



Education

Urinary Tract Infection in Women

What is a urinary tract infection?

A urinary tract infection (UTI) is a bacterial infection in the urinary tract. The urinary tract includes the kidneys, ureters, bladder, and urethra. Any or all of these parts of the urinary tract can become infected. If left untreated, UTI can cause permanent damage to the bladder and kidneys.

How does it occur?

Urinary tract infection is the result of bacteria that multiply and spread. These bacteria can cause:

- cystitis (bladder infection)
- pyelonephritis (kidney infection)
- urethritis (inflammation of the urethra, the tube that drains urine from the bladder).

Normally the urine does not have any bacteria or any other organisms in it. Bacteria that cause UTI often spread from the rectum or vagina to the urethra and then to the bladder or kidneys. Urinary tract infection is more common in women because the urethra is short. This makes it easy for bacteria to move up to the bladder and kidneys. Sometimes bacteria can also spread from another part of the body through the bloodstream to the urinary tract.

An obstruction in the urinary tract, such as a stone, can keep the urine from getting to the bladder and lead to an infection. Urinary tract infection is more likely to occur if you have diabetes or another disorder that affects the immune system. Many women seem to have more infections after sexual intercourse. As you get older, it can be harder to empty the bladder completely. If the urine stays in the bladder, the few bacteria that get into the bladder can start growing and start an infection. Often the cause of UTI is not known.

Urinary tract infection is more likely to occur in women who:

- are newly sexually active or have a new sexual partner
- are past menopause
- are pregnant
- have a history of diabetes, sickle-cell anemia, stroke, kidney stones, or any illness that causes the bladder to be paralyzed or unable to empty completely.

What are the symptoms?

The symptoms of UTI may include:

- urinating more often
 - feeling an urgent need to urinate
 - pain or discomfort (burning) when you urinate
 - strong-smelling urine
 - pain in the lower pelvis, stomach, lower back, or side
 - urine that looks cloudy or reddish
 - shaking chills
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- fever
- sweats
- nausea and vomiting
- leaking of urine (incontinence)
- change in amount of urine, either more or less
- pain during sexual intercourse.

How is it diagnosed?

Your health care provider will review your symptoms and examine you. The exam may include a pelvic exam. Your provider will check for tenderness of the bladder or kidney area of your back. A sample of your urine may be tested for bacteria and pus.

For repeated infections or symptoms that continue after treatment, your health care provider may suggest:

- An intravenous pyelogram (IVP). An IVP is a special type of x-ray of the kidneys, ureters, and bladder.
- An ultrasound scan to look at the urinary tract.
- A cystoscopy. This is an exam of the inside of the bladder with a small lighted instrument. It is usually performed by a specialist called a urologist.

How is it treated?

UTIs are treated with an antibiotic. For uncomplicated urinary tract infections you may take a single dose of an antibiotic or you may take an antibiotic for 3 to 10 days. For chronic infections or infections that keep coming back, it may be necessary to take the antibiotics for a longer time. Take all the medicine your health care provider prescribes, even after the symptoms go away. If you stop taking your medicine before the scheduled end of treatment, the infection may come back.

Your health care provider can prescribe a medicine called Pyridium to relieve painful urination while the antibiotics are treating the infection. (This medicine turns your urine a dark orange color.)

If the infection is not treated, your kidneys may be damaged or the infection may spread to your blood. If the infection does spread to the blood, it can be fatal. If you have a severe kidney infection, you will be given IV antibiotics through your veins and you may have to stay in the hospital for a few days.

How long will the effects last?

Usually the symptoms of the infection stop in 2 to 3 days.

How can I take care of myself?

- Follow your health care provider's treatment.
- Drink more fluids, especially water, to help flush the bacteria from your system.
- If you have a fever:
 - Rest if you have a fever above 100 degrees F (38 degrees C). After your temperature falls below 100 degrees F (38 degrees C), you may be more active.
 - Take aspirin or acetaminophen to control the fever.
 - Keep a daily record of your temperature.
- A hot water bottle or an electric heating pad on a low setting can help relieve cramps or lower abdominal or back pain.
- Soaking in a tub for 20 to 30 minutes may help relieve any back or abdominal pain.
- If your symptoms continue for 2 or more days, or if you develop new symptoms, call your health care provider.

How can I help prevent a urinary tract infection?

You can help prevent UTIs if you:

- Drink plenty of water and other noncaffeinated drinks. (Caffeine can cause the body to lose fluids.)
 - Do not delay urinating when you feel the need to urinate.
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- Use good hygiene when you use the toilet. For example, wipe from front to back to keep rectal bacteria from getting into the vagina and urethra.
- Avoid using irritating cosmetics or chemicals in the area of the vagina and urethra (such as strong soaps, feminine hygiene sprays or douches, or scented napkins or panty liners).
- Urinate soon after sexual intercourse.
- Keep your genital area clean.
- Empty your bladder completely when you urinate.
- Wear all-cotton or cotton-crotch underwear and pantyhose. Change underwear and pantyhose every day.

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