

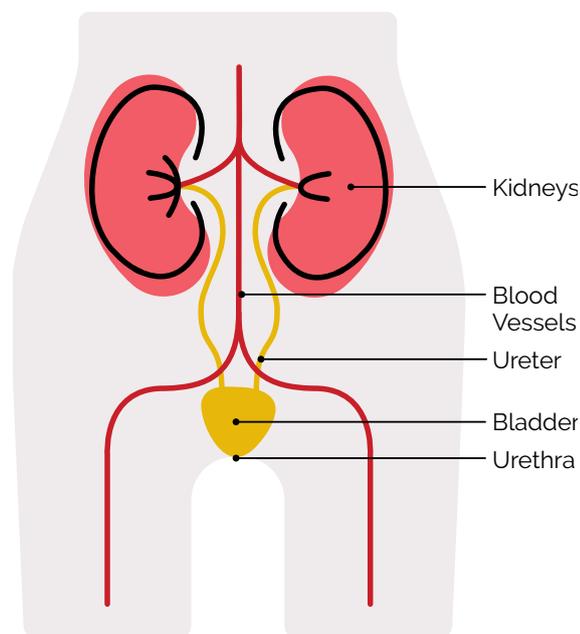
Urinary tract infections

The urinary tract is made up of the kidneys, ureters, bladder, and urethra. Your kidneys filter the blood and remove extra fluid and waste products. The extra fluid and waste move from the kidney through narrow tubes called ureters to the bladder. Urine (wee) is stored in your bladder and emptied through a tube called the urethra.

What are urinary tract infections?

Urinary tract infections (UTIs) occur when germs enter your urinary tract and cause damage. Bacteria (germs) do not usually live in your urinary tract, but when they travel up the urethra, they can infect different parts of the urinary tract. There are different names for UTIs depending on where the infection occurs:

- **Urethritis** is infection of the urethra.
- **Cystitis** is a localised infection of the bladder and is the most common type of UTI.
- **Pyelonephritis** is an infection of the kidney. This UTI is more serious and can cause signs of infection outside the kidney, like fever and chills.



Many types of bacteria can cause urinary tract infections.

What causes urinary tract infections?

Many types of bacteria can cause urinary tract infections. Bacteria in the urinary tract cause inflammation (or swelling) and damage to your cells.

Escherichia coli (E. coli), a type of bacteria typically found in your gut, is the most common cause of UTIs. Bacteria from your faeces (poo) can travel from your anus to the urethra and cause infection.

Certain situations make it more likely for bacteria to enter the urethra. These include:

- **sexual intercourse**
- **pregnancy**
- **difficulty passing urine due to kidney stones or enlarged prostate**
- **urinary catheters.**

There are other types of germs that can cause urethritis. If a germ is passed through sex, both partners will need medical treatment to avoid re-infection.

Who is more likely to get a UTI?

- **Females:** 1 in 2 females will experience a UTI at some point in their life. Those born female are more likely to have a UTI because:
 - The female urethra is short and straight, making it easier for germs to travel to the bladder.
 - Hormone changes in menopause cause the vagina to be thin.
 - The urethra is closer to the anus and thus bacteria have less far to travel.
- **Pregnancy:** During pregnancy, the shape of a female's urinary tract changes as the baby grows, causing the bladder to shrink and the urethra hole to expand. These changes lead to a higher chance for bacteria to get into the urinary tract.
- **People with diabetes:** Diabetes causes more sugar in the urine. This sugar acts as food for bacteria to grow and cause infections. Managing your sugar intake helps with overall urinary health.
- **Those with urinary catheters:** A catheter is a tube that helps drain urine from the bladder. Bacteria can enter the urinary tract when the catheter is inserted.
- **Those with weak immune systems:** People on immunosuppressive medications, like medications used after transplant, or those with certain cancers cannot fight off bacteria as well.

50% of females will experience a UTI at some point in their life.

Although UTI is more common in females, **1 in 20 males** will get a UTI throughout their lifetime.

Males with an enlarged prostate, kidney stones, urinary catheters, or older age have a higher risk of getting a UTI.



What problems do urinary tract infections cause?

Symptoms of urinary tract infections

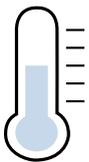
Sometimes bacteria may be present in a urine sample without causing any signs (called asymptomatic bacteriuria). This type of UTI may not always need treatment except in certain cases, such as in a pregnant woman.

When UTIs do cause symptoms, they can lead to **serious health problems** like kidney damage or sepsis (blood infection) if left untreated.

Common symptoms of UTI include:

- pain or burning feeling when passing urine
- wanting to urinate more often, even if it's only a few drops
- cloudy or smelly urine
- blood in the urine, which may appear as a pink, red or brownish colour
- pressure or pain in the lower abdomen or groin.

Signs of more serious infection or pyelonephritis include:



Fever or chills



Nausea or vomiting



Back and/or abdominal pain



Confusion

Older people with urinary tract infections can experience sudden confusion, falls, and behaviour changes. Seek treatment from a doctor right away if you are experiencing signs of a more serious infection.



What do you do if you think you have a UTI?

If you are having symptoms of a UTI, talk to your doctor or pharmacist. Some pharmacists are trained to check your symptoms and give you medications - the same pills your doctor might prescribe.

The doctor or pharmacist will ask you about your symptoms and medical history. Your doctor may order **a urine test to tell if there are bacteria in your urine**. They can order a urine culture to figure out which bacteria you have. These tests help your doctor or pharmacist choose the best antibiotic to treat your infection.



Collecting urine for urine tests

A urinalysis or urine dipstick tests a sample of urine to look for bacteria, blood cells, and proteins.

You will be given clear instructions to collect a urine sample. These include:

- **how to collect the sample:** including tips like washing your hands or using a sterile wipe
- **the type of container to use:** typically, you will get a specimen cup
- **the time of the day to collect the sample:** usually first thing in the morning
- **what part of the urine stream to collect:** the start, midstream, or all of it.

How are urinary tract infections treated?

Urinary tract infections are typically treated with a few days of antibiotics, which are medications used to kill the bacteria. Your doctor or pharmacist may recommend pain medications if you are experiencing discomfort when you urinate.

If you are still having symptoms after two or three days of antibiotics or if your symptoms get worse, let your doctor know. They may need to prescribe a different medication.

If you are unable to see your GP, some pharmacists are able to prescribe antibiotics for simple UTIs. Alert your doctor or pharmacist if you have a history of kidney disease or are pregnant. They may need to reduce the dose or use different antibiotics to treat your UTI.

If bacteria are present in your urine and you do not have any symptoms, you may not need any treatment. Your healthcare provider will assess which treatment is best for you.

If you are prescribed antibiotics, be sure to finish taking all doses of the prescribed medication even if you are feeling better. This allows the antibiotic to kill all the bacteria causing the infection.

Can urinary tract infections be prevented?

Females can lower their risk of having a urinary tract infection. Some tips that may help are:

- **Stay hydrated by drinking enough water.**
- **Urinate (wee) right after having sex.**
- **Clean and dry your groin every day.**
- **Wipe front to back.**
- **Wear cotton underwear.**

Sometimes cranberry products are recommended for UTIs. There is mixed evidence as to whether this actually helps. It's best to ask your health care team before starting over-the-counter supplements. Ask your doctor if these products are right for you.

Recurrent UTI

Even with good hygiene and following the above tips, you can still have recurrent UTIs.

A **recurrent UTI** is when an infection comes back up to two times in 6 months or three times in a year.

Recurrent UTIs can increase your risk for kidney damage, especially if you do not get treatment. Talk to your doctor if you keep having UTI symptoms - medications can help prevent infections from coming back.



Do babies and young children get urinary tract infections?

Yes, babies and children are at risk of UTIs. In addition to the classic symptoms of UTI, infants and children may have fever, tiredness, and irritability. Babies may have feeding problems and toilet-trained children may experience day or night wetting.

These infections always need to be checked by a doctor, as they may indicate a serious underlying condition.



Things to remember:

- ✓ **Urinary tract infections are a common type of infection. Women, especially pregnant women, those with catheters, and diabetics have increased risk.**
- ✓ **Common symptoms of UTI are burning sensation when passing urine, wanting to urinate more often, and cloudy, bloody or smelly urine.**
- ✓ **If you have symptoms of UTI, see your doctor or pharmacist for a diagnosis and treatment with antibiotics.**

What does that word mean?

Antibiotics – A medication used to treat and prevent a variety of bacterial infections and disease.

Bacteria – Tiny cells (germs) that can be found in and outside of the body. The bad bacteria in the body can lead to illness, infections, and disease.

Bladder – A muscular, elastic sac inside the body that stores the urine (wee).

Catheter – A plastic tube that is used to take fluid in or out of your body. (See Vascular access catheter).

Cystitis – A urinary infection of the bladder. Cystitis is the most common type of urinary infection.

Escherichia Coli (E.coli) –

A type of bacteria (germ) that is normally found in your digestive system. When E.coli gets into the urinary tract, it can lead to urinary infection.

Hormone – A chemical made by glands in the body. Hormones circulate in the bloodstream and control the actions of certain cells or organs.

Immune system – A collection of special cells and chemicals that fight infection-causing agents such as bacteria and viruses.

Menopause – The time when women naturally become infertile, and their menstrual cycle comes to an end.

Pyelonephritis – Upper urinary tract infections caused by bacteria that can lead to damage of the kidneys.

Ureter – The tube that connects the kidneys to the bladder.

Urethra – The tube that takes urine out of the body from the bladder.

Urinalysis – When a sample of urine is collected and examined to detect for any unusual characteristics.

 **Kidney Health**
Australia

Free Kidney Helpline 1800 454 363
kidney.org.au

If you have a hearing or speech impairment, contact the National Relay Service on 1800 555 677 or relayservice.com.au. Have them connect you to the Free Kidney Helpline - 1800 454 363 



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