

# LOOKING AFTER YOUR KIDNEYS

for people with  
type 2 diabetes



## Diabetes and your kidneys

Diabetes is one of the most common causes of chronic (long-term) kidney disease. Kidney disease caused by diabetes is called diabetic kidney disease. Some people with diabetes can have chronic kidney disease not related to their diabetes.

If you have diabetes, it is important to look after your kidneys, whether you have kidney disease or not.

High blood glucose (sugar) levels in people with diabetes can cause damage to the kidneys over time. If this happens, the kidneys can't filter the blood properly and larger substances like protein are filtered out and lost in the urine (pee).

### What do my kidneys do?

Your kidneys' main job is to filter your blood and make urine.

- They keep useful things like protein in your body;
- and get rid of things you don't need, like extra fluid and waste products.

Your kidneys have other functions too, including:

- balancing salt and water in your body;
- making hormones.

Your kidneys each contain

**1 million**  
tiny filters

They use

**1/4**  
of your body's energy

They filter all the blood in your body

**40**  
times a day

## Who can get diabetic kidney disease?

Everyone with diabetes has a risk of getting diabetic kidney disease, but it's more likely if:

- your **blood glucose** isn't well-controlled;
- you have high **blood pressure**;
- someone else **in your family** has kidney disease.

**2 in 5**  
people with  
type 2 diabetes have  
kidney disease<sup>1</sup>



## What would having diabetic kidney disease mean for me?

Kidney disease can cause other serious problems, including:



Cardiovascular (heart) disease, which can cause heart attacks or strokes



Acute kidney injury (your kidneys suddenly stop working properly when you're unwell)



High blood pressure

There is no cure for diabetic kidney disease. Over time, it can get worse and eventually the kidneys can stop working.

There is a lot you can do to help lower your risk of kidney disease, or if you already have it, slow it down or stop it from getting worse.

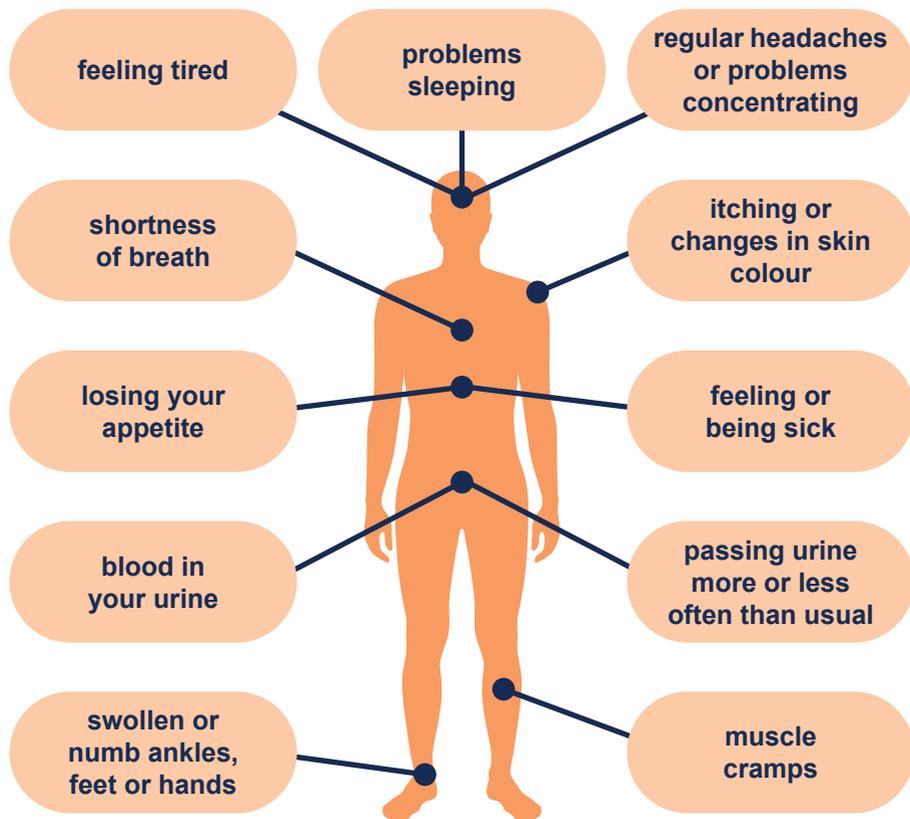
## What are the symptoms of diabetic kidney disease?

The early stages of diabetic kidney disease don't normally have symptoms.

Luckily, urine and blood tests can pick up kidney disease early, before symptoms show.

At later stages of kidney disease, some of the symptoms can include:

Early-stage kidney disease usually has no symptoms



These can also be signs of other illnesses, so please talk to your doctor if you notice any symptoms you are worried about.

## Testing for diabetic kidney disease

The earlier kidney disease is diagnosed, the better chance you have of slowing or stopping it from getting worse. You will be given urine and blood tests for kidney disease as part of your annual diabetes review.

**!** It is important that you provide a urine sample when asked (the sample can be taken any time of day)

**A simple urine test can pick up kidney disease much earlier than blood tests.** Blood tests are useful for checking whether existing kidney damage has got worse.

If the test gives an unexpected result, you might be asked to provide another urine sample taken first thing in the morning

### Urine test (ACR)

A simple but sensitive urine test called ACR (albumin to creatinine ratio) shows how much protein is leaking out of the kidneys

**A higher ACR suggests more kidney damage**

### Blood test (eGFR)

A blood test that measures eGFR (estimated glomerular filtration rate) shows how well your kidneys are filtering waste out of your blood

**A lower eGFR suggests more kidney damage**

### My kidney test results

You can keep a record of your test results here

Date	Urine test (ACR)	Blood test (eGFR)

# How can I keep my kidneys healthy?

## Manage your blood glucose and blood pressure



### Blood glucose

The most important thing you can do to protect your kidneys is manage your blood glucose.

- Aim to keep to the target range you've agreed with your diabetes team.
- Go to all your diabetes appointments.



### Blood pressure

Keeping your blood pressure under control can reduce the strain on your kidneys.

- If you've been prescribed blood pressure medicines, take them regularly as instructed.
- Go to all your blood pressure appointments.

## Medicines



Lots of medicines are processed by the kidneys, so kidney disease can affect the way they work.

- If you have kidney disease, ask your doctor or pharmacist if your medicines are still suitable.
  - This includes medicines you can buy over-the-counter at a pharmacy or online.

If you have any side-effects from any medicines you are taking, tell your doctor or pharmacist.

## Healthy lifestyle

Improving your general health helps to reduce your risk of getting kidney disease, or of existing kidney disease getting worse.



### Give up smoking

If you smoke, giving up is one of the best ways to lower your risk of kidney disease.

- There is lots of support available to help you stop smoking.
- Talk to your diabetes team for more information.



### Eat a healthy diet

- **Drink lots of fluid, ideally water, and aim for 6 – 8 glasses a day.**
- Eat a healthy, balanced diet, with plenty of fresh fruit and vegetables.
- Cut down on processed food and sugary drinks.
- Eat less salt; keep under 6 grams a day and don't add any to your food.
- If your doctor says you can still drink alcohol, make sure you have no more than 14 units a week.



### Do some regular exercise

- Try to exercise for 30 minutes, 5 times a week.
- You could try walking, cycling, gardening or yoga.
- Talk to your doctor before starting any new exercise.

# Having diabetes increases your risk of diabetic kidney disease

## Kidney disease can make you more likely to develop heart problems

**1**

### **Manage**

Keep your blood glucose (sugar) and blood pressure to agreed targets

**2**

### **Test**

Your urine and blood should be tested every year for signs of kidney damage

**3**

### **Stay healthy**

Make healthy lifestyle choices to help look after your kidneys

**If you would like to find out more, these sites contain useful information:**

[www.nhs.uk/conditions/kidney-disease](http://www.nhs.uk/conditions/kidney-disease)

[www.kidney.org.uk](http://www.kidney.org.uk)

[www.diabetes.org.uk](http://www.diabetes.org.uk)

<https://kidneyresearchuk.org>



Napp Pharmaceuticals Limited has created this non-promotional booklet as an educational resource for patients