

KIDNEY AND
HEART HEALTH



Diabetes Research & Wellness Foundation

Have you had your “double check”?

The two vital tests for kidney and heart health

for people living with diabetes

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Staying well until a cure is found...



Introduction to kidney function

Your kidneys are important organs in the body. They have several roles, which include removing toxins and waste material, as well as re-absorbing and recovering important nutrients back into the body.

How diabetes can impact kidney health

Diabetes can affect many organs in the body, including the kidneys. Diabetes-related kidney disease is a leading cause of kidney failure in the UK.

What this means for you

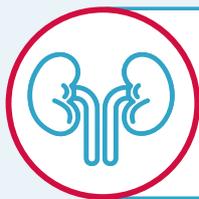
People with diabetes-related kidney disease have a very high risk of heart problems – so protecting the kidneys can help your heart health and protect you from future heart disease (cardiovascular disease). Many people with diabetes may also have high blood pressure (called hypertension) which, together with diabetes, can cause kidney damage.

Diabetes-related kidney damage is silent. Most people do not feel unwell until kidney function is severely reduced below 30%. As this process of kidney damage due to diabetes can often take time to develop, it is called chronic kidney disease (CKD).

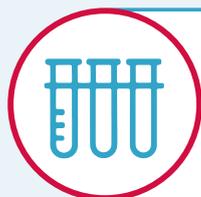
Importance of early detection

As CKD is often “silent” and people may not feel unwell, it is vital to screen for kidney disease early and provide diagnosis for this condition promptly. If CKD is identified early, there are treatments available to help protect your kidney and heart health and these may prevent kidney and heart complications in the future.

What is chronic kidney disease?



A reduction in **kidney function** or **structural damage** (or both), where the kidneys cannot filter blood the way they should, present for **more than 3 months**, with associated health implications



eGFR less than 60 ml/min/1.73m²

and/or



uACR (urine albumin to creatinine ratio) more than 3 mg/mmol

Early identification of kidney damage is possible and should be checked for annually in all people with diabetes.

Two tests are needed for this “double check”

Both the eGFR and uACR tests should be carried out to reach a CKD diagnosis.

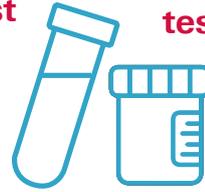


Check your kidney and heart health

If you have diabetes, speak to your GP about having regular eGFR and uACR tests for your kidney function.

eGFR
blood
test

uACR
urine
test



Urine test

1. Urine test to see if the kidney is leaking a protein called albumin in to the urine

This test identifies your urine albumin to creatinine ratio, or uACR for short. Increased albumin in the urine (above 3 mg/mmol) is a sign of kidney damage and an early sign that the filtering system of your kidney is not working as it should. In simple terms, this test looks for early kidney damage, even when you feel well. Higher uACR numbers increase your chances of CKD worsening and risk of cardiovascular disease (CVD).

The uACR is also an important marker of heart disease and future risk of heart disease if raised. Even if your eGFR is normal, the uACR test can pick up early kidney damage. If your uACR number is more than 3 mg/mmol, then a repeat test is needed to confirm early CKD diagnosis.

Blood test

2. Blood test to measure your kidney function

Blood test to calculate your estimated glomerular filtration rate (eGFR).

Your eGFR is calculated by measuring the levels of a waste product called creatinine in your blood, along with other factors such as your age and biological sex. The eGFR value indicates how many millilitres of your blood the kidneys are cleaning per minute. Healthy kidneys typically filter more than 90 ml/min each minute (this figure is adjusted for body size). A lower rate may indicate CKD.

If your eGFR result is less than 60 ml/min and this is confirmed on a repeat test, then you have CKD.

Double check for kidney and heart health

Both uACR and eGFR tests are necessary to obtain a complete picture of your kidney and heart health.

If CKD is diagnosed, your uACR and eGFR tests need to be reviewed at least annually by your healthcare professional to monitor your kidney health. How often this is done will depend on how advanced your CKD is. Please discuss this further with your healthcare team.



Testing for both **kidney damage** and **function** is necessary to get a full picture of kidney health



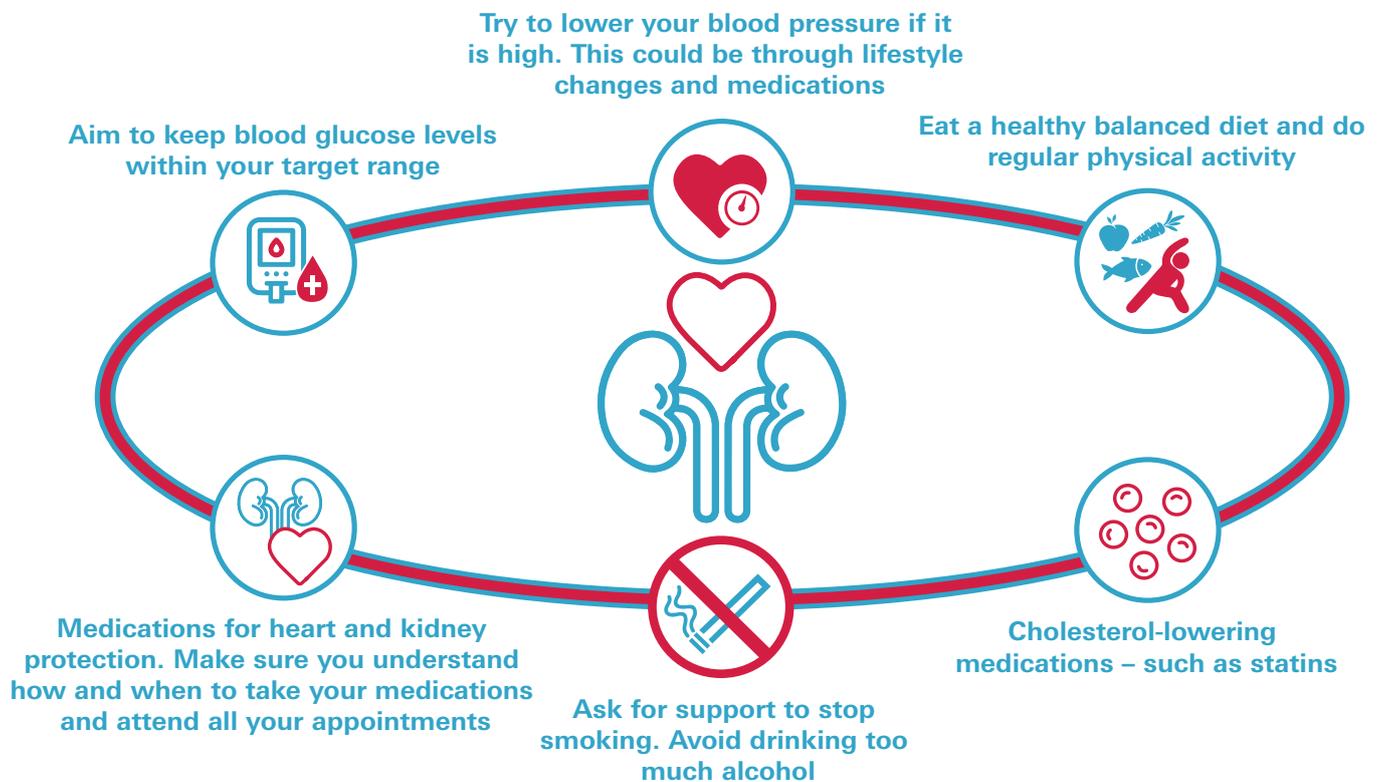
eGFR – a measurement of **kidney function** calculated from **blood test** results



uACR – this test identifies the level of protein in the urine, also called proteinuria or albuminuria. High levels of protein indicate **kidney damage**

You can protect kidney and heart health in diabetes by managing diet, lifestyle factors, having good blood pressure and cholesterol and diabetes care and using medications that can reduce kidney and heart problems.

The “super six” approach is recommended for people living with chronic kidney disease and diabetes



More information on treatment options for chronic kidney disease

NHS – Causes and symptoms of chronic kidney disease at:
www.nhs.uk/conditions/kidney-disease/

Kidney Research UK – The stages, symptoms and treatments for chronic kidney disease at:
kidneyresearchuk.org/kidney-health-information/stages-of-kidney-disease/

Watch the video: Importance of uACR testing at:
kidneyresearchuk.org/conditions-symptoms/diabetes

To view this leaflet online, scan the QR code



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The Diabetes Research & Wellness Foundation works towards educating, informing and reminding you of the best and healthiest choices to make.

If you would like to become part of our Diabetes Wellness community, visit our website for more details.

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