Spinal Cord and Bladder Management

Female Long Term Catheters

The **5 parts** of the **urinary system** work together to make urine. Urine is made in your kidneys and travels down 2 thin tubes called ureters to your bladder. Urine is stored in the bladder. Sphincter muscles close tightly, like a rubber band around the opening of the bladder and help keep urine in the bladder. As the bladder fills with urine, you feel like you need to urinate. When the bladder reaches its limits, nerves from the bladder send a message to the brain that the bladder is full. The brain alerts the sphincter muscles to relax and urination occurs. The urine leaves the bladder through the urethra. After a spinal cord injury, you may not feel the need to urinate and you may not have control of your bladder.

**Spastic (reflex) bladder** is when your bladder fills with urine and your bladder empties. If you have a spastic bladder you don’t know when or if the bladder will empty.

**Flaccid (non-reflex) bladder** is when the bladder muscle reflexes are relaxed. If you can’t feel that your bladder is full, it may become stretched and affect the muscle tone and cause urine to back up.

- Dyssynergia occurs when sphincter muscles do not relax when the bladder contracts and urine can’t flow through the urethra
- Urine then backs up into the kidney. This is called “reflux.”
- The bladder may not empty completely
- Treatments include medications or surgery.

You may not feel the urge to urinate; you still need to empty your bladder. Having a full bladder can damage the bladder, ureters and kidneys. Not emptying your bladder can cause serious health problems and even death.
Bladder Management Method
You and your health care provider will work together to come up with a bladder management program that works best for you.

Proper Bladder Care
Having a spinal cord injury puts you at an increased risk for urinary system problems. Proper bladder care can help you prevent problems and maintain your health.
- Drink the proper amount of water. If you have an indwelling catheter, 15 (8oz) glasses or water are recommended daily.
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  \times 8(10) = \text{Daily Intake}
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- Sometimes you need to drink more water than what is normally recommended. If you drink beverages that contain sugar, caffeine or alcohol, you may need to increase your water intake. More water is needed because sugary or caffeinated drinks and alcohol cause you to urinate, which means that your body absorbs less water.
- There are times that you may need to drink less water than what is normally recommended especially if you have a medical condition such as congestive heart failure. Always ask your health care provider how much water is recommended for you.

Foley and Suprapubic Catheters
A Foley catheter is a narrow tube inserted through the urethra (the tube that carries urine from the bladder) into the bladder and is usually changed monthly. A suprapubic catheter is a small tube inserted into your bladder through a small hole in your abdomen (belly). Health care providers insert suprapubic catheters and will also change the catheter when needed.

Cleaning Urinary Supplies
It is very important to keep your urinary supplies clean. Be sure you have a cleaning area such as a sink or pan, disinfectant solution such as 2 parts white vinegar and 3 parts water or 1 tablespoon of chlorine bleach mixed with about ½ cup of water, small funnel or syringe, not required, but it helps to clean inside the bag, connector & tubing and a place to hang the leg bag and bed bag for drying.

Process for cleaning urinary supplies
- Disconnect the dirty bag, tubing and connector from the catheter.
- Attach a clean bag, tubing and connector to the catheter.
- Empty all of the urine out of the dirty bag.
- Clamp the drainage valve closed.
- Use a small funnel or syringe to pour a mixture of water and disinfectant solution through the connector and tubing into the bag.
- Shake bag gently so solution cleans all parts of the inside of the bag.
- Soak the bag in the disinfectant solution for about 20 minutes.
• Open the drainage clamp to empty the solution from the bag.
• Wash off the outside of the bag with fresh solution.
• Repeat the above procedure with water.
• Hang the bag up to dry.

Clean your urine drainage bag every day and check your tubing and connectors every 2-3 days for sediment buildup. If you see sediment buildup after cleaning, soak the rubbing and connector in the disinfectant solution as described above for 6-8 hours. If this does not remove buildup, replace the tubing or connector.

Tips to help you stay healthy:
• Always wash your hands before and after any bladder management care.
• To care for a Foley or suprapubic catheter, cleanse the urethral area (where the catheter exits the body) and the catheter with soap and water every day.
• If you experience any bladder or bowel leakage, be sure to wash your body and dry well before putting on clean clothes.
• Be sure to have a medical checkup at least yearly (or as recommended by your health care provider).

Potential Urinary Problems
Most urinary problems can be prevented with proper urinary care. People with spinal cord injuries are likely to develop urinary tract infections (UTIs) even with proper bladder care. Problems due to a UTI are likely to affect your overall health and health care costs. Bacteria are tiny germs that group together and bacteria can live in the body. Bacteria that live in the urinary system can multiply quickly and lead to an infection or disease.

Infections
Signs of infection that you should watch for:
• Gritty particles or mucus in the urine.
• Cloudy urine.
• Bad smelling urine.
• Pink or red urine which is a sign that there is blood in the urine.

You may be able to prevent an infection by:
• Drinking more water.
• Avoiding beverages with sugar, caffeine and alcohol.
• Emptying your bladder more often than normal.

Use of Antibiotics
Antibiotics are prescribed to kill the “bad” bacteria that are causing the infection. Patients with spinal cord injuries have special consideration for the use of antibiotics for a UTI. These considerations are:
• 80% of individuals with a spinal cord injury have bacteria in their urine at any given time. This is common because bacteria from the skin and urethra are brought into the bladder during catheterization.
• Antibiotics are only needed for treatment of a UTI if you have one or more of these: fever, chills, nausea, headache, change in muscle spasms and autonomic dysreflexia (AD). Depending on the level of your injury, you may feel burning while urinating or pain in the lower back, pelvic area and abdomen.
• If you are having any symptoms of an illness, see your health care provider. A urine sample will be taken to determine if you need antibiotics.
• Antibiotics should not be taken to prevent infection unless there is some medical need to prevent an infection. Every time you take an antibiotic, the bacteria have a chance to change which reduces how good the antibiotic may work in the future.

There are “good” bacteria in the digestive system which help the body maintain a natural balance of organisms. Antibiotics kill both good and bad bacteria. Sometimes doctors recommend taking probiotics during or after taking antibiotics to restore the number of good bacteria lost while taking antibiotics. Common sources for probiotics include yogurt, cheese, milk, sour cream and kefir.

There is no evidence to show that cranberry juice reduces the number of bacteria in the urine of people with spinal cord injury. There is no harm in drinking cranberry juice that is all natural and sugar free to avoid unnecessary additives.

If you get more than 2 UTIs per year, it may be a sign of other problems with the urinary system.

**Kidney and bladder stones** can form in the urinary system. These stones can cause blockages, hinder kidney/bladder function and cause infection. A patient with a lower level injury can usually feel the pain from a kidney stone but those with higher level injuries are not likely to feel the pain. Blood in the urine can be a sign of a kidney stone. Recurring or prolonged symptoms of Autonomic Dysreflexia (AD) without an apparent cause can be a sign that you have a kidney stone.

**Urine leakage or incontinence** is a problem that some people with a spinal cord injury have. Medications or surgery is often used to treat urine leakage.

**Bladder cancer** is more common in patients with spinal cord injuries than in those without. Research shows that there is a small increase in the risk of bladder cancer in a patient with a spinal cord injury who has been using an indwelling catheter and smokes.