Prostate surgery: transurethral resection of the prostate (TURP)

What is the prostate?
The prostate is a gland about the size of a walnut that is only present in men. It is located just below the bladder and surrounds the urethra, the tube through which urine flows from the bladder and out through the penis. The prostate gland contributes to the seminal fluid produced during ejaculation, and has an important function in fertility.

What is a TURP?
A transurethral resection of the prostate (TURP) is an operation to treat urinary blockage caused by an enlarged prostate. When the prostate tissue enlarges, it squeezes inward on the urethra causing some or all of the following symptoms:

- the need to urinate often (frequency)
- the need to urinate in a hurry (urgency)
- the need to get up at night to urinate (nocturia)
- difficulty starting urination (hesitancy)
- difficulty stopping urination (terminal dribbling)
- weak stream
- incomplete emptying of the bladder
- urinary retention (complete obstruction of the urethra, presents with severe pain and the inability to pass urine). Retention is temporarily managed with the insertion of a catheter to drain the bladder.
Why do I need a TURP operation?
- To improve urine flow and bladder emptying.
- To treat acute retention and complete blockages.
- To prevent kidney damage caused by pressure forcing urine back towards the kidneys.
- To reduce bladder infections and bladder stones caused by poor bladder emptying.

In some cases, the operation is necessary to prevent complications. In other situations it is one of a range of options to improve the symptoms caused by an enlarged prostate.

Deciding to have a TURP operation
To assist in the decision-making process, your surgeon may arrange for you to:
1) complete a symptom score questionnaire determining how bothersome your condition is
2) have a digital rectal examination (DRE) to assess prostate size
3) have a flow and ultrasound residual. This records the rate at which you pass urine, and the amount you retain after passing
4) possibly provide a urine specimen to check for infection
5) receive blood tests to determine the likelihood of cancer (PSA), and the health of the kidneys (creatinine).

Other factors, including your general health, will be taken into consideration when deciding whether to proceed with the operation.

What happens before my operation?
The operation and outcomes will be explained to you by your surgeon. When you feel comfortable that you understand what is to be done and have had all your questions answered, you will be asked to sign a consent form.

This form should be signed by you and your surgeon, and forwarded to the hospital a few days prior to your admission. A blood test will need to be performed, and a urine sample may need to be taken in the days prior to surgery.

Your surgeon will give you a form to take to the laboratory to have these tests done. A chest X-ray may also be requested. If you are over 60 or have other medical problems, you may also have an electrocardiogram (ECG) to record the electrical activity of your heart. It is important to avoid constipation. Try to establish and maintain a regular, soft bowel habit leading up to your operation. Identify the foods that can help you maintain a regular bowel habit for your post-operative period.

What happens on the day of my operation?
You will be advised when to come to hospital, this is usually on the day of surgery. On arrival to the ward the staff will show you to your bed and guide you through what is required before your operation. It is advised you stop eating and drinking at least six to eight hours before surgery. You should bring all your own medications with you to hospital. Please inform your surgeon if you are taking any anticoagulant medication (such as warfarin or aspirin). The choice of spinal or general anaesthetic will be decided after discussion with the anaesthetist. This usually occurs in your hospital room pre-operatively. Just before surgery you may be given a premedication tablet to relax you. You will be encouraged to start deep breathing and coughing exercises pre-operatively. This prevents any breathing complications or chest infection occurring following the surgery and anaesthetic.
What happens during the operation?
During the operation, a telescopic instrument called a resectoscope is passed up the urethra (the bladder outlet). This is used to chip away the enlarged prostate tissue. This process is achieved by a wire loop that has an electrical current running through it. This loop both cuts and seals blood vessels. After the operation, the bladder is flushed with a solution to remove the chippings of prostate tissue. A catheter (a thin flexible tube) is then inserted through the urethra into the bladder. The urine will then drain via the urethra into a catheter bag. The operation usually takes from 30 to 60 minutes, depending on the size of the prostate gland.

What to expect after your operation
You will probably be in hospital two to three days following this type of surgery. When the operation is completed, you will go to the recovery room for a short while where you will be cared for until you are ready to be transferred to your room. When you wake up it is common to feel an urgent desire to pass urine. This is due to the catheter in your bladder. As the anaesthetic wears off, you may experience some pain. Your nurse will relieve this with medication. You will have a drip or intravenous (IV) line in the arm to prevent dehydration. This will be removed once you are drinking enough – usually after one night. If you have had a spinal anaesthetic, you will be asked to lie flat for several hours after returning to the ward to allow for the anaesthetic to wear off.
Your nurse will monitor your catheter drainage, which is likely to be blood stained for the first few days. You may have continuous bladder irrigation (instillation of sterile fluid into the bladder, flushing blood and debris out through the catheter). The bladder irrigation continues until the morning after surgery at which time it is usually removed. Occasionally a blood clot may block the catheter requiring your nurse to clear it. Your catheter usually is left in overnight and removed two days after surgery. The catheter is removed by deflating the balloon holding it in place. Once the balloon is deflated, the catheter slides out easily causing little discomfort. Our aim is to keep you as comfortable as possible, it is important to let your nurse know when the pain or discomfort starts. At all times, your nurse is there to help you, please ring your bell if you need assistance and your nurse is not nearby.

Once the catheter comes out you may at first have a burning sensation when passing urine. However, if the burning sensation lasts for longer than three days, or there is sign of infection or obstruction it is important you contact your surgeon or GP. After surgery, you may or may not experience some of the following symptoms:

- A burning sensation and a strong desire to go to the toilet – these symptoms are due to the passage of urine over the healing area of the urethra following the removal of the prostate tissue. This can be easily treated with mild pain relievers and medication, which change the acidity of the urine. These symptoms should resolve after four to six weeks.

- A stinging or burning sensation at the tip of the penis where the catheter enters. This is generally due to irritation and may be relieved by increasing fluid intake or ensuring the catheter is well supported.

- Bladder spasms (short, sharp, grabbing pains). This is due to the bladder trying to expel the catheter because of irritation. These are easily treated with medication.

You are usually ready for discharge on the same day the catheter is removed.

After discharge

- You will receive a follow-up appointment in the post, usually for six weeks after your operation. We will send a letter to your own doctor about your operation and the details of your treatment while you were in hospital.

- You will be asked to drink extra fluids after your surgery and for the next few weeks after you are discharged. This helps flush the bladder, clears up bleeding, and washes away debris.

- It takes time for the surface inside the prostate cavity to heal. Until it does you may have some discomfort passing urine, and experience some urgency, frequency, and nocturia. These symptoms will subside as healing progresses and can be relieved with the help of mild pain relievers and other medication that you will be informed about.

- You may notice that you pass blood when going to the toilet – this is usually at the beginning of the urine stream. This is normal after this surgery. The urine may clear totally, although sometimes for up to six weeks after your surgery you may get some occasions of slight bleeding. This is part of the normal process of healing and you need not be concerned. However if you have fresh heavy bleeding that does not stop or if you are unable to pass your urine at all it may be due to a blood clot blocking the urethra. If either of these unlikely events should occur you should contact your surgeon or GP immediately or go to your nearest Emergency Department.
You can do most activities after your operation except any heavy lifting, straining, playing golf, intercourse, or strenuous activity – which should be avoided for two to three weeks after surgery. You will be able to continue with your normal daily routines as you feel able.

Generally you can resume driving when you feel that you could perform an emergency stop without being concerned about abdominal pain (at about three weeks).

If you have increased bleeding, initially decrease activity and drink more fluid. However if symptoms persist, contact your surgeon or GP.

Results of your operation
Most patients can expect a significant improvement in flow and a permanent reduction in frequency.

- The symptom of getting up at night to pass urine may remain. This symptom may have become habit. Also, as you get older you tend to make more urine at night.
- The frequent passing of urine usually gets less as the bladder wall returns to normal and the swelling from the surgery disappears.
- The delay in starting your urinary stream normally disappears early after operation.

The return of good size and force of the stream is variable.

Possible complications

Bleeding
Bleeding severe enough to bring you back to the hospital is rare. This risk disappears when healing is complete, six to eight weeks after surgery. If you notice an increase in bleeding or are unable to pass urine, contact your GP. If bleeding causes a blockage, contact your surgeon or visit the nearest Emergency Department.

Incontinence
Incontinence, or leakage of urine without control, may occur temporarily and last for a few weeks. Urgency is common. Only very few patients have incontinence which lasts beyond the first few months. If you have any incontinence after your operation, you will be given information and instructions about exercises that you can do to strengthen the pelvic floor muscles. Your surgeon or nurse can also provide you with information about the management of leakages.

Urethral stricture
In a small number of cases narrowing may develop in the urethra. This may occur either near the tip of the penis or further up the urethra, several months after the operation. You may notice your urinary stream, which was better after the operation, slows down again. Please mention this problem to your doctor. If detected early and treated with gentle stretching under local anaesthetic most strictures resolve. An operation to cut open the tight area may be appropriate.

Sexual function
If you are sexually active before the operation, this is likely to remain unchanged. About eight out of 10 men remain unchanged, one out of 10 seem to be better off and one out of 10 do have a decrease in erection ability. The term impotence is often confused with sterility (the ability to father a child). They are not the same and, while sexual potency usually is unchanged, most times a man who has had a prostate operation is unable to father a child. This is because after surgery the seminal fluid is
discharged backwards into the bladder. It then passes with the next passage of urine. The sensation of intercourse is the same and no harm is done by this “backwards ejaculation”.

Who to contact if a problem occurs
- GP – minor burning, increased frequency.
- Surgeon – bleeding, blockage, feeling feverish or unwell.
- Emergency Department – severe bleeding, blockage.

Remember, you have a follow-up appointment in six weeks. It is expected most irritative urinary symptoms will have settled by then.