

UNIVERSITY STUDENT HEALTH SERVICES • Fact Sheet

URINARY TRACT INFECTIONS (UTIs)**WHAT IS A UTI?**

The urinary tract system consists of all the organs involved in the collection and removal of liquid wastes from the body. These organs include the kidneys, ureters, bladder, and urethra:

- The kidneys are bean-shaped organs that are located below the ribs in the middle of the back. They remove waste from the body in the form of urine.
- Narrow tubes called ureters carry the urine from the kidneys to the bladder.
- Urine is then emptied from the bladder through the urethra.

Despite its unsanitary image, urine is normally free of bacteria. A urinary tract infection (UTI) occurs when bacteria enter the urethra and travel up into the bladder. The bacteria that cause UTIs usually come from your own digestive tract (ie. the anal area).

- If the infection stays just in the bladder, it is called a **bladder infection or “cystitis”**.
- Less commonly, the infection can travel past the bladder and up into the kidneys. This type of UTI is referred to as a **kidney infection or “pyelonephritis”**.

HOW COMMON ARE UTIS?

UTIs are one of the most common infections diagnosed in the US in an outpatient setting. Approximately 50-60% of women will be diagnosed with a UTI in their lifetimes, and many women will experience more than one UTI.

WHY ARE UTIS MORE COMMON IN WOMEN?

The female anatomy increases a woman's risk of developing UTIs. A woman's urethra is situated very close to the anus and is much shorter than a male urethra. This makes it easier for bacteria to enter the urethra (especially during vaginal intercourse) and travel up into the bladder.

WHAT ARE OTHER RISK FACTORS FOR UTIS?

You are also at increased risk for UTIs if you:

- Have sex frequently.
- Use spermicides during sex.
- Had a UTI in the past 12 months.
- Have diabetes.
- Have a structural abnormality of the urinary tract or kidney stones.

There is also evidence suggesting that some people have a genetic predisposition to UTIs, regardless of their health conditions or lifestyle behaviors.

WHAT ARE THE SYMPTOMS?**❖ Bladder Infections (Cystitis)**

Common symptoms include:

- Pain or burning with urination.
- Frequent urination.
- Urgency (the feeling that you have to urinate immediately).
- Not being able to urinate despite having the urge.
- Blood in the urine.
- Lower abdominal pain (over the bladder), especially during urination.
- Mild low back pain.

❖ Kidney Infections (Pyelonephritis)

Symptoms may include those of a bladder infection but typically also include:

- Fever (100°F or higher).
- Chills
- Back pain (usually mid-way up the back on one side).
- Abdominal pain.
- Nausea or vomiting.

SEEK MEDICAL CARE URGENTLY IF YOU HAVE SYMPTOMS OF A KIDNEY INFECTION.

Early treatment is important in preventing complications, such as kidney damage, and hospital stays.

HOW IS IT DIAGNOSED?

A UTI is diagnosed based on your symptoms, physical exam findings, and results of a urine test looking for signs of infection. In some cases, a urine sample is also sent to the lab for culture. This test will identify the specific bacteria causing the infection and whether antibiotic resistance exists.

WHAT IS THE TREATMENT?

The usual treatment for a UTI is a course of antibiotics taken by mouth.

Over-the-counter medications are available for symptom relief, but they will not cure a UTI.

Drinking more fluids during treatment can also help flush bacteria from the bladder.

❖ **BLADDER INFECTIONS (CYSTITIS)**

- **Antibiotic treatments** are usually prescribed for 3-5 days in women and 5-7 days in men. It is best to seek care early as untreated bladder infections can lead to more serious kidney infections.
 - Symptoms should begin to improve within 24 hours of starting the antibiotic.
 - It is important to finish the entire antibiotic course, even if symptoms have resolved.
 - If symptoms are not completely gone by the end of the antibiotic course, it is important to follow up with your medical provider for further evaluation and treatment.
- **Phenazopyridine (Azo or Pyridium)** is an over-the-counter medication that can be used to decrease UTI symptoms. It works by numbing the bladder and urethra, but it cannot cure a UTI.
 - Phenazopyridine can be taken with antibiotics. However, it should not be used for more than 2 days after starting antibiotics because continued use may mask worsening UTI symptoms.
 - Phenazopyridine will temporarily turn your urine (and even sweat and tears) a harmless bright orange color. It may also stain contact lenses as well as rayon-silk clothing.

❖ **KIDNEY INFECTIONS (PYELONEPHRITIS)**

- **Antibiotic treatments** are prescribed for 7-14 days. It is important to follow up closely with your healthcare provider to prevent complications, which can include permanent damage to the kidney.
 - Symptoms should begin to improve 24-48 hours after starting the antibiotic.
 - It is important to follow up with your medical provider 1-2 days after starting the antibiotic to assess response to treatment. Notify your medical provider sooner if symptoms are worsening.
- **Over-the-counter pain medications** can be taken for fever and pain. Examples include acetaminophen (Tylenol) and ibuprofen (Advil, Motrin). Ibuprofen should be taken with food to avoid an upset stomach.
- **Hospitalization** may be needed if symptoms are severe or do not improve with antibiotics taken by mouth.

❖ **RECURRENT UTIs** can be common among healthy young women. They are defined as having 2/more UTIs in 6 months or 3/more UTIs in 12 months.

- Treatment is similar to that of the initial infection, though a different antibiotic may be prescribed.
- After the UTI has resolved, prophylactic antibiotics may be considered in select cases to prevent recurrences. For example, in women who frequently develop UTIs after sex, taking a single low-dose antibiotic after vaginal intercourse can prevent UTIs.
- In some cases, a referral to a specialist in Urology may be advised to rule out underlying problems in the urinary tract.

HOW DO I PREVENT UTIS?

- **Urinate after sex.** Urinating soon (within 30 minutes) after vaginal intercourse can help women flush out bacteria that may have entered the urethra during sex. Drinking a full glass of water after sex can also help wash out bacteria.
- **Use enough lubrication during sex.** If the vaginal area is a little dry, apply a small amount of K-Y Jelly to decrease genital irritation.
- **Avoid or decrease spermicide use.** Studies suggest that spermicides can contribute to bacterial growth and increase the risk of UTIs.
- **Drink plenty of fluids.** Hydrating well with caffeine-free fluids will dilute urine and increase urination, which helps keep your bladder bacteria-free.
- **Consider cranberry juice or tablets.** In theory, cranberry products work by preventing bacteria from sticking to the walls of the urinary tract. Although studies are inconclusive regarding their ability to prevent UTIs, their use is unlikely to be harmful. However, patients taking the blood-thinning medication warfarin (Coumadin) should not use cranberry products.
- **Wipe front to back.** Doing this will prevent bacteria around the anus from spreading to the vagina and urethra.
- **Avoid holding your urine.** Urinating frequently decreases stagnant urine and accumulation of bacteria in the bladder.
- **Avoid bubble baths.** Showers are preferable because soaking in a bath can increase urethral exposure to bacteria.

RECOMMENDED WEBSITES: www.familydoctor.org, www.mayoclinic.org