

temperature to around 40 degrees centigrade. The treatment takes around 45 minutes. Afterwards a regular catheter is placed into the bladder and it may remain for several days. There is no tissue obtained from this procedure and the urologist may recommend a prostate biopsy prior to the procedure. Neither sexual function nor bladder control tends to be compromised with this procedure. This is one of its favorable features. It takes about six weeks to ascertain the effectiveness of the microwave procedure.

There are several types of lasers used to treat the prostate. These procedures are usually done under anesthesia as an out-patient in either the hospital or a surgery center. The “Green-light” laser and the Holmium laser vaporize the tissue. An instrument is placed into the urethra through which the laser probe is passed. The interior of the prostate is visualized and the obstructing tissue is vaporized. There is minimal bleeding associated with these procedures although a catheter is generally placed afterwards and left in the urethra until the urine appears clear. The laser procedures have largely supplanted the TUR-P that your father had because of their safety and efficacy.

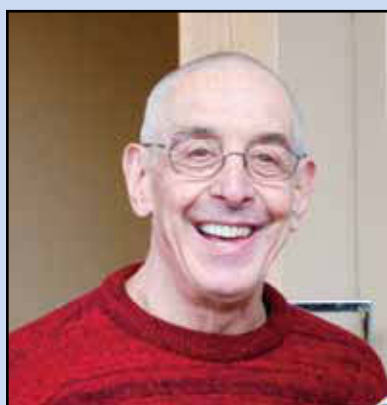


Normal Versus Enlarged Prostate Gland

Retrograde ejaculation accompanies these laser procedures as well as the TUR-P and the procedure requiring a surgical incision. Incontinence is uncommon but some men do experience a decrease in erectile function. The quality of urination is usually excellent. The amount of bleeding is minimal and there is very little pain associated with these procedures. It’s no fun to have a catheter in place but once removed, urination begins and the recovery phase is associated with little pain or limitation of activity.

There are no age restrictions for any of these procedures. An individual’s health needs to be assessed beforehand to be sure that an anesthetic can be safely tolerated.

The secret for success is the institution of therapy before bladder function has become severely compromised. If the bladder muscle has been weakened to the point that is no longer able to function, none of the medications or procedures may rectify the problem. It’s wise to be checked periodically to determine the status of the urinary system.



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