

Idaho Falls Pediatrics

Kidney Infection (Pyelonephritis)

What is a kidney infection?

A kidney infection (pyelonephritis) is an infection of the bladder that moves up to the kidneys. It is a type of urinary tract infection (UTI). It is important to treat UTIs so that the kidneys are not damaged.

Kidney infections usually cause the following symptoms:

- painful urination
- foul-smelling urine
- fever
- backaches (in the kidney area below the ribs)
- stomachaches (especially lower abdomen)
- vomiting.

What is the cause?

Urinary tract infections are caused by bacteria. The bacteria enter the bladder by traveling up the urethra. In general, the urethra is protected, but if the opening of the urethra (or the vulva in girls) becomes irritated, bacteria can grow there. Common irritants are bubble bath and shampoos. Careless wiping after a bowel movement might also cause irritation. A rare cause of UTIs (1% of girls and 5% of boys) is obstruction of the urinary tract, which results in incomplete emptying of the bladder. Children who start and stop their stream of urine while they are going to the bathroom are more likely to get a UTI. Pyelonephritis is caused by infected urine moving back up the tubes (ureters) that connect the kidneys to the bladder. This is called reflux.

How long does it last?

With treatment, your child's fever should be gone and symptoms should be better by 48 hours after starting the antibiotic. The chances of getting another UTI are about 50%. Read the advice on preventing UTIs to decrease your child's risk.

How can I take care of my child?

- **Antibiotics**

This medicine will kill the bacteria that are causing the UTI.

If the medicine is liquid, store it in the refrigerator and shake the bottle well before you measure a dose. Use a measuring spoon to be sure that you give the right amount.

Try not to forget any of the doses. If your child goes to school or a babysitter, arrange for someone to give the afternoon dose. Give the medicine until all the pills are gone or the bottle is empty. Even though your child will feel better in a few days, give the antibiotic for the full 10 days to keep the UTI from flaring up again.

- **Extra fluids**

Encourage your child to drink extra fluids to help clear the infection.

- **Instructions for collecting a midstream, clean-catch urine specimen at home**

About 2 weeks after your initial visit your health care provider will want to see your child for another urine culture. Because the chances are high that your daughter will develop a second infection (50% of cases), your health care provider will probably also want to check her urine 1, 4, and 12 months after the first infection has cleared up.

If you are asked to bring a urine sample to your health care provider's office, try to collect the urine when your child first urinates in the morning. Use a jar and lid that have been sterilized by boiling for 10 minutes.

Wash the genital area several times with cotton balls and warm water. Your child should then sit on the toilet seat with her legs spread widely so that the labia (skin folds of the vagina) don't touch. After she starts to urinate into the toilet, place the clean container directly in line with the stream of urine. Remove it after you have collected a few ounces but before she stops urinating. (The first or last drops that come out of the bladder may be contaminated with bacteria.)

Keep the urine in the refrigerator until you take it to your provider's office. Try to keep it chilled when you bring it to the office (that is, put the jar in a plastic bag with some ice).

- **X-ray studies**

Your child will need special studies of the kidney and bladder system to be sure there is no blockage or reflux. If the doctor finds there is a blockage, your child may need surgery to prevent the infection from coming back. If reflux is present, your doctor will have to decide how best to prevent kidney problems. Siblings of children with reflux may need to be checked for this condition.

How can I help prevent a urinary tract infection?

- When your child bathes, wash the genital area with water, not soap.
- Don't use bubble bath; it's extremely irritating. Don't put shampoo or other soaps into the bath water. Don't let a bar of soap float around the tub.
- Keep bath time less than 15 minutes. Your child should urinate after baths.
- Teach your daughter to wipe herself correctly from front to back, especially after a bowel movement.
- Try not to let your child become constipated.
- Encourage your child to drink enough fluids each day to keep the urine light-colored.
- Encourage your child to urinate at least every 3 to 4 hours during the day.
- If your child starts and stops her urine stream while going to the bathroom, special training may help her to empty her bladder smoothly.
- Your daughter should wear loose cotton underpants. Discourage wearing underpants at night.

When should I call Idaho Falls Pediatrics?

Call IMMEDIATELY if:

- Your child starts to vomit the medicine.
- Back pain or fever return.
- Your child starts acting very sick.

Call during office hours if:

- A painful passage of urine.
- You have other concerns or questions.

*NOTE: This information is provided as a public educational service. The information does not replace any of the instructions your physician gives you. If you have a medical emergency please call 911 or call the Hospital at (208) 529-6111. If you have questions about your child's care, please call Idaho Falls Pediatrics at (208) 522-4600.