

Bladder Management After Spinal Cord Injury

How the Bladder Works

When you drink, the body absorbs what it needs (i.e. nutrients and water) in the stomach and as it travels through the small and large intestine.

One of the functions of the kidneys is to manage the level of fluid in the body. Other body by-products are also managed by the kidneys. This waste is called urine. When the bladder is full a message is sent to the brain via the spinal cord. A message is sent back from the brain that if it is convenient for you, the bladder will contract and the urinary sphincter will relax allowing the urine to pass out of the body. This process is under both an automatic and voluntary mechanism in a normal functioning urinary system.

After Spinal Cord Injury

In nearly all cases of SCI there will be some impact on the bladder function, this is because:

- The pathway for messages from the bladder to the brain has been interrupted or impaired.
- Sensation in the bladder may be impaired and you are unable to tell when you need to empty your bladder, hold or expel the urine.
- Autonomic (automatic) management of the blood pressure (which is directly related to urine production) is usually altered. (Low blood pressure reduces urine output)
- Your bladder **will** need to be managed by a method which is likely to involve:
 - A device (such as a urinary catheter) and / or other equipment.
 - Emptying according to the volume of urine in your bladder, which is related to your blood pressure and drinking pattern.
 - A set time routine, as you are unlikely to have normal sensation to remind you to empty your bladder.

The Main Factors in Healthy Bladder Management

1. **Regular fluid intake**
 - a. Drinking between 2-3 litres per day at regular intervals and amounts,
 - b. Depending on your bladder management method, bladder size, Autonomic (automatic) nerve function, age and any other urinary or health complications.
2. **Diet** A healthy diet maintains good bowel function which can also directly impact upon healthy bladder management.

3. Time and Routine

- Establishing and maintaining a routine is vital for
 - Good long term bladder and kidney health
 - Preventing unwanted emptying episodes (urine accidents).
- Best practice is to empty your bladder according to the volume of urine in your bladder, which is related to your drinking pattern.
- Bladder emptying should **NOT** be by a strictly timed routine only.
- Should occur at around the same time as your bowel routine.
- Changes to your time, routine and / or the equipment you use, may take several weeks to adjust. Minimising changes will help avoid accidents.

4. Medications

- Most people are likely to require medication to assist with their bladder management routine after a SCI. Surgery or Botox[®] injections may sometimes be required to establish or maintain control.
 - Oral medications may be prescribed to assist in several areas of bladder management and health:
 - To increase or decrease the tone/strength of the Detrusor muscle (bladder wall) which contracts to empty the bladder.
 - To increase or decrease the tone/strength of the sphincter muscles which contract or relax to stop or allow urine flow.

Maintaining normal pressure in your bladder is important in maintaining the long term health of your kidneys and urinary system.

What To Do When Things Go Wrong

Think about the days leading up to the changes.

- Did you drink enough or change your drinking pattern?
- Did your diet and/or bowel routine change?
(Pressure from a full bowel on the bladder may cause urinary problems)
- Did you take your medication at the same time or change the time of your normal routine?
- Do you have any signs or symptoms of a urinary infection?

Sometimes the answer is simple and easy to rectify but if you have any concerns contact:

The Community Lifestyle Advisors at PARAQUAD SA 08 83553500 or www.pgasa.asn.au or speak to your GP.

Things to be aware of

- A full bladder or blocked catheter may cause Autonomic Dysreflexia, ***this must be treated immediately.***

Tips To Assist With Bladder Management

- Maintain your fluid intake at regular intervals and amounts.
- Maintain your bladder emptying equipment to ensure you minimise any risks of contamination.
- Use good technique and appropriate lubrication to minimise trauma and risks of contamination.
- Try not to rush and don't watch the clock!
- Without being obsessive one should monitor bladder routine and do not leave too long before asking for advice if changes occur.

As with the non- spinal cord population it is important to maintain a healthy urinary system. For men, it is important to discuss with your Doctor or Urologist the risks for prostate cancer and have recommended screening as prescribed. It is very important to have yearly Bladder Ultra sound and Renal Blood Tests. You should also see the Urologist at least every 12 months who will most likely prescribe Renal function tests (Urodynamics) every 1-2 years.

References and Resources

- Department of Health and Aging; Bladder and Bowel website : www.bladderbowel.gov.au
- Continence Foundation of Australia www.continence.org.au
- ParaQuad NSW : <http://www.paraquad.org.au>
- Independence Australia: www.independenceaustralia.com.au
- Queensland Spinal Cord Injuries Service: www.health.qld.gov.au/qscis

PQSA Spinal Nurse Advisors 08 8355 3500 or www.pgsa.asn.au

SORT Spinal Outreach Team at Hampstead Rehabilitation Centre 8222 1433