Spinal cord injuries (SCI)

Spinal cord injury means damage to the spinal cord itself. The injury impairs communication between the brain and the rest of the body. This means motor control signals from the brain don’t make it past the point of injury, and reflex signals from below the point of injury can’t reach the brain.

SCIs are classified according to where they occur in the spinal cord. In general, the higher the point of injury, the more muscles are affected. However, the damage may be complete or incomplete. Complete spinal cord damage means that no signals at all can travel past the point of injury, and there is no feeling or ability to move below the point of injury. If the damage is incomplete, some muscle control and feeling may remain. How much depends on the extent of the injury and the individual.

Whatever the extent of the damage, an SCI almost always means a change in bladder function. Proper bladder management is very important, and will make a big difference to general health and quality of life. And worth noting is that up to 30 % of patients with SCI regain normal bladder function.¹
Each vertebra in the spine has its own designation. For instance, the third vertebra in the cervical area is called C3 (c=cervical, 3=third), and the 7th vertebra in the thoracic area is called T7. In general, but not always, the higher the point of injury, the more extensive the loss of feeling and motor control.
How SCI affects bladder function

The location and severity of the injury determines the type of bladder condition.

An injury above T12/L1 (vertebra 12 in the thoracic area/vertebra 1 in the lumbar area) often prevents central control of bladder function. Reflex impulses take over, causing the sphincter muscle holding urine in the bladder and the bladder itself to work against each other. If bladder pressure gets too high, it can cause incontinence (leakage), or a dangerous back-up of urine into the kidneys. Treatment is usually to reduce bladder pressure with medicine and empty the bladder with clean intermittent catheterization (CIC).

Injuries below T12/L1 can affect the muscles responsible for reflex bladder emptying, partially or wholly preventing contraction of the bladder muscle. This affects different people in different ways, depending on the extent of the injury. A person may feel the urge to empty, but still be unable to do so completely. This can lead to incontinence due to overflow, or infections caused by residual urine in the bladder. When hand function is good enough or assistance is available, clean intermittent catheterization is often prescribed.
Clean Intermittent Catheterization (CIC) can help

For people with enough motor control to handle a catheter, self-catheterization with a disposable catheter (CIC) is a safe and convenient way to empty the bladder. It is effective for the types of problems encountered by many people with SCI, and can help make life a little easier.

- It’s easy to learn, and most people find it becomes second nature very quickly
- It can be performed almost anywhere, and when using certain types of catheters with bags, even if toilet facilities are not available
- Bacteria do not have a chance to grow on the tube as it might with a permanent type of catheter
- It empties the bladder completely, preventing the backflow of urine that could damage kidneys
- Because it empties completely, there’s no risk of urine leaks
Living with self-catheterization

Bladder problems can make it hard to go about our normal day-to-day lives with confidence. CIC can help in a lot of different ways.

With a hydrophilic, safe, single-use catheter, self-catheter-ization is quick, comfortable and discreet. Some people with bladder problems worry about going out in case there are leaks that get smelly. Self-catheterizing can be part of the solution.

Self-catheterization gives better control of when, where and how to empty the bladder. And self-catheterizing before going to bed helps empty the bladder completely, meaning fewer trips to the bathroom and a better night’s sleep.
enCATHopedia is an information series addressing a range of subjects within urology. It is part of our commitment to improve quality of life for users and healthcare professionals worldwide.

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At Wellspect we value the people behind our success as a leading provider of life-changing products for bowel and bladder management such as the well-known brands LoFric® and Navina™. From the thousands of users and healthcare professionals worldwide who inspire our innovative solutions, we know that working together is the best way to advance continence care, giving our users more time for life. Building on over 30 years of life-improving performance, we passionately strive to make a difference every day to everyone who needs our products and services. 

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