

How to keep your kidneys healthy

What do the kidneys do?

The kidneys are sophisticated filtering machines – they clean your blood by removing excess water and wastes (including salt) from your blood. They also make hormones, like erythropoietin (EPO; which stops you from being anaemic) and Vitamin D (which makes your bones strong). Most people have two kidneys. They are bean-shaped organs, quite small (11cm long, weighing nearly 200g) and found on either side of the spine, under the ribs, at the back.

How do you know your kidneys are unhealthy?

You don't. Kidney failure is often a 'silent disease', with few or no symptoms. If you are told that you have less than 100% kidney function, you should be concerned. Kidneys rarely get better.

To check kidney function, the doctor will arrange regular blood tests (called a serum creatinine), for the rest of your life. If it is over 120 $\mu\text{mol/L}$, then there is less than 100% function, and may indicate future problems. Symptoms of kidney failure do not usually occur until you have less than 20% function (with a creatinine of over 400 $\mu\text{mol/L}$). Then, dialysis is inevitable and is usually started when you have 10% function, with a creatinine of over 500 $\mu\text{mol/L}$.

So, what can be done, to prevent this from happening?

Do not smoke: Smoking furs up the blood vessel (artery) to the kidney, which can cause kidney failure. Smoking affects the blood vessels to the heart and brain in the same way, causing heart attacks and strokes. Unfortunately when a lot of damage has occurred, stopping smoking has little effect – and dialysis is likely. So, it is important not to start smoking in the first place.

Try to avoid obesity, diabetes and high blood pressure: Obesity leads to diabetes (Type 2), which is the most common recognised cause of kidney failure. If you do get diabetes, controlling it well may help the kidneys. High blood pressure (BP) can damage the kidneys. If you are in an 'at risk' group for kidney failure (e.g. male, or smoker, or non-white, or have diabetes), have it checked regularly (it should be below 130/80 mmHg), and start treatment as soon as it goes up. In addition, if you know you only have one kidney, it is best to avoid contact sports (e.g. rugby or karate) that might damage that kidney.

Kidney infections and stones

Recurrent urinary tract infections (cystitis, etc.) should be treated with antibiotics early. At the end of the infection, ensure that a mid-stream urine (MSU) sample is sent to the laboratory to check that you are clear of the bug. Kidney stones can lead to kidney damage. Ask your doctor how to avoid getting stones. If you do have kidney stones, and you pass a stone (in the urine), make sure the doctor checks (with another x-ray) that there are no more sitting there.

Older men with prostate problems

A slowly growing prostate gland can make passing urine difficult. It can also silently damage the kidneys over a period of years. So it is worth having blood tests for kidney function regularly if you have prostate problems.

Popular myths

There are two popular views about the kidney that need to be mentioned:

1. Alcohol damages the kidney. It does not; it mainly affects the liver.
2. Drinking a lot of water is 'good' for the kidney, as it 'flushes it out'. Again, there is no medical evidence for this idea.



Non-steroidal anti-inflammatory drugs

Non-steroidal anti-inflammatory drugs (or NSAIDs), such as aspirin and ibuprofen, are excellent drugs in low doses for a variety of minor complaints. However, in high doses they can be dangerous and lead to kidney failure.

Finally, it is worth mentioning that End-Stage Kidney Disease (ESRD) requiring dialysis (or a transplant) is very rare. Most GPs with 2,000 patients on their books will only have one such patient, but up to 100 with diabetes, for example.

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