

Acute Kidney Injury (AKI)

Information for
patients

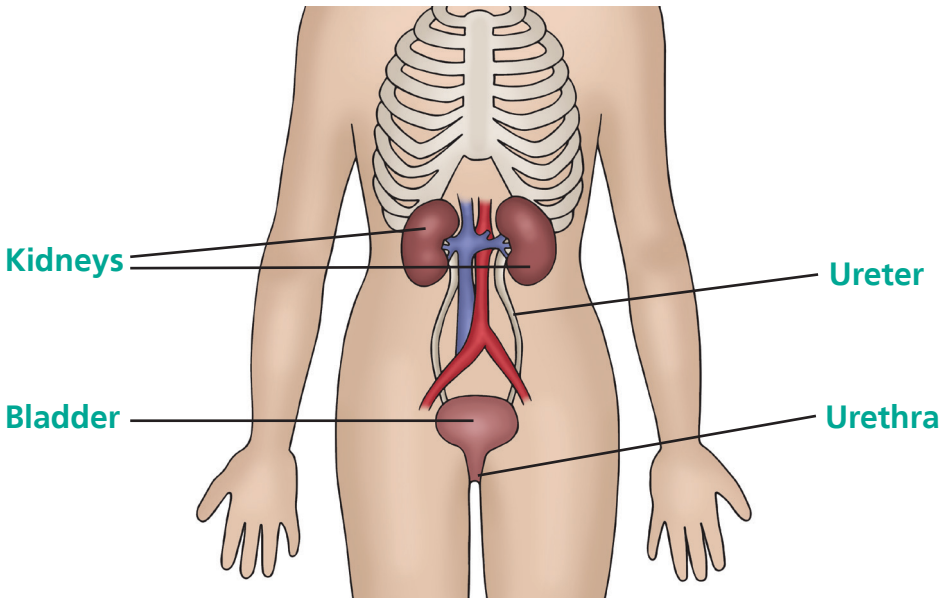


This leaflet offers more information about acute kidney injury including what it is, what causes it, how it is diagnosed, and how it can be treated.

If you have any questions or concerns that are not answered in this leaflet, please speak to the staff member in charge of your care.

Where are the kidneys and what do they do?

Your kidneys are two bean-shaped organs, each about the size of your fist. They are located near the middle of your back, just below the rib cage (see illustration below).



Kidneys have several important functions including:

- cleaning your blood
- getting rid of waste - including some medications
- controlling the amount of chemicals in your blood
- regulating salt levels in your body, such as sodium and potassium
- helping to control your blood pressure
- helping to maintain the right amount of fluid in your body
- helping to make red blood cells
- regulating acid levels in your body

Your urine (wee) is the product of excess fluid and waste products filtered through the kidneys. Urine passes from the kidneys down into your bladder via tubes called ureters. Your body will normally sense when your bladder is full and tell you that you need to pass urine.

What is AKI?

AKI is short for Acute Kidney Injury; it used to be called Acute Renal Failure.

It is not the result of a physical blow or trauma to the kidneys as the name might suggest. AKI is different to Chronic Kidney Disease (CKD) – which is a more gradual long term disease of the kidneys.

Having AKI it means that your kidneys have stopped working as well as they did. This causes a build-up or reduction of salts and chemicals in your body, which can affect other organs in your body such as your lungs, heart or eyes. Therefore it is important that it is treated early.

Causes of AKI

Causes of AKI can be broken down into three categories:

Pre Kidney

This is the most common cause of AKI and is caused by reduced blood flow to the kidney, for example low blood pressure, heart failure or dehydration.

Intrinsic

This is caused by damage to the kidney itself, for example as a result of vascular disease, infection or medications.

Post Kidney

This is a consequence of a blockage in the urinary tract system, for example a blocked catheter or kidney stones.

Symptoms of AKI

- Some people don't show any symptoms of kidney injury and it is only when we look at their blood results it is detected.
- Some people do have signs that their kidneys have stopped working;
 - not passing as much urine when you go to the toilet despite drinking more fluids.
 - your urine might be very strong and dark; it can look yellow/brown/red in colour.
 - your feet or legs might swell up.
 - you might start to feel very sick, tired, drowsy and confused and have itchy skin.

What will happen?

You will need some blood tests and need to give a sample of your urine. Blood tests may have to be repeated on a daily basis.

To help us monitor how well your kidneys are working we may need to place a catheter (a soft plastic tube) into your bladder to drain your urine.

If you don't have a catheter you may be asked to measure the amount of urine that you are passing, every time you pass it – as well as the amount of water you are drinking.

You may have an ultrasound scan which is to look for a blockage from the kidneys to the bladder, but is often normal in other causes of AKI.

We may alter your normal medications as some drugs can make AKI worse. Only do this if advised by the doctor looking after you. Feel free to ask the doctors and nurses about the medications you are being given.

You may need to see a kidney doctor, however AKI can often be looked after by your own medical/surgical/speciality team.

Very rarely we may need to take tissue directly from your kidney and look at it under a microscope, this is called a biopsy.

A very small number of patients' kidneys don't ever recover from kidney injury. If this happens to you, a doctor will talk to you about the options available.

How is AKI treated

Most of the time, AKI is mild with no symptoms and corrects itself over a short period of time with simple treatments such as increasing your fluid intake, treating an infection with antibiotics and management of the underlying cause.

To treat AKI we need to treat the underlying cause. This means that treatment will vary from patient to patient. We use the **STOP** abbreviation to help us to treat AKI:

Sepsis (infection) - it is important to find the infection (if you have one) and treat it quickly.

Toxins - it is important to avoid medications that may damage your kidneys (your doctor will tell you what medication to take).

Optimise blood pressure - we will monitor and help you control your blood pressure.

Prevent harm - your doctor will find the cause of your AKI and start treatment.

If you are dehydrated we may give you fluids through a cannula into your veins often known as a drip.

In cases of severe kidney injury, dialysis might be required. Dialysis is a technique that removes toxic substances that build up in the blood and regulates the levels of salt and fluid in the body. Dialysis is only necessary for a small amount of patients with AKI and further information will be provided to those patients that require it.

The future

- Your GP may continue to check your bloods after you are discharged from hospital on a regular basis.
- Most patients make a full recovery, however you will need to continue to look after your kidneys forever.
- You should tell all health care professionals treating you that you have had an acute kidney injury, as it may happen again.
- You will be advised to avoid medications that can damage your kidneys.
- Check with your doctor, nurse or pharmacist before taking any new medicines. This also includes any tablets that are not prescribed such as painkillers.
- Try keeping your blood pressure under control.
- We advise that you follow healthy eating and lifestyle advice.

Further information

NHS Choices

www.nhs.uk/conditions/acute-kidney-injury

The National Kidney Federation

www.kidney.org.uk

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Developed by: Gemma Hinchliffe, Sister - Clinical Support Team,
Deborah Smith, Project Nurse and
Barbara Ball, Project Support Nurse for Professional Practice,
Clinical Standards and Patient Safety Team.

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