Understanding UTIs in Children

A urinary tract infection, or UTI, affects the urinary tract and can be uncomfortable for children. This handout will tell you about UTIs, the symptoms of a UTI, how we test for and treat a UTI and how you can help prevent future UTIs.

WHAT IS A UTI?
A urinary tract infection, or UTI, is an infection caused by bacteria in any or all parts of the urinary tract (see drawing on right). The kidneys, bladder and urethra make up the urinary tract. The bacteria can come from 2 places, which are the skin around the rectum (bottom) and genitals and the bloodstream from other parts of the body.

UTIs are common in infants and children, but girls are more likely than boys to get UTIs. Girls have a shorter urethra (the small opening that connects to the bladder so urine can flow out) than boys. This makes it easier for bacteria to enter the urinary tract. Infant boys who are uncircumcised also have a higher risk of getting UTIs because of bacteria that settle under the foreskin.

There are 3 types of UTIs, which are:
- Urethritis, caused by bacteria in the urethra
- Cystitis, caused by bacteria in the bladder
- Pyleonephritis, caused by bacteria that spread to the kidneys. This is a very serious infection that can cause kidney scarring and affect the way the kidneys work.

WHAT ARE THE SYMPTOMS OF A UTI?
The symptoms of a UTI can be uncomfortable for your child. Symptoms include:
- Having to urinate more often
- Pain or burning while urinating
- Not wanting to urinate because it is painful
- Fever
- Daytime or nighttime wetting
- Foul-smelling urine
- Belly (abdominal) pain
- Decreased appetite
- Irritability in infants

Did you know?
The bacteria that cause a UTI often come from the intestines (the gut). When children have a bowel movement (poop), these bacteria can stay on their skin if they do not wipe properly.
HOW DO WE TEST FOR A UTI?
There are 2 ways we test for a UTI, which are a lab test of your child’s urine and an ultrasound of your child’s kidneys and bladder.

- **Lab Testing**

For the lab test, we will do a **urinalysis** and a **urine culture**. The urinalysis will tell us if there are bacteria in your child’s urine. The urine culture will tell us which types of bacteria are in your child’s urine. We will receive the culture results 24-48 hours after the test.

**The way we collect a sample of your child’s urine depends on his or her age.** If your child is not yet toilet trained, a doctor or nurse might insert a catheter (a small tube) into your child’s urethra so his or her urine can flow out into a sterile container. We use a catheter so we can avoid picking up bacteria from your child’s skin or rectal area (bottom).

If your child is toilet trained, we will have him or her do a **clean-catch urine collection**. For this, we will give your child special wipes to remove bacteria from his or her genital area. Then, your child will urinate normally into the toilet. Your child will stop urinating midstream and finish urinating in a sterile container.

**WHICH IMAGING TESTS DO WE USE TO LEARN MORE ABOUT A UTI?**

We might need to use imaging tests to figure out where the UTI is in your child’s urinary tract. The imaging tests we might do include:

- **Ultrasound**

  Your child’s **nephrologist** (kidney doctor) might send your child for an ultrasound of his or her kidneys and bladder. This will help us figure out where the infection is in your child’s urinary tract.

- **Voiding Cystourethrogram (VCUG)**

  Your child’s **nephrologist** (kidney doctor) might send your child for a voiding cystourethrogram (VCUG). This test helps us see if urine is going back up into the kidney and causing infections.

**HOW DO WE TREAT A UTI?**

We will give your child antibiotics to treat the UTI. Even though the results of your child’s urine tests take 24-48 hours to come back, we can give your child antibiotics right away.

**HOW CAN I PREVENT A UTI IN THE FUTURE?**

There are many ways that you can help prevent your child from getting a UTI in the future. Here are some ways you can help:

- **Tell your child not to hold in his or her urine.** If he or she has the urge to go, then go. Children should urinate every 2-3 hours.

- **Have your child drink plenty of liquids**, like water or cranberry juice, to flush bacteria out of his or her urinary tract.

- **Wear cotton underwear to prevent moisture from becoming trapped near your child’s body**. Bacteria like to grow in warm, moist places. Cotton will help prevent moisture from becoming trapped near your child’s body.

- **Avoid wearing a wet bathing suit for long periods of time.** This can also create a place for bacteria to grow. Have your child change into dry clothes shortly after wearing a wet bathing suit so moisture doesn’t become trapped near his or her body.

  **If you have a daughter...**

- **Teach her to wipe front to back after using the bathroom.** Wiping front to back will help prevent bacteria from the rectum getting into the urinary tract. Girls’ urethras are closer to where they wipe, so bacteria from the rectum can more easily get into the urethra.

- **Have her avoid bubble baths until the UTI is gone.** Bubble baths can irritate her urethra and make her uncomfortable.

**If your child has recurring or frequent UTIs, we might have him or her get additional imaging tests. We will talk with you about whether your child needs additional imaging tests.**

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**For more information please call**

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