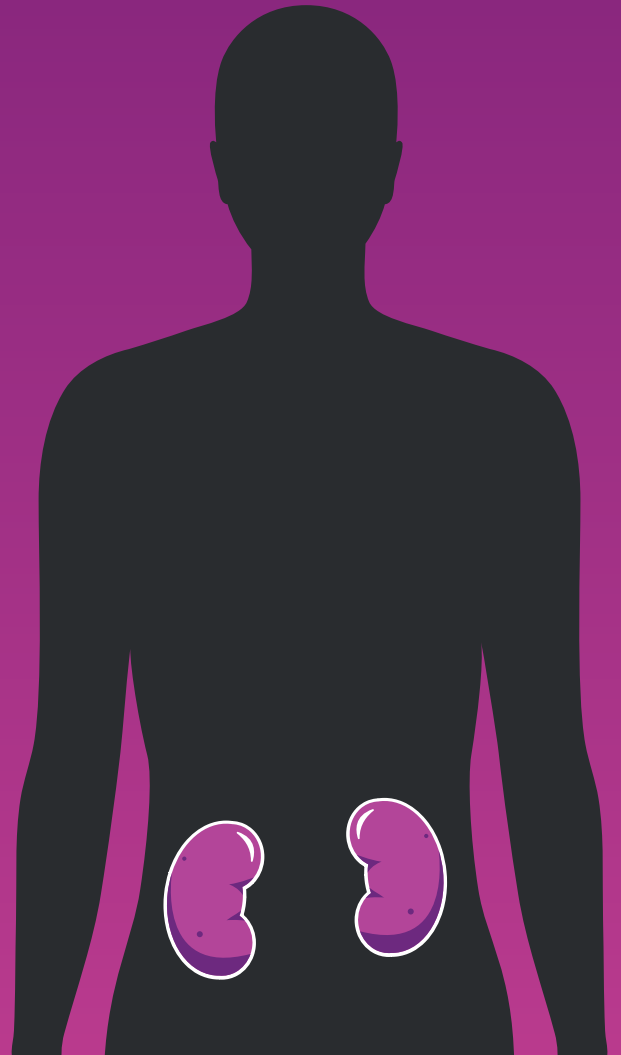


What are kidneys and what do they do?



Kidneys are vital.

In fact, your kidneys are as vital as your **heart**.

They return vitamins, glucose and essential hormones back into your bloodstream.

Clean blood flows out

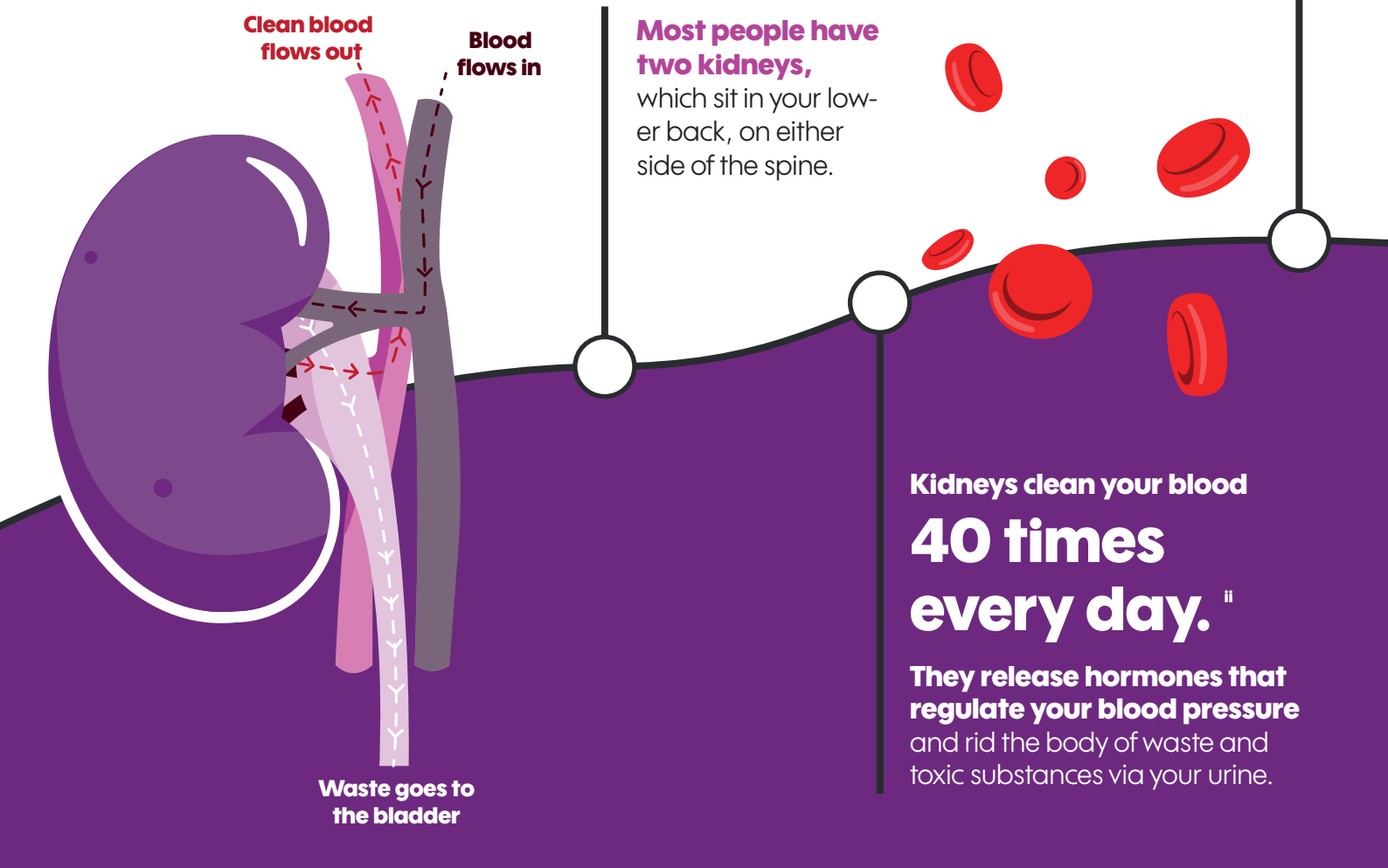
Blood flows in

Most people have two kidneys, which sit in your lower back, on either side of the spine.

Kidneys clean your blood 40 times every day. ⁱⁱ

They release hormones that regulate your blood pressure and rid the body of waste and toxic substances via your urine.

Waste goes to the bladder



DID YOU KNOW?

Your kidneys filter an incredible
**180 litres of blood
every day.** †

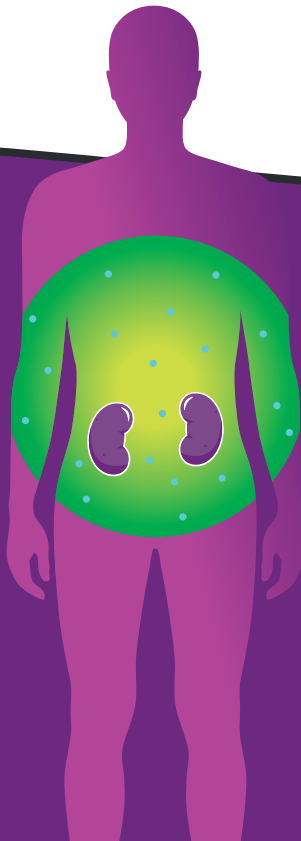
That's the equivalent of

720 cups of tea.



They **'activate'** the **Vitamin D** we **obtain from our diets** and sunlight to help to keep our bones and muscles healthy.

Your kidneys make urine that is then collected in the bladder ready for excretion.



When your kidneys don't work properly, it can be very serious. Harmful toxins and excess fluids can build up in the body and normal hormone production can be disrupted, left unchecked, it can be fatal.



Scan this QR code to find out what happens when your kidneys go wrong

Kidney failure is the 9th biggest killer worldwide.ⁱⁱⁱ

Almost every hour

someone starts treatment for kidney failure.^{vi}

When kidney disease is diagnosed as long-term and permanent, it's known as chronic kidney disease (CKD).

If kidneys develop problems suddenly, this is known as acute kidney injury (AKI).

It can affect **ANYONE** at ANY age.



You are more likely to develop kidney problems if you:



Suffer from Diabetes



Have high blood pressure



Living with overweight



Have heart or circulatory disease



Have a family history of kidney problems



Are a smoker



Are from a minority ethnic group



Regularly take medication, like ibuprofen for example

Kidney disease doesn't always have symptoms or signs, and people can often appear healthy and well.

It's not until the later stages of the disease where they may appear.

Symptoms to look out for are:



Feeling sick



Feeling tired



Itchy skin



Swollen ankles, feet or hands



Difficulty concentrating



Unusually out of breath



Poor appetite and weight loss



Increased need to urinate and/or protein or blood in your urine

Take our free online kidney health check
www.kidneyresearchuk.org/kidneyhealthcheck



Treatments for kidney failure.

Kidney disease is irreversible and there is no cure.

If your kidneys stop functioning, you need on-going treatment to keep you alive. These are gruelling, time-consuming and life-limiting.

You may be faced with the possibility of eventually having some form of kidney replacement therapy (also known as renal replacement therapy) which will do some of the work of your kidneys. This could include dialysis or a kidney transplant.

Dialysis.

Dialysis is where a machine (or natural lining in your body) is used to clean your blood by removing waste products and excess fluid. It can still **only do about 10% of the work of healthy kidneys.**

There are two main types of dialysis; haemodialysis and peritoneal dialysis. For more information about dialysis choices visit our website or scan the QR code above.

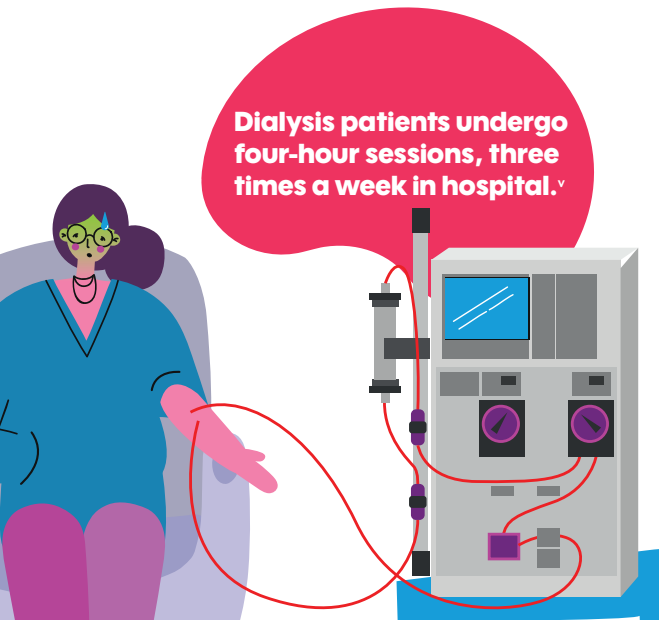


Kidney transplant.


A kidney transplant is where you receive a healthy kidney during an operation from a live donor or someone who has died. The transplanted kidney does up to 50% of the work of two healthy kidneys.

This is a high-risk operation with an extremely long waiting list.

Alternatively, you may be thinking about having active supportive care instead. This type of treatment aims to manage the symptoms of your kidney disease and keep your kidneys working for as long as possible, but without kidney replacement therapy.

An illustration of a woman with purple hair and glasses, wearing a blue top and pink pants, sitting next to a dialysis machine. Red tubes connect the machine to her arm. A pink speech bubble is positioned above the machine.

Dialysis patients undergo four-hour sessions, three times a week in hospital.^v

A stylized illustration of a kidney, colored in shades of purple and pink, with a white outline. It is positioned to the left of a dark grey, wavy-edged shape that contains text.

Unfortunately kidney transplants don't last forever. On average they last around 20 years.^{vi}

Six people die every week waiting for a kidney transplant.^{vii}

Living with kidney failure.



Dialysis presents Kudz with daily challenges.

"Dialysis can be gruelling. For me, it's four hours, three days a week. I want my life back."



Joseph had to start dialysis aged just 2 years and 11 months.

He will have to continue dialysis until he receives a transplant.



Aphria was diagnosed with a rare kidney disease at just one year old.

At aged three she had her first kidney transplant, this failed at aged 23 and she was faced with being back on dialysis. Aphria has had two transplants at such a young age and she knows her second kidney transplant won't last forever.



After having four kidney transplants fail and reject, Paul's chances of another transplant is slim unless research advances.

"The doctors didn't know whether I would actually survive. I did, but my transplant didn't."





Our vision is the day when every-one lives free from kidney disease.

Research will take us to that day.

As the leading kidney research charity in the UK, nothing is going to stop us in our urgent mission to end kidney disease.

Check your risk of kidney disease at:

🖱 www.kidneyresearchuk.org/kidneyhealthcheck

To find out how you can get involved or donate to Kidney Research UK, visit:

🖱 www.kidneyresearchuk.org

📞 0300 303 1100

Sources:

- i. www.ncbi.nlm.nih.gov/books/NBK500032/
- ii. www.thinkkidneys.nhs.uk/aki/wp-content/uploads/sites/2/2016/07/Your-kidneys-are-amazing.pdf
- iii. www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death
- iv. 23rd UKRR Annual Report
- v. www.nhs.uk/conditions/dialysis/
- vi. www.nhsbt.nhs.uk/organ-transplantation/kidney/receiving-a-kidney/deceased-donor-kidney-transplant/
- vii. [https://nhsbt.nhs.uk/core.windows.net/umbraco-assets-corp/24053/activity-report-2020-2021.pdf](https://nhsbt.nhs.uk/core/windows.net/umbraco-assets-corp/24053/activity-report-2020-2021.pdf)

**kidney disease
ends here.**

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