

# Kidney Infection

## What is a kidney infection?

A kidney infection is a bacterial infection of one or both kidneys. Kidney infection can be serious because:

- It can permanently damage the kidneys.
- The infection may enter the bloodstream and cause life-threatening infection.
- It can cause pregnant women to go into labor too early (premature labor).

Pyelonephritis is the medical term for a kidney infection.

Kidney infections are much more common in women than men.

## What is the cause?

Kidney infections usually start in the bladder or the urethra, which is the tube that empties urine from the bladder. Bladder infections can happen when bacteria travel from the vagina or rectal area (anus) into the urethra and bladder. The bacteria travel up to the kidneys from the bladder. In men, the infection might also start as a prostate infection. Bacteria can also spread to the kidneys from an infection somewhere else in the body.

The urinary system is a common site of birth defects. If your urinary system is abnormal, you have a greater risk that a bladder infection will spread to the kidneys.

Kidney stones increase the risk of infection.

## What are the symptoms?

The symptoms range from mild to severe. They may include:

- Fever
- Chills or sweats
- Abdominal or back pain
- Loss of appetite
- Nausea or vomiting
- Problems with urination, such as pain when you urinate or a frequent urge to urinate

Sometimes it is hard to know whether urinary symptoms are caused by an infection of the lower urinary tract (for example, the bladder) or by a kidney infection. These symptoms should not be ignored. If you have symptoms, see your healthcare provider right away. A bladder infection can lead to a kidney infection. The infection can also spread to the bloodstream. Do **not** wait to get treatment.

## How is it diagnosed?

Your healthcare provider will review your medical history, looking especially for current or recent lower urinary tract infection. You will also have a physical exam. Your provider will check for pain in the kidney area. Women may have a pelvic exam to see if the symptoms may be caused by an infection or other problem of the uterus or ovaries. A sample of your urine will be tested in the lab. This helps your provider know what type of bacteria may be causing an infection and what antibiotics are best to treat them.

## How is it treated?

Antibiotic medicine is the main treatment for a kidney infection. The medicine may be given at home, at your provider's office, or at the hospital, depending on how sick you are.

- You may be able to take an oral antibiotic at home. You may keep being treated at home if your symptoms seem to be getting better within 24 hours after you start taking the medicine.
- You may get the first dose of antibiotic IV at the office or hospital and then continue your antibiotic at home.
- If you are more seriously ill, or if the oral medicine at home does not seem to be working well, you may need stay at the hospital. There you can be given fluids and medicine through an IV and carefully observed to make sure you are getting better.

Usually you will need to take an antibiotic for at least 7 days. All bacteria must be killed to prevent kidney damage and to keep the infection from coming back.

Your antibiotic may need to be changed after the first day or two of treatment if lab tests of the bacteria in your urine show a different antibiotic will work better. Your healthcare provider will tell you if this is the case.

If you have an abnormal urinary tract or stones in your urinary tract, especially if you have had several infections, you may need further evaluation. You may need to get rid of a kidney stone or have surgery to correct an abnormality of the urinary tract. Some people are born with minor blockages in the tubes between the kidneys and bladder, but the blockages don't cause problems till much later. Also, some people have backwards urine flow—that is a flow of urine from the bladder back toward the kidney. These problems may need to be fixed surgically.

## How long do the effects last?

How long it takes to get better depends on how severe your symptoms are when you start treatment. In mild cases, you will start feeling better in the first 1 or 2 days. It may take several days if you have a more severe infection.

With proper treatment there are usually no complications of kidney infection. If you keep having symptoms, or your symptoms come back soon after you finish your treatment, you may need more tests. Your healthcare provider will check for another cause of the infection or to see if another antibiotic is needed.

## **How can I take care of myself?**

- Follow the treatment plan your healthcare provider prescribes.
- If you have a fever:
  - Ask your healthcare provider if you should take aspirin or acetaminophen for the fever. Check with your healthcare provider before you give any medicine that contains aspirin or salicylates to a child or teen. This includes medicines like baby aspirin, some cold medicines, and Pepto-Bismol. Children and teens who take aspirin are at risk for a serious illness called Reye's syndrome.
  - Keep a daily record of your temperature.
- Notice whether your symptoms get better within 1 to 2 days after you start taking the antibiotic.
- Drink plenty of fluids (unless your provider has asked you to limit fluids for another health problem).
- Take your medicines exactly as your provider tells you to.
- Tell your provider right away about any symptoms that get worse or come back.
- Follow your healthcare provider's directions for a follow-up urine test. Your provider may want to test your urine soon after you finish taking the antibiotic.
- Ask your provider:
  - How and when you will hear your test results
  - How long it will take to recover
  - What activities you should avoid and when you can return to your normal activities
  - How to take care of yourself at home
  - What symptoms or problems you should watch for and what to do if you have them
- Make sure you know when you should come back for a checkup.

## **How can I help prevent a kidney infection?**

The best way to prevent kidney infections is to try to prevent bladder infections.

Women can take the following steps to try to prevent bladder infections:

- Drink enough fluids to keep urine light yellow in color.
- Practice good hygiene when you use the toilet, such as wiping from front to back.
- Avoid using irritating cosmetics or chemicals in the area of the vagina and urethra, such as strong soaps, bubble baths, and scented sanitary napkins or panty liners.
- Urinate to empty your bladder after you have sex.

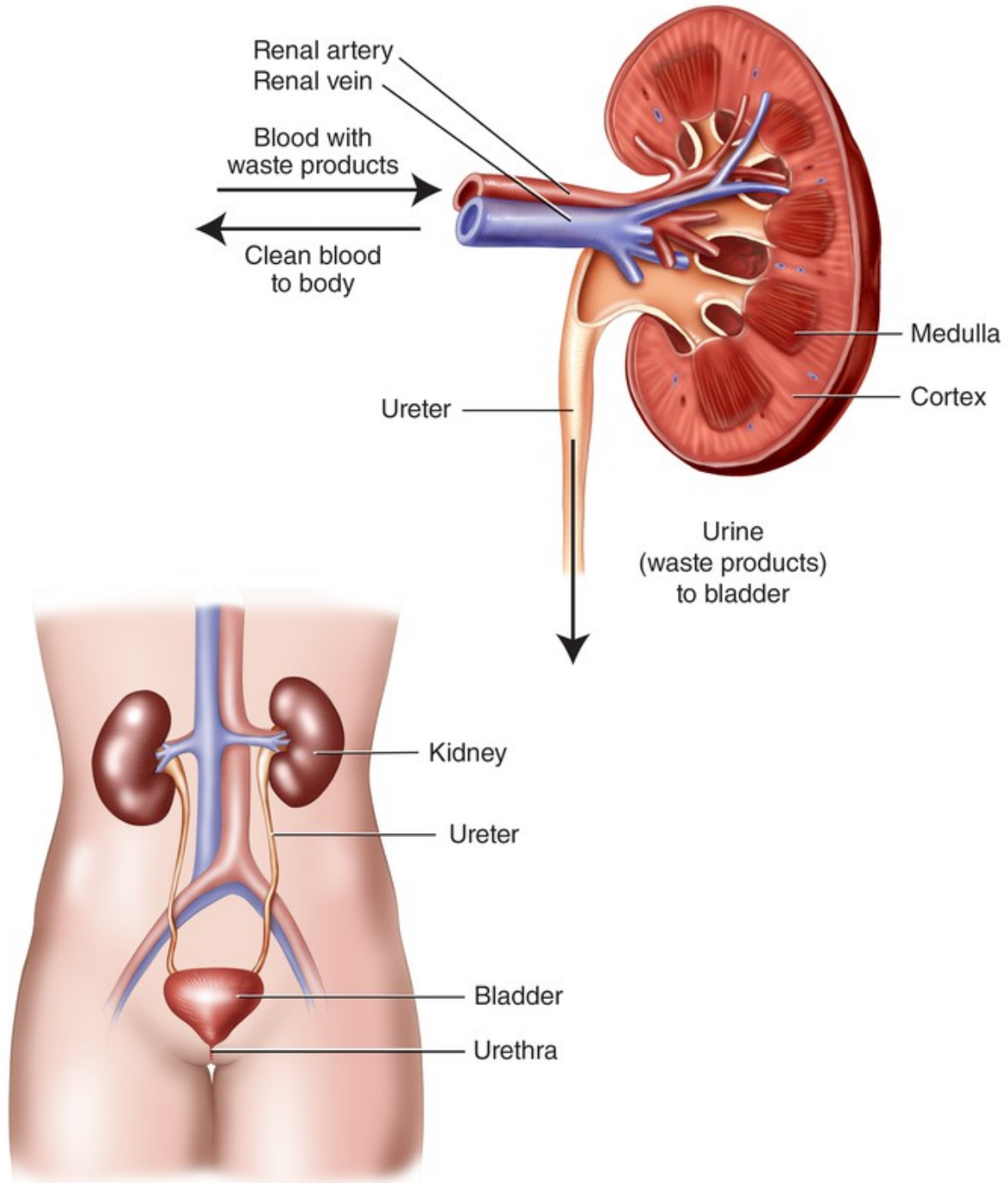
Men can take the following steps to try to prevent bladder infections:

- Drink enough fluids to keep urine light yellow in color.
- Practice good genital hygiene. If you are a man who has not been circumcised, good hygiene includes gently pulling back the foreskin to wash the tip of the penis every time you bathe or shower.
- Urinate to empty your bladder after you have sex.

Developed by RelayHealth.

*This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.*

# Kidney



Copyright ©2014 McKesson Corporation and/or one of its subsidiaries. All rights reserved.