

Spinal Cord and Bladder Management

Male: Intermittent Catheter

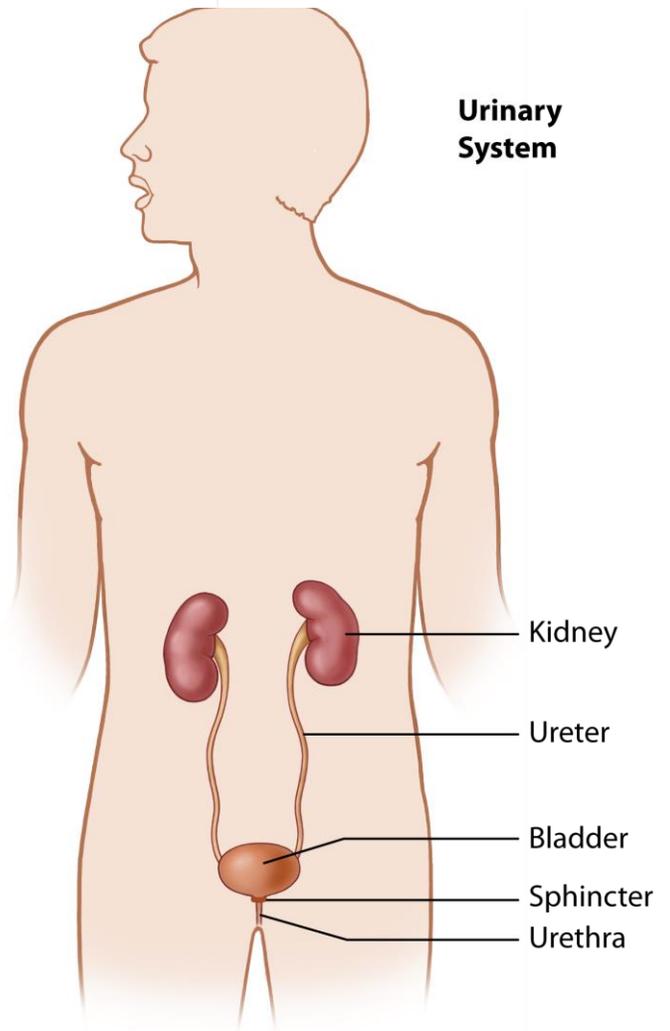
The 5 parts of the urinary system work together to get rid of waste and make urine. Urine is made in your kidneys and travels down 2 thin tubes called ureters to your bladder. Urine is stored in the bladder. Sphincter muscles close tightly, like a rubber band around the opening of the bladder and help keep urine in the bladder. As the bladder fills with urine, the sensation you feel to urinate becomes stronger. When the bladder reaches its limits, nerves from the bladder send a message to the brain that the bladder is full. The brain sends signals to the sphincter muscles telling them to relax and then urination occurs. The urine exits the bladder through the urethra. Following a spinal cord injury, you may not feel the urge to urinate when your bladder is full and you may not have control of your bladder.

Spastic (reflex) bladder is when your bladder fills with urine and a reflex automatically triggers the bladder to empty. One major problem with a spastic bladder is that you don't know when or if the bladder will empty.

Flaccid (non-reflex) bladder is when the bladder muscle reflexes are sluggish or absent. If you can't feel that your bladder is full, it may become over-distended or stretched. The muscle tone of the bladder is affected by this stretching. The urine can back up through the ureters into the kidneys.

Sphincter muscles may also be affected after a spinal cord injury:

- 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.



- Even though you may not feel the urge to urinate, you still need to empty your bladder. If not, reflux can occur and can damage the bladder, ureters and kidneys. Failure to empty the bladder to relieve pressure can result in serious health problems and even death.

Bladder Management Method

You and your health care provider will work together to come up with an effective bladder management program that works best for you to avoid bladder accidents and prevent complications including infections.

Proper Bladder Care

Having a spinal cord injury puts you at an increased risk for urinary system complications. Proper bladder care can help you prevent problems and maintain your health.

- Drink the proper amount of water. If you use a condom or intermittent catheterization management system, 8 to 10 (8 oz) glasses of water are recommended daily.



x 8 (10) = Daily Intake

- There may be times that 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 consult with your health care provider for guidance on how much water is recommended for you.
- Intermittent catheterization is usually done about every 3 or 4 hours. You will need to catheterize more often if you drink more liquids than the recommended daily amounts 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. Most insurance policies allow for a maximum of 200 intermittent catheters per month. However, check with your insurance company for information related to your policy.
- Sterile ICP is preferred, but many patients use a clean catheterization technique.

Intermittent Catheterization Process (ICP) for Men

- Assemble all equipment: catheter, lubricant, drainage container.
- Wash your hands thoroughly with soap and water and clean the penis and opening of the urethra.
- Lubricate the catheter.
- Hold the penis on the sides, perpendicular to the body.
- Begin to gently insert and advance the catheter.
- Resistance will be felt when you reach the prostate. Try to relax by deep breathing and continue to advance the catheter.
- Once the urine flow starts, continue to advance the catheter 1 inch. Hold it in place until the urine flow stops and the bladder is empty.
- Remove the catheter in small steps to make 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 guide for men 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). This will include an examination of your urinary system and may include a renal scan or ultrasound to be sure that your kidneys are working properly. The exam may also include an x-ray of your abdomen (a KUB) to be sure that your kidneys, ureters and bladder are healthy.

Potential Urinary Complications

Most urinary complications can be prevented with proper urinary system care. However, people with spinal cord injuries are likely to develop urinary tract infections (UTIs) even with proper bladder care.

Bacteria are tiny microscopic life forms that group together and different bacteria can live in various body systems. 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 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 considerations 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. Some patients are unable to fully empty their bladder which leaves some bacteria in the urine staying in the bladder.
- Antibiotics are only needed for treatment of a UTI if you have one or more of the following symptoms of infection: 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 or eliminates the effectiveness of the antibiotic to kill the bacteria 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 (renal) failure was once the #1 cause of death for individuals with spinal cord injury. However, today improved bladder management has caused this number to decrease. Sepsis (a blood stream infection from a urinary tract infection) is a more common cause of death.

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 individuals with a spinal cord injury experience. Medications are sometimes used to control bladder spasms and tighten the sphincter muscles. Surgical options include a urinary reservoir or pouch that is made from bowel tissue. The ureters are implanted into the new bladder pouch and the urine is drained with a catheter through an opening or stoma in either the navel or stomach wall. Another option is to enlarge the bladder using bowel tissue.

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. Regular cystoscopic examinations are recommended for those who have used an indwelling catheter for 10 years or more.