

Urinary Tract Infection (UTI)

Urinary tract infection (UTI) is an infection of the urinary system. The urinary system consists of the kidneys, the bladder, the ureters (tubes that connect the kidneys to the bladder) and the urethra (small tube connecting the bladder to the outside of the body). Infection may occur in the kidneys (pyelonephritis), bladder (cystitis) or urethra (urethritis).

Urine is normally free from bacteria, however, the normal human body is covered with bacteria and the normal intestine contains large numbers of harmless bacteria. The structure of the urinary system prevents urine flowing upwards from the bladder to the kidney, so most urinary tract infections are in the bladder and are not usually serious.

However, if not treated, the infection may travel from the bladder up the ureters to the kidneys and cause a more serious infection which needs prompt medical attention.

The most common cause of a urinary tract infection is a bacterium commonly found in the digestive tract called *Escherichia coli* (*E. coli*). It is usually spread to the urethra from the anus (opening in the back passage).

Other micro-organisms, such as *Mycoplasma* and *Chlamydia*, can cause urethritis in both men and women. These micro-organisms are sexually transmitted so when these infections are detected, both partners need medical treatment to avoid re-infection.

Urinary tract infections are very common, particularly in women, babies and the elderly. Around one in two women and one in 20 men will get a UTI in their lifetime.

Common symptoms of a UTI include:

- > burning or scalding sensation or lower abdominal discomfort when passing urine
- > passing urine much more frequently than usual
- > feeling an urge to urinate, but being unable to, or only passing a few drops
- > feeling that the bladder is still full after urination
- > foul smelling urine
- > urine that is cloudy, bloody or dark
- > fever.

A person with a kidney infection can also experience:

- > chills
- > fever
- > loin (lower abdominal) pain
- > back pain.

Your doctor may diagnose a urinary tract infection from the symptoms you describe. A simple test in the doctor's surgery (dipstick) can provide evidence to support the diagnosis of a UTI. Sometimes a urine sample is sent to the laboratory for microscopy and culture to identify the specific cause of the infection.

Some groups are at increased risk of having urinary tract infections:

- > Women are vulnerable because the urethra is only 4cm long and bacteria only have to travel this short distance from the outside to the inside of the bladder.
- > People with urinary catheters, such as the critically ill, who can't empty their own bladder.
- > People with diabetes have altered immune systems and are more vulnerable to infection.
- > Men with prostate problems, since an enlarged prostate gland can cause the bladder to only partially empty.
- > Babies, especially those born with congenital abnormalities of the urinary system.

A urinary tract infection in a child needs to be investigated as it may indicate a more serious condition. The most common urinary system condition is vesico-ureteric reflux. This means the bladder valve isn't working properly and allows urine to flow back to the kidneys, increasing the risk of a kidney infection.

Vesico-ureteric reflux and the associated infections can scar or permanently damage the kidney. It can also lead to:

- > high blood pressure
- > toxemia in pregnancy
- > kidney failure.

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Since this disorder tends to run in families, it is important to screen children as early as possible if a close relative is known to have the problem.

Infectious period

(time during which an infected person can infect others)

Urinary tract infections cannot be passed from person to person except for those infections of the urinary tract that are sexually transmitted.

Treatment

Urinary tract infections are usually treated effectively with antibiotics. However, as with any course of antibiotics, it is important to complete the full course prescribed by your doctor, even if you are no longer experiencing symptoms of a UTI.

Prevention of infection

- > Drink lots of fluids to flush the urinary system. Water is best.
- > Urinate as soon as you feel the need rather than holding on.
- > Wipe your bottom from front to back to prevent bacteria from around the anus entering the urethra.
- > Drink cranberry juice or take vitamin C. Both increase the acid in your urine so bacteria can't grow easily.
- > Urinate shortly after sex to flush away bacteria that might have entered your urethra during sex.
- > Wear cotton underwear and loose-fitting clothes so that air can keep the area dry. Avoid tight-fitting clothes and nylon underwear, which trap moisture and can help bacteria grow.
- > For women, using a diaphragm or spermicide for birth control can lead to UTIs by increasing bacteria growth. Unlubricated condoms or spermicidal condoms increase irritation, which may help bacteria grow. Consider switching to lubricated condoms without spermicide or using a non-spermicidal lubricant.
- > People with UTIs do not need to be excluded from child-care, school or work.

- > **Avoiding Sexually Transmitted Infection**
- > **Chlamydia trachomatis infection**
- > **Gonorrhoea**
- > **Non-Specific Urethritis**

Useful websites

- > <http://www.betterhealth.vic.gov.au>
- > <http://www.kidney.org.au/>