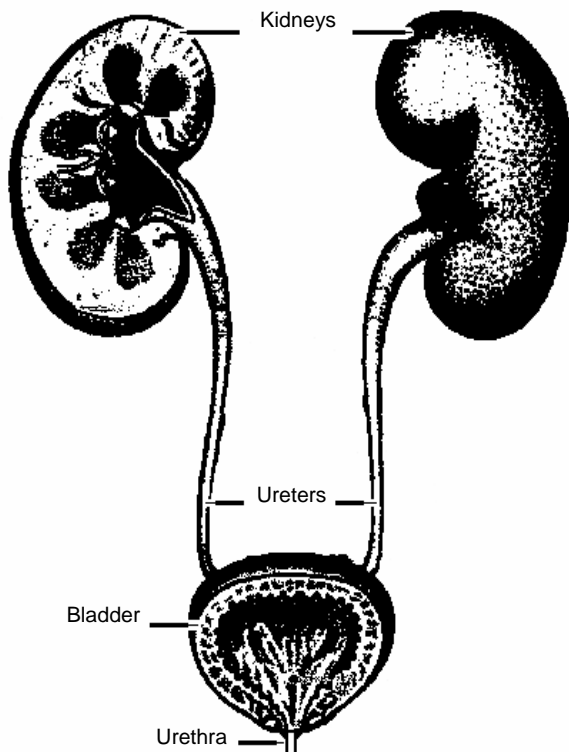


Urinary Tract Infections in Women



Fifty to sixty percent of all women will experience at least one urinary tract infection during their lifetime. The urinary tract includes the kidneys, ureters, urinary bladder and urethra. The kidneys filter metabolic waste from the blood stream and excrete it as urine. They also help maintain the proper water and chemical balance in our bodies. The urine filters through the kidney and flows through the ureter to the bladder, which collects and holds the urine. The urine travels from the bladder through the urethra when a person urinates. The meatus is the external opening to the urethra and is located just above the vaginal opening.

There are many interchangeable terms used to describe an infection of the urinary tract:

- Cystitis, bladder infection and UTI (or urinary tract infection) are all terms commonly used to describe an infection of the bladder and/or urethra.
- Kidney infection and pyelonephritis are both terms used to describe an infection of the kidney. Pyelonephritis is characterized by fever, chills, mid-back pain and often nausea and/or vomiting. Severe kidney infections may require hospitalization and can be life threatening. Pyelonephritis may develop if bladder infection symptoms are not recognized or treated quickly.

What causes a urinary tract infection?

The entire urinary tract is normally bacteria-free or sterile. Bacteria normally present in the vagina and anal area may easily enter the urethra through the meatus, during intercourse or when cleansing after urination and bowel movements. The female urethra is very short, making it easy for the bacteria to reach the bladder and multiply, causing a bladder infection. The bacteria may then migrate upward through the ureters into the kidneys and cause a kidney infection. Pregnant women are at greater risk of developing a kidney infection. Also, infrequent urination and decreased intake of water increases the risk of urinary tract infections.

What are the symptoms of a urinary tract infection?

The primary symptoms of a bladder infection include burning and pain with urination, frequency and urgency. Other symptoms may include incomplete emptying of the bladder, visible blood in the urine and brown or cloudy urine. Additionally, there may be painful spasms in the bladder, pain in the low abdomen, just above the pubic bone, and a low back ache.

Kidney infections may be accompanied by chills and fever, mid-back (flank) pain, nausea and sometimes vomiting, and a generalized feeling of illness. Burning with urination, frequency and urgency may also be present. To identify the "flank" area of the back, place your hands at the side of the waist - elbows pointing outward from the body with your fingers on the abdomen. The area where the thumbs are located is referred to the "flank" area.

How is a urinary tract infection treated?

Since UTI's are caused by bacteria, antibiotics are needed to successfully treat the infection. For bladder infections, treatment usually lasts 3-7 days. Kidney infections require medication for 10-14 days. It is important to take the medication exactly as prescribed.

All the medication must be taken even if the symptoms go away before the medication is completed. Discontinuing the medication before it is gone may cause the symptoms to reoccur or allow the bacteria to develop antibiotic resistance, making it much more difficult to treat the next infection.

Cranberry juice (eight ounces daily) or cranberry pills may speed recovery by preventing the bacteria from adhering to the bladder wall.

To help reduce the burning and frequency of urination, phenazopyridine is available over-the-counter in drug stores. Some of the brand names for phenazopyridine are: Azo and Uristat. This medication turns the urine fluorescent orange and may stain underwear. It may also discolor other body fluids, especially the tears and may therefore cause staining of contact lenses. If a woman purchases this medication to relieve symptoms, it is important that she seek treatment for the infection within 24 hours. This medication should not be needed longer than 48 hours after beginning antibiotic therapy. Phenazopyridine should not be taken if a woman is pregnant. Women should also drink 6-8, eight ounce glasses of water daily. Avoid intercourse for 3-5 days. Decrease caffeine and alcohol intake to reduce irritation of the bladder and urethra.

Symptoms of the UTI should resolve within 2-3 days of starting antibiotics. If the symptoms are still present (even if improved) you should report this to your health care provider.

What can be done to prevent urinary tract infections?

- Drink 6-8 glasses of water daily and urinate frequently throughout the day.
- Use minimal caffeine and alcohol on a daily basis.
- Avoid daily use of mini-pads or panty liners that may cause irritation of the meatus.
- Avoid bubble baths and clothing that is tight or retains moisture. Wear underwear with a cotton crotch.
- Use additional lubrication during intercourse and urinate within 10-20 minutes after intercourse.
- After urination or bowel movements, wipe from front to back to avoid introducing bacteria into the meatus.
- Wash the vagina and meatus with warm water, but avoid direct soap applications. Soaps, body washes and feminine hygiene agents may cause external irritation and increase inflammation of the external urinary/genital tissue.
- If you have anal intercourse or anal/finger contact, wash the penis, vulva, hands and all sex toys prior to vaginal penetration. Condoms are encouraged during all anal contact, but don't forget to change condoms before vaginal penetration.
- Use products containing cranberry regularly.
- Consider changing contraception methods. Spermicides can increase the risk of UTI's, especially those used with diaphragm contraception.
- You should not delay urinating. Holding your urine longer can increase your risk of getting a UTI.
- Pelvic muscle exercises frequently throughout each day.

References

"Patient information: Urinary tract infections in adolescents and adults" (2008) Web site at: www.uptodate.com

"Urinary Tract Infection: Traditional Pharmacologic Therapies; American Journal of Medicine Volume 113 (1A) July 8, 2002 pages 35-44.

"Urinary tract infections in adults" (2008) Web site at: www.UrologyHealth.org

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: **Dial-A-Nurse at 333-2700**

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: <http://www.mckinley.uiuc.edu>