

Overview

Kidney infection

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A kidney infection (pyelonephritis) is a painful and unpleasant illness. It is usually caused by infection spreading upwards from an infected bladder ([cystitis](#)).

Most people with cystitis will not get a kidney infection. But, sometimes, the bacteria can travel up from the bladder into one or both kidneys.

Some people are more likely to develop a kidney infection if they have a kidney disorder such as:

- a blockage to the flow of urine from the kidney or
- refluxing of urine from the bladder back up into the kidneys

If treated with antibiotics straight away, a kidney infection does not cause serious harm. But you can feel very unwell.

A kidney infection can get worse if it is not treated. It can sometimes cause permanent kidney damage.

Symptoms of kidney infection

Symptoms of a kidney infection often come on within a few hours. You can feel feverish, shivery, sick and have a pain in your back or side.

Read more about the [symptoms of a kidney infection](#)

Besides feeling unwell, you may also have symptoms of infection elsewhere in the urinary tract such as cystitis.

These include:

- needing to pee suddenly, or more often than usual
- pain or a burning sensation when peeing
- smelly or cloudy pee
- blood in your pee

When to see your GP

See your GP if you feel feverish and have pain that won't go away in your tummy, lower back or genitals.

You should also see a GP if you have symptoms of a UTI that haven't improved after a few days, or if you have blood in your pee.

Contact your GP immediately if:

- you think your child may have a kidney infection

If you cannot get a GP appointment, go to your nearest emergency department (ED).

Causes of kidney infection

A kidney infection usually happens when bacteria gets into the urethra. This is a tube that carries urine out of your body. The bacteria travel up to your bladder, causing cystitis, and then up into your kidneys.

E. coli bacteria normally live in your bowel, where they cause no harm. They can be transferred from your bottom to your genitals during sex. They can also be transferred if you're not careful when wiping your bottom after going to the loo.

A kidney infection can sometimes develop without a bladder infection.

For example, if you have:

- a problem with your kidney, such as [kidney stones](#)
- [diabetes](#)
- a weakened immune system

Diagnosing kidney infection

To work out if you have a kidney infection, your GP will ask about your symptoms and recent medical history.

They will carry out a urine test to see if you have a UTI.

Your GP may refer you to a specialist urologist for further investigation.

Treatment of kidney infection

Most kidney infections need prompt treatment with antibiotics. This is to stop the infection from damaging the kidneys or spreading to the bloodstream. You may also need painkillers.

If you're vulnerable to the effects of an infection you may get antibiotics through a drip in a hospital.

After taking antibiotics, you should feel completely better after about 2 weeks.

Read more about [treating a kidney infection](#)

Most at risk of kidney infections

Kidney infections can happen at any age and are much more common in women. This is because a woman's urethra is shorter, making it easier for bacteria to access the bladder and to sooner or later reach the kidneys.

Younger women are most at risk because they tend to be more sexually active. Having frequent sex increases the chances of sooner or later getting a kidney infection.

Preventing kidney infection

The best way to prevent a kidney infection is to keep your bladder and urethra free from bacteria by:

- drinking plenty of fluids (plain water is best)
- going to the loo as soon as you feel the need to, rather than holding it in
- going to the loo after sex
- wiping from front to back after going to the loo
- washing your genitals every day, and before having sex if possible
- treating any constipation – being constipated can increase your chance of developing a UTI
- not using a [diaphragm](#) or [condoms](#) coated in spermicide if you're prone to getting UTIs. Spermicide can increase your risk of getting a UTI

If you keep getting urine infections, your GP may prescribe you a low dose of antibiotics. This may help to prevent the infection returning. It may also prevent any infection spreading to the kidneys.

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