



Patient education: Urinary tract infections in adults (The Basics)

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What is the urinary tract?

The urinary tract is the group of organs in the body that handle urine ([figure 1](#)). The urinary tract includes the:

- Kidneys – These are 2 bean-shaped organs that filter the blood to make urine.
- Bladder – This is a balloon-shaped organ that stores urine.
- Ureters – These are 2 tubes that carry urine from the kidneys to the bladder.
- Urethra – This is the tube that carries urine from the bladder to the outside of the body.

What are urinary tract infections?

Urinary tract infections ("UTIs") are infections that affect either the bladder or the kidneys:

- Bladder infections are more common than kidney infections. They happen when bacteria get into the urethra and travel up into the bladder. The medical term for bladder infection is "cystitis." Most of the time, when people talk about a UTI, they mean a bladder infection.
- Kidney infections happen when the bacteria travel even higher, up into the kidneys. The medical term for kidney infection is "pyelonephritis." This is more serious than a bladder infection, and can lead to other serious problems if it is not treated properly.

Both bladder and kidney infections are more common in females than males.

The risk of UTIs is also higher in people who have a urinary catheter. A catheter is a thin, flexible tube that drains urine from the bladder. It might be used in people who are in the hospital and cannot urinate the normal way.

What are the symptoms of a bladder infection?

The symptoms include:

- Pain or a burning feeling when you urinate
 - The need to urinate often
 - The need to urinate suddenly or in a hurry
 - Blood in the urine
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What are the symptoms of a kidney infection?

The symptoms of a kidney infection can include the same urinary symptoms that happen with a bladder infection.

In addition, kidney infections can cause:

- Fever
 - Back pain
 - Nausea or vomiting
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How do I find out if I have a UTI?

If you think that you might have a UTI, call your doctor or nurse. Sometimes, they can tell if you have a UTI just by learning about your symptoms.

Your doctor or nurse might do a simple urine test. If they think that you might have a kidney infection or are unsure what is causing your symptoms, they might also do a more involved urine test to check for bacteria.

How are UTIs treated?

Most UTIs are treated with antibiotic pills. These pills work by killing the germs that cause the infection.

- If you have a bladder infection, you will probably need to take antibiotics for 3 to 7 days.
- If you have a kidney infection, you will probably need to take antibiotics for longer, maybe for up to 10 days. If you have a kidney infection, it's also possible that you will need to be treated in the hospital.

Your symptoms should begin to improve within a day of starting antibiotics. But you should finish all of the antibiotic pills. Otherwise, the infection might come back.

If needed, you can also take a medicine to numb your bladder. This medicine eases the pain caused by UTIs. It also reduces the need to urinate.

What if I get bladder infections a lot?

First, check with your doctor or nurse to make sure that you are really having bladder infections. The symptoms of bladder infection can be caused by other things. Your doctor or nurse will want to see if those problems might be causing your symptoms.

But if you are really having repeated infections, there are things that you can do to keep from getting more infections. These include:

- Drinking more fluid – This can help prevent bladder infections.
- Vaginal estrogen – If you have already been through menopause, your doctor might suggest this. Vaginal estrogen comes in a cream or a flexible ring that you put into your vagina. It can help prevent bladder infections.

Other things that might help:

- Avoid spermicides (sperm-killing creams or gels) – Spermicide is a form of birth control. It seems to increase the risk of bladder infections in some females, especially when used with a diaphragm. If you use spermicide and get a lot of bladder infections, you might want to try switching to a different form of birth control.
- Urinate right after sex – Some doctors think this helps, because it helps flush out germs that might get into the bladder during sex. There is no proof it works, but it also cannot hurt.

If you get a lot of bladder infections, and the above methods have not helped, your doctor might give you antibiotics to help prevent infection. But long-term use of antibiotics has downsides, so doctors usually suggest trying other things first.

Can cranberry juice or other products prevent bladder infections?

People often wonder about "natural" products that claim to help prevent bladder infections. These include cranberry juice and other cranberry products, probiotics, vitamin C, and D-mannose. There is **not** good evidence that these things work. However, there is also no clear evidence that they are harmful. If you have questions about these or other products, talk with your doctor or nurse.

More on this topic

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[Patient education: Blood in the urine \(hematuria\) in adults \(The Basics\)](#)

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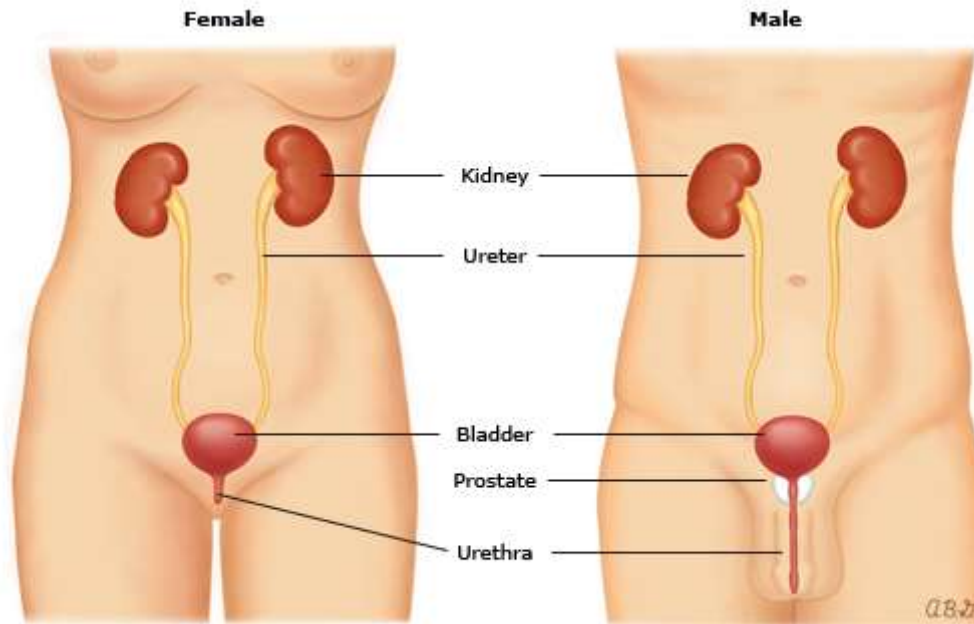
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GRAPHICS

Anatomy of the urinary tract



Urine is made by the kidneys. It passes from the kidneys into the bladder through 2 tubes called the ureters. Then, it leaves the bladder through another tube called the urethra.

