

3. Refrigerate the specimen and keep it cool until you can get it to your health care provider. It should be delivered within **two hours** of collection.

Antibiotic treatment

If your health care provider prescribes an antibiotic for you, ask your pharmacist whether you should take it before meals or with food. If you take Vitamin C regularly, you should also find out whether it is okay to continue it while you are taking your antibiotic. Be sure to take all of the medication as prescribed.

Some antibiotics will change the balance between your body's "good" bacteria and the "bad" bacteria that has caused your UTI. When this happens, an overgrowth of yeast can occur which may result in problems ranging from a skin rash to diarrhea. This can be prevented by taking acidophilus culture, which is available in some brands of yogurt, acidophilus milk, or as a pure culture (available in health food stores). If you develop any symptoms you think may be related to your antibiotic prescription, notify your health care provider.

When you have completed your antibiotic prescription it is **not necessary to get a repeat culture** unless your symptoms have not improved. Some people who reuse their catheters find that recurrence of a UTI is less likely if they discard their current catheters and begin using new ones after treatment for a UTI. Except in rare circumstances, routine use of daily antibiotics to prevent a UTI is not recommended.

UW Medical Center Spinal Cord Injury Clinic:

- ◆ Maria Reyes, MD, Attending Physician.
- ◆ Rehabilitation Clinic nurses 206-598-4295.

Harborview Medical Center Spinal Cord Injury Clinic:

- ◆ Barry Goldstein, MD, PhD, Attending Physician
- ◆ Rehabilitation Clinic nurses 206-744-2581

The Northwest Regional Spinal Cord Injury System is funded by grant number H133N060033 from the National Institute on Disability and Rehabilitation Research (NIDRR) in the U.S. Department of Education.

© Northwest Regional Spinal Cord Injury System, 1998, 2006, 2010
Authors: Ginger Kawasaki, CRRN, and Cathy Warms, ARNP

<http://sci.washington.edu>

Staying Healthy After a Spinal Cord Injury

URINARY TRACT INFECTIONS

Intermittent Catheter

Northwest Regional SCI System

UW Medicine

Department of Rehabilitation Medicine

University of Washington Medical Center
1959 NE Pacific St. • Box 356490
Seattle, WA 98195

Harborview Medical Center
325 Ninth Ave. • Box 359612
Seattle, WA 98104

What is a urinary tract infection?

When bacteria get into your bladder or kidneys and cause you to have symptoms, you have a urinary tract infection (UTI). It is important to know the difference between an infection and bacteriuria (having bacteria in the urine but no symptoms).

What causes urinary tract infections?

Because of your spinal cord injury and the fact that you must empty your bladder by intermittent catheterization, you are more likely than most people to get bacteria in your urine. The reason for this is that whenever a catheter is passed through the urethra (the channel between the bladder and the outside of the body) it can pick up bacteria that are normally on the skin and push the bacteria into the bladder. Bacteria can grow and multiply in the urine if the urine remains in the bladder for a prolonged amount of time (more than 4-6 hours). You can avoid this by emptying your bladder at least once every 6 hours and by drinking enough fluids to keep the urine volume between 300 and 400 cc (1 to 1-1/2 cup) at each catheterization. Careful hand washing before and after each catheterization is essential and will help prevent UTIs by decreasing the amount of bacteria on the skin.

Symptoms of a urinary tract infection (things you may feel)

- ◆ Fever.
- ◆ Chills.
- ◆ Leakage or voiding between catheterizations.
- ◆ Increased spasms of legs, abdomen, or bladder.
- ◆ Feeling the need to catheterize immediately (urgency).
- ◆ Feeling the need to catheterize more often (frequency).

- ◆ Burning of the urethra, penis, or pubic area.
- ◆ Nausea.
- ◆ Headache.
- ◆ Mild low back pain or other aches.
- ◆ Feeling “lousy” or tired.

Signs of a urinary tract infection (things you may notice)

- ◆ Sediment (gritty particles) or mucus in the urine or cloudy urine.
- ◆ Bad smelling urine (foul odor).
- ◆ Blood in urine (pink or red urine).

Note: The appearance and smell of your urine may change because of changes in your diet or fluid intake. **If you have changes in the urine but no symptoms (see list above), you do not necessarily have a UTI. But if you have concerns, do call your health care provider.**

People who empty their bladders by intermittent catheterization may occasionally see small blood clots or red blood visible on their catheters because of trauma (bumping against the bladder or urethra or forcing the catheter past the sphincter). This is not cause for worry unless it happens frequently. Larger amounts of blood, or urine that is red from blood, should always be reported to your health care provider.

Self care

Many people are able to prevent a UTI from developing by taking some self care steps. The most important step for people who do intermittent catheterization and begin to develop symptoms of a UTI is to catheterize themselves more frequently (every 2- 4 hours) and increase their fluid intake. Some people are able to avoid or treat UTIs by taking vitamin C (500-2,000 mg per day) or cranberry extract tablets. Other “natural” treatments may be

helpful but you should consult with someone who is knowledgeable in this field, such as a naturopathic physician.

When to call your health care provider

If you develop a fever (temperature greater than 100 degrees) or if your symptoms are interfering with your life, you should call your health care provider. He or she will want to know your **temperature, current symptoms, whether you have any allergies to antibiotics, and what antibiotics have worked well in the past.** Your health care provider will want you to get a urine specimen for culture and will discuss with you whether antibiotics should be started right away or after the results of the culture are available.

How to collect a good specimen for urine culture

The accuracy of any urine test depends on careful collection of the specimen to avoid contamination by bacteria from other sources, such as your hands or the specimen container. Following the instructions below will help ensure accurate results.

1. Open your **sterile jar**—either one from the hospital or one you have prepared at home. (To sterilize a jar at home, choose a small jar with a snug-fitting lid. Wash it carefully in soap and water and rinse well. Place the jar and lid in a pan of boiling water and immerse for 10 minutes. Remove jar and lid with metal tongs, invert on a dish drainer, and allow to cool.) Do not touch the inside of the jar.
2. Using a **new, sterile catheter**, catheterize yourself as usual and allow some of the urine to flow into the jar. Collect at least 30 ml (1 oz.) of urine.