Total cystectomy and formation of neo bladder
What does the bladder do?

The bladder is a hollow, muscular organ in your pelvis situated behind the pubic bone. The function of the bladder is to collect, store and remove urine produced by the kidneys.

When the bladder is full, the nerves that supply it send a message to the brain that you need to pass urine. Under your control, the urethral sphincter relaxes and the bladder contracts until it is empty of urine (voiding). The exit tube from the bladder is called the urethra.
What is a total cystectomy?

A total cystectomy is the removal of the bladder and surrounding organs.

- In men, the bladder, prostate gland and seminal vesicles (small glands near the prostate) are removed.
- In women, the bladder, urethra, uterus and ovaries are removed and the vagina is shortened.

If you are having a total cystectomy, another way must be found to collect urine and remove it from the body. There are different ways this can be achieved surgically. This booklet will discuss the formation of a Neo Bladder.

Why do I need a total cystectomy?

A total cystectomy may be required for one of the following reasons:

- Cancer of the bladder
- Cancer of the uterus, vagina or bowel that involves the bladder
- Severe radiotherapy damage with ongoing bleeding from the bladder
Why do I need a neo bladder?

A segment of small bowel is used to create a reservoir (neo bladder) that will collect the urine. The ureters (tubes from your kidneys) are attached to the reservoir. The reservoir is then attached to your urethra (out flow pipe). This will allow you to pass urine naturally through your urethra.
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 consent form should be signed by both yourself 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 4-5 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 check the health of your heart prior to surgery.

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 prior to your operation.

You will be advised when to stop eating and drinking. You should bring all your own medications with you to hospital.

*Please inform your surgeon if you are taking any anticoagulant medication (e.g. Warfarin, Clopidogrel, Pradaxa or Aspirin).*

This operation is performed under general anaesthesia. The anaesthetist will discuss this with you prior to the operation. This usually occurs in your hospital room pre-operatively. Just prior to surgery you may be given a premedication tablet to relax you.

You will be encouraged to commence deep breathing and coughing exercises pre-operatively. This prevents any breathing complications or chest infection occurring following the surgery and anaesthetic.

The lower abdomen will be shaved and you will have protective stockings fitted.
What to expect after my operation?

You will probably be in hospital 7-10 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.

Pain Control
Pain control is managed in conjunction with your anaesthetist. For pain relief it is likely you will have a PCA (Patient Controlled Analgesic) pump attached to your intravenous line. You will be able to control the amount of pain relief by pressing a button connected to the pump.

Wound
Your wound will extend from your navel to your pubic bone. The sutures will be dissolvable and do not need removing. You will see lots of tubes coming from your body.

Urinary Catheter
A catheter tube will drain your urine until the new bladder is watertight (see later).

Drain Tube
There will be a drain tube coming from your abdomen. This will be removed after 2-3 days. This removes any fluid from outside the bowel and urinary tract.
Catheters

Suprapubic Catheter
You will have a catheter coming from your lower abdomen. This tube is to drain urine from your neo bladder. It is temporary and will be removed 3-4 weeks post operation. It is there to allow the new structures to heal and become watertight.

Urethral Catheter
A catheter will be coming out of your urethra (out flow pipe). This is temporary and will be removed 2-3 weeks post operation. It is there to allow the new structures to heal.

There are two additional tubes called stents which are attached to your urethral catheter. These are there to support healing also. They will come out with the urethral catheter. You will be shown how to flush (unblock) your catheter while in hospital. This should be done at home by you if the catheter does not drain urine for more than 1-2 hours.

You will be seen by the continence nurse following surgery. They will remove your urethral catheter first and ensure you can empty your bladder. Once this is established your suprapubtic catheter will be removed.

Once all the catheters have been removed the neo bladder must be "trained" so that the reservoir capacity can be increased to a capacity of 500ml.

This process takes several months and during this time it is normal to have to wear pads to collect leakage of urine.
Passing urine from a neo bladder is done by squeezing the abdominal muscles and relaxing the pelvic floor muscles; this requires some teaching and practice to learn and you will have help learning this new skill.

You will see a continence nurse to help you with this.

After Discharge

You will receive a follow up appointment in the post to see your surgeon 6 weeks after the operation.

You can do most activities after your operation except any heavy lifting, straining, intercourse or strenuous activity – which should be avoided for 4-6 weeks after surgery. You will be able to continue with your normal daily routines as you feel able.

Generally when you feel that you could perform an emergency stop without being concerned about abdominal pain (at about 4 weeks), then you can resume driving.

You will be asked to drink extra fluids after your surgery and for the next few weeks after your discharge. This helps to reduce the mucus.
Possible complications

**Bleeding**
Bleeding severe enough to bring you back to the hospital is rare. This risk disappears when healing is complete, 6-8 weeks after surgery. If you notice an increase in bleeding or are unable to pass urine this may mean you have a blocked catheter, contact your GP or Urology Associates.

**Wound Infection**
Your wound may become infected post operation. Symptoms can include:
- Redness
- Swelling
- Pain
- Hot to touch
- Discharge from wound
You will need to contact your G.P. or Urology Associates if you think you have an infection. The nurses can assess your wound and refer you to a Doctor if treatment is required.

**Incontinence**
Once your catheters have been removed you will have poor continence and will need pads.

By 1 year, daytime continence (no pads) is recovered in 90% of men and 80% of women. Night time continence (dry while sleeping) is not as good; approximately 60% of patients are dry at night. It may be helpful to set an alarm to wake and empty your neo bladder once or twice during the night.

At 2 years most patients (75-90%) are dry day and night; and do not need pads.
In some patients (10-20%), complete neo bladder emptying is not possible. These patients must then perform self catheterisation (pass a tube into your bladder to drain urine) several times per day to empty the neo bladder. This is easy to learn and perform and you will be taught by a continence nurse at Urology Associates.

**Sexual function**

A cystectomy can cause impotence – the inability to have an erection. The likelihood of this occurring depends on a number of factors.

At best only 35% of men retain normal erections which may take a year to return after surgery. This does not mean that you cannot continue to have a satisfactory sexual life. There are two important points to be made: (1) with some creativity, men can have orgasms without having an erection and (2) there are a number of treatments available to help bring back the erections, but these do mean that the spontaneity of the sexual act is diminished.
This information booklet along with the rest of the series are available on our website.