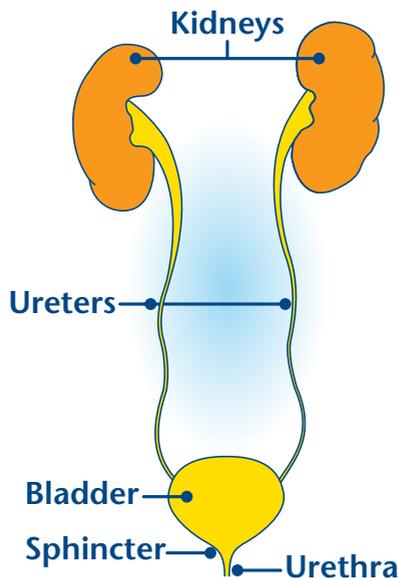


## Managing your bladder

When you have a spinal cord injury it can cause changes in the way your bladder works. Paralysis at any level will almost always affect bladder function; therefore normal control of passing urine will be lost.

Taking care of the bladder is very important to anyone who has a spinal cord injury therefore correct management is essential.

To understand the importance of good bladder management it is useful to understand the urinary system.



### Kidneys

These remove waste substances from the bloodstream to form urine.

### Ureters

These are two thin tubes which drain the urine from the kidneys to the bladder.

### Bladder

This stores urine until it is convenient to empty.

## **Urethra**

This is where the urine is released.

## **Sphincters**

These are muscles at the base of the bladder, which act like automatic doors that open at the right moment to allow urination.

## **How has my bladder been damaged?**

Following an injury to the spinal cord, the nerve control from the brain to the bladder no longer works. The brain doesn't know when the bladder is full and therefore cannot control emptying the bladder.

## **Different types of Bladder**

How the bladder functions depends where the spinal cord is damaged.

### **Reflex Bladder**

This occurs if you have an injury at T12 or above. The nerves that cause your bladder to empty are still working. When the bladder is full a reflex will automatically trigger it to empty, although you may have no control over this.

### **Flaccid Bladder**

This occurs if you have an injury below T12. The reflexes are absent or weak, therefore the bladder will continue to fill, when the bladder overfills, dribbling occurs.

## Mixed Bladder

This can occur when there has been only partial damage to the spinal nerves. Results can be very mixed. You may have the feeling you need to go the toilet but have no control over it, or you may have no feeling but may be able to pass urine. Management will depend on your symptoms.

## Methods Used for Managing your Bladder

The methods to manage your bladder will depend on:

- Your type of injury
- What is suitable for you

Your nurses, doctors and key workers will help you through this process, by offering advice, guidance and support both as an inpatient and outpatient.

Bladder training is a process to teach you how to manage and empty your bladder. The type of bladder training depends on your bladder behaviour.

## Catheters

As part of your bladder management you may have a catheter. There are different types of catheters.

After your injury we insert an indwelling catheter as this gives health care staff information about your kidney function.

## Indwelling Catheter

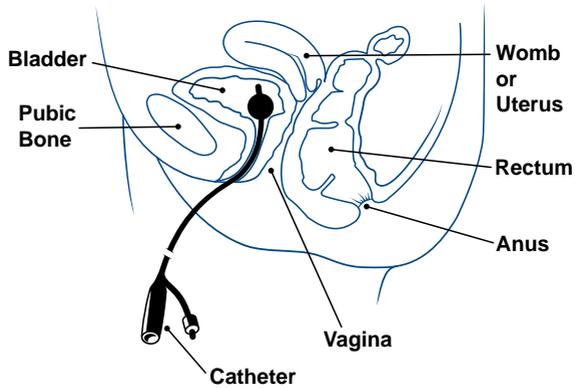
This catheter is inserted into the bladder through the urethra. Once inserted, a small balloon is inflated with water to keep it in place. A catheter bag is attached to the catheter which can be worn on the thigh or calf.

We recommend an indwelling catheter is changed every 6 weeks to reduce the build up of sediment (dregs) and prevent blockages.

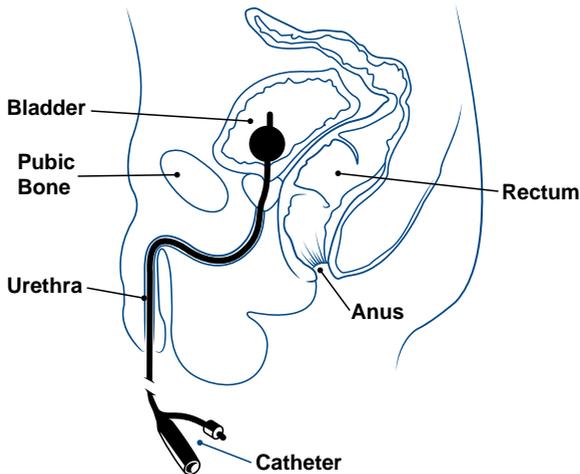
Staff will show you how to insert an indwelling catheter so that you can do this yourself or tell your carer how to do this.

## Indwelling catheter diagrams

Female Urinary Tract with Catheter in place



Male Urinary Tract with Catheter in place



### Supra-Pubic Catheter

The doctor will make a small cut above the pubic bone and then insert the catheter directly into the bladder through the abdominal wall. A drainage bag will be attached to the catheter which is then attached to the thigh or calf.

We recommend this catheter is changed every 6 weeks. At first the doctor will change the catheter, then after this a nurse will then change your catheter. We may teach you or your carer how to change the catheter.

## **Intermittent Catheterisation (ISC)**

Intermittent catheterisation allows you to empty your bladder regularly without having to wear any appliances such as a catheter bag.

You insert a catheter directly into the bladder through the urethra every 4 hours. You empty the bladder then remove the catheter.

Before you start using intermittent catheterisation, your nurse will discuss this with you and will teach you how to do this. Please note, it can take several days for you to learn how to do this. There is equipment available which can make it easier for you to insert the catheter e.g. adjustable mirrors, velcro fasteners.

When using intermittent catheterisation we recommend that you drink 2 litres of fluid each day.

## **Sheath Drainage**

Men with a reflex bladder may use this form of bladder management. This is a self adhesive sheath or condom which will be measured for you. This is applied to the penis and attached to a leg bag which is then attached to your calf or thigh.

You should replace the sheath every day to prevent infection, and can be used with intermittent catheters.

## Problems that can arise with catheters

Common Problems	Signs and Symptoms	Treatment
<p><b>Urinary Tract Infection</b> (This is when there is a build up of bacteria which will divide rapidly and attack the lining of the bladder and cause infection)</p>	<p>Cloudy Urine</p> <p>Increase in sediment</p> <p>Strong odour from urine</p> <p>Raised temperature</p> <p>Flu like symptoms</p> <p>Increase spasms</p> <p>Incontinence or leakage</p> <p>Dysreflexia (raised blood pressure and slow heart beat)</p>	<p>Drink plenty of fluids</p> <p>Take a urine sample to your GP</p> <p>Contact your GP as you may need an antibiotic</p> <p>Maintain good personal hygiene e.g. always wash your hands before and after catheterisation.</p> <p>You may need to stop using intermittent catheterisation and use an indwelling catheter for a short time.</p>

Common Problems	Signs and Symptoms	Treatment
<p><b>Blocked Catheter</b> (this is when the catheter is blocked, either with sediment or calculi, therefore urine cannot be passed)</p>	<p>No urine, or old cold urine in catheter bag.</p> <p>Distended (swollen) abdomen</p> <p>Increase spasms</p> <p>By-passing or leakage of urine</p> <p>Dysreflexia</p>	<p>If in doubt remove the catheter and re-catheterise, making sure drainage is present.</p> <p>Find out how the catheter is blocking.</p> <p>Increase your fluid intake, contact your GP or Spinal Unit for advice.</p>

Common Problems	Signs and Symptoms	Treatment
<p>Bladder or Kidney Stones (these are tiny granules that can grow in size, you are more prone to these after your injury because you are less mobile and due to loss of calcium from your bones).</p>	<p>Difficulty passing urine</p> <p>Frequently blocked catheters</p> <p>Blood in your urine</p> <p>Frequent urinary tract infections</p> <p>Increase spasm</p> <p>Autonomic Dysreflexia (usually intermittently)</p>	<p>Always make sure the catheter is draining, regularly check your leg bag</p> <p>Increase your fluid intake</p> <p>Reduce foods high in calcium e.g. cheese, milk</p> <p>Keeping the urine slightly acidic will allow the chemicals to remain dispersed in the urine and not form stones. Cranberry juice (if you are not on warfarin), Vitamin C, and citrus fruits can help.</p> <p>Every year have a Kidney Ureters Bladder x-Ray and Renal Ultrasound to check for kidney or bladder calculi. (stones from sediment).</p>

## Supplies and Contacts

When you are in hospital nurses will try different catheters according to your needs and to help you choose.

Before you go home, the staff will discuss what supplies you will need. They will liaise with the continence suppliers, and discuss the most suitable way for you to get these supplies. All this information will be on your discharge letter, which we will send to your GP and district nurse.

If there are any problems with supplies when you go home please contact your district nurse for support and advice.

Our Liaison service will also offer you support and advice and liaise with your district nurses.