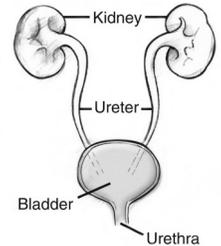




Urinary Tract Infections

July 2015, ½ hour

A urinary tract infection is a microbial infection (typically bacterial) of the urethra, bladder, ureters, or kidneys. Most infections involve the lower urinary tract (bladder, urethra). UTIs are commonly caused by *Escherichia coli* (*E. coli*), a bacteria found in feces, and can be caused by other bacteria, as well as sexual intercourse and sexually transmitted infections.



Risk Factors:

1. Women are more prone to UTIs due to the closer proximity of the urethra and the rectum, as well as normal changes as women age, such as thinner, more fragile tissues and lack of mucus after menopause.
2. UTI's in men are frequently caused by an enlarged prostate or a narrowed urethra, causing incomplete emptying of the bladder.
3. Compromised immune system due to age or disease.
4. Diabetes Mellitus which causes increased glucose in the urine and defective immune factors.
5. Insufficient emptying of the bladder can cause urine to be stagnant and bacteria to grow.
6. Being immobile for prolonged periods of time.
7. Frequent incontinence of diarrhea if someone is incontinent or improper cleansing.
8. Kidney stones can block the flow of urine into the bladder and cause a backup of urine in the kidneys.
9. Bladder or uterine prolapse due to inadequate emptying of the bladder - (postmenopausal women).
10. Having an indwelling catheter or needing frequent intermittent catheterization to empty the bladder.

Symptoms:

Symptoms of UTI's can vary depending upon which part of the urinary tract are affected. Although not always present, signs and symptoms of urinary tract infections may include:

- A strong, persistent urge to urinate frequently, while only passing small amounts of urine
- A burning sensation when urinating
- Urine that looks cloudy
- Red, bright pink or cola colored urine — a sign of blood in the urine
- Strong-smelling urine
- Pelvic pain in women
- Rectal pain in men
- Fever
- Poor appetite

You should call a doctor if you or an individual you care for shows signs of having a UTI. If left untreated, UTIs can cause serious complications.

Complications

Complications of an untreated UTI may include:

- Permanent kidney damage
- Stricture (urethral narrowing) in men from recurrent urethritis
- Sepsis, a potentially life-threatening complication of an infection, especially if the infection works its way up your urinary tract to your kidneys. ([mayoclinic.org/diseases-conditions/urinary-tract-infection/basics/complications/con-20037892](https://www.mayoclinic.org/diseases-conditions/urinary-tract-infection/basics/complications/con-20037892), 7/31/2015))

UTIs are among the most common infections in the elderly and those with an intellectual disability, but the symptoms may not follow the classic pattern. Symptoms can include agitation, delirium (sudden severe confusion, sometimes including hallucinations and hyperactivity) and other behavioral changes. This age group is also more likely to develop serious complications as a result of UTIs.

Example:

“UTIs are among the most common infections in the elderly and those with an intellectual disability.”

Lisa is 54 years old and lives in a home in the community. She has Down syndrome and is not always able to communicate her wants and needs clearly. She also has issues with mobility and requires some assistance with ambulation. Lisa recently experienced a change in behavior wherein she would frequently indicate a need to use the bathroom. When her caregivers assisted her to the bathroom, Lisa would put her hands against the door frame and scream, refusing to enter. Her caregivers thought she was confused, and due to her age, suspected this behavior may be due to dementia. One caregiver suggested the possibility of Lisa having a urinary tract infection, but other caregivers did not believe this was the case because Lisa had just been treated for a UTI within the previous month. However, a doctor visit was scheduled, and it was discovered that Lisa did indeed have another urinary tract infection.

Treatment

A simple UTI can be treated with a short term course of antibiotics. However some may need treated for several weeks depending on the severity of the infection or the bacteria causing it. The full prescription of antibiotic needs to be taken, unless they have a serious side effect or allergic reaction, or the infection will return and may be more difficult to treat.

The health care provider may recommend drinking lots of fluids and encouraging the individual to empty their bladder frequently to help flush out the bacteria.

A repeat urine sample after treatment may be ordered to assure infection is gone.

Antibiotics commonly ordered for simple urinary tract infections include:

- Sulfamethoxazole-trimethoprim (Bactrim, Septra, others)
- Amoxicillin (Larotid, Moxatag, others)
- Nitrofurantoin (Furadantin, Macrodantin, others)
- Ampicillin
- Ciprofloxacin (Cipro)
- Levofloxacin (Levaquin)

Be sure to read the information provided by the pharmacy for administration instructions, possible side effects to monitor for and symptoms of an allergic reaction to the medication.

The physician may also prescribe a pain medication (analgesic) that numbs the bladder and urethra to relieve burning while urinating. One common side effect of this type of medication is discolored urine — orange or red.

The physician should be contacted if symptoms worsen after two days of antibiotic treatment.

Prevention

Encourage individuals in your care to:

- Practice good hygiene. Wash the perineal area (vaginal or scrotal) and rectal area daily and always wipe from the front to the back, especially after a bowel movement. Bacteria from the rectal area are frequently the cause of urinary infections.
- Drink plenty of fluids: unless they are **on fluid restrictions**, have them drink eight to ten 8-ounce glasses of water a day and avoid drinking fluids that may irritate the bladder, such as alcohol and caffeine, if they are predisposed to urinary infections. Spicy foods and smoking may also irritate the bladder. Cranberry juice may also have protective properties for the urinary tract. Although there is no proven research to support the claims, drinking two four-ounce glasses of cranberry juice a day may help prevent bacteria from sticking to the lining of the bladder and may inhibit bacterial growth by making the urine more acidic. Cranberry juice seems to be most effective in women who have recurrent UTIs. Note: if you are taking Warfarin, check with your doctor before drinking cranberry juice, as it may lead to bleeding.



- Consider taking a shower rather than a tub bath if possible. Showering removes the bacteria, while bacteria remain in bath water and may contaminate the perineal area.
- Avoid holding their urine for prolonged periods of time; this stretches the bladder. Encourage them to empty the bladder as soon as the need arises.
- Avoid douches, feminine hygiene sprays, and scented soaps. These may irritate the urethra and possibly begin a UTI.
- Consider white cotton underwear instead of silky or polyester type undergarments. Cotton allows air to flow through and lets moisture escape.

As a caregiver, you can help individuals avoid constipation, which may cause urine to remain in the bladder for prolonged periods of time, by reminding them to drink water and helping them to be more active, if possible.

You can also observe urine for color, odor, volume and sediment - especially in those individuals who are more susceptible to UTIs.

URINARY TRACT INFECTIONS TEST



Name: _____

Date: _____

Role/Title: _____

Agency: _____

Please provide contact information (email address, fax number, or mailing address) where you would like your certificate to be sent:

You must submit your completed test, with at least a score of 80%, to receive **½ hour** of training credit for this course.

- * To submit via fax, please fax the test and evaluation to 814-728-8887. Please fax only the test and evaluation, not the entire training packet.
- * To submit via email, please send an email to HCQUNW@MilestonePA.org. Please put “UTI Test” in the subject line, and the numbers 1—5, along with your answers, in the body of the email, OR scan the test and evaluations pages and email as attachments.
- * To submit via mail, send the test and evaluation pages to: Milestone HCQU NW, 247 Hospital Drive, Warren PA 16365.

1. A person will always know they have a urinary infection by the burning with urinating. True False
2. It is well proven that drinking cranberry juice will prevent urinary infections. True False
3. Fluids that can irritate the bladder are coffee and alcohol. True False
4. People should never hold their urine for long periods of time as it allows bacteria to grow. True False
5. Urinary tract infections are more common in females. True False

Home Study Evaluation

Training Title: Urinary Tract Infections

Date: _____

- Direct Support Professional
- Program Specialist
- Consumer/Self-Advocate
- Support Coordinator
- PCH Staff/Administrator
- FLP/LSP
- Provider Administrator/Supervisor
- Provider Clinical Staff
- Family Member
- Support Coordinator Supervisor
- County MH/MR/IDD
- Other (please list): _____

Please circle your PRIMARY reason for completing this home-study training:

- It's mandatory interested in subject matter need training hours convenience

Please circle the best response to each question.

5 = Strongly Agree 4 = Agree 3 = Undecided 2 = Disagree **1 = Strongly Disagree**

- | | | | | | |
|-----------------------------------------------------------------|---|---|---|---|---|
| 1. As a result of this training, I have increased my knowledge. | 5 | 4 | 3 | 2 | 1 |
| 2. I learned something I can use in my own situation. | 5 | 4 | 3 | 2 | 1 |
| 3. This training provided needed information. | 5 | 4 | 3 | 2 | 1 |
| 4. The training material was helpful and effective. | 5 | 4 | 3 | 2 | 1 |
| 5. Overall, I am satisfied with this training. | 5 | 4 | 3 | 2 | 1 |
| 6. I am glad I completed this training. | 5 | 4 | 3 | 2 | 1 |

Suggestions for improvement: _____

Additional information I feel should have been included in this training: _____

I would like to see these topics/conditions developed into home-study trainings: _____
