Kidney Transplant — A Treatment Option

What is a kidney transplant?

When kidney failure becomes very advanced, your kidneys are so damaged they can no longer do their job. A transplant is a treatment for kidney failure but it is not a cure. A transplant potentially offers a more active life and a longer life, free from dialysis as well as dietary restrictions. However, your new kidney needs a lifetime of care.

Kidney transplants come from living or deceased donors. The person getting the kidney is the recipient and the person giving the kidney is the donor. Living donors can be relatives as well as partners and close friends. Deceased donors are people who have decided to donate their organs after death.

Who can have a transplant?

You can have a transplant if you are medically suitable and stable if on dialysis. If the transplant is from a living donor, the operation can often be done before dialysis starts.

Unfortunately not everyone is suitable to have a transplant. If you have other major medical problems, dialysis may be a better treatment. Factors affecting your suitability include:

- agreement with the idea of transplantation,
- general health, apart from kidney failure,
- willingness to go through with the tests and operation,
- willingness to undertake the lifelong medication treatment.

Are kidney transplants successful?

Kidney transplants are very successful. 95% of transplants are working one year later, and 81% are working five years later. The average wait for a deceased donor kidney is about 3½ years.

Staying fit and as healthy as possible helps you remain suitable for a transplant and aids your recovery. It is a good idea to have regular health and dental checks as well as maintaining your:

- Recommended fluid and dietary restrictions.
- Ideal body weight for your age and size. People who are overweight are at increased risk of problems during surgery.
- Dialysis schedule.
- Regular fitness or exercise plan.

For women, monthly self-breast examinations are advised as well as mammograms and a pap smear every two years. For men, yearly prostate checks are recommended.

It is also important to be a non-smoker as smoking harms the blood vessels in the kidneys and the rest of your body. Smoking increases your risk of heart attacks, strokes and lung problems after surgery.
What is a kidney recipient evaluation?

Transplant surgery and drugs used to prevent rejection can place a strain on your body and cause problems if you are not well. Medical tests used to assess your health before a transplant include:

- a physical examination,
- blood tests,
- x-rays of the heart and lungs,
- sometimes ultrasounds and other imaging of the heart to ensure it is healthy,
- a surgical review of your arteries, veins and bladder,
- periodic tests to make sure that you have not built up antibodies.

How are kidneys matched?

Each time a deceased donor kidney becomes available a recipient is chosen with the best blood and tissue match. Other factors are also considered, eg length of time on the waiting list. People on the deceased donor list must be permanent Australian residents.

In general, you can only receive a kidney from a donor who can also give you blood. For kidneys from deceased donors, the donor and recipient must have a closely matched blood type for the transplant to succeed. Blood type matching is generally worked out in the following way:

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<tr>
<th>Recipient blood type</th>
<th>Can receive from donor blood type</th>
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<tr>
<td>O</td>
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For living donors, the options are a little wider and sometimes with pre-treatment of the recipient to remove antibodies it is possible to perform what otherwise would be a ‘blood group incompatible’ or ‘ABO incompatible’ transplant.

If blood and tissue typing between a potential live donor and recipient are not a good match it may also be possible to participate in the Australian Paired Kidney Exchange (AKX) Program. The AKX Program uses a computer program to search the entire available database of registered recipient/donor pairs to look 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 simultaneous transplants can occur by exchanging donors. Your kidney doctor will be able to advise you if this is a suitable option for you.

Even if your blood group matches, the tissue test must be ‘negative’. This means that your antibodies are less likely to attack the donor kidney.

If you have had a transplant or blood transfusions, you are more likely to have developed antibodies. Antibodies increase the chance of what is called a ‘positive cross match’ and this reduces the likelihood of a finding a matching kidney. A positive cross match also means your new kidney may be rejected.

You will be contacted if a suitable kidney becomes available. Make sure the hospital has your contact details and those of people you may be contacted through. If you do not contact the hospital quickly, the kidney may be offered and given to someone else.

What happens during a kidney transplant?

Before operating, a needle or intravenous line is put in the back of your hand so medication and fluids can be given. During surgery, the new kidney is placed in position. Your kidneys are not usually removed. Sometimes if you have large polycystic kidneys, one may be removed to make space for a transplant. This would be done before the transplant procedure takes place.

The operation usually takes 2 to 3 hours with 1 to 2 hours in recovery. A cut is made in the lower part of your body, on the right or left side.

The renal artery and vein of the new kidney are connected to the main artery and vein near your bladder. The new kidney is connected to your bladder so urine can flow.

A temporary tube or catheter is placed in your bladder for up to 5 days to drain urine into a bag. This tube comes from your urethra, the exit point for urine. It helps the medical team to check that your kidney is working well. Often there are 1 or 2 tubes from your wound draining away fluid. These are usually removed after 1 to 4 days.
What happens after surgery?

After surgery you will feel groggy, uncomfortable and have an oxygen mask. A dressing will cover your operation site. The intravenous line remains in place so fluid can be given until you can eat. You will be given medication to help with the pain.

A physiotherapist will give you an exercise plan. It is important to do the coughing, breathing and leg exercises to minimise the risk of a chest infection and clots in your legs after surgery. You may be uncomfortable at first but this is normal.

Some people produce urine immediately after the transplant. However, others require dialysis for a short time until the new kidney begins to function. This does not mean it will not work, just that it needs time to recover. Daily blood tests are taken to check the function of your new kidney and find any early signs of rejection.

Your hospital stay can vary but is usually 3–10 days. It depends on your fitness, response to the new kidney and whether any problems arise. Before leaving hospital, an appointment is arranged with the surgeon and regular reviews with the kidney specialists to check on your recovery.

After returning home, you need to take life easy. It is important not to lift anything heavy for the first 6–8 weeks. You may feel tired and need more sleep — it is important to listen to your body and not rush your recovery or do any activities that make you feel uncomfortable. At the same time it is important to gradually build up your physical activity to maintain fitness and well-being.

You should also take special care with your hygiene and check your wound site for any discharge, redness or increased soreness. If you develop any of these symptoms or get a temperature, contact your doctor. You may have slight ooze from your wounds for a few days after surgery. Your nurse will show you how to care for your wounds before leaving hospital.

After a transplant, you must expect to take immunosuppressive drugs for the rest of your life to prevent rejection.

What is rejection?

The first three months following the transplant is when your new kidney is the most unstable and at risk of rejection. You will have regular medical check-ups to monitor the function of your new kidney. These will be daily at first, then weekly, then monthly. It is important that you report any changes in your health to your health care team as soon as possible.

As the transplanted kidney is foreign to your body you must take anti-rejection medications for as long as the transplanted kidney functions. These medications partially block the activity of your body's immune system, preventing it from attacking the transplanted kidney.

In the early months of your transplant, you may experience a number of acute rejections. These can usually be controlled by higher doses of medication or extra medication. The great majority of rejection episodes can be reversed.

Chronic rejection usually starts a year or many years after the transplant and can be a very slow and is a more difficult process to treat.
What medication is needed?

After a transplant, immunosuppressive drugs are taken for the rest of your life. Your combination is carefully selected to give your transplant the best chance of success. Each drug has benefits and risks.

You may get side effects from these drugs. Many of them do not last and are related to dosage, including:

- puffiness and rounding of the face and body
- increased appetite and weight gain
- mood swings
- acne
- muscle weakness
- hand tremors
- upset stomach
- indigestion
- diarrhoea
- overgrowth of the gums and gum infections

Other side effects are more serious such as:

- raised blood pressure
- increased risk of infection
- increased risk of cancer, particularly skin cancer
- high blood sugar levels
- high cholesterol levels
- altered blood count
- kidney damage
- weakening of the bones

It is important to talk to your doctor or pharmacist about your medications to get advice about:

- when and how to take your medication
- avoidance of missed doses
- side effects
- storage and care of medications
- possible dietary restrictions
- interactions with other medications

If you become concerned about any side effects, you should discuss these with your doctor or pharmacist. Do not stop taking your medication unless told to do so by your health care team.

If you need treatment from other health professionals such as dentists, advise them about your transplant. Talk to your doctor before taking any prescription or over-the-counter medication to make sure they do not affect your transplant.

Well being after a transplant

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

You may also:

- Have to come to terms with having another person’s organ inside you. Some people worry that they may develop the donor’s personality but this is not possible.
- Have conflicting feelings about a deceased donor transplant. Relief and happiness at having a new kidney but upset because the donor’s family and friends are experiencing loss.
- Be overwhelmed by feelings of being ‘normal’ again.
- Find that your relationships change as your family and friends adjust to you becoming more active.
- Experience a ‘roller-coaster’ of emotions about the possibility of rejection. You may feel anxious about attending medical appointments and then relief after being told that the kidney is doing fine.
- Be overwhelmed at the thought of taking so many medications with their possible side effects.
- Feel guilty about your transplant because there are other people still on dialysis.

People deal with a transplant in different ways. Your emotions affect your health so it is important to talk about your thoughts and feelings with your family, friends and health care team.
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.