

Pyelonephritis (kidney infection)

Pyelonephritis (pie-lo-nef-rite-is) is a painful bacterial infection of one or both of your kidneys.

If it's treated early, there should be no serious harm. If it's left untreated, it can get worse and cause kidney damage.

Most kidney infections are one-off and come on quite quickly. This is called acute kidney infection.

Repeated episodes of acute kidney infection can lead to chronic (long-lasting) kidney infection. Chronic kidney infection is rare but it can lead to long-term kidney problems or even kidney failure.

Causes of kidney infections

Kidney infections usually happen because of a germ (bacteria) that enters your urethra (the tube you pass urine through) from the surrounding skin. It then travels into your bladder and up into your kidneys.

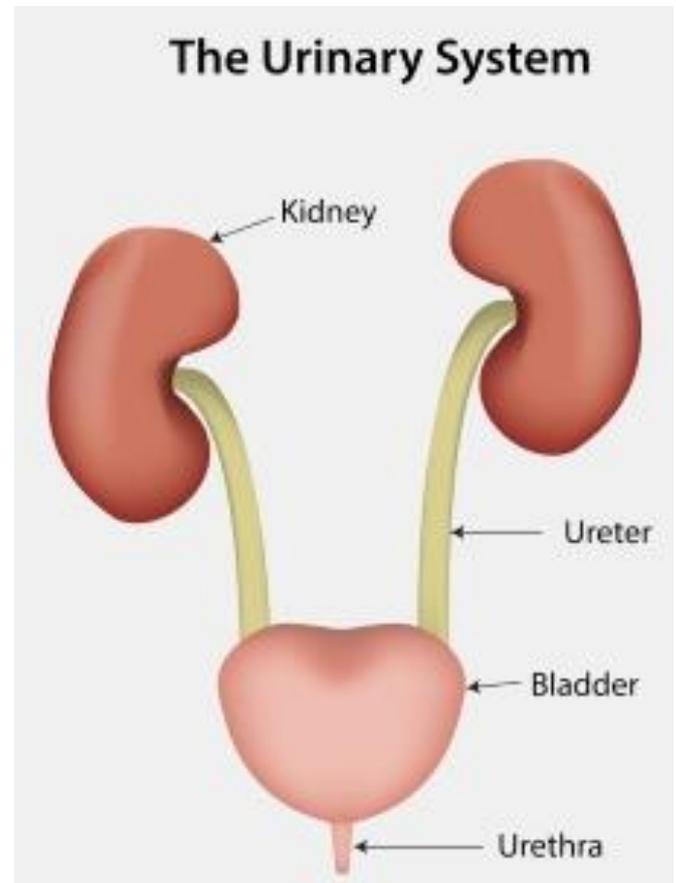
Anyone can get kidney infections, although they're more common in women. This is because their urethra is shorter, which makes it easier for the bacteria to reach the bladder before moving to the kidneys.

Other factors than can increase the risk of developing pyelonephritis include:

- having a blockage of your urinary tract due to kidney stones or an enlarged prostate
- being born with an abnormality in your urinary tract
- being pregnant
- having a weakened immune system, which can be due to diabetes
- having urinary reflux – where small amounts of urine flow back from your bladder, up into your ureters and kidneys.

If the infection just causes a urine infection in your bladder, it's called cystitis. It only becomes pyelonephritis if it travels up to your kidneys.

Chronic kidney infection is usually caused by scarring of your kidneys, repeated urine infections or permanent defects in your kidneys at birth.





Symptoms of kidney infections

The symptoms of kidney infection can be vague. But they can include:

- a high temperature
- shivering or shaking
- pain and tenderness on both sides of your tummy or in your lower back (just below your ribs)
- needing to pass urine (wee) a lot
- pain or a burning sensation when passing urine
- blood in your urine
- smelly urine.

Other symptoms may include:

- feeling sick (nausea) and vomiting
- confusion (particularly in older people).

Diagnosing kidney infections

Acute (suddenly occurring) kidney infection needs urgent medical attention. So, if you have the above symptoms, see your GP or after-hours doctor as soon as possible.

Your GP will examine you and ask you questions about your general health. They'll diagnose a kidney infection by getting you to have a urine test. Sometimes you might need a blood test to check for signs of infection and to measure your kidney function.

Treating kidney infections

While kidney infections can become serious, they can almost always be cured. But it's best to get them treated quickly to prevent any complications. Although complications are rare, they can cause permanent damage to your kidneys.

Your doctor will usually prescribe antibiotics to get rid of the infection and simple pain relief to dull the pain and lower your temperature. They'll also tell you to drink plenty of fluids. Make sure you finish all the antibiotics you're prescribed, even if you're feeling better.

If the infection is severe or doesn't clear up quickly with antibiotics, you may need to go to hospital.

Preventing kidney infections

You can do some things to reduce your risk of getting a kidney infection:

- drink plenty of fluids
- make sure you keep your genital area clean
- urinate (wee) after sex.

Written by HealthInfo clinical advisers. Last reviewed November 2019. Last updated July 2021.