

KIDNEY INFECTION (PYELONEPHRITIS)

This leaflet only deals with sudden-onset (acute) kidney infection in adults. The medical term for this is acute pyelonephritis.

What causes a kidney infection?

Most kidney infections develop as a complication of a bladder infection (cystitis). This infection can then travel up to cause a kidney infection. (**Note:** cystitis is common, and most people with cystitis do not develop a kidney infection.) **Some kidney infections** develop without a bladder infection. This is sometimes due to a problem in the kidney. For example, people are more prone to kidney infections if they have a kidney stone or an abnormality of the kidney. It is usually only one kidney that develops an infection. A kidney infection can occur at any age. It is much more common in women.

Kidney infections are also more common in children and during pregnancy.

What are the symptoms of a kidney infection?

Symptoms usually develop quickly, over a few hours or so, and may include:

- Pain in a loin (side of the tummy (abdomen) or back area over the kidney).
- High temperature (fever) which may cause shivers.
- Feeling sick (nausea), being sick (vomiting) and/or diarrhoea.
- Blood in the urine.
- There will also usually be symptoms of a bladder infection - for example, pain on passing urine, and going to the toilet often.

Do I need any tests?

A simple test that your doctor can do is called a dipstick urine test. This involves testing a sample of your urine with a special testing strip to look for signs of infection.

This test will show if a kidney infection is likely or not.

However, it is important to confirm the diagnosis and also to find out which germ (bacterium) is causing the infection. This will enable a doctor to prescribe the correct antibiotic. For this, your doctor will need to send your urine sample to the laboratory so that the bacterium can be identified and tests can be done to see which antibiotics will kill it. As this may take some days for the results, treatment is usually started straightaway.

What is the treatment for a kidney infection?

- **Antibiotics** will usually clear the infection. An antibiotic is usually prescribed straightaway if a kidney infection is suspected, even before the result of the urine test is known. Some germs (bacteria) are resistant to some antibiotics.
- **Painkillers** such as paracetamol can ease pain and reduce a high temperature (fever). Stronger painkillers may be needed if the pain is more severe. Non-steroidal anti-inflammatory painkillers such as ibuprofen are not usually recommended, as they may cause an increased risk of problems with the working of the kidney during a kidney infection.
- **Lots of fluid** should be taken to prevent dehydration.

Are there any complications from a kidney infection?

Most people who develop a kidney infection make a full recovery if treatment is given promptly. Possible complications which occur in a small number of cases include:

- Sometimes germs (bacteria) from a kidney infection get into the bloodstream, particularly if treatment is delayed. This may cause blood poisoning (septicaemia). This can be serious or even life-threatening.
- A kidney abscess can (rarely) develop. This is a collection of pus that forms within the kidney.
- The infection can sometimes cause some permanent damage to kidney tissues.

These complications are uncommon but may be more likely if:

- You become severely ill with the kidney infection.
- You already have a problem with your kidneys, such as polycystic kidney disease, reflux or kidney failure.
- You have kidney stones.
- Your immune system is suppressed - for example, if you have cancer, if you are taking medication such as steroids or chemotherapy, or if you have AIDS.
- You have poorly controlled diabetes.
- You are an older person (over the age of 65 years).

Can kidney infection be prevented?

As most kidney infections are caused by germs (bacteria) travelling up from a bladder infection, the same things that can help to reduce your chances of bladder infection should reduce your chances of kidney infection. Some of the things that may help include the following:

- Don't hold on to urine when you feel the need to pass urine. Go to the toilet promptly.
- Make sure you drink plenty of fluids every day so that you are well hydrated.
- Treat any constipation promptly, as constipation can increase your chances of a bladder or kidney infection.
- Empty your bladder after having sex.
- Always make sure that you wipe from front to back after going to the toilet to pass poo (faeces, stools, or motions).

You should return to the Emergency Department if you become unwell again with any of the following:

High fevers & shivering uncontrollably
Vomiting
Inability to pass urine
Increasing pain despite using pain killers

Patient Experience

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

Feedback

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

Patient Advice and Liaison Service (PALS)

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

How to contact PALS:

Telephone Patient Services: 0300 123 1732 or via email at: wah-tr.PALS@nhs.net

Opening times:

The PALS telephone lines are open Monday to Friday from 8.30am to 4.00pm. Please be aware that you may need to leave a voicemail message, but we aim to return your call within one working day. If you are unable to understand this leaflet, please communicate with a member of staff.

For additional medical advice, if your symptoms or condition worsens:

Contact your GP

NHS 111:

Get help with your symptoms, NHS111:

Information to help you manage your health:

Telephone 111

<https://111.nhs.uk/>

www.nhs.uk

In an emergency telephone 999

Emergency Department (A&E)

Alexandra Hospital

Woodrow Drive

Redditch B98 7UB

Tel: 01527 512030

Minor Injury Unit

Kidderminster Hospital

Bewdley Road

Kidderminster DY11 6RJ

Tel: 01562 513039

Emergency Department (A&E)

Worcestershire Royal Hospital

Charles Hastings Way

Worcester WR5 1DD

Tel: 01905 760743