

Thinking about being a kidney donor?

Anybody in good health with two normal kidneys may be able to give one of their own kidneys to another person (be a kidney donor).

A potential donor should have a genuine interest in donating and, in most cases the potential donor does not have to be a relative. The potential donor does not have to be a relative. In the past it was not possible to carry out transplant when the donor and recipient blood groups did not match. There are now the options of paired kidney exchange or a blood group incompatible transplant. You can learn more about these new treatments at www.kidneys.co.nz/Organ-Donation-Transplantation/Live-Kidney-Donation/Paired-Kidney-Exchange/.

There are two types of living donor transplants in New Zealand;

- **Living related** – to someone who is a blood relative such as a brother, sister, cousin etc
- **Living un related** – could be a husband, wife, partner or friend.

It is also possible for someone to consider non-directed (or altruistic) donation. Altruistic donation is a term used for potential donors who intend to give a kidney to someone that they do not know. In such cases the kidney would be allocated to the best matched and low-risk person on the waiting list.

Deciding to donate

The way people decide to donate can vary from person to person.

Some people make the decision instantly with few worries or concerns.

Other people go through some soul-searching and will talk with close friends or family before deciding whether to donate.

It is normal for some people to be afraid of donating a kidney.

People who decide not to donate may experience guilt.

People should not, under any circumstances, feel that they have to start the process to donate. They can also change their mind at any stage during the process and decide not to donate.

The only “right” decision is the one that the potential donor feels comfortable with. A person thinking about being a potential living donor should speak with the transplant coordinator if they have any questions or concerns about their decision.

Who can donate?

Potential donors should be over 18 years of age and in good health.

Potential donors should contact their local transplant coordinator or unit to find out whether they are compatible with the potential recipient. The transplant coordinator can answer any questions that the potential donor has so that they can make an informed decision about having more tests. This conversation is strictly confidential and is not shared with the potential recipient.

If the potential donor decides to continue with the assessment, he or she will have a number of medical tests to ensure they are suitable.

Medical reasons for not being able to donate include:

- **High blood pressure** (both treated and untreated)
- **Cancer**
- **Diabetes**
- **Kidney disease**
- **Heart disease**
- **Liver disease**
- **Being very overweight**
People thinking of giving a kidney who are over-weight, will be asked to lose weight before tests and assessments are started. If you are motivated to lose weight and would like some professional assistance this may be available from the hospital dietitian
- **Mental health concerns**
- **Age**
There is no strict upper age limit, but there is less chance that an older person will pass the necessary medical tests to ensure that donation would be safe.

What are advantages of a living donor transplant?

For the person receiving the kidney the advantages of a living donor transplant are:

- Having a transplant before the need for dialysis
- A shorter time on dialysis (this is especially important for children)
- The operation can be planned for a time that suits the potential donor
- A better success rate - the transplanted kidney usually works straight away and lasts longer
- A longer life expectancy than when living on dialysis.

What are the risks to the potential donor?

The kidney team will discuss all health risks with the potential donor. The risks of donation are similar to those involved with any major surgery, such as bleeding and infection. Death resulting from kidney donation is extremely rare.

“If a potential donor’s blood group is not compatible with the recipient there is an option of paired kidney exchange (PKE) http://www.kidneys.co.nz/resources/file/paired_kidney_exchange_scheme-donor_info.pdf, or an ABO-incompatible transplant. Your kidney transplant coordinator can give you more information about these.

The risk of kidney donation is very low. Only people in very good health are approved to be kidney donors. For this reason, after donation most people do not have any change in their health. However, a very small number will go on to develop kidney failure themselves in the future. The risks of donation will be discussed with all potential donors as part of the assessment process.

A person can lead an active, normal life with only one kidney. Studies have shown that one kidney is all a person needs to keep the body healthy. After recovering from surgery, a donor can work, drive, exercise and participate in sports, though contact sports are not recommended. A donor can continue in all types of occupations. Women kidney donors can have children with no increased concerns.

What tests are needed to become a living donor?

In most transplants, the blood group of the potential donor must be compatible with the blood group of the potential recipient. A simple blood test can check this. If the blood group is compatible, a second blood test, called **tissue typing** and **cross matching**, is then done.

The potential donor will see a doctor for a check on their medical history and have a physical examination, which includes a blood pressure check, to ensure that there are no unknown health problems.

A series of blood tests and X-ray tests, as well as an **EKG**, will be done to check for kidney function, liver function and rule out hepatitis, heart disease, lung disease and past viral infections.

In addition, results from routine annual health checks (e.g: cervical smear, mammogram, colonoscopy, etc), as well as any necessary medical clearance for pre-existing conditions, will need to be submitted to the living donor team for review. Other tests may be necessary depending on the results of these studies.

The potential donor will also receive a **CT angiogram scan**. During this scan, a special fluid (an iodine based contrast medium) is injected into the blood stream through a vein in the arm. The scan shows the position and shape of the kidneys, the kidney arteries and veins as well as the tubes (ureters) connecting the kidneys to the bladder. The transplant team will check the scan to see that everything is normal and that a kidney can be removed safely and then transplanted. The potential donor does not need to be admitted to hospital for this scan.

The potential donor will also meet with a kidney surgeon and usually a clinical social worker or psychiatrist to complete a **psychosocial evaluation**. The psychosocial assessment provides useful information to ensure that the best professional help is available in the unusual situation that further support is required after the operation.

Once all results are available, they will be reviewed by the transplant team who decides whether it is safe for the potential donor to donate a kidney.

What type of operation is involved?

There are two types of operations to remove a kidney:

- an open nephrectomy
- a laparoscopic nephrectomy (also called key hole surgery)

For an **open nephrectomy**, the surgeon makes an incision about 25cm long horizontally below the ribs, and cuts through the abdominal muscles.

During the **laparoscopic nephrectomy**, the surgeon makes 3 or 4 small incisions in the abdomen to allow the insertion of surgical instruments and a small (8-10cm) incision just above the pubic bone to allow the removal of the kidney. The laparoscopic procedure should be less painful and donors should recover more quickly.

However, even if a laparoscopic procedure is planned the surgeon will ask the potential donor to consent to the operation being changed to the open procedure if this should become necessary during the course of the operation.

Having the operation

Potential donors will be admitted into hospital the day before the operation. Donors can expect to be in hospital for 5 to 7 days after an open nephrectomy and 2 to 3 days after a laparoscopic nephrectomy.

Donors will be discharged when the surgeon considers that it is safe for them to go home. They will be asked to come back for the outpatient clinic between two and six weeks after the operation. They will be offered long-term follow up, although what this involves may vary depending on the transplant unit.

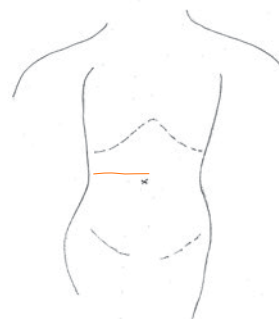
Most kidney donors recover quickly after the surgery and are able to go back to work and other activities within a few weeks. The length of time off work depends on the type of work you do and the type of operation you have had.

Kidney donors should avoid activities such as heavy lifting, digging, and playing golf, for about 6 weeks and aim to be back doing everything you normally do by 3 months after the operation.

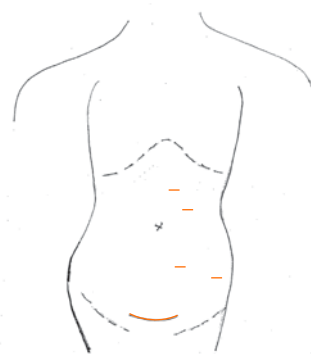
What if the kidney does not work?

We know that a year after a transplant operation about 9 out of 10 kidneys transplanted from a living donor will be working well. Most of these continue to work well for 8 to 10 years. Many people have a transplant that is still working well after 20 years.

What would I look like after surgery?



Right Open Nephrectomy



Left Laparoscopic Nephrectomy

What we cannot tell a potential donor is whether their potential recipient will be the one person out of 10 whose kidney is not going to work. Unfortunately some kidneys are lost through rejection, infection, or blood supply problems.

Before donating a kidney it is important that the potential donor considers what their feelings would be if the transplant did not work.

Financial matters

The costs of the tests and the surgery will be met by the hospital.

Potential donors should discuss any financial matters with the social worker who works with the kidney team.

There may be assistance with any loss of income or extra childcare costs the potential donor has because of the operation. (Refer to Work and Income Leaflet entitled [“Financial assistance for live organ donors”](#)).

In general, medical insurance companies do not deny cover for subsequent unrelated conditions to people who have previously donated a kidney. Potential donors who have any concerns about future entitlement to private health insurance should discuss these with their insurance company.

Other options if the potential donor and recipient are not compatible?

If the potential donor and recipient are not compatible, and there are no other potential donors, there may be other transplant options available. These include paired exchange and ABO incompatible transplant. Transplant coordinators can provide more information on these transplant options.

What if the potential recipient refuses?

Just as you can decide at any point that you do not want to donate, the potential recipient may also decide that they do not want you to donate to them. Commonly this is because they consider that they would prefer not to be the cause of disruption, pain and risk, however small, to the potential donor.

Click picture if you would like to hear what Raema has to say about being a donor?

Further information

There are three transplant units in New Zealand and each has their own information booklet with information relevant to their region.

Auckland City Hospital (includes Northland, Waitemata, Auckland, Counties Manukau, Waikato, Tarawhiti, Bay of Plenty, Lakes, and Taranaki DHBs)

Phone: 09 307 4949 ext 22950, 22881

Email: JoB@adhb.govt.nz

Wellington Hospital (includes Nelson/Marlborough, Capital and Coast, Hutt, Wairarapa, Whanganui, MidCentral, Hawkes Bay DHBs)

Phone: 04 806 0532

Email: sheryl.sparkes@ccdhb.org.nz

Christchurch Hospital (includes Canterbury, South Canterbury, West Coast, Otago and Southland DHBs)

Phone: 03 364 1041 Transplant Co-ordinator

03 364 0655 Nephrology Department

Email: sarah.armstrong@cdhb.govt.nz

For further information on being a live kidney donor you can contact the kidney transplant coordinator through the kidney department at your nearest hospital.

Key Points to note

- You have the right not to be a kidney donor.
- It is important to remember that you can stop the process at any stage.
- The counsellor, the kidney team, the social worker and the kidney surgeon are always willing to answer your questions.
- Living with one kidney should not interfere with everyday activity.
- The process from deciding to be a donor to the transplant operation usually takes 6-9 months.

TISSUE TYPING

A special pattern of antigens (called tissue type) is present on everyone's cells and tissues. Tissue typing is a test done in the laboratory in which the tissues of a prospective donor and recipient are tested for compatibility prior to transplantation.

CROSS MATCHING

In this test the serum (the clear liquid in blood) of the potential recipient is mixed with white blood cells of a potential donor in the laboratory. If, in a positive cross match antibodies in the serum damage the cells, then this potential donor would be unsuitable for this recipient. For a transplant to go ahead the cross match test must be negative. If you have a positive crossmatch you may want to talk to your transplant coordinator about Paired Kidney Exchange.

ECG

An ECG is a recording of heart electrical activity. Electrodes, pads with wires linking them to a recorder, are put on the chest, arms and legs. These electrodes pick up the electrical signal from the heart, transfer it to the recorder and a graph is printed out. It is a painless test.

CT ANGIOGRAM SCAN

Computer tomography is a type of X-ray test that produces pictures of the blood supply (arteries and veins) of the kidney and the tubes (ureters) that drain the urine to the bladder.

PSYCHOSOCIAL EVALUATION

A clinical psychologist meets the potential donor to talk about informed consent, their reasons for donating and the decision-making process, the adequacy of support (financial and social), their psychological health, and the donor-recipient relationship.

OPEN NEPHRECTOMY

This operation involves a 20 to 30 cm incision made along the lower border of the ribs from the spine to front of your abdomen. Removal of a portion of the rib is sometimes necessary (more often with men) to gain access. The organs are moved to the side and the kidney is removed. A modified version of an open nephrectomy called a "mini-incision" nephrectomy is also being performed now. It involves a smaller incision (8 to 10 cm) and does not involve the removal of a rib.

LAPAROSCOPIC NEPHRECTOMY

This operation involves inflating the abdomen with gas and then using a series of 2-4 smaller 1 cm incisions to insert cameras and laparoscopic instruments on each side of the abdomen and a single 7 cm incision in the centre below the belly button to remove the kidney. The advantages of this surgery are decreased recovery time, less abdominal pain as fewer muscles are cut and less trauma to the internal organs. It is important to be aware that there is the possibility that an open nephrectomy will be needed once the laparoscopic surgery has begun due to unforeseen complications.

