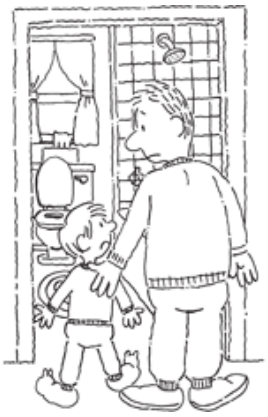
Urinary Tract Infections in Young Children



Urinary tract infections (UTIs) are common in young children. These infections can lead to serious health problems. UTIs may go untreated because the symptoms may not be obvious to the child or the parents. The following is information from the American Academy of Pediatrics about UTIs—what they are, how children get them, and how they are treated.

The urinary tract

The urinary tract makes and stores urine. It is made up of the kidneys, ureters, bladder, and urethra (see illustration on the next page). The kidneys produce urine. Urine travels from the kidneys down 2 narrow tubes called the ureters to the bladder. The bladder is a thin muscular bag that stores urine until it is time to empty urine out of the body. When it is time to empty the bladder, a muscle at the bottom of the bladder relaxes. Urine then flows out of the body through a tube called the urethra. The opening of the urethra is at the end of the penis in boys and above the vaginal opening in girls.

Urinary tract infections

Normal urine has no germs (bacteria). However, bacteria can get into the urinary tract from 2 sources: (1) the skin around the rectum and genitals and (2) the bloodstream from other parts of the body. Bacteria may cause infections in any or all parts of the urinary tract, including the following:

- Urethra (called urethritis)
- Bladder (called cystitis)
- Kidneys (called pyelonephritis)

UTIs are common in infants and young children. The frequency of UTIs in girls is much greater than in boys. About 3% of girls and 1% of boys will have a UTI by 11 years of age. A young child with a high fever and no other symptoms has a 1 in 20 chance of having a UTI. Uncircumcised boys have more UTIs than those who have been circumcised.

Symptoms

Symptoms of UTIs may include the following:

- Fever
- Pain or burning during urination
- Need to urinate more often, or difficulty getting urine out
- Urgent need to urinate, or wetting of underwear or bedding by a child who knows how to use the toilet
- Vomiting, refusal to eat
- Abdominal pain
- Side or back pain
- Foul-smelling urine
- Cloudy or bloody urine
- Unexplained and persistent irritability in an infant
- Poor growth in an infant

Diagnosis

If your child has symptoms of a UTI, your child's doctor will do the following:

- Ask about your child's symptoms.
- Ask about any family history of urinary tract problems.
- Ask about what your child has been eating and drinking.
- Examine your child.
- Get a urine sample from your child.

Your child's doctor will need to test your child's urine to see if there are bacteria or other abnormalities.

Ways urine is collected

Urine must be collected and analyzed to determine if there is a bacterial infection. Older children are asked to urinate into a container.

There are 3 ways to collect urine from a young child:

1. The preferred method is to place a small tube, called a catheter, through the urethra into the bladder. Urine flows through the tube into a special urine container.
2. Another method is to insert a needle through the skin of the lower abdomen to draw urine from the bladder. This is called needle aspiration.
3. If your child is very young or not yet toilet trained, the child's doctor may place a plastic bag over the genitals to collect the urine. Since bacteria on the skin can contaminate the urine and give a false test result, this method is used only to screen for infection. If an infection seems to be present, the doctor will need to collect urine through 1 of the first 2 methods in order to determine if bacteria are present.

Your child's doctor will discuss with you the best way to collect your child's urine.

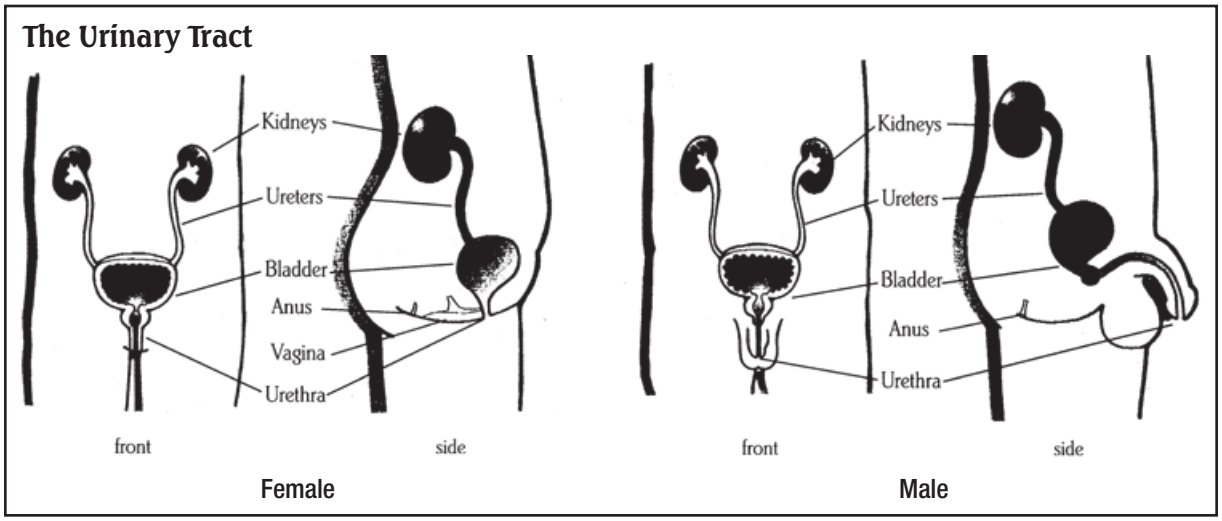
Treatment

UTIs are treated with antibiotics. The way your child receives the antibiotic depends on the severity and type of infection. Antibiotics are usually given by mouth, as liquid or pills. If your child has a fever or is vomiting and is unable to keep fluids down, the antibiotics may be put directly into a vein or injected into a muscle.

UTIs need to be treated right away to

- Get rid of the infection.
- Prevent the spread of the infection outside of the urinary tract.
- Reduce the chances of kidney damage.

Infants and young children with UTIs usually need to take antibiotics for 7 to 14 days, sometimes longer. Make sure your child takes all the medicine your child's doctor prescribes. Do not stop giving your child the medicine until the child's doctor says the treatment is finished, even if your child feels better. UTIs can return if not fully treated.



Follow-up

If the UTI occurs early in life, your child's doctor will probably want to make sure the urinary tract is normal with a kidney and bladder ultrasound. This test uses sound waves to examine the bladder and kidneys.

In addition, your child's doctor may want to make sure that the urinary tract is functioning normally and is free of any damage. Several tests are available to do this, including the following:

Voiding cystourethrogram (VCUG). A catheter is placed into the urethra and the bladder is filled with a liquid that can be seen on x-rays. This test shows whether the urine is flowing back from the bladder toward the kidneys instead of all of it coming out through the urethra as it should.

Nuclear scans. Radioactive material is injected into a vein to see if the kidneys are normal. There are many kinds of nuclear scans, each giving different information about the kidneys and bladder. The radioactive material gives no more radiation than any other kind of x-ray.

Remember

UTIs are common and most are easy to treat. Early diagnosis and prompt treatment are important because untreated or repeated infections can cause long-term medical problems. Children who have had one UTI are more likely to have another. Be sure to see your child's doctor early if your child has had a UTI in the past and has fever. Talk with your child's doctor if you suspect that your child might have a UTI.

From your doctor

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