

# Urinary Tract Infections (UTI's)

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## General Information

The urinary tract is the body's system for getting rid of extra water and wastes. It includes two kidneys, two ureters, a bladder and urethra. Blood flows through the kidneys, which filters out the wastes and extra water, making urine. The urine flows from the kidneys to the bladder through the ureters. The bladder fills with urine until it is full enough to signal the need to urinate. Normal urine flow usually washes away the germs called bacteria that cause the urinary tract infections. A UTI occurs when bacteria do not get washed away and instead get into the bladder or kidneys.

Urinary tract infections which are NOT caused by anatomical abnormalities occur most frequently in children between the ages of two and six years. Uti's occur more often in girls than in boys and are often caused by bacteria found in stool.

Some habits that can also lead to bacterial growth and Uti's are:

- Delaying trips to bathroom or infrequent urinating
- Not emptying the bladder completely (rushing)
- Infrequent bowel movements or constipation
- Wiping back to front after using the toilet – for girls
- Poor water intake

Some children are simply prone to getting UTI's even though they have good habits.

A child may have a defect where the ureter joins the bladder, causing urine to flow backwards – a condition called vesicoureteral reflux. This condition does not cause UTI's but when bacteria get into the bladder, there is a greater chance of developing a kidney infection which is associated with high fevers and can lead to kidney damage.

## Symptoms of UTI

Young children probably will not be able to tell you what is wrong and you will need to look for signs of a UTI, such as:

- Fussiness and irritability
- Refusal to eat
- Cloudy or foul smelling urine
- Blood in urine
- Grabbing diaper when urinating
- Fever
- Vomiting

In older children, symptoms may include:

- Burning with urination
- Frequent urination
- Cloudy, dark, foul smelling urine
- Stomach ache
- Daytime or nighttime wetting
- Blood in urine
- Fever and back or stomach pain

UTI's are diagnosed by obtaining a urine sample. Your child will need to obtain a clean urine sample which will be checked for bacteria or pus/white blood cells and then sent to lab for urine culture. The lab then processes the sample in a special substance that encourages the growth of the bacteria and further identifies and tests to see which antibiotic medication will work the best. Growing the culture often takes 2-3 days to complete. If your child is not potty trained, the decision will be made how the urine sample is obtained by catheter or bag.

## Ways to Reduce the Risk of UTI's

There are several simple ways that you can help to reduce the risk of your child developing urinary tract infections.

- Encourage your child to drink plenty of fluids and to empty the bladder on a timed, regular interval (every 2-3 hours), with double voiding technique. Girls sit with foot support, knees apart, urinate "pee" then sit and wait for 2 minutes and try to pee again. Use a timer initially. Boys stand with feet apart with "soft cheeks" and tummy muscles.
- Avoid the 4 C's: caffeine, chocolate, citrus, carbonation. Caffeine is common in many popular Sodas such as Mt Dew, Pepsi, Coke, Dr. Pepper, and Sunkist. Always read labels.
- Avoid tight clothing and diapers. Wear cotton underwear rather than nylon.
- Keep the vaginal and anal area clean. Teach girls to wipe from front to back.
- Monitor and treat for constipation. Adding fiber supplements such as Metamucil wafers, Fiber Gummies or Benefiber and stool softeners can help. "P" fruits help....peaches, pears, etc. Goal is having a daily soft formed stool. Plan time for sitting after dinner, before bedtime if your child has not had a BM that day.
- Avoid bubble baths. Allow your child to shower or to sit in clean water and soap up just prior to getting out of tub. Many soaps are irritating to the perineal area. If bottom is irritated, after regular bath/shower, a sitz bath in a tub of clean water with ½ cup baking soda is helpful.
- If your child has been placed on a daily, low-dose antibiotic, give it every day. It is most beneficial when given at night.
- Encourage cranberry juice and yogurt in your child's daily diet. If your child cannot tolerate cranberry juice, you may substitute with cranberry tablets.

If you suspect your child has a urinary tract infection, have the urine checked at your local pediatrician's office or in our clinic.

Notify the nurse in the Pediatric Urology office if your child develops a urinary tract infection while on daily preventative antibiotics.

Pediatric Urology Office: (434)-924-2590

For emergencies and after hours, call the University of Virginia Hospital operator at (434) 924-0000 and ask to have the on-call urologist paged.