

Spinal Cord and Bladder Management

Female – Intermittent Catheter Program

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.

The 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 sends 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.

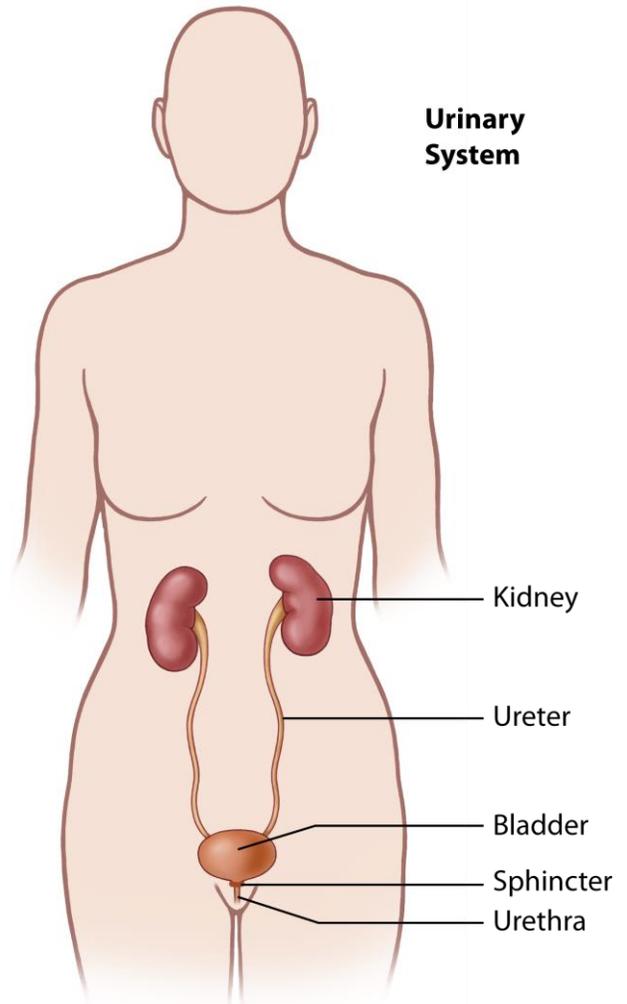
Spastic (reflex) bladder is when your bladder fills with urine and your bladder empties. If you have a spastic bladder you don't know when or if the bladder will empty.

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
- You may need medications or surgery

You may not feel the urge to urinate but 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 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 perform intermittent catheterization, 8 to 10 (8 oz) glasses of water are recommended daily.



x 8 (10) = Daily Intake

- 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 normal especially if you have a medical condition such as congestive heart failure. Always ask your health care provider how much water is you need.
- Intermittent catheterization (ICP) is usually done about every 3 or 4 hours. You will need to catheterize more often if you drink more liquids or if your bladder capacity is less than the normal 13-16 oz.
- It is best to drink most of your fluids between 6am and 6pm. This allows you to get your daily intake of fluids and catheterize just before going to bed. You can usually sleep through the night without catheterizing because your body's organs slow while you sleep.
- Use a sterile ICP technique to stay as germ free as possible. Sterile ICP kits allow you to catheterize yourself without touching the insertion tube. Check with your insurance company for insurance coverage for catheter supplies.
- Sterile ICP is preferred, but many patients use a clean catheterization technique.

ICP Process for Women

- You will need your catheter, lubricant and a drainage container.
- Wash your hands thoroughly with soap and water and clean the vulva and opening of the urethra.
- Lubricate the catheter.
- Locate the opening of the urethra. The opening is located below the clitoris and above the vagina.
- Spread the lips (labia) of the vagina with the 2nd and 4th fingers, while using the middle finger to feel for the opening.

- Begin to gently insert the catheter into the opening. Guide it upward as it toward the belly button.
- Once the catheter has been inserted about 2-3 inches past the opening, urine will begin to flow.
- Once the urine flow starts, advance the catheter 1 inch and hold it in place until the urine flow stops and the bladder is empty.
- Remove the catheter in small steps to be sure the entire bladder empties.
- Wash the catheter with soap and water. If the catheter is disposable, throw it away. If it is reusable, rinse the catheter completely and dry the outside. The catheter should be stored in a clean, dry location.

Ask your nurse to print the Krames Self- Catheterization for guide women for more information.

Tips to help you stay healthy:

- Always **wash your hands** before and after any bladder management care.
- 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 get urinary tract infections (UTIs) even with proper bladder care. 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.

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 frequently

Use of Antibiotics

Antibiotics are prescribed to kill the “bad” bacteria that are causing the infection.

- 80% of people with a spinal cord injury have bacteria in their urine at any time. This is common because bacteria from the skin and urethra are brought into the bladder during catheterization.

- Antibiotics are only needed for 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 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.