



# Bladder Management



For most people living with a spinal cord injury, developing a good bladder management plan is crucial to remain free of infections, protect the urinary system organs from strain or damage, avoid accidents and maintain quality of life. Using a combination of careful hygiene, fluid management, and a system for emptying the bladder, it is possible to develop a bladder management plan that is efficient, safe, and compatible with your lifestyle and level of function.

## Q: Why does SCI affect bladder health?

Just as spinal cord injuries affect people differently, the effects of paralysis on the urinary system are diverse. After paralysis, communication between the bladder muscles and the brain can be impacted in different ways causing different effects. Without proper messaging, urine from an over-full bladder or one that is not functioning properly can back up to and damage the kidneys, a condition called reflux, thus increasing the risk for renal failure.

**Q: Does everyone do the same type of bladder management?**

There is no definitive “best” way to manage bladder function after a spinal cord injury because that is based on the individual and their unique needs. The effects of paralysis on the urinary system are diverse and often tied to the level and type of injury. Each individual should work with his/her healthcare team to develop an effective plan that factors in the specifics of the injury, the level of functional capability, lifestyle and activities, and degree and skillfulness of caregiving support.

**Q: What is a neurogenic bladder, spastic and flaccid bladder?**

The neurogenic bladder is a catch-all term used to describe the urinary complications of paralysis. Two effects of spinal trauma on the neurogenic bladder are spastic bladder and flaccid bladder. With a spastic bladder, the bladder empties without warning and outside of conscious control. Also called reflex bladder or hyperactive bladder, spastic bladder is most common in injuries at T12 or above. In contrast, flaccid bladder occurs when the reflexes of the bladder muscles are sluggish or absent, so you do not feel when the bladder is full. Also called non-reflex or floppy bladder, flaccid bladder increases the risk of bladder distension and infection and typically occurs in injuries lower than T12.

**Considerations for developing your bladder management plan:**

- How can you simplify your bladder management as much as possible?
- How will you handle cathing when not at home?
- What do you need to ensure as little risk of contamination as possible?
- How can you adjust your schedule or activities with the need to regularly empty your bladder?
- What type of catheterization should you consider?

**Q: Are there different bladder considerations for men versus women?**

Urine passes from the bladder through the urethra out of your body. In women, the urethra is right above the vagina, and this location can make it difficult for women with limited mobility to keep the area around a catheter clean. A surgical option called the Mitrofanoff procedure can be beneficial to women as it constructs a new passageway for urine using the appendix or bowel to allow catheterization to be done through the abdomen. Since a man’s urethra is in the penis, a reflex voiding option can be used to squeeze a full bladder into an external condom catheter. These catheters fit like a condom around the penis and connect to a tube and collection

bag. There is no effective external collecting device for women. Indwelling catheters (Foley and suprapubic catheters) can be used by men and women.

### **Q: What are some of the types of catheters used in bladder management?**

There are a number of different types of catheters available including single-use catheters and lubricated catheters (sometimes called hydrophilic catheters) to meet individual abilities and needs. The three most common methods of bladder emptying are with intermittent catheterization (IC), an indwelling catheter (suprapubic or Foley) and an external condom catheter for men. Most people with spinal cord injury start out using intermittent catheterization which involves inserting a catheter into the urethra to drain the bladder on a regular schedule (typically every 4 to 6 hours or so) and then it is removed. An indwelling or Foley catheter remains in place in the urethra to continuously drain urine which is collected in an external bag. For men, external Texas catheters or condom catheters are an option, in conjunction with an external collection method such as a leg bag.

### **Q: What are some options and how do you choose what works best for you?**

Most people need to try different approaches in order to find the method that works depending on their level of injury and a spastic or flaccid bladder. When considering your options, think about a plan that includes ease of use, convenience, discreetness, and psychological well-being as well as a decreased risk of infections, complications and bladder accidents. In addition to the catheterization methods mentioned above, there are several surgical alternatives including Mitrofanoff procedure (constructs a new passageway for urine using the appendix or bowel), bladder augmentation (uses tissue from the intestines to enlarge the bladder capacity), urostomy (creates a surgical opening to drain urine into a plastic pouch), and sphincterotomy (weakens the bladder neck and sphincter muscle to allow urine to flow out more easily).

### **Q: How do you determine if you have a urinary tract infection (UTI) and what is the best protocol to follow for treatment?**

Even with a regular bladder management program and proper prevention methods, the risk remains for urinary tract infection (UTI). Some of the symptoms of UTI are cloudy, smelly urine, fever, chills, nausea, headache, increased spasms, burning while urinating and autonomic dysreflexia (AD). To diagnose a UTI, your healthcare provider will collect urine for a urinalysis and a culture. A culture should be done to identify the most responsive antibiotic for your case thus minimizing antibiotic resistance. Since it is common to have bacteria colonized in your bladder when you use a catheter, antibiotics are not recommended unless you have a fever or symptoms are limiting normal activities. Ongoing medical care and regular check-ups with complete UT examination are essential for anyone with an SCI.

*Sources: Craig Hospital, Model Systems Knowledge Translation Center, Christopher & Dana Reeve Foundation bladder management booklet*

**Need to talk to someone?**

Our Information Specialists are available to answer your questions.

Call toll-free 1-800-539-7309 Mon-Fri, 7 am - 8 pm EST.

Or schedule a call or ask a question online at

<https://www.ChristopherReeve.org/Ask>.

**Resources for Bladder Management:**

**Paralyzed Veterans of America: Bladder Management Following Spinal Cord Injury—What You Should Know (consumer version)**

<https://pva.org/>

Can be downloaded for free from the PVA website

**Paralyzed Veterans of America: Bladder Management for Adults with Spinal Cord Injury—A Clinical Practice Guideline for Health Care Professionals**

<https://pva.org/>

Can be downloaded for free from the PVA website

**Christopher & Dana Reeve Foundation: Bladder Management booklet**

<http://s3.amazonaws.com/reeve-assets-production/2016BladderMgmtBooklet.pdf>

Available for free download or call an Information Specialist for a printed copy at 800-539-7309.

**Craig Hospital: Bladder Care Resources**

<https://craighospital.org/resources/educational-video-bladder>

**Craig Hospital: Urinary Tract Infection Signs and Symptoms**

<https://craighospital.org/resources/urinary-tract-infection?topic=0>

**American Urological Association Foundation**

<https://www.urologyhealth.org/>

1000 Corporate Boulevard

Linthicum, MD 21090

Phone: 410-689-3700, 1-800-828-7866

E-mail: [info@urologycarefoundation.org](mailto:info@urologycarefoundation.org)

The AUA Foundation provides patient information and a resource center.

**Bladder and Bowel Foundation**

<https://www.bladderandbowel.org/>

Bladder and Bowel Community

Forward House

17 High St.

Henley-in-Arden, UK B95 5AA

Email: [help@bladderandbowelfoundation.org](mailto:help@bladderandbowelfoundation.org)

Offers support and information to those living with bowel or bladder dysfunction.

**Government of Western Australia: Troubleshooting for Your Catheter**

[https://www.healthywa.wa.gov.au/Articles/S\\_T/Troubleshooting-for-your-catheter](https://www.healthywa.wa.gov.au/Articles/S_T/Troubleshooting-for-your-catheter)

Tips on how to deal with problems you may encounter in using catheters.

**Medline Plus: Urinary Catheters**

<https://medlineplus.gov/ency/article/003981.htm>

Information on various kinds of urinary catheters.

**Model Systems Knowledge Translation Center: Bladder Management Options After SCI**

<https://msktc.org/sci/factsheets/bladderhealth>

**Multiple Sclerosis Association of America: Bladder Dysfunction**

<https://mymsaa.org/ms-information/symptoms/bladder-dysfunction/>

**National Kidney and Urologic Diseases Information Clearinghouse: Your Kidneys and How They Work**

<https://www.niddk.nih.gov/health-information/kidney-disease/kidneys-how-they-work>

The National Kidney and Urologic Diseases Information Clearinghouse provides an overview of the urinary system (also available as a printable PDF) and links to other organizations that can provide additional information.

**Northwest Regional Spinal Cord Injury System, University of Washington School of Medicine, Rehabilitation Medicine**

[https://sci.washington.edu/about\\_us/index.asp](https://sci.washington.edu/about_us/index.asp)

The University of Washington School of Medicine/Department of Rehabilitation Medicine offers details on bladder management, including downloadable pamphlets, reports, and videos.

**Bladder Management**

<https://sci.washington.edu/info/pamphlets/bladder.asp>

**Urinary Tract Infections: Intermittent Catheterization**

[https://sci.washington.edu/info/pamphlets/uti\\_1.asp](https://sci.washington.edu/info/pamphlets/uti_1.asp)

**Urinary Tract Infections: Indwelling (Foley) Catheter**

[https://sci.washington.edu/info/pamphlets/uti\\_2.asp](https://sci.washington.edu/info/pamphlets/uti_2.asp)

**Management of Urinary Problems Caused by Spinal Cord Injury** (report and streaming video, 65 minutes)

[https://sci.washington.edu/info/forums/reports/urinary\\_problems.asp](https://sci.washington.edu/info/forums/reports/urinary_problems.asp)

**Intrathecal Baclofen Therapy for Spasticity** (report and streaming video, 85 minutes)

[https://sci.washington.edu/info/forums/reports/intrathecal\\_baclofen.asp](https://sci.washington.edu/info/forums/reports/intrathecal_baclofen.asp)

**Society of Urologic Nurses and Associates: Clinical Practice Guidelines—Adult Clean**

**Intermittent Catheterization**

<https://www.sun.org/resources/adultCICGuide.pdf>

**Spinal Injury Information Network**

<https://www.uab.edu/medicine/sci/daily-living/managing-personal-health/secondary-medical-conditions/bladder-a-kidneys>

The Spinal Cord Injury Information Network lists various resources related to bladder function, including fact sheets, articles, and forums.

**Bladder Cancer:****National Cancer Institute: Bladder Cancer**

<https://www.cancer.gov/types/bladder>

**Oncolink (Abramson Cancer Center of the University of Pennsylvania): Bladder Cancer**

<https://www.oncolink.org/cancers/urinary-tract/bladder-cancer>

**Bladder Augmentation and Mitrofanoff procedure:****American Urology Association Foundation: Bladder Augmentation**

[https://www.urologyhealth.org/urology-a-z/b/bladder-augmentation-\(enlargement\)](https://www.urologyhealth.org/urology-a-z/b/bladder-augmentation-(enlargement))

**Children’s Hospital Boston: Bladder Augmentation**

<https://www.childrenshospital.org/conditions-and-treatments/treatments/bladder-augmentation>

**Great Ormond Street Hospital for Children (UK): Bladder augmentation and Mitrofanoff**

<https://www.gosh.nhs.uk/conditions-and-treatments/procedures-and-treatments/bladder-augmentation-and-mitrofanoff/>

The information contained in this message is presented for the purpose of educating and informing you about paralysis and its effects. Nothing contained in this message should be construed nor is intended to be used for medical diagnosis or treatment. It should not be used in place of the advice of your physician or other qualified health care provider. Should you have any health care related questions, please call or see your physician or other qualified health care provider promptly. Always consult with your physician or other qualified health care provider before embarking on a new treatment, diet or fitness program. You should never disregard medical advice or delay in seeking it because of something you have read in this message.

This publication is supported by the Administration for Community Living (ACL), U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$10,000,000 with 100 percent funding by ACL/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by ACL/HHS, or the U.S. Government.