



URINARY TRACT INFECTIONS

What is a urinary tract infection?

A urinary tract infection (UTI) is a common infection that usually occurs when bacteria enters the opening of the urethra (tube that carries urine out from the bladder) and multiplies in the urinary tract. An infection of the bladder is called cystitis and is the most common type of UTI. If bacteria in the bladder progresses up the ureters (tubes that carry urine from each kidney to the bladder) towards the kidneys, this is called pyelonephritis. Polynephritis differs from a UTI because it is usually associated with fever, chills, nausea, vomiting, and back pain.

What causes urinary tract infections?

The most common source for urinary tract infections is bacteria from the bowel (*E. coli*) that lives on the skin near the anus or vagina that can spread and enter the urinary tract through the urethra. It causes about 80% of UTIs in adults. Women may be more susceptible to UTI because their urethral opening is near the source of the bacteria, and their urethra is shorter, providing bacteria easier access to the bladder. During menopause, the distance from the urethra opening to the vagina and rectum shortens which increases the risk of UTI with aging. Vaginal estrogens may decrease this risk by preventing this shortening.

Bacteria can enter the urinary tract when women wipe “back to front” after using the bathroom, wiping the bacteria normally found around the anus (opening for stool) or vagina, right into the urethra. During sexual intercourse, bacteria in the vaginal or anal area can be carried into the urethra. Conditions that cause urine to be retained in the bladder, such as pelvic organ prolapse, medications to treat overactive bladder (OAB), or prior surgery for stress urinary incontinence, may increase the risk of urinary tract infection. Lack of estrogen after menopause can alter the normal conditions in the vagina and promote the growth of *E.coli*.

What are the symptoms of a urinary tract infection?

The most common symptoms of a urinary tract infection are:

- Dysuria, which means pain or burning while urinating
- Urinary frequency, which means frequent urge to urinate
- Urinary urgency, which means feeling the need to urinate, but then only urinating a small amount
- Pain in the lower abdomen
- Urine may look cloudy

What is the treatment?

Urinary tract infections are treated with antibiotics to kill the bacteria causing the infection. The antibiotic will be prescribed for 7-10 days, depending on the bacteria. It is important to take the antibiotic as prescribed and not stop before the full treatment is complete, even if your symptoms improve. It may take up to 3 days of antibiotics before your symptoms improve. Drinking plenty of water will help. You might try to avoid typical “bladder irritants”, foods that may worsen your symptoms, until your infection is gone.

(See our patient handout on diet and bladder control.)

If I have these symptoms, why won't you prescribe an antibiotic without seeing me?

Just because a woman has the symptoms mentioned above does not mean she actually has a urinary tract infection. The only way to be sure is to obtain a sterile urine sample and send it to the lab for testing. Urine that is voided passes over the skin, which can contaminate it (add bacteria to it that are not actually in the bladder but on the skin). This is why we recommend that you come into the office and let one of our staff place a small catheter into your bladder and obtain a more accurate specimen. We send the specimen to the lab to see if bacteria are present. If there are bacteria, the lab will identify it and recommend an antibiotic that will work best to treat the specific cause of the infection.

Other physicians may have treated your symptoms without a urine test. Some physicians treat every sore throat with antibiotics, as if it was strep throat, or every ear ache with antibiotics, as if it was otitis media. We believe it is best to know what we are treating, and make certain your symptoms are caused by an infection. There are other conditions that cause the same symptoms. Treating every woman with symptoms can lead to the development of strains of bacteria that can only be treated in the hospital with strong, intravenous antibiotics, or strains of bacteria that resist any treatment. If we treat symptoms without checking it out, we may miss finding another condition that is actually causing your symptoms.

What else could cause these symptoms?

Urethral syndrome, frequency-dysuria syndrome, frequency-urgency syndrome, cystitis, and interstitial cystitis are conditions which have symptoms similar to those of a urinary tract infection. Common symptoms of these conditions include fre-



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quent need to urinate, lower abdominal pain, irritation of the urethra, or bladder pain and spasms. Some women who are treated repeatedly for urinary tract infection, and never seen to be totally "cured", may actually have one of these conditions instead.

The cause of these conditions is unknown, but they are not caused by bacteria. Possible causes include hormonal imbalances, a reaction to certain foods, a reaction to certain chemicals found in douches, bubble bath, soaps, contraceptive gels or condoms, hypersensitivity after urinary tract infection, or trauma from sexual intercourse. Some people think women may acquire symptoms from pelvic nerve irritation after wearing tight thong underwear or blue jeans, horseback riding or long-distance biking.

Diagnosis of these other conditions is made by ruling out an infection. Antibiotics will not treat these conditions or improve the symptoms.

We understand that it is sometimes inconvenient to come to the office and give a urine specimen, especially if you have had infections in the past. It is really in your best interest that we document the presence of infection caused by bacteria before using antibiotics. If bacteria are not present in your urine, we will then look for other reasons for your symptoms, such as urethral syndrome, frequency-urgency syndrome, or interstitial cystitis. If your physician suspects one of these other conditions, he/she will discuss it with you at that time.

How can I prevent urinary tract infections?

Try some of the following suggestions to reduce your risk of developing a UTI:

- Good personal hygiene is the best way to prevent urinary tract infections. After urinating and/or having a bowel movement, wipe with toilet paper from front to back to prevent bacteria found around the anus from entering the vagina or urethra. Wash the skin around and between the anus and vagina daily.
- Drink 6-8 eight ounce glasses of water a day.
- Wear underwear with a cotton crotch, and avoid any clothing that is tight in the crotch area.

- Take showers instead of baths
- Avoid products that can irritate your genital area such as douches, sprays, spermicidal creams, diaphragms, and deodorants, or sanitary products with deodorants in them. Since spermicidal or a diaphragm may increase your risk for UTIs, you may want to talk to your doctor about the possibility of switching to another form of birth control.
- Urinate at least every 4 to 6 hours throughout the day
- Clean your genital area before having sexual intercourse, and urinate afterward to help flush out any bacteria that may be present
- Seek treatment if you experience incontinence (urine leakage)

What about drinking cranberry juice to prevent urinary tract infections?

For years, women have been told to drink cranberry juice to prevent or treat urinary tract infections. Two recent studies demonstrated that cranberry juice may help prevent urinary tract infections by preventing E.coli or other bacteria from sticking to the wall of the bladder and causing an infection. Recent studies have not supported the theory that cranberry juice increases the acid in urine so bacteria can't grow as easily. However, once an infection is identified, there is no proof that cranberry will treat the infection. Some current literature questions the cost/benefit of cranberry juice or tablets, suggesting the amount of money spent may not be worth the potential benefit. From 300-500 ml (1 measuring cup = 240 ml) per day is the recommended daily "dose" of cranberry juice.