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# BLADDER INFECTION/ URINARY TRACT INFECTION (UTI)

Bladder infection, also called a urinary tract infection (UTI) or cystitis is a bacterial infection of the urinary bladder. It occurs when bacteria contaminates the urethral opening (the tube that connects the bladder to the outside of the body) and travels upwards into the bladder. Normally, bacteria does not live in the bladder or urethra. When a bladder infection occurs, common symptoms include burning with urination, frequency and urgency of urination and sometimes blood in the urine. If the infection travels upward beyond the bladder into the kidneys, it is called a kidney infection or “pyelonephritis”. A kidney infection can cause urinary symptoms, but also fever, back pain and vomiting.

Both bladder and kidney infections are far more common in people assigned female at birth because of anatomical differences. The proximity of the vaginal and urethral openings to the anal area where *e. coli* bacteria are normally found puts these people at more risk of bacteria moving forward into the urethral opening.

*What are some of the factors that increase the risk of developing a bladder infection?*

- Vaginal sex, frequent sex, new sexual partner
- Diabetes
- History of past bladder infections
- Genetic predisposition

*What else could it be?*

Burning with urination can also occur with vaginal or vulvar infections (such as yeast or herpes). In people with a penis, urethritis (inflammation of urethra), sexually transmitted infections (such as Chlamydia or gonorrhea) or prostatitis are more common causes of urinary symptoms.

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## Diagnosis – Laboratory Tests

For people assigned female at birth, a simple bladder infection can sometimes be diagnosed based upon symptoms alone, or microscopic examination of “clean catch urine” for presence of white cells and bacteria. Sometimes, a culture of urine is done to identify a specific bacteria.

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## Complications

- Chronic or recurrent infection which may become resistant to treatment.
- Kidney infection or pyelonephritis – infection ascends from bladder to kidneys and is associated with fever, midback pain and nausea or vomiting.

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## Treatment

- 3-7 days of an antibiotic as determined by clinician and limited by any medication allergies.
- **It is critical you finish the entire prescription of the antibiotic even if you feel better after a few days.**
- Phenazopyridine (Azo, Pyridium, or Uristat available without a prescription) numbs the bladder and urethra to reduce pain. It changes the color of urine to blue or orange and should NOT be used for more than 48 hours. **It does not treat the infection.**
- Avoid caffeine and alcohol because they increase urinary frequency and bladder irritation.
- Increase water intake- eight 10 oz. glasses daily
- Follow your clinician’s instructions for follow-up and **call the clinic if your symptoms do not improve within 2 days** or get worse despite following instructions. Return to clinic if your symptoms are not entirely resolved when you finish your medication.
- **Seek care right away if you develop fever, back pain and/or vomiting.**

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## Prevention (for people with vaginas)

- Cleanliness; always wipe rectal area from the front toward the back.
- Urinate soon after intercourse
- Use adequate amounts of lubrication with intercourse.
- Drink adequate water, six to eight glasses per day until urine looks light in color.
- Empty bladder as soon as possible after impulse; do not hold urine for a long time.
- Sexually transmitted diseases cause symptoms similar to urethritis. Your clinician may recommend further testing based on your history, lab results, symptoms and/or your response to medications.
- Preventive antibiotics may be helpful in people who have frequently recurring UTI's. Make an appointment with a clinician to discuss.

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