

Fact sheet

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Kidney Transplant: A Treatment Option

What is a kidney transplant?

A kidney transplant involves the transplantation of one kidney from either a living or deceased donor into the body of another person (recipient).

A kidney transplant is a treatment for kidney disease but it is not a cure. A transplant offers a more active life, without needing dialysis.

A kidney transplant requires ongoing care. You will need to take medications to stop your body rejecting the kidney (anti-rejection) for as long as you have the transplanted kidney. If a kidney transplant stops working, dialysis treatment will be necessary again. Another transplant may also be possible.

See the *Deciding to be a live kidney donor*, *Live kidney donation and Organ and tissue donation and transplantation* fact sheets, and *An Introduction to Kidney Transplantation* booklet for more information.

Who can have a transplant?

You can be given the option of transplantation if you are considered to be medically suitable by the kidney transplant team.

Unfortunately a transplant is not suitable for everyone, as the risks are sometimes too high.

However, it is everyone's right to be considered for a transplant. Factors affecting your suitability for a kidney transplant include:

- Agreement with the idea of transplantation and acceptance of the risks involved,
- General health, apart from kidney disease,
- Willingness to go through with the tests and the transplant surgery,
- Willingness to take the anti-rejection medications.

Are kidney transplants successful?

Kidney transplants are very successful. 95% of transplants are working one year later. If the transplant works well for the first year, the chances are good that it will function very well for many years.

Success rates are higher with living donor kidneys than for deceased donor kidneys.

To give your transplant the best chance of success, it is important that you look after yourself while you are on the transplant waiting list. You will have regular reviews where you can discuss any concerns about your transplant preparation.

Stay healthy while waiting for your kidney transplant by:

- Keeping to your regular dialysis schedule
- Following your recommended diet and fluid restrictions
- Taking your medications as prescribed
- Controlling your weight with diet and physical activity
- Visiting your dentist regularly to watch for any infections
- Protecting your skin, which will help to prevent skin cancer after your transplant
- Being a non-smoker
- Keeping your vaccinations up to date
- Avoiding blood transfusions if possible.

What are the transplant work-up tests?

Before being placed on the kidney transplant waiting list you will need to undergo many tests. These tests are to make sure that both your body and mind are healthy enough for you to have the kidney transplantation surgery and take the medications after surgery.

Medical tests that are used to assess your health before a transplant include:

- Assessment of your overall health, including your weight
- Blood tests
- Dental check
- Pap smear and mammogram (females) or prostate tests (males)

- X-rays and other tests of your heart and lungs
- Tests involving your arteries, veins and bladder.

How are kidneys matched and allocated?

Kidney donor and recipient matching can be divided into several areas. These areas include blood group matching, tissue type matching and cross matching.

Compatibility, your waiting time and the quality of the kidney being offered and it's likely benefit to you are also considered.

A computer can manage some of these factors. Your doctors will also need to consider other health issues and possibly discuss these with you if needed.

Each area of compatibility is important for donor and recipient matching for both living and deceased donors.

If you are receiving a kidney from a living donor it may be possible to get

around some of these matching issues. For example, it may be possible to prepare your immune system so that you are able to receive a kidney that would have been incompatible.

It may also be possible for you and your living kidney donor to participate in the Australian Paired Kidney Exchange Program (AKX Program) if you have a living kidney donor that is not a match.

The AKX Program searches the entire database of registered recipient and living kidney donor pairs. The program looks for combinations where the donor in an incompatible pair can be matched to a recipient in another pair. If the computer finds a compatible match, two or more transplants can occur by swapping the living kidney donors.

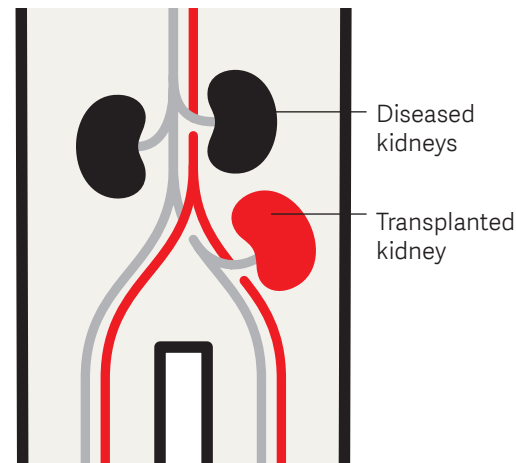
See the *An Introduction to Kidney Transplantation* booklet for more information.



What happens during a kidney transplant?

Surgery takes about two to three hours. A cut is made in your lower abdomen (stomach), on the right or left side. The new kidney is placed in your pelvis. The renal artery and vein of the transplant kidney are connected to an artery and vein in your pelvis. The ureter of the transplanted kidney is connected to your bladder so urine can flow.

Your failed kidneys are not removed. They are left in your body to continue to provide whatever amount of function it may still have. Sometimes it may be necessary to remove your failed kidneys if they are very large or in the case of chronic infection. If this is needed, your failed kidneys will be removed in a separate surgical procedure before your transplant surgery.



What happens after surgery?

After the transplant surgery, it is normal to feel some pain around your wound. You will be given medication to help with this.

Your transplanted kidney may start to make urine immediately, or you may need dialysis for a few days whilst your kidney recovers from surgery.

A catheter will be placed in your bladder for around five days to drain your urine into a bag.

You will have blood tests every day to check the function of your transplanted kidney, to measure medication levels and to detect any problems early so they can be treated quickly.

The amount of fluid you take in is important. If your kidney is working you may find yourself having to drink lots of fluid.

A physiotherapist may assist you with an exercise plan. It is important to do coughing, breathing and leg exercises while you are restricted to bed rest.

The length of time that you will need to stay in hospital after the transplant surgery will depend on how well your body responds to the new kidney and whether you have any complications. Most people are in hospital between six and ten days. You may feel better immediately after your surgery or you may take longer to adjust.

What is rejection?

In the early period after your transplant, you may have some rejection episodes. These may only be picked up by your regular blood tests. These episodes can usually be managed with changes to your medications.

Some rejection episodes may require extra treatments such as plasma exchange or special infusions.

In the early weeks of your transplant, you may experience a number of acute rejections. An increasing eGFR or creatinine is usually the first sign of acute rejection. A biopsy of the kidney transplant is often used to diagnose rejection and to decide on the best treatment.

Chronic rejection refers to a gradual process, which leads to scarring and damage in the transplanted kidney. This usually occurs over several years and can be very difficult to treat.



What medication is needed?

You must take anti-rejection medications for as long as your transplanted kidney is working. These medications partially block the activity of your body's immune system. This prevents your body from attacking your transplanted kidney.

Anti-rejection medications have a number of side effects. These side effects are usually managed by changing the dose of your medications.

Well being after a transplant

Having a transplant should have a positive effect on your life. However, it is still a major life event causing a range of emotions before and after the operation. You may have mood swings and feel stressed or depressed as you adjust to your transplant, and as your body responds to the anti-rejection medication.

Many people who receive a deceased donor kidney may wonder who the kidney came from. This information is not released but DonateLife (<https://register.donatelife.gov.au/>) offer a number of ways of recognizing donors. This includes annual services that involve both donors and transplant recipients.



THINGS TO REMEMBER

- A kidney transplant is a treatment for kidney disease but it is not a cure. It offers a more active life, without needing dialysis.
- Before being placed on the kidney transplant waiting list you will need to undergo many tests to make sure your body and mind are healthy enough to have the surgery.
- Kidney transplants are very successful. 95% of transplants are working one year later.
- To give your transplant the best chance of success, it is important that you look after yourself while you are on the transplant waiting list.

What does that word mean?

Acute rejection - Where your body quickly begins to reject your transplanted kidney in the first few weeks after your transplant.

Antibodies - Made by the immune system. Your body's protection mechanism to attack tissue that is not normally part of the body, for example bacteria or toxins or a donated kidney.

Biopsy - A small piece of tissue is removed for testing and examined under a microscope.

Catheter - A plastic tube that is used to take fluid in or out of your body.

Creatinine - Waste that is produced by the muscles. It is usually removed from your blood by your kidneys and passes out in your urine (wee). When

your kidneys aren't working properly, creatinine stays in your blood.

Cross match - A test that combines your blood cells with the blood cells from the donor. A positive reaction means that there is a likelihood of severe rejection of the donor kidney.

Dialysis - A treatment for end stage kidney disease that removes waste products and excess fluid from your blood by filtering your blood through a special membrane. There are two types of dialysis; haemodialysis and peritoneal dialysis.

Immunosuppressive drugs - Medication that weakens the body's normal immune system. They are taken by transplant recipients to

prevent the body from rejecting the transplanted kidney.

Incompatible - When a donor's blood type is not a good match to the recipient's blood type.

Physiotherapist - A health professional with specific training in treating conditions and injuries with physical methods such as massage and exercise.

Polycystic kidney - An inherited disease which can lead to the growth of multiple cysts in the kidneys.

Tissue typing - A test to find out the level of compatibility or matching between the organs of a donor and a recipient.

For more information about kidney or urinary health, please contact our free call Kidney Helpline 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.



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