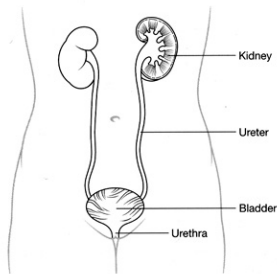


Complicated Urinary Tract Infections

Common questions about hard-to-treat infections of the urinary tract

Q What is a complicated urinary tract infection?

A A urinary tract infection (UTI) happens when bacteria invade the urine, causing inflammation of the urinary tract and movement of white blood cells (cells that fight infection) into the urine. A complicated UTI is one that develops in a person who has something different about his or her urinary tract (an “abnormality”) that makes the infection more likely to occur or harder to treat. The abnormality may be anatomic (relating to the body’s structure), functional (relating to how the body works), or metabolic (relating to the body’s chemical processes). Examples of conditions that fit into these categories include previous urinary tract surgery, congenital (present at birth) abnormalities of the urinary tract, pregnancy, urinary stones, diabetes, menopause, or the presence of a urinary catheter.



The urinary tract is made up of the kidneys, ureters, bladder, and urethra.

Q How are complicated UTIs diagnosed?

A Your doctor can confirm the diagnosis by looking at a sample of your urine under a microscope for bacteria and white and red blood cells, and by growing bacteria from the urine on a culture plate (urine culture). Once the infection is diagnosed, you may have other tests to assess the underlying problem. For example, if you have diabetes, you may have a blood glucose (sugar) test. High blood sugar levels can be a sign of uncontrolled diabetes and can make a UTI more likely to occur.

In other cases, you may have imaging tests such as an intravenous pyelogram (IVP) or ultrasound to allow your doctor to check for problems such as urinary stones.

Q How are complicated UTIs treated?

A Complicated UTIs are often harder to treat than uncomplicated UTIs (those that develop in people without urinary tract abnormalities). They are caused by more varied types of bacteria, and these bacteria are often harder to kill. Because of this, your doctor will likely prescribe broad-spectrum antibiotics (antibiotics

that kill a wider range of bacteria) for 7 to 21 days. It is essential that you take all the medication as instructed by your doctor. Not finishing the medication can lead to the recurrence of an infection that is even more difficult to treat. Your doctor may ask you to drink plenty of water (at least 8-9 cups a day) to help flush the bacteria out of your urinary tract. In rare cases, you may need to be hospitalized for treatment.

In addition to treating the infection, the underlying abnormality may also be treated. For example, if you have diabetes, your blood sugar control may be improved. If you have urinary stones, they may be removed or dissolved. Or, if you have a urinary catheter — a tube used to drain urine from the bladder — it may be removed or changed.

Q What follow-up is necessary?

A Your doctor will do a follow-up urine culture to help determine whether the infection has been eliminated. If bacteria are still present, you may need further treatment.