



Patient Education:

CARING FOR YOUR CHILD WITH URINARY TRACT INFECTIONS

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UTIs, the most frequent bacterial infections in childhood, affect any part of the urinary tract. More uncircumcised baby boys have UTIs. In older children, more girls than boys get them.

The diagram illustrates the urinary tract and its connection to the digestive system. It shows a person's torso with labels for the Kidney, Ureter, Bladder, and Urethra. A blue arrow points from the urethra to a detailed anatomical inset of the pelvic region. This inset shows the relationship between the urinary tract (ureter, bladder, urethra) and the digestive tract (anus, vagina). The label *Escherichia coli* is placed near the anus, indicating its role in causing UTIs.

Kidney

Ureter

Bladder

Urethra

Escherichia coli

Anus

Vagina

The most common cause is bacteria. Higher risks involve delaying going to the bathroom, not fully emptying the bladder, constipation, and wrong wiping methods.



To confirm the UTI, your child's health care provider will test a urine sample and culture the



Urinary tract organs make, store, and get rid of urine. Kidneys make urine. Urine then flows in tubes called ureters to the bladder. From the bladder, urine leaves the body through the urethra. Urinary tract infections (UTIs), the most frequent bacterial infections in childhood, affect any part of this tract. Cystitis is infection of the lower part (bladder). Pyelonephritis is infection of the upper part.

What Causes UTIs?

The most common cause is bacteria, one named *Escherichia coli*, which lives in the intestines. *Staphylococcus* bacteria are common causes in teen girls. Bacteria on the skin or near the anus can get into the urinary tract. Bacteria can also get in from catheters (tubes) used during medical treatment.

Children who delay bathroom visits are more likely to get UTIs. Higher risks also involve not emptying the bladder completely, constipation, improper wiping methods, and sexual activity. Certain antibiotics and abnormalities such as vesicoureteral reflux (reflux of urine from the bladder back into the ureters) can cause UTIs.

Symptoms include fever (especially in babies and children younger than 2), irritability, poor feeding, and failure to thrive. Older children have symptoms similar to those of adults. These include fever, pain and tenderness in the abdomen (belly), need to urinate often, painful urination, no control of urine flow (incontinence), producing only a few drops of urine at a time, bloody urine, and vomiting. Some children have few or no symptoms. Fever and low-back pain may mean infected kidneys, a serious concern.

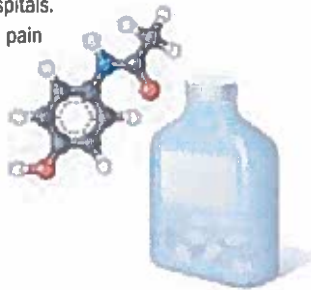
The health care provider uses a physical examination and urine tests. Urinalysis is the quick test done first, and then urine is cultured. By cultures, doctors see which bacteria grow in the laboratory and can pick the best treatment. Doctors get urine samples by using different methods, depending on the child's age. Imaging tests, done in special cases, look for abnormalities.

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Certain children get treatment in hospitals. Others are given oral antibiotics and pain medicine as outpatients.



Drinking lots of water and cranberry juice daily can help.



Have your child use good hygiene. Emptying the bladder completely is important. Girls should wipe from front to back after using the toilet.



Make sure that your child takes antibiotics until they're finished. Stopping them because symptoms are gone will cause problems later!



Wearing cotton underwear and avoiding tight clothing may help.



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How Are UTIs Treated?

Certain children, such as very young babies and seriously ill children, get treatment in hospitals. Others are given oral antibiotics as outpatients. Medicine and sitz baths may be offered for pain. Drinking more fluids (especially cranberry and prune juice) may help flush out the urinary tract. Surgery may be needed for abnormalities. Exercises to strengthen and train the bladder may help prevention.

DOs and DON'Ts in Managing UTIs:

- ✓ **DO** encourage regular trips to the bathroom.
- ✓ **DO** encourage drinking lots of water and concentrated cranberry juice to help prevent and get rid of UTIs.
- ✓ **DO** teach good hygiene. Girls should wipe from front to back after using the toilet. Showers may be better than baths. Wearing cotton underwear and avoiding tight clothing may also help.
- ✓ **DO** make sure that your child takes antibiotics until all the pills or liquid are gone. Stopping sooner because symptoms are gone can make antibiotics less effective later.
- ⊗ **DON'T** offer your child caffeinated beverages.
- ⊗ **DON'T** use too many antibiotics, such as for colds, which can make it harder to treat UTIs.

FOR MORE INFORMATION

Contact the following sources:

- The American Academy of Pediatrics
Tel: (847) 434-4000
Website: <http://www.aap.org>
- American Academy of Family Physicians
Tel: (800) 274-2237
Website: <http://www.familydoctor.org>
- American Urological Association
Tel: (866) 746-4282
Website: <http://www.urologyhealth.org>
- National Kidney and Urologic Diseases Information Clearinghouse
Tel: (800) 891-5390
Website: <http://kidney.niddk.nih.gov>