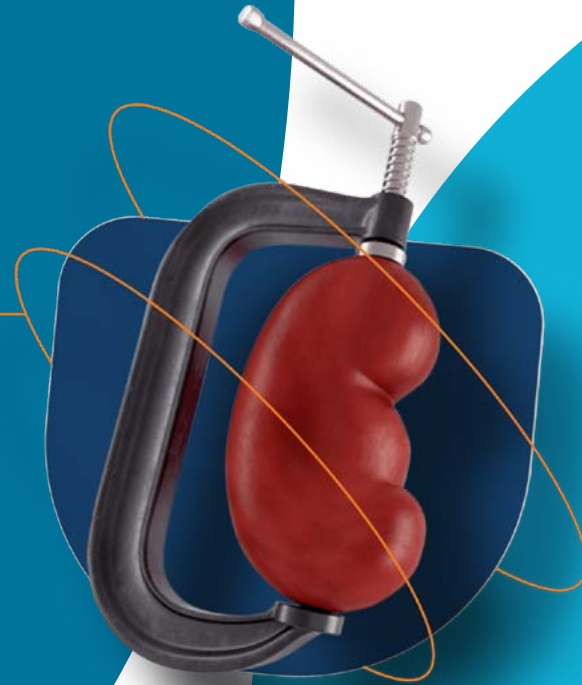


What can you do to protect your kidneys?

Putting pressure on Chronic Kidney Disease (CKD)



ERA endorsement is for the promotion of education in general; therefore, the specific content of this material is the responsibility of AstraZeneca.



Declared by Primary Care Diabetes Europe (PCDE) in the scientific or social interest of primary care practitioners.



ESH endorsement is granted for the promotion of education in hypertension and associated cardiovascular and kidney diseases, while the specific content of this material is the responsibility of AstraZeneca.

AstraZeneca 

What do your kidneys do?

The kidneys are your body's filtration system, and they have a big job — filtering up to 200L of fluid every day.¹

They have several vital functions:^{1,2}



remove wastes and impurities



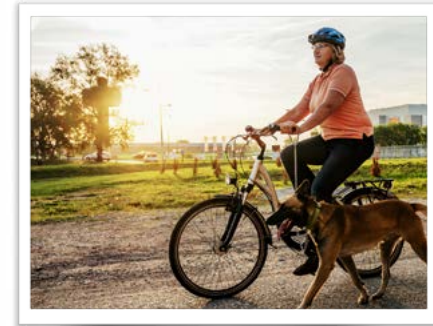
make urine



regulate blood pressure



stimulate production of red blood cells



How well your kidneys function can affect other systems in the body, especially the heart, which is closely connected to your kidneys.³⁻⁵

Damage to one can lead to damage to the other, which can result in serious health complications.^{4,5}

Your kidneys do not recover from damage and disease as well as some other organs, so it's especially important to do all you can to take care of them.⁶



Often called a “silent disease”, CKD can sneak up on you – it’s possible to lose up to 90% of your kidney function without any noticeable symptoms.⁸

The two most common causes of kidney disease are high blood pressure and diabetes. However, there are other factors that could also put you at higher risk.²



With CKD, **early diagnosis and management** are key^{4,5}

It is important to get tested regularly for CKD – as it can lead to serious health issues if undetected.^{2,11,12}

If you can spot CKD in its early stages, your doctor can help you slow its progression and reduce the risk of complications, such as:^{4,5}



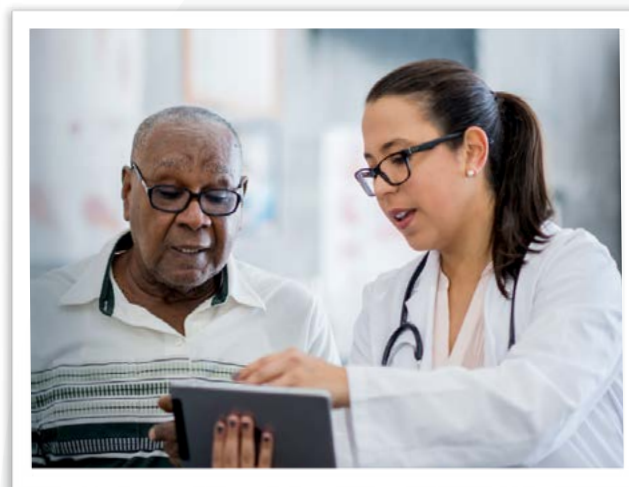
progression to late-stage kidney disease



kidney failure



dialysis or kidney transplant



How well are your kidneys working?

Know your kidney numbers.¹³⁻¹⁵

CKD is often divided into five stages of severity, determined by a measurement called eGFR.^{13,14*} A simple blood test can check how well your kidneys are doing their filtering job by measuring creatinine – a waste product that healthy kidneys remove from the blood.¹⁴

Another test your doctor may perform is called UACR, which can be measured by providing a urine sample.^{15**} UACR measures kidney damage based on how much protein is in your urine.¹⁵ One protein they look for is called albumin – which is a common sign of kidney damage.¹⁵

Tracking both your eGFR and UACR helps your doctor understand how your kidneys are functioning and can alert them if your kidney function may be declining. If that is the case, you and your doctor can discuss additional proactive steps.

*eGFR stands for estimated glomerular filtration rate.

**UACR stands for urine albumin-to-creatinine ratio.

eGFR measures kidney function^{13,14}

CKD STAGE		GLOMERULAR FILTRATION RATE (GFR) UNITS	% OF KIDNEY FUNCTION
STAGE 1	Minimal kidney damage with normal kidney function	90 or higher	
STAGE 2	Kidney damage with mild loss of kidney function	60 to 89	
STAGE 3a	Mild to moderate loss of kidney function	45 to 59	
STAGE 3b	Moderate to severe loss of kidney function	30 to 44	
STAGE 4	Severe loss of kidney function	15 to 29	
STAGE 5	Kidney failure	<15	

UACR measures kidney damage¹⁵



<30mg/g
Normal-to-mildly increased



30-299mg/g
Moderately increased



≥300mg/g
Severely increased

Taking action early can help preserve your kidney function and lower your risk of related health problems^{4,5}

Here are steps you can take right now to slow CKD progression.¹⁶ They're also good for every other system in your body, especially your cardiovascular system!¹⁶



If you have diabetes, actively manage your blood glucose



Monitor and control your blood pressure



Keep your cholesterol under control to prevent further damage to blood vessels



Consult with a dietitian to help you plan eating a kidney-friendly diet



Tell your doctor about all medicines you take, including vitamins and any purchased without a prescription



Exercise regularly and aim for a healthy weight



Smoking can worsen kidney damage, so if you do smoke – quitting can help



Book in regularly to see your doctor. They may prescribe medication that reduces the pressure in your kidneys



You are **not alone**

>840 million people around the world are affected by CKD,⁹ yet 9 out of 10 people with CKD may not even know they have it.⁴

Detecting CKD early can help slow its progression and prevent complications.^{4,5}

Be proactive and take action early. Talk to your doctor today to assess your risk of CKD and inquire about testing your kidney health.



References

1. Renal Physiology, Stat Pearls, NCBI Bookshelf, National Institute of Health 2023.
2. Chronic Kidney Disease: The Basics. CDC. <https://www.cdc.gov/kidneydisease/basics.html> Accessed January 2024.
3. Kidney Disease Stats. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases. December 2021. <https://www.niddk.nih.gov/health-information/health-statistics/kidney-disease> Accessed January 2024.
4. Tangri N et al. BMJ Open 2023;13:e067386.
5. Tangri N et al. Adv Ther. 2023;40:2869–2885.
6. Chronic Kidney Disease: other problems. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases. December 2021. <https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/what-is-chronic-kidney-disease#otherProblems> Accessed January 2024.
7. What is CKD? National Institute of Health. <https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/what-is-chronic-kidney-disease> Accessed January 2024.
8. Kidney disease facts. Better Health Channel, Victorian Government. Available at: <https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/kidney-disease> Accessed January 2024.
9. Jager K et al. Nephrol Dial Transplant. 2019;34:1803–1805.
10. Global facts: about kidney disease. National Kidney Foundation. <https://www.kidney.org/kidneydisease/global-facts-about-kidney-disease> Accessed January 2024.
11. National kidney foundation. Kidney basics fact sheet. https://www.kidney.org/sites/default/files/web_kidneybasics_v4.pdf Accessed January 2024.
12. What is CKD? Kidney Research UK. <https://www.kidneyresearchuk.org/conditions-symptoms/chronic-kidney-disease/> Accessed January 2024.
13. CKD causes and stages. Life options organization. <https://lifeoptions.org/learn-about-kidney-disease/causes-and-stages/> Accessed January 2024.
14. National kidney foundation. eGFR testing. <https://www.kidney.org/atoz/content/gfr> Accessed January 2024.
15. National kidney foundation. uACR testing. <https://www.kidney.org/content/kidney-failure-risk-factor-urine-albumin-to-creatinine-ratio-uacr> Accessed January 2024.
16. Managing CKD. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases. <https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/managing> Accessed January 2024.