

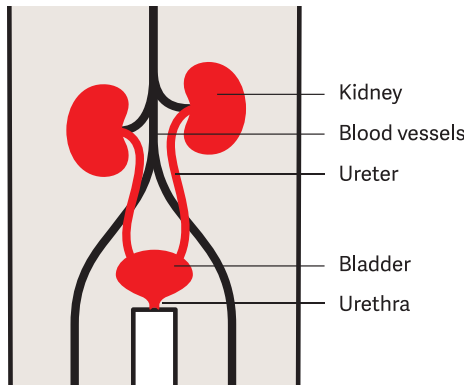
**Fact sheet**



# Urinary Tract Infections

Your urinary system is made up of the kidneys, ureters, bladder and urethra. Your kidneys do many important jobs. One is to remove waste and extra fluid from the blood to make urine.

Narrow tubes called ureters carry urine from the kidneys to the bladder. Urine is stored in your bladder and emptied through the urethra. The urethra is the tube that drains the bladder.



## What are urinary tract infections?

Urinary tract infections (UTIs) are very common – particularly in women, babies and the elderly. Around 1 in 2 women and 1 in 20 men will get a UTI in their lifetime.

There are different types of UTIs and this can depend on which part of the urinary tract is infected.

Pyelonephritis describes an upper urinary tract infection, which is very serious as it may affect the kidneys. If the infection is in the bladder, it is called cystitis. Cystitis is the most common lower urinary tract infection, which causes the bladder lining to become raw and inflamed (swollen).

## What causes urinary tract infections?

Bacteria do not normally live in the urinary tract. When bacteria enter the urinary tract and multiply, they can cause a UTI.

There are many germs that can cause urine infections or cystitis. The most common germ causing urinary tract infections is found in your digestive system, *Escherichia coli* (E.coli). E.coli can easily spread to the urethra and stick to the lining of your urinary system.

Germs such as *Mycoplasma* and *Chlamydia* can cause urethritis in both men and women. These germs can be passed on during sexual intercourse so both partners need medical treatment to avoid re-infection.

Some people may be at higher risk of infections due to the urinary flow being blocked or the urine backed up, flowing from the bladder to the kidneys.

See the *Kidney Stone fact sheet* for more information.

## Why are urinary tract infections more common in women?

UTIs are common, particularly with increasing age. Women are more likely to get a UTI than men. Nearly 1 in 3 women will have a UTI needing treatment before the age of 24.

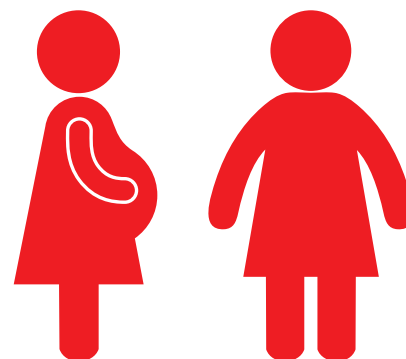
In women, the urethra is short and straight, making it easier for germs to travel into the bladder. For some women, UTIs relate to changes in their hormonal levels. Some are more likely to get an infection during certain times in their menstrual cycle, such as just before a period or during pregnancy.

In older women, the tissues of the urethra and bladder become thinner and drier with age as well as after menopause or a hysterectomy. This can be linked to increased UTIs.

During pregnancy, the drainage system from the kidney to the bladder widens so urine does not drain as quickly. This makes it easier to get a UTI. Sometimes germs can move from the bladder to the kidney causing a kidney infection. UTIs during pregnancy can result in increased blood pressure and a smaller, premature baby, so it is very important to have them treated as soon as possible.

Women are more at risk of repeated UTIs if they:

- use spermicide jelly or diaphragm for contraception
- have had a new sexual partner in the last year (an increase in sexual activity may trigger symptoms of a UTI in some women)
- had their first UTI at or before 15 years of age
- have a family history of repeated UTIs, particularly their mother
- suffer from constipation



## Do men get urinary tract infections?

Men can get UTIs, particularly if they have trouble with urine flow. Older men who experience prostatitis (an inflammation of the prostate) are at a higher risk. If the bladder is not emptying properly, the build up of urine makes it more difficult to cure the infection. A small number of young men may get a UTI. In males, this is usually the result of a sexually transmitted disease.

## What is the link with diabetes?

People with diabetes are at increased risk of having UTIs as their urine may have a high glucose (sugar) content, which makes it easier for bacteria to multiply. Diabetes may also change the body's immune (defence) system making it harder to fight a UTI. The risk of developing a UTI increases as diabetes progresses.

## Why are older people more at risk?

Chronic conditions, some medications, and problems with incontinence put older people at an increased risk for developing UTIs. People using bladder catheters are also more likely to develop a UTI.

## Do babies and young children get urinary tract infections?

Babies and children are at risk of UTIs. These infections always need to be investigated as they may indicate a serious underlying condition, such as urinary reflux. Reflux is caused by a bladder valve problem allowing urine to flow back into the kidneys from the

bladder. Reflux can cause the urine to stay inside the body increasing the risk of infection. It may lead to kidney scarring, which in turn leads to high blood pressure and sometimes kidney problems.

## What are the symptoms of a urinary tract infection?

Bacteria may be present in a urine sample without causing any symptoms. This is more common in women who have diabetes, repeated UTIs or the elderly. This type of UTI may not always need treatment except in special situations, such as in pregnant women.

Common symptoms of a UTI include:

- burning sensation when passing urine
- wanting to urinate more often, if only to pass a few drops
- cloudy, bloody or very smelly urine
- pain above the pubic bone

Signs of UTIs in children can also include:

- low fever
- irritability
- day or night wetting in a child who has been dry
- feeding problems in babies

If the infection moves to the kidneys, you may also have high fever, back pain and vomiting. It is important to see a doctor if a kidney infection or kidney stones are suspected because kidney damage or even kidney disease can occur if these conditions are left untreated.

## How are urinary tract infections treated?

A faint prickly feeling during urination is usually the first sign of a urinary tract infection. Sometimes mild cystitis can be treated by:

- drinking plenty of fluids, particularly water
- taking a commercial urinary alkalinising agent (such as Ural or Citralite) or one teaspoon of baking soda or bicarbonate of soda in water to help relieve discomfort when passing urine. It is important to refer to your doctor if symptoms persist as an infection may be present and require different treatment
- avoiding acidic food or drinks - they cancel out the effect of urinary alkalisers and can aggravate the burning when passing urine

Medical advice is needed if self-help treatments aren't working. The doctor usually tests the urine to check for blood, white blood cells and acidity.

Antibiotics are commonly prescribed to treat UTIs. If a UTI comes back, your doctor can order a 'culture'. A culture is a test to see which germs are present in your urine. Identifying the germ will help determine which antibiotic is best to treat the infection. Sometimes a low-dose antibiotic may be prescribed for long-term use if the UTI is persistent. If the UTI does not improve or is frequently recurring, it may be a good idea to get a referral to a specialist.

See the *Make the most of your visit to the doctor* fact sheet for more information.

Men should see a doctor if they have trouble with the urine stream or with starting and stopping the urine flow as it may point to an enlargement of the prostate.



## How can urinary tract infections be prevented?

Women can lower their risk of having a urinary tract infection by:

- drinking lots of fluid, particularly water, to wash bacteria from the bladder and urinary tract
- promptly treating a vaginal infection, such as thrush or trichomoniasis (sexually transmitted disease).
- avoiding spermicide-containing products, particularly with a diaphragm
- avoiding constipation

Some women have found the following tips helpful:

- urinate immediately after sexual intercourse
- do not delay going to the toilet when you need to
- wipe from front to back after urinating
- wear cotton underwear
- use only water when washing between your legs
- wash between your legs every day and before having sexual intercourse

Cranberries (usually as cranberry juice) have been used to prevent recurrent UTIs. Cranberries contain a substance that can prevent bacteria from sticking to the walls of the bladder. However, recent research has shown that cranberry juice does not have a significant benefit in preventing UTIs, and most people are unable to continue drinking the juice on a long-term basis.

It is important to remember that UTIs are not caused by a lack of cleanliness. Self-help treatments such as vaginal douching do not change the likelihood of getting UTIs.



### THINGS TO REMEMBER

- UTIs are common, particularly in women, babies and the elderly. People with diabetes are also at a greater risk of having a UTI.
- Common symptoms of a UTI include a burning sensation when passing urine, wanting to urinate more often, cloudy, bloody or smelly urine and pain above the pelvic bone.
- It is important to see a doctor if a urinary tract infection occurs, because if left untreated it can lead to serious complications, including kidney damage.

## 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, infection 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.

**Cystitis** - A urinary infection of the bladder. Cystitis is the most common type of urinary tract infection.

**Escherichia Coli (E.coli)** - A type of bacteria (germ) that can be found in your digestive system which can often lead to a urinary infection.

**Hysterectomy** - The procedure to remove the uterus. A hysterectomy may be performed due to a number of health conditions.

**Incontinence** - Accidental loss of urine from the bladder.

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

**Menstrual cycle** - When the females body naturally prepares for pregnancy and experiences menstruation (period) during each cycle.

**Pyelonephritis** - Upper urinary tract infection 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.

For more information about kidney or urinary health, please contact our free call Kidney Helpline on 1800 454 363.

Or visit our website [kidney.org.au](http://kidney.org.au) to access free health literature.

This is intended as a general introduction to this topic and is not meant to substitute for your doctor's or Health Professional's advice. All care is taken to ensure that the information is relevant to the reader and applicable to each state in Australia. It should be noted that Kidney Health Australia recognises that each person's experience is individual and that variations do occur in treatment and management due to personal circumstances, the health professional and the state one lives in. Should you require further information always consult your doctor or health professional.



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