

Fact sheet

Living Kidney Donation



What is living kidney donation?

A kidney transplant is a treatment for end stage kidney disease, also known as kidney failure. Kidneys for transplantation come from living donors or deceased donors. In Australia, around three in ten people who have a kidney transplant receive their kidney from a living donor.

Living donors are may be relatives such as parents, brothers, sisters, or adult children of the person who needs the kidney transplant. If blood group and tissue typing results are suitable, people unrelated to you such as your partner or friend may also donate a kidney.

'Non-directed kidney donation' or 'altruistic donation' is another type of living donation. This is where someone anonymously donates a kidney to a recipient on the transplant waiting list. In this situation the living donor has no say in who receives their kidney. The *Non-directed living kidney donation* fact sheet has more information about this form of living donation.

This fact sheet is designed to provide information about the living kidney donation process for people who are thinking about being a living kidney donor.

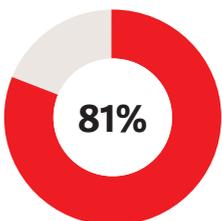
Deciding to be a living kidney donor is a serious decision. If you are thinking about being a living kidney donor, the *Deciding to be a Living Kidney Donor* fact sheet has more information to help you make your decision.



What are the benefits of living kidney donation?



Kidneys transplanted from a living donor still working after five years.



Kidneys transplanted from a deceased donor still working after five years.

Transplant success rates are higher with living donor kidneys than for deceased donor kidneys. At five years after receiving a kidney transplant, 90 percent of kidneys transplanted from a living donor and 81 per cent of kidney transplanted from a deceased donor are still working.

Another benefit of having a living kidney donor is timing. It can sometimes take years before a kidney becomes available from a deceased donor. Having a living donor may mean the transplant can take place without needing to start dialysis. This is called a pre-emptive transplant.

Having a living donor also means that the transplant surgery can be well organised and planned. This means that the time between when the kidney is removed from you and put into the transplant recipient (called the 'cold ischaemia time') is shorter. A short cold ischaemic time improves the chances of a successful transplant surgery.

Hospital admission and surgery can also be planned ahead of time, allowing you and the kidney transplant recipient to prepare for the surgery and recovery.

Who is suitable to be a living kidney donor?

To be a living kidney donor, you must have normal kidney function and overall good health. Your blood and tissue type must also match with the recipient. It is important that if you are thinking about being a living kidney donor that you discuss this decision with your doctor. Your doctor can test your kidney function and give advice on how your donation might affect your overall health.

Conditions that may prevent you from being a donor include:



Diabetes, or an increased risk of developing diabetes in the future



Being overweight or underweight



High blood pressure



Smoking



Heart, stroke or breathing problems



Other conditions such as cancer, aids, hepatitis, and psychological issues.

What other tests will I need to have?

Other tests performed as a part of your living kidney donation preparation include:

- Tissue typing and testing for HLA antibodies to make sure the kidney is a good 'match' for the recipient
- Blood tests and scans to check the kidneys are functioning well and to make sure there are no signs of kidney damage
- Tests to find any viruses that may lead to an infection in the kidney recipient
- Tests for heart disease, diabetes, lung problems and cancer.

These tests may take many months. During these tests you may find out that you have a health problem that you did not know about. If this happens you will receive support and referral to a specialist.

A psychological assessment is performed to make sure you are certain about donating and making a voluntary and informed choice.

Living kidney donors must be fully aware of the risks to their own health.

The transplant team will help you to weigh up the risks and benefits and understand the medical procedure. This is called informed consent.

A psychological assessment also helps to make sure that you:

- Are comfortable with the idea of donation
- Are not being forced or paid for the donation
- Have a good understanding of the physical and emotional outcomes of kidney donation.

You can change your decision to donate at ANY time; right up to the time that the surgery takes place.

What is meant by kidney matching?

Kidney donor and recipient matching can be divided into three areas: blood group matching, tissue type matching and cross matching. Each of these is important to reduce the risk of the transplant recipient's body rejecting the transplanted kidney. These tests apply for both living kidney donation and deceased kidney donation.

Just like blood donations, with kidney donation the blood type of the living kidney donor need to be compatible (a good match) to the recipient. This table shows blood groups that are compatible with each other.

Recipient blood type	Can receive from donor blood type
O	O
A	O, A
B	O, B
AB	O, A, B, AB

Tissue typing tests and blood cross-match tests are also done to make sure that the transplant recipient's immune system will not automatically reject the transplanted kidney.

What if the kidney is not a good match?

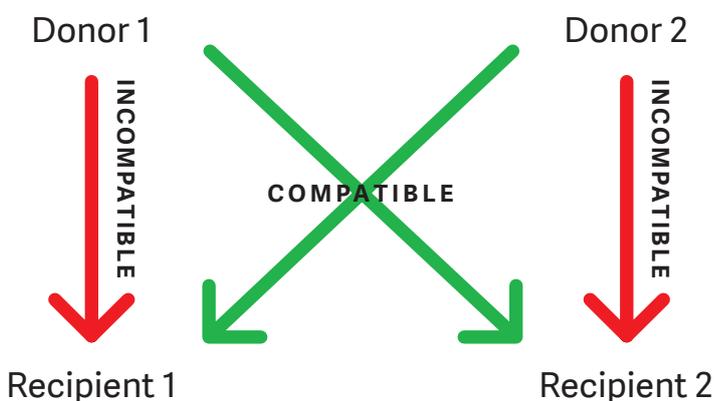
Another advantage of receiving a kidney from a living kidney donor is that it may be possible to deal with kidney matching problems. Sometimes it may be possible to prepare the recipient's immune system so that they are able to receive a kidney that would have otherwise been not a good match.

If this is not possible, or it does not work, then you may be able to participate in the Australian Paired Kidney Exchange Programme.

What is the Australia Paired Kidney Exchange (AKX) Programme?

The AKX Programme uses a database to identify matches for people who are waiting for a kidney transplant, and have a living donor who is unable to donate because the kidney is incompatible. If the computer finds a compatible match, two or more transplants can occur by swapping the living kidney donors. This is known as paired kidney exchange or paired kidney donation.

More than 200 transplants have been successfully performed in Australia as part of the AKX program.



What happens during the living kidney donor surgery?

Before surgery: In the week before surgery, both you and the transplant recipient will be re-tested to make sure you are both healthy and emotionally ready for the surgery. Another serum cross match test is done. The day before surgery, you will both go to hospital.

During surgery: There are two ways of removing the kidney from a living donor; 'laproscopic nephrectomy' or 'open nephrectomy'. With a laproscopic nephrectomy, three or four small cuts are made in your abdomen. This provides access for a special video camera and allows the surgeon to remove the kidney. With an open nephrectomy the surgeon removes the kidney through one long cut on the side or front of your abdomen.

See the *Kidney Transplant: A Treatment Option* fact sheet for more information about the transplantation procedure.

After surgery: After the transplant surgery you will feel some pain around your wound. You will be given medication to help with this. The length of time that you will need to stay in hospital may be around 4 to 10 days.

Living donors who have laproscopic (keyhole) surgery often recover quicker than living donors who have an open nephrectomy. Everyone's experience is different so it is important to talk about recovery with the health care team, family and friends.

What are the risks for a living kidney donor?

Being a living kidney donor means having major surgery. This always carries a risk of serious complications including death.

Complications during surgery can include:

- punctured lung
- lung infection
- nerve damage
- blood clots
- bowel perforation (small tear)
- bleeding

Living kidney donors are very healthy and carefully chosen to minimise the risk to their health.

Living donors are unlikely to develop kidney problems in the future. The removal of one kidney triggers the other kidney to increase in size and function. Your remaining kidney can provide up to 75 per cent of normal kidney function rather than the expected 50 per cent.

However, living kidney donors may be at increased risk of kidney disease if your remaining kidney is injured or a disease develops unexpectedly. There is also a small risk of increased blood pressure and protein in your urine as you get older. For more information see the *Life with a Single Kidney* fact sheet.

What are the costs involved with donation?

Public hospital costs, including medical tests, are covered by the usual hospital payment arrangements. There is usually a six-week recovery period before you can return to work. You will also need to allow time to have medical tests before the operation and check-ups afterwards.

You may be eligible for the Support for Living Organ Donors Program. This Program provides reimbursement to your employer for up to 9 weeks of leave (based on a 38 hour week) of leave, at an amount up to the National Minimum Wage. As of 1 July 2017, reimbursement for out-of-pocket expenses (even for donors who are not employed) is also included in the Program. For more information or to register see the Department of Health page <http://www.health.gov.au/internet/main/publishing.nsf/content/leave-for-living-organ-donors> or call (02) 6289 5055.

If you live in a rural or regional area you may be eligible for financial support from the state government to help with your costs of travelling to and from the transplant hospital.

Short-term accommodation close to the transplant hospital may also be needed for you to stay while recovering from your surgery.

Patient liaison officers or the social work department at the transplant hospital will provide advice about transport and accommodation assistance.

Kidney Health Australia also provides secure, comfortable and quality accommodation where living kidney donors and recipients can rest and recover from the transplant surgery. More information is available here <http://kidney.org.au/your-kidneys/support/patient-and-carer-support>.

You should also check if kidney donation affects your health insurance, income protection insurance or superannuation.



THINGS TO REMEMBER

- In Australia, around three in ten people who have a kidney transplant receive their kidney from a living donor.
- Kidney transplants from a living kidney donor have higher success rates than transplants from a deceased donor.
- Being a live kidney donor is a serious decision, and you should find out as much as you can about what is involved.

What does that word mean?

Antibody - A protein that fights infections including bacteria and viruses as well as foreign bodies, for example a donated kidney.

Cold ischaemia time - The time between when the kidney is removed from the donor and put into the transplant recipient. A short cold ischaemia time is better.

Cardiovascular disease - Includes all disease and condition of the heart and blood vessels, such as arteries and veins. The most common conditions include heart attack, heart failure, stroke, blockages in the blood vessels and vascular kidney disease.

Dialysis - A treatment for kidney failure that removes waste products and excess fluid from the blood by filtering the blood through a special membrane.

End Stage Kidney (Renal) Disease (ESKD) - The stage of kidney disease when a person's kidneys have stopped working and treatment, such as dialysis or a transplant, is needed to sustain life. Also referred to as End Stage Kidney (Renal) Failure (ESKF), kidney failure or stage 5 CKD.

Laparoscopic nephrectomy - The surgical operation to remove a kidney using a special video camera and through three or four small cuts in the donor's abdomen.

Nephrectomy - The surgical operation to remove one or both kidneys.

Open nephrectomy - The surgical operation to remove a kidney using one long cut on the side or the front of the donor's abdomen.

Pre-emptive transplant - Where a person with end stage kidney disease receives a transplant before needing to have dialysis.

Recipient - The person who receives a transplant.

Transplant - A surgical operation in which an organ or tissue is removed from the body of one person (the donor) and put it into the body of another person who is very ill (the recipient). Organs that are suitable for donation include kidneys, heart, lungs, liver, intestines and pancreas. Tissues that are suitable for donation include heart valves and tissues, bone and tendons, skin, and eye tissue.

For more information about kidney or urinary health, please contact our free call Kidney Health Information Service (KHIS) on 1800 454 363.

Or visit our website kidney.org.au to access free health literature.

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.



If you have a **hearing or speech impairment**, contact the National Relay Service on **1800 555 677** or **relayservice.com.au**

For all types of services ask for 1800 454 363