



Pharmaceutical
Society of Australia



Urinary Tract Infection

(Cystitis)

A urinary tract infection (UTI) is an infection involving any part of the body's urinary system – kidneys, ureters, bladder or urethra. UTIs are common, especially in women and the elderly. Bladder infection, also called cystitis, is the most common type of UTI.

Kidneys remove water and waste from the blood to form urine. Ureters carry urine from the kidneys to the bladder, where it is stored until it is released from the body through the urethra. The urinary system and urine are normally sterile (contain no microorganisms), but microorganisms can enter the urinary tract through the urethra.

UTIs are usually caused by bacteria which normally live harmlessly in the intestines and bowel. If these bacteria spread to the urethra and get into the urinary system they can cause:

- **Urethritis** – infection in the urethra
- **Cystitis** – infection in the bladder, causing the bladder lining to become raw and inflamed
- **Pyelonephritis** – infection in the kidneys.

Most urinary tract infections are not contagious and cannot be passed on during sex. However urethritis, in both men and women, can also be caused by microorganisms that are sexually transmitted.

Signs and symptoms

The main symptoms of cystitis are:

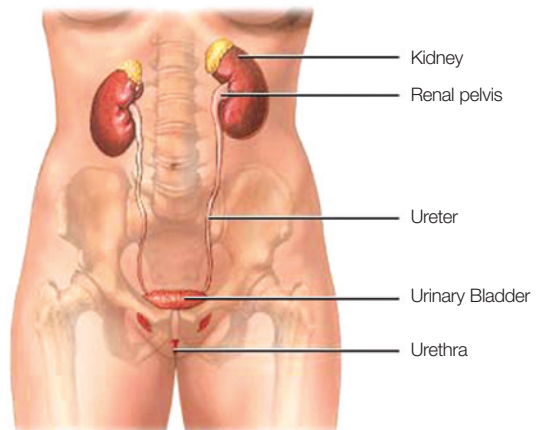
- A prickly, scalding or burning sensation when passing urine
- The urge to urinate frequently, if only to pass a few drops (urgency)
- Cloudy, bloody or smelly urine
- Lower abdominal pain.

These symptoms can range from mild to severe.

Urethritis commonly causes burning during urination, but usually the urine is not bloody or cloudy.

Pyelonephritis may cause cystitis symptoms, fever, chills, nausea and vomiting and back pain. A kidney infection is serious and needs prompt treatment.

Bacteria can be present in urine without causing any symptoms of infection. This situation, called bacteruria, may not need any treatment.



The female urinary tract. The male urinary tract differs only in the length of the urethra.

Who is most at risk?

- **Women** – are susceptible to UTI because the urethra is so short. Sexually active women are most at risk because sex can push bacteria into the urethra. UTI can also be associated with hormone changes and women may be more susceptible to UTI during certain times of the menstrual cycle, during pregnancy, after menopause and after a hysterectomy.
- **People with a urinary catheter** – a catheter is a tube inserted into the bladder to drain urine (e.g., after surgery).
- **Elderly people** – especially if unwell.
- **Diabetics** – can be less able to resist infection because of a weaker immune system. Also, bacteria grow more easily in urine with a high sugar content.
- **Men with prostate problems** – who may have trouble with urine flow.
- **Babies and young children** – especially those born with a urinary tract abnormality.

Treatment

Sometimes mild cystitis can be treated by:

- Drinking plenty of fluids, especially water, to flush the urinary system
- Taking a urinary alkaliniser (e.g., *Ural*, *Citravescent*) to make the urine less acidic, which discourages bacterial growth. This can also relieve the stinging and burning that occurs when passing urine. Ask a pharmacist for advice
- Avoiding acidic foods and drinks. They can aggravate the burning sensation when passing urine and can cancel out the effect of a urinary alkaliniser.

If these strategies are not successful, seek medical help, as a urinary tract infection usually needs to be treated with an antibiotic. The doctor may ask for a urine sample to test for bacteria, so he/she can prescribe an antibiotic that is effective against the bacteria causing the infection. A urinary tract infection usually clears quickly with the right antibiotic treatment. If a UTI is persistent, the doctor may prescribe a low dose of an antibiotic for long-term treatment.

Drinking cranberry juice every day can help to prevent urinary tract infections and may help people who are susceptible to recurrent UTI.

Collecting a urine sample

The best urine sample for testing is a mid-stream specimen of urine (MSSU or MSU).

To collect an MSU pass a small amount of urine into the toilet first, then pass a small amount of urine into a clean container, then pass remaining urine into the toilet. Ask your pharmacist for a sterile (microorganism free) specimen jar in which to collect the urine sample.

Self care

The best way to reduce the likelihood of getting a urinary tract infection is to develop good habits of personal health and hygiene.

- Drink enough water every day to satisfy your thirst and to keep your urine 'light-coloured' (unless a doctor advises otherwise).
- Wash your hands well after going to the toilet.
- Go to the toilet as soon as you feel the urge to urinate, rather than holding on.
- See a doctor promptly if you have UTI symptoms or problems with urine flow.

Your **Self Care** Pharmacist

For women:

- Wipe yourself from front to back (urethra to anus) after urinating or opening your bowels
- Wash your genitals before sex and encourage your partner to do the same
- Empty your bladder soon after sex
- Wash your genital area every day
- Wear cotton rather than synthetic underwear
- Treat vaginal infections promptly
- Avoid spermicide containing products, especially with a diaphragm contraceptive device
- Avoid constipation.

Related fact cards

- *Antibiotics*
- *Bladder and Urine Control*
- *Menopause*
- *Prostate Problems*

For more information

HEALTHInsite – website www.healthinsite.gov.au

Kidney Health Australia – phone 1800 682 531 or website www.kidney.org.au

Consumer Medicine Information (CMI) leaflets – your pharmacist can advise on availability.

NPS Medicines Line – phone 1300 888 763 Monday to Friday, 9am to 6pm EST.

The Poisons Information Centre – in case of poisoning phone 131 126 from anywhere in Australia.

Pharmacists are medicines experts. Ask a pharmacist for advice when choosing a medicine.

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