

OPEN PROSTATECTOMY PATIENT INFORMATION

The information contained in this booklet is intended to assist you in understanding your proposed surgery. Some of the information may or may not apply to you. Please bring this book with you to hospital as it is a useful guide. Feel free to discuss any issues and questions you may have about your surgery with the medical and nursing staff looking after you.

What is the Prostate?

The prostate gland, which develops at puberty, is made of muscle and gland tissue. It surrounds the urethra, the tube extending from the bladder to the end of the penis, which transports both urine and semen. The prostate produces most of the fluid that aids the passage of sperm and provides them with nourishment.

What causes prostate problems?

Middle aged and elderly men often experience slowly increasing urinary obstruction. This can occur from different causes and more than one cause can be present in an individual's problems.

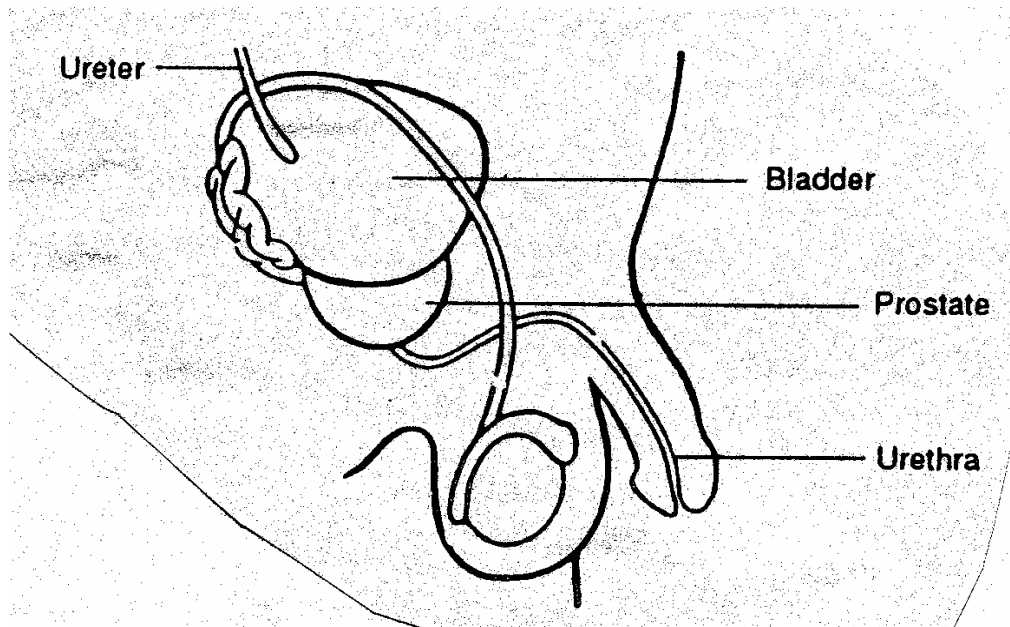
Bladder neck rigidity

This can start early in life and progress slowly over 20-40 years. Elasticity is lost in the bladder outlet and it becomes increasingly difficult for the bladder muscle to pull the outlet open.

Benign (non-cancerous) enlargement

This usually starts about middle age and progresses slowly over 20 years. The degree of obstruction bears little relation to size and is more dependent on loss of bladder neck elasticity.

Symmetrical balls of muscle tissue (adenoma) grow beneath the lining of the urethra as it passes through the prostate. They grow inside the prostate, expanding it and compressing the urethra.



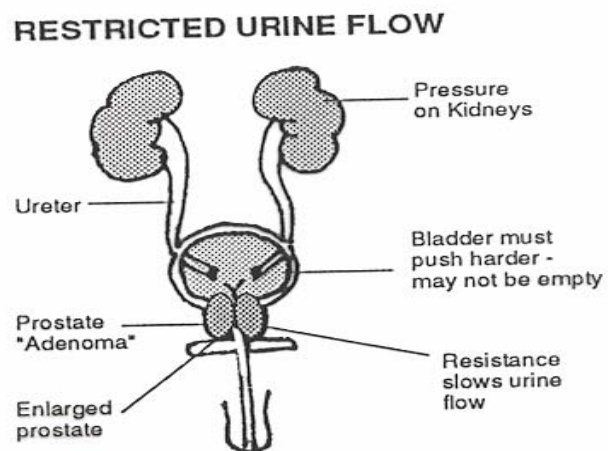
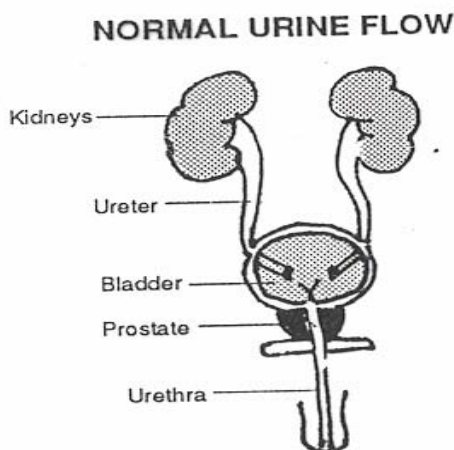
How do you know that you have prostate problems?

You may have:

- Hesitancy in starting to pass urine.
- Increased frequency of urination both day and night.
- A poor flow of urine - no longer a strong and steady flow.
- There could be some blood in the urine (haematuria).
- A burning sensation when passing urine. This may also be due to infection that could be caused by incomplete emptying of the bladder.
- Acute retention of urine. This is when you are unable to pass any urine and the bladder becomes full and painful.

Not every man who has an enlarged prostate needs surgery. This is because the bladder neck may be elastic enough to accommodate the enlargement of the prostate. But, when the prostate grows in such a way that it progressively blocks the urethra, it interferes with urination and urine can build up in the bladder (retention). The urine is then forced out past the blockage in the urethra in a constant small dribble. The blockage and urine retention can cause other complications too, such as:

- Urinary tract infections
- Bladder stones
- Blood in the urine
- Bladder muscle weakness



If medical treatment has failed, you are unable to tolerate it, or it is your preference, then surgery to remove the obstruction is indicated.

What is an Open Prostatectomy?

An Open Prostatectomy is the removal of the prostate tissue that is obstructing the urethra making the passage of urine difficult.

This operation is usually performed if your prostate is very large, but may also be done if you have a stone in your bladder.

Open Prostatectomy involves making a small cut into the abdomen. The prostate tissue is then removed from its surrounding capsule (a little like removing the fruit from an orange and leaving the peel behind). This does not involve the entire removal of the prostate gland.

When the prostate tissue has been removed a catheter tube is placed in the bladder and emerges from the end of the penis.

Complications of Surgery

Retrograde ejaculation

Most men will experience retrograde ejaculation after an Open Prostatectomy. This means that semen goes up into the bladder instead of down the urethra during ejaculation. The semen is passed out when you empty your bladder and is visible as mucus threads in your urine. This effect causes you no harm but affects your fertility. If this is a concern, please discuss this with your surgeon. However, some sperm may still leave your body in semen during intercourse. It is important therefore that you and your partner continue to use contraception if pregnancy is undesirable.

Impotence

Impotence occurs in 1-2% of men who are sexually active before surgery. The mechanisms by which this occurs are poorly understood.

If you experience impotence that is ongoing, there are some possible solutions to this problem. Unfortunately, none of these are currently government-funded.

- tablets
- prostaglandin injections
- vacuum devices
- penile implants

Incontinence

There is a very small risk of damage to the valve controlling urine flow resulting in incontinence after surgery.

Length of Stay

The usual length of stay is 5-6 days. However, if other procedures are required it may be necessary for you to remain in hospital for a few more days. Your doctor will discuss this with you.

Before Surgery

Who is available to help?

Medical staff

Your surgeon will explain the reason for the Open Prostatectomy and the risks associated with the surgery. Your doctors will visit you every day while you are in hospital to provide medical care and answer questions about your surgery and progress.

Nurses

Nurses will provide your preparation for surgery and care until you are discharged from hospital.

A nurse will explain what to expect before and after surgery. Please ask questions and express your concerns; your family or people close to you are welcome to be involved.

When you are discharged from hospital your nurse will arrange for you to receive ongoing support, advice and practical help, if needed.

Tests

1 Blood samples

Two samples of your blood will go to the laboratory to check your general health before surgery.

2 Blood cross match

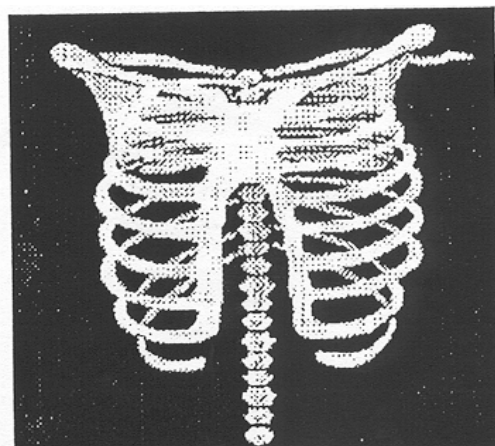
A sample of blood will go to the blood bank to check your blood group and cross-match your blood with donated blood; this is ready for transfusion during or after surgery if necessary. **You must have given signed consent for possible transfusions prior to surgery.**

3 Midstream urine

A sample of your urine is sent to the laboratory to check for the presence of bacteria.

4 Chest x-ray

Your doctor may need you to have a chest x-ray to check on the health of your lungs.



5 ECG

An electrocardiogram of your heart may be required depending on your age and any diagnosed heart abnormalities.

6 Flow rate

This a measurement of your urine flow and involves you voiding into a device that tells your surgeon that your urine flow is being slowed by an obstruction.

7 Rectal examination

The surgeon performs this so that the size and contour of your prostate can be ascertained.

8 Rectal ultrasound

Again this enables the size of your prostate to be ascertained.

9 Biopsy of prostate

The surgeon performs this when there is a suspicion that your prostate gland has become cancerous; a tissue sample is sent to the laboratory for analysis of the cells.

Other Measures

Nil by mouth

As your stomach must be empty before an anaesthetic, you must not eat or drink anything for the 6 hours prior to surgery. At Pre-Admit Clinic or on the ward your nurse will inform you of the correct time to stop eating and drinking (nil by mouth).



Bowels

You will have been given an enema to use before your operation to empty your lower bowel. This should prevent the need to move your bowels in the immediate post-operative period. This is important as straining to pass a bowel motion may cause more bleeding.

Breathing exercises

These exercises help to keep your lungs clear of fluid and prevent chest infection. They will be taught to you by your nurse or physiotherapist and should be practised before surgery.

Support your abdomen with a soft pillow and take 4-5 deep slow breaths - then give one deep cough.

Leg exercises

These include pedalling the feet, bending the knees and pressing the knees down into the mattress.

Leg exercises help keep muscle tone and promote the return of blood in your leg veins to your heart.

Do not cross your legs

this squashes your veins causing blockages

Wound site - What to expect

The wound is about 8cms long and runs from below the umbilicus to the pubic bone. You will have a dressing over the wound that will be changed when needed.

After Surgery

You are transferred to the Recovery Room next to the theatre. Your condition is monitored and when you are awake and comfortable a nurse and an orderly will escort you back to the ward on your bed.

On the ward

Your nurse will check the following regularly:

- Vital signs - your blood pressure, pulse, respiration rate and temperature
- The severity and location of any pain or discomfort
- The amount of urine you are producing
- The wound site and wound drains
- The effectiveness of pain relief
- The amount of oxygen in your blood

You may have

Intravenous fluids

A small tube is placed into a vein to give you fluid and medications. This tube can be placed in any vein, usually in the forearm.

Oxygen mask

This fits over the nose and mouth. Oxygen is often given for the first 24 hours after surgery to help with breathing and healing.

Urinary catheter

You will have a tube through your penis in the urethra that will drain the urine from your bladder. This can be secured to your leg for comfort.

Wound drain

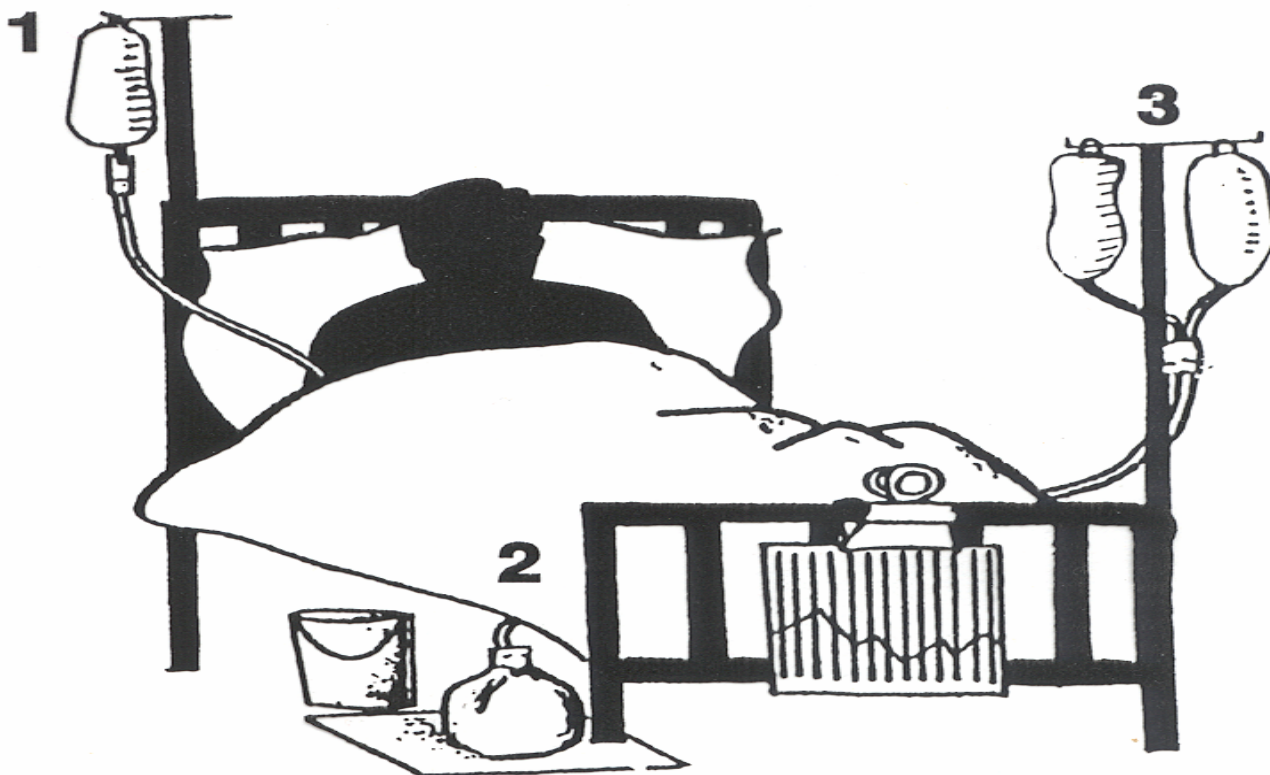
You may have a wound drain. This will drain blood and fluids from your operation site. Good drainage will promote healing.

Continuous bladder irrigation (Through and through)

Your urine may contain a lot of blood after surgery that can clot and cause blockages. Therefore, for 12 to 24 hours your catheter may be connected to an irrigation system that flushes the bladder to prevent these problems.

Manual irrigation

If the catheter blocks, it may need to be irrigated by your nurse in order to remove the clots.



Pain Relief after Your Surgery

Your nurse will work alongside your doctors, the anaesthetist and pain registrars to keep your pain at a minimum.

The **PAIN SCORE** is a way of your nurse establishing how much pain you are experiencing by your grading of your pain from 0 to 10 where 0 = no pain and 10 = the worst pain you can imagine.

The following methods of pain relief may be used singly, or in combination with each other.

1 Patient controlled analgesia (PCA)

This infusion machine has a button you can press each time you need pain relief. It will help your pain by giving an immediate response to you pressing the button by delivering a specific amount of pain relief intravenously. The pump is programmed according to your anaesthetist's instructions.

2 Intravenous pain relief

Pain relief can be administered into the veins to manage pain that is not controlled by tablets or suppositories alone.

3 Rectal pain relief

Pain may also be controlled by the insertion of suppositories whilst you are not able to take tablets orally.

4 Oral pain relief

When you are able to eat and drink you may have tablets orally.



5 Citravescent (URAL)

You may feel a burning sensation when you pass urine. Your nurse can provide you with sachets of Citravescent to help with this. This is a pleasant tasting powder which can be added to the fluid you drink. It makes the urine less “acid” and therefore less likely to sting.

Comfort cares after your surgery

To help keep you comfortable your nurse will give you bed washes, linen changes and move you around in the bed regularly.

Medications are available for the relief of nausea and vomiting, if they occur.

You will be given mouthwashes and ice to suck if you are not eating and drinking.

You will be reminded about and assisted with deep breathing exercises. These should be performed every hour while you are awake.

Food and fluids

You will be able to progress from sips to a full diet in a short space of time after you have fully woken up from your anaesthetic.

Mobility

You will usually be up in a chair for a short time and assisted to walk a short distance within a day or two of your surgery. Your mobility will increase as you recover; mobilisation will assist your recovery.



Removal of Drips and Drains

Intravenous fluid (IV)

After prostate surgery it is inevitable that there will be some blood loss. You may therefore receive some extra fluid to maintain your blood volume. This IV fluid is usually removed the day of or the day after your surgery. The leuc (plastic tube) is removed when you no longer require intravenous medications.

Wound drain

This is removed when the amount of drainage is minimal and the operation area is healing.

Sutures (stitches or staples)

Sutures are usually removed 7-10 days after surgery. If you are no longer in hospital at this time a district nurse or your GP can remove them.

Urinary catheter

This is usually removed 2-4 days after surgery. Often there is a temporary difficulty with control of your urine flow which should settle down as the bladder returns to normal. You may, however, experience some problems with urine control over several weeks.

The information below may help with this. Occasionally, complete emptying is a problem due to a stretched bladder. If this occurs, nursing and medical staff will discuss options with you.

Pelvic Floor Muscle Training for Men

The first step is to correctly identify the muscles. Sit or lie down comfortably – your thighs, buttocks, tummy muscles should be relaxed.

Lift and squeeze inside as if you are trying to hold back urine and wind from the back passage. If you are unable to feel a definite squeeze and lift action of your pelvic floor don't worry – even people with very weak muscles can be taught these exercises.

If you feel unsure whether you have identified the correct muscles, try to stop your flow when passing urine, then restart it. Only do this to identify the correct muscles to use – this is a test NOT an exercise.

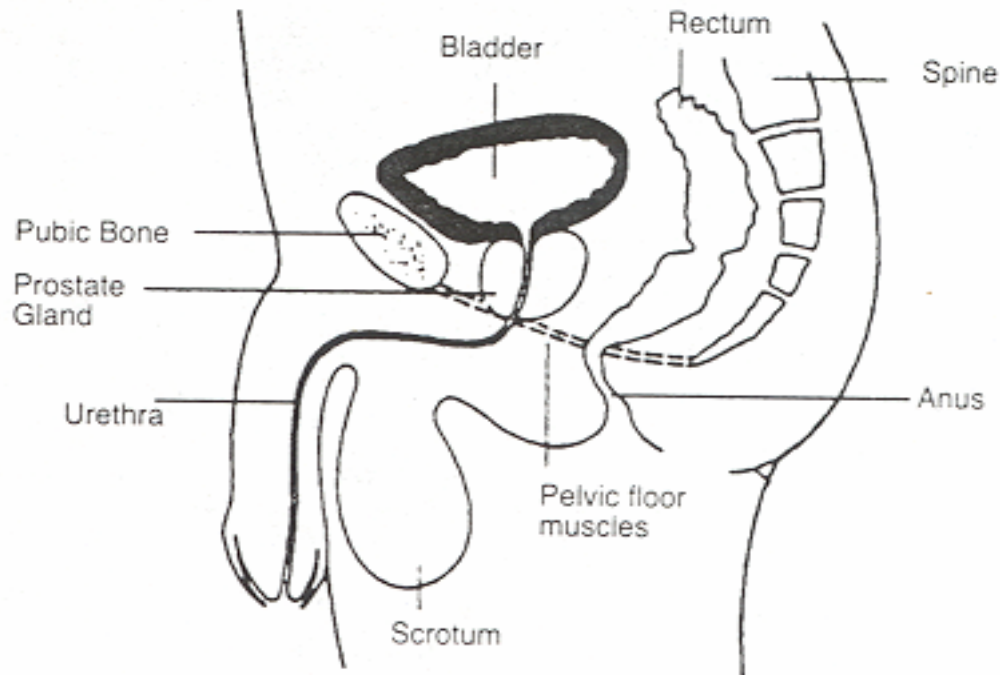
If you are unable to feel a definite tighten and lift action in your pelvic floor muscles, you should seek professional advice.

What is the pelvic floor?

The pelvic floor is the layer of muscle stretching from the pubic bone in the front to the tail bone at the back and forming the floor of the pelvis. It is the main support structure for the pelvic organs.

- A toned pelvic floor supports the bladder and bowel.
- A toned pelvic floor helps close off the bladder and bowel outlets to help prevent leakage.

- Relaxation of the pelvic floor allows effective bladder and bowel emptying.
- A functional pelvic floor may enhance the ability to maintain an erection.



Factors contributing to pelvic floor muscle weakness are:

- Some prostate surgery
- Persistent straining to empty the bladder or bowel with or without constipation
- Constipation
- Persistent heavy lifting
- A chronic cough (from smoking, chronic bronchitis or asthma)
- Being overweight
- Lack of regular exercise

Once the pelvic floor muscles become weak, your ability to hold urine and/or wind during physical activity is compromised. Like any other muscles of the body, the more you exercise them, the better they will function.

Starting your pelvic floor muscle training

At first you may need to perform these exercises while sitting or lying down. As the muscles strengthen you can progress to exercise in standing. Like any activity, start with what you can achieve and progress from there. Remember to use your muscles whenever you exert yourself during your daily activities.

If you can feel the muscles working exercises them by:

1. Squeezing/tightening and drawing in and up around both your anus (back passage) and urethra (bladder outlet). **LIFT UP** inside and try to **HOLD** this contraction **STRONGLY** for as long as you can (1-10 seconds). **KEEP BREATHING!** Now release and **RELAX**. You should have a definite feeling of letting go.
2. Rest 10-20 seconds. Repeat Step 1 and remember it is important to rest. If you find it easy to hold, try to hold longer and repeat as many as you are able. Work towards 12 long, strong holds.
3. Now try 5-10 short, fast, **STRONG** contractions.
 - **Do NOT** hold your breath
 - **Do NOT** push down instead of squeezing and lifting
 - **Do NOT** pull your tummy in tightly

- **Do NOT** tighten your buttocks and thighs
Try to set aside 5-10 minutes in your day for this exercise routine and remember **QUALITY** is important.

A few **GOOD** contractions are more beneficial than many half-hearted ones and good results take **TIME** and **EFFORT**.

Remember to use the muscles when you need them most. That is, always tighten before you cough, sneeze, lift, bend, get up out of a chair, etc.

Progressing your programme

Increase the length of and number of holds you do in succession before experiencing muscle fatigue. Work towards 12 long, strong holds. Increase the number of short, fast contractions – always do your maximum number of **QUALITY** contractions.

(Pelvic Floor Muscle Training for Men information reproduced with the permission of the New Zealand Continence Association.)

Important information for when your catheter is removed

- It is important to try to drink at least 3 litres of fluid a day to aid the flushing of any blood that remains in your urine. This is easier if you vary your fluids eg. fruit juice, cordial, tea, etc., in addition to water.
- Drink small amounts regularly eg. 1-2 glasses over each hour. Drinking large amounts at once may make you feel bloated or nauseated.

- Go to the toilet when you get the desire – don't strain to pass urine.
- Use a new bottle each time you pass urine – this allows your nurse to check that you are emptying your bladder properly.
- Initially it may burn when you pass urine and you may pass urine frequently. This usually improves over the following days and can be relieved by drinking fluids as recommended and by taking citravescent sachets which your nurse will provide.
- Please inform your nurse if any of the following occur:
 - you are unable to pass urine despite having the urge to go
 - you have pain or discomfort in your lower abdomen (stomach)
 - you have pain at the tip of your penis

These symptoms could indicate difficulty with emptying your bladder. Your nurse will be able to assist you.

- The nurse will use a bladder scanner (small, painless ultrasound) to check if you are emptying your bladder properly.
- If you have not moved your bowels since your operation, please tell your nurse.
- Approximately 10-14 days after surgery you may pass slightly bloodstained urine again. This is normal and should stop within a day or two – just continue to drink plenty.

Contact your GP if blood clots appear, if bleeding is heavy or you have any problems.

Discharge Advice

- Your hospital doctor will provide your first sickness benefit certificate/medical certificate and will advise you when to return to work.
- There remains a risk of bleeding for several weeks after this surgery, due to the blood supply of the prostatic region. It is important to continue to drink 2-3 litres of fluid a day to maintain flushing of your bladder.
- Avoid heavy lifting or strenuous activity for at least 4-6 weeks - contact sports are not generally recommended. Sexual activity may be resumed at this time or when you feel comfortable to do so.
- You are not able to drive a car for 10-14 days after discharge. After that time, you can commence with short journeys increasing this as you feel comfortable.
- Maintain a regular bowel habit and avoid constipation as straining to pass a bowel motion may cause more blood in the urine.
- You are advised not to resume sexual intercourse for 4 to 6 weeks as this may cause bleeding to restart. If there is a bloody stain to any ejaculate do not be concerned unless it is clearly indicative of fresh bleeding.
- If bleeding occurs and your urine flow is obstructed altogether it is important to return to hospital quickly so that it can be attended to.
- If you experience chills, fever or pain in your bladder or back, or if your urine is cloudy and smells offensive, then see your GP promptly.

Follow-up

Discharge letter

You and your GP will receive a copy of a letter outlining the treatment you received during your stay in hospital. This will be mailed to you if it is not completed by the time you leave hospital.

General Practitioner (Family doctor)

When you are discharged from hospital you will be under the care of your family doctor who will look after your general health and monitor any problems you may have.

Outpatients appointments

You will receive an appointment for Urology Outpatients approximately 6 weeks after discharge. This will be mailed to you. You will also receive instructions to have a repeat flow rate so that your urine flow after your surgery can be assessed.



3 References: Mosby's Genitourinary Disorders, Clinical Nursing, Mikel Gray 1992
Urological Nursing 3rd Edition, Urological Nursing' 2004
Campbell's Urology 7th Edition, Urology, 1998