

Life with a single kidney

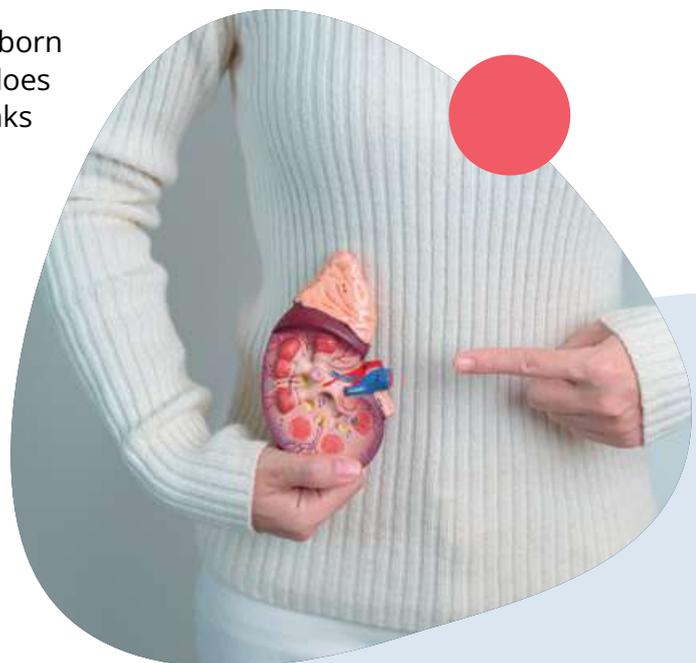
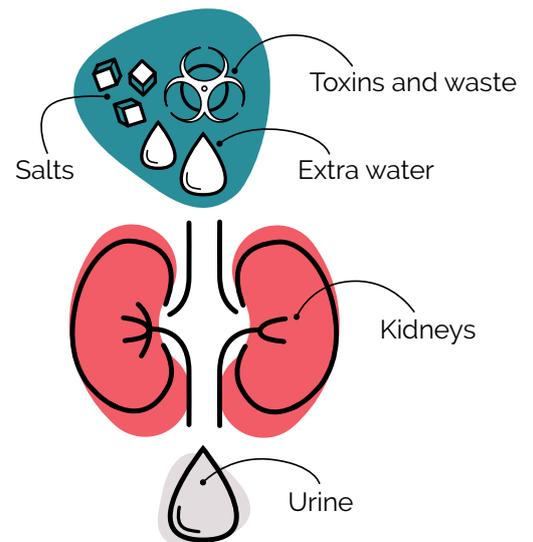
Most people have two kidneys at birth, but some people may only have one kidney due to genetic conditions or losing a kidney later in life. Your kidneys are located under the ribs, near the middle of your back. Each kidney is about the size of your fist and weighs around 150 grams.

Your kidneys filter the blood and remove extra fluid and waste products. The extra fluid and waste collect in the bladder before leaving the body as urine (wee). The clean blood continues to circulate around your body.

Why would someone only have one kidney?

There are many reasons why you may only have one kidney:

- You're born with a single working kidney, or a **solitary functioning kidney (SFK)**. There are two main reasons for this:
 - Genetic (inherited) conditions such as **renal agenesis**, which causes a single kidney at birth.
 - **Unilateral kidney dysplasia** is when you are born with one functioning kidney and one kidney that does not work. Eventually the non-working kidney shrinks so it's hard to see on imaging tests.
- You've had surgery to remove a kidney, commonly called a **nephrectomy**. Common reasons to remove a kidney include blockages, cancer, or other structural damage due to trauma.
- You're a **kidney donor**, where one of your healthy kidneys is removed and donated to someone needing a kidney transplant.
- If you had a **kidney transplant** as a treatment for kidney failure, you have only one functioning kidney.



What happens to your health?

When you are born with one kidney or lose a kidney, your remaining kidney grows larger and heavier. Your remaining kidney works harder and provides up to **75 per cent of normal kidney function** rather than the 50 per cent you might expect.

Most people born with one kidney may not experience any symptoms. You may not realize you only have one kidney until later in life, learning by chance on an unrelated x-ray or ultrasound scan.

If you have a single kidney from birth or early childhood, you may experience a slight drop in kidney function, usually after about 25 years. Those with renal agenesis may experience:

- **high blood pressure**
- **protein in the urine (albuminuria)**
- **pregnancy complications, such as pre-eclampsia (pregnancy with high blood pressures) or an early delivery of your baby.**

With close monitoring, most people born with only one kidney have a normal life-span.



Life after donating a kidney

Living kidney donors are unlikely to develop kidney problems in the future. Your remaining kidney will increase in size and function, making up for the loss of one kidney. However, there is a small risk of increased blood pressure and protein in your urine as you get older.

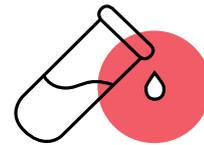
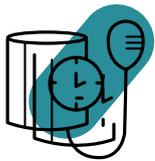
The good news is that kidney donors can live just as long as those with two normal kidneys. Remember to get your yearly Kidney Health Check if you only have one kidney. This check helps you monitor how well your single kidney is working after donation.

Check out the booklet **Introduction to Kidney Donation** to learn more about the risks and benefits of kidney donation.

Monitoring your kidneys

Your doctor should check the function of your kidney regularly with a **Kidney Health Check**. A Kidney Health Check is quick and simple. You can have a Kidney Health Check at your local health centre, often as part of a regular check-up.

It includes three parts:



a blood pressure check

to see if you have high blood pressure. High blood pressure can damage your kidneys and kidney disease can cause your blood pressure to increase.

a urine test

to see how much albumin (protein) is present in your urine. Albumin in your urine is a sign of damage or scarring in the kidneys. This test is called urine-albumin creatinine ratio (uACR).

a blood test

to check your kidney function. This test will measure how well your kidneys are filtering your blood and is called estimated glomerular filtration rate (eGFR).



Talk to your doctor about what monitoring you need to keep your kidney healthy.

If your Kidney Health Check shows changes to your kidney function, **treatment can extend the life of your kidney**. Medications, changes to your lifestyle, and an early referral to a kidney specialist (nephrologist) may slow down loss of kidney function.

Children born with only one kidney should have close monitoring of their kidney early in life. The doctor will usually order imaging tests to keep an eye on the one kidney, in addition to the above tests.

Do I need to do anything different?

It is important to make **healthy lifestyle choices**, particularly if you have one kidney. Special diets are not normally needed. Taking care of yourself with one kidney follows the same principles of a healthy life:



Reduce your salt intake:

Aim for less than 5 grams of salt per day.



Have a Kidney Health Check:

Obtain a blood test for kidney function, a urine test for kidney damage, and a blood pressure check every year.



Undertake regular physical activity:

Aim for 150 to 300 minutes of moderate activity per week.



Limit your alcohol intake:

Less alcohol is better, have no more than four standard drinks per day.



Consider if you can reduce stress in your life:

Exercise, yoga, and meditation can help.



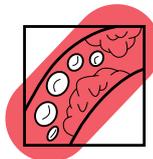
Achieve and maintain a healthy body weight:

If you have a solitary functioning kidney, having a higher body weight can increase your risk for kidney damage later in life.



Avoid smoking and vaping:

For information on quitting smoking, call the Quitline on 13 78 48.



Maintain healthy cholesterol levels:

Ask your doctor for a blood test to check your cholesterol level. Exercise and a healthy diet can help.



Eat a healthy diet:

Choose fruits, vegetables, wholegrains, and lean protein. Avoid processed foods.



Drink water instead: Avoid sugar-sweetened drinks like soft drink, fruit juice, and cordial.



Playing sports with one kidney

Physical activity is an important part of a healthy, fulfilling life. Playing sports offers community, exercise, and joy for many. Most non-contact sports, like swimming, running, and tennis, are considered safe for people with one kidney.

Your single kidney is more at risk for injury because it is larger and heavier.

If you have one kidney, it is important to be aware of injuries that can be caused by contact sports using direct blows, such as kickboxing, football and karate. Biking, snow sports, and horseback riding have the highest risk of kidney injuries. Ask for advice from your doctor which sports are safest for you.



Things to remember:

- ✓ You can have **healthy, fulfilling life** with one kidney. Having a single kidney does not affect your lifespan.
- ✓ Regular **Kidney Health Checks** with a blood test, urine test, and blood pressure check are important if you only have one kidney.
- ✓ It is important to make **healthy lifestyle choices** with diet and exercise and be aware of activities that may cause injury to your kidney.

What does that word mean?

Albuminuria – Occurs when albumin is present in the urine. There are filters in the kidneys that prevent large molecules, such as albumin, from passing through. If these filters are damaged, albumin passes from the blood into the urine.

Albumin:creatinine ratio (ACR) – A test used to see how much albumin leaks into your urine when your kidneys are damaged. A urine ACR is a part of a Kidney Health Check.

Cholesterol – A naturally occurring, waxy substance made by the body. It is an essential building block of cell membranes, hormones, and vitamin D.

Estimated glomerular filtration rate (eGFR) – An estimation of glomerular filtration rate (GFR). GFR is the best measure of kidney function and helps to determine the stage of kidney disease. It shows how well your kidneys are cleaning your blood.

Kidney transplant – A treatment for kidney failure. During a kidney transplant, a kidney is removed from the body of one person (the donor) and put into the body of the person with kidney failure.

Nephrectomy – Surgical removal of one or both kidneys.

 **Kidney Health**
Australia

Free Kidney Helpline 1800 454 363
kidney.org.au

If you have a hearing or speech impairment, contact the National Relay Service on 1800 555 677 or relayservice.com.au. Have them connect you to the Free Kidney Helpline - 1800 454 363



**WANT TO
LEARN MORE?**

Kidney Health 4 Life is a health and wellbeing program equipping people, and those that care for them, with the knowledge and resources to take more active management of their kidney health or kidney disease.



Join Kidney Health 4 Life
by scanning the QR code

This is intended as a general introduction to this topic and is not meant to substitute for your doctor's or health professional's advice. All care is taken to ensure that the information is relevant to the reader and applicable to each state in Australia. It should be noted that Kidney Health Australia recognises that each person's experience is individual and that variations do occur in treatment and management due to personal circumstances, the health professional and the state one lives in. Should you require further information always consult your doctor or health professional.

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