

Patient information

Acute Kidney Injury (AKI)

Nephrology Department

You have been given this leaflet because you have been diagnosed as having had **an Acute Kidney Injury (AKI)**

Patient Name

Cause of AKI

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Advice Given

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What is acute kidney injury (AKI)?

Acute Kidney Injury or AKI is a sudden reduction in a person's kidney function. Kidney function is measured by blood tests. It does not mean that the kidneys have been physically injured.

Up to one in five people admitted to hospital in the UK have AKI. AKI often gets better in a few days or weeks, but sometimes it doesn't resolve fully and can cause long term problems.

AKI is not to be confused with chronic kidney disease (CKD) which is used to describe long-term kidney dysfunction that can be the result of various kidney and systemic diseases.

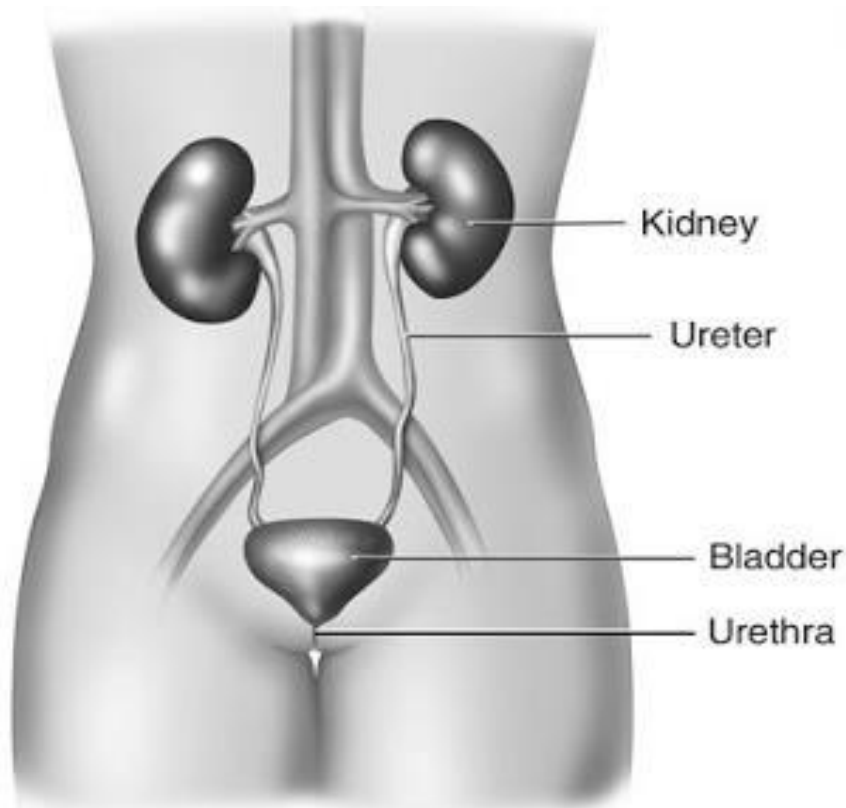
What causes AKI?

AKI can be caused by a number of factors. Such as dehydration, systemic illnesses or infections, major surgery and trauma or by side effect of drugs that pass through the kidney. AKI may also be caused when the drainage system of the kidneys (the ureters or bladder) is blocked.

The risk of having an AKI increases with age. Those with CKD, diabetes, heart or liver failure, are also at a higher risk.

What do kidneys do?

Most people have two kidneys that lie on either side of the back bone just below the ribs. The kidneys receive blood from the circulation and filter this to make urine. The production and excretion of urine allows our bodies to stay in overall balance by removing waste products and excess fluid that will otherwise be harmful to the body.



What are the symptoms of AKI?

You may not feel unwell until kidney function has deteriorated significantly, sometime to less than ten percent.

AKI can have the following symptoms:

- Changes in urine output, particularly a reduction in amount passed.
- Nausea and vomiting.
- Abdominal pains and feeling generally unwell.
- Dehydration with thirst.
- Later symptoms can include confusion and drowsiness.

How is AKI diagnosed?

Clinicians measure the blood level of a substance called creatinine. This is produced by the muscles and is removed by the kidneys. If there is a reduction in kidney function the creatinine levels will rise.

What makes an AKI episode a risk to your health?

Although AKI can be mild, in more serious forms the loss of kidney function may cause:

- An increase in potassium levels in the blood that can subsequently affect the heart.
- Blood may become acidic which can lead to further complications.
- Salt and water build up may lead to swelling to legs, hands or face.
- In some cases, fluid can build up in the lungs.

What is the treatment for AKI?

Once the cause of the AKI is identified, treatment is directed at the underlying cause. Hydration is assessed and intravenous fluids are given if appropriate. Some medications may be stopped while others require a dose adjustment, as many drugs are excreted through the kidneys.

Doctors and nurses monitor kidney function by measuring volume of urine produced and this can require placing a small tube called a catheter into the bladder in order to do this. Blood tests, chest X-rays and an electrocardiogram (ECG) will be used to detect complications of AKI. An ultrasound scan of the kidneys may be performed in certain situations.

If your medications are reduced or stopped whilst your kidneys are recovering, these should be reviewed before discharge with a plan of when to restart them if appropriate.

What are the long-term effects?

AKI is usually treated successfully. You may need to be followed up by the hospital medical team or your family doctor (GP) to monitor your kidney function.

In some patients kidney function doesn't fully recover after AKI. In a very small minority of AKI patients there is significant damage to the kidneys and they need on-going dialysis or kidney transplantation.

Whilst in hospital your doctor will keep you informed of your progress. Once discharged your GP or should receive information regarding your hospital stay including diagnosis of AKI.

How can I avoid AKI in the future?

You must follow the sick day rules below, when you are unwell with any of the following:

- Vomiting where you are unable to keep fluids down.

- Diarrhoea where you lose more water in stools than you manage to drink.
- Fevers.

Medicine Sick Day Guidance

1. Keep your water/fluid intake up to make sure you have enough fluids in your body. As a general rule, drink plenty (especially if you are still thirsty), until your acute/sudden illness passes.

This is likely to be at least seven cups a day.

(One cup = 200ml) unless you have other instructions from your doctor.

If you are vomiting, medical advice is to take small sips of water/fluid frequently, until your symptoms have settled.

2. Avoid drinking alcoholic drinks above recommended limits.
3. Speak to your GP or specialist team if you have passed much less urine than you normally pass **or** if you are unable to keep fluids down and/or have continuing diarrhoea or vomiting. **You may need a blood test to check for AKI.**
4. Inform pharmacist regarding previous AKI when obtaining over the counter medications

Medications to be reviewed during sick day (See the question above first)

ACE inhibitors: given for blood pressure and heart or kidney problems. Examples: Ramipril, Lisinopril, Perindopril and others ending with “pril”.

ARBs: given for blood pressure and heart or kidney problems
Examples: Losartan, Candesartan, Irbesartan and others ending with “sartan”.

Please speak to your GP or specialist team if you are feeling dizzy and you are taking any of the above blood pressure (BP) medication.

Your doctor may reduce or stop BP medication if your blood pressure is low.

NSAIDs: anti-inflammatory pain killer. Examples: Ibuprofen, Naproxen, Diclofenac, Celecoxib, Etoricoxib, Meloxicam and others - your doctor would stop this medication in the event of acute kidney injury.

Diuretics: sometimes called water pills. Examples: Furosemide, Bumetanide, Spironolactone, Eplerenone, Bendroflumethiazide, Indapamide.

In the event of AKI, sometimes diuretics (water pills) may require dose reduction or stopping all together. This is best done under medical advice.

N.B. Ask your doctor if you are on medications listed above?

Yes ☐ No ☐

If Yes, list here:

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Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further information

If you have any questions regarding Acute Kidney Injury, please contact the Renal Nurse Practitioner Team at the Royal Liverpool Hospital or the Critical Care Outreach Team at Aintree Hospital

Royal Liverpool Hospital

Tel: 0151 706 2000 Bleep 5150

Text phone number: 18001 0151 706 2000 Bleep 5150

Aintree Hospital

Tel: 0151 529 2736 or Bleep 5174

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