

***Information for***

***Patients with a***

***Bladder***

***Substitution***

Dr Celi Varol MB BS FRACS (Urology)  
Elizabeth Marshall Dip Health Sc (Nursing)

Following the operation you will have to change your daily routine. Although this may be difficult at the start, with time you will learn to integrate these changes into your daily life. This information brochure has been developed to assist you with these changes and provide you with information regarding your bladder substitute. If you remain uncertain and have further questions after reading this please contact Liz or Professor Varol.

### **How does the “new” bladder work?**

During the operation a 55cm piece of bowel has been taken to construct a bladder reservoir which allows urine to be stored. In the beginning this bladder has a very small capacity (80-100ml). With specific urethral sphincter muscle training and increasing pressure the bladder stretches and increases in capacity. In several weeks time the capacity will reach normal values of 400-500ml. There are certain points one must be aware of following a bladder substitution:

1. Emptying
2. Continence
3. Continence Products
4. Metabolic changes
5. Sexuality
6. Miscellaneous

# 1. Emptying

## What happens following discharge from hospital?

In the beginning you should empty the neobladder every 2 hours. This will take 6-8 minutes. To fully empty your bladder you must actively assist with certain manoeuvres. At the beginning you must sit down to urinate. Otherwise incomplete bladder emptying may occur. Men can void standing in 3 to 6 months time.

## To assist you in emptying your bladder:

- Fold your hands over your lower abdomen
- relax your pelvic floor
- press your hands over the lower abdomen and bend your body forward
- straighten up and repeat this procedure until the bladder is empty
- following this bend your body in all directions
- Massage the groin and lower abdominal regions with gentle movement and pressure from outside. This often leads to further bladder emptying.

When you feel that your bladder is empty stand up and stretch. Sit down again and repeat the above procedure again. With the change of position and stretching further residual urine from the bladder may be emptied.

## Bladder emptying at night

In the beginning the bladder needs to be emptied twice during the night. After a few weeks or months it can be done only once. You must remember that the feeling of urgency that existed before the operation and awakened you to void **does not** exist anymore. Use a separate alarm clock for each void at night. You can awaken to one alarm clock, empty the bladder and go back to sleep again without having to reset the alarm

clock. The second alarm clock will already have been set. This makes it easier for you to fall asleep again.

### **Post void residual urine**

If you empty your neobladder insufficiently, some urine will remain. This residual urine is a breeding ground for bacteria, resulting in urinary tract infections. These bacteria can pass through the ureters up into the kidney and cause a kidney infection.

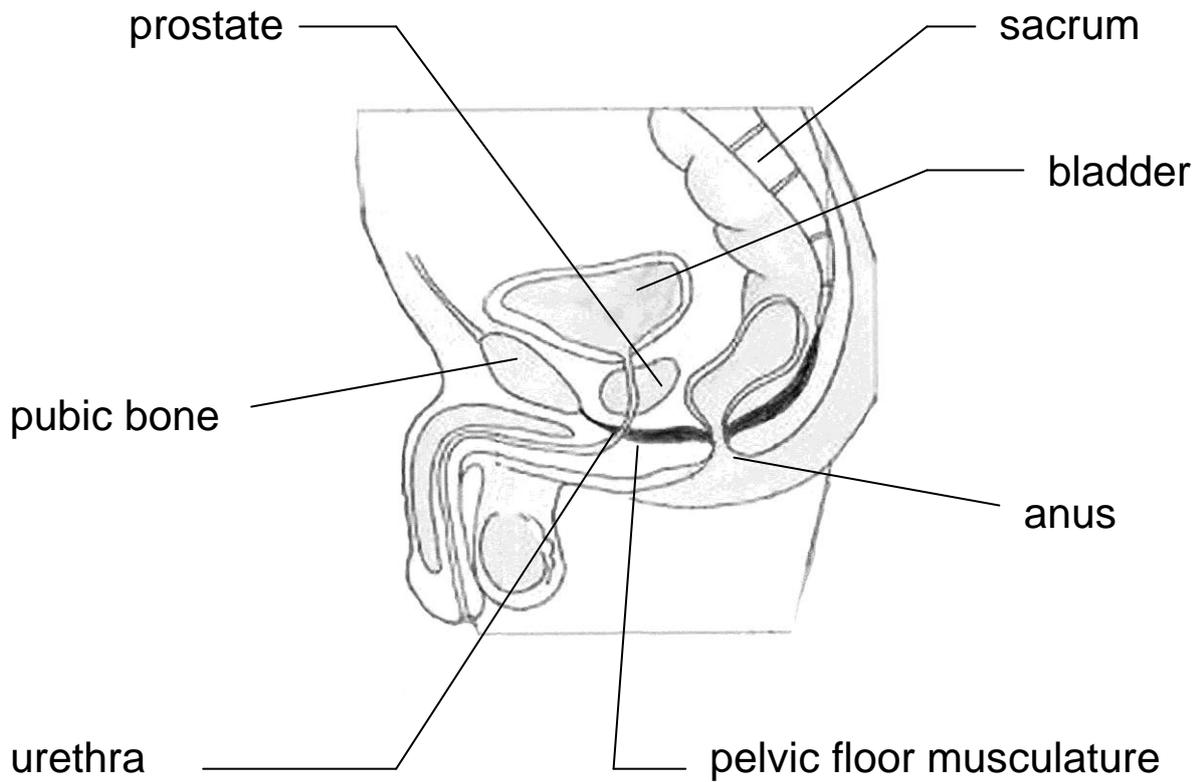
## **2. Continence**

Involuntary loss of urine is normal in the beginning. This incontinence will remain until your sphincter training has resulted in sufficient muscle strength to withstand the pressure from your neobladder. This strengthened sphincter muscle, combined with increased capacity of the neobladder, will eventually result in continence. Effective sphincter training will be demonstrated to you.

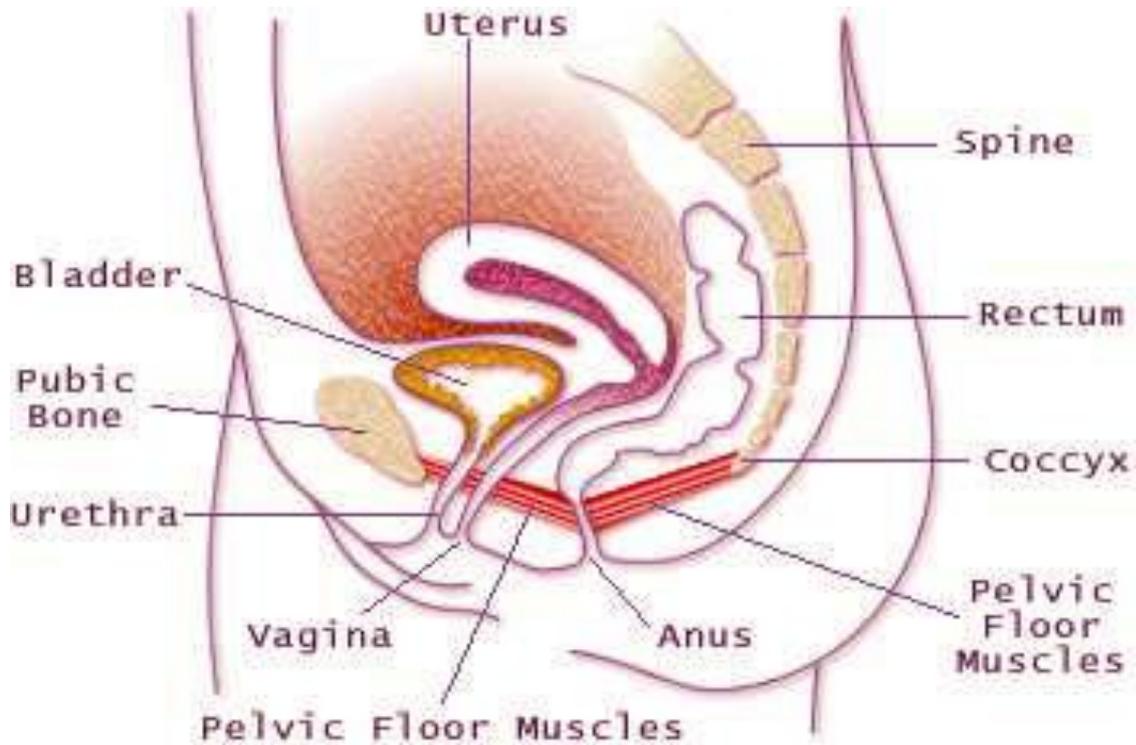
### **Where is the pelvic floor and what is the difference between men and women?**

The pelvic floor stretches across the pelvic opening like a sheet of muscle extending from the pubic bone to the sacrum. It is larger in women than it is in men. This muscle is penetrated by the rectum and the urethra in men and additionally by the vagina in women.

## Male



## Female



The great advantage of pelvic floor and urethral sphincter training is that it can be continued and performed regularly at home.

### **Pelvic floor/sphincter exercises**

Contract your urethral sphincter muscle for a few seconds as if you were preventing urine and stool from escaping. The abdominal and buttock muscles should remain relaxed. Initially contract your anal sphincter ten times an hour for five seconds each time. This is an excellent exercise which can be performed in every position without anyone being aware of it. Regular practice, preferably when performing routine daily tasks such as brushing your teeth or having breakfast will increase your success.

Sit leaning slightly forward, so that the pressure is applied to the front portion of the pelvic floor. Contract as strongly and as long as possible.

Be very conscious of your breathing when exercising. While contracting your muscles you should breathe out and while relaxing breathe in.

### **Reaching adequate bladder capacity**

As soon as you can remain continent for two hours, you may increase your voiding intervals by 30 minutes at a time until you reach the 4 hour mark. It is important during this phase of your training to withhold your urine by contracting your sphincter muscle even if a little urine escapes. This is the only way to reach the desired capacity of 400-500ml.

### **Milking the urethra**

In men residual urine may remain in the urethra following voiding. This may dribble out into the underpants, a short time later falsely indicating incontinence. To prevent this from happening the urethra should be milked from the base of the penis (perineum) to the tip of the penis.

### **Sleeping tablets**

Sleeping tablets will relax your muscles including the pelvic floor. This may increase the risk of involuntary loss of urine.

### **Drinks/alcoholic drinks**

Cold and alcoholic beverages can increase involuntary urine loss, especially at night.

## **3. Continence Products**

There is a large selection of aids which can assist you in your care.

### **Incontinence pads**

Your pharmacist has a large selection of different pads. Some supermarkets may have similar brands available at reasonable prices. We are more than happy to help and give you advice on these products and assist you in ordering them.

## **4. Metabolic changes**

The mucosa of the bladder reservoir continues to produce mucus which can be seen in the urine.

Your neobladder which has been constructed from small bowel retains residual bowel functions which will diminish over the years.

The mucosa of the neobladder can absorb substances from the urine and secrete them into the blood. Conversely, substances can be taken from the blood and excreted in the urine. Subsequently you can no longer determine the concentration of your urine from the color as there is a constant exchange of substances between the blood and urine.

For this reason it is important that you drink at least 3 litres a day for the first 3 to 6 months to reduce the chances that this exchange phenomenon will have any serious consequences. After a while you can reduce your daily fluid intake to 2 litres. You are free to drink any sort of beverage that you wish. If you are not used to drinking a lot, a regulated drinking schedule may help you.

You must also be aware that you will lose salt via the neobladder. The salt is bound to water which leads to excess urine production. To compensate for this salt loss you should consume extra salt and salt products during your meals, (e.g. Bonox soup, dried meats, salt chips, etc) and snacks between meals.

Inadequate fluid or salt intake could lead to a metabolic abnormality which presents as weight loss, tiredness, loss of appetite, nausea with indigestion. In the worst case it could lead to repeated nausea and vomiting. Despite of these difficulties one must urgently consume more fluids to excrete these acid elements in the urine and correct the acidosis.

Should these symptoms worsen please call your urologist immediately or the casualty department. We can then discuss this problem with you and institute the appropriate measures.

## **5. Sexuality**

In men the nerves responsible for erection may be impaired during the operation resulting in erectile dysfunction. As a rule it is possible with the use of appropriate measures and aids to achieve erections again and subsequently perform intercourse. We are more than ready to discuss any such difficulties encountered and provide you with further information and

therapy options. Please do not hesitate to make use of this service.

The following therapeutic options are available:

- Injections into the penis shaft
- Vacuum pump
- Viagra<sup>®</sup>, Cialis<sup>®</sup> and Levitra<sup>®</sup> are oral tablets used for erectile dysfunction
- Surgical Implantation of Penile Prosthesis

In females the vaginal length may be shortened and lubrication may be reduced. Certain lubricants may be used for this e.g. K-Y Gel (available through pharmacies or supermarkets).

Sexual intercourse may be resumed 3 months following the operation.

## **6. Miscellaneous**

### **Eating**

Following the operation a slow increase in your diet will occur. Slowly you will be able to resume your normal diet. Foods, which tend to cause bloating, should initially be avoided as they may induce abdominal pain, cramps and possibly diarrhoea.

### **Bowel habits**

To insure optimal recovery during your hospital stay and immediately following you will have been given several antibiotics. This could lead to a disturbance of your intestinal flora and result in a change in your bowel habits e.g. constipation or diarrhoea. To rebuild your bowel flora we would

recommend consuming yoghurt/milk products containing bifidus. If further antibiotic treatment is necessary it may be taken with or following your meals.

**In the first few months following the operation you may suffer from constipation or diarrhoea.**

### **Activities following the operation**

The resumption of physical activity can best be judged from your own feeling of well-being and physical strength. For the first several weeks however you should avoid lifting heavy objects (over 10kg), or exerting excessive pressure on your abdomen while emptying your reservoir. Such actions could result in wound hernias. It takes about 3 months for a complete wound healing.

### **Follow-up and management**

The first follow-up will take place one week after discharge from the hospital. As a rule this consists of a blood test to determine your blood acid level, a urine analysis as well as an ultrasonography of the kidneys and your neobladder. These results will determine whether you will require further short term follow-up.

Otherwise the routine follow-ups will occur at regular intervals. The next two will take place in 3 and 6 months.

### **Don't forget:**

**For your well being and for flawless function of your neobladder a regular follow up and your full cooperation are mandatory!**

## **Individual follow up and management**

If you have questions or are uncertain about anything following discharge from hospital you may call Liz, our practice nurse on 0432 160 543. If on exception this number is not answered you may request to speak to the **doctor on call for the Urology Department** at your local hospital or the casualty department in emergencies.

We hope that this pamphlet has clarified any questions you may have had.