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## Kidney transplant

The most effective long-term treatment for kidney failure is a kidney transplant. A healthy kidney may be transplanted from a living donor or may be taken from a donor as soon as possible after they have died.

### What is a kidney transplant?

A kidney transplant is an operation to transfer a healthy kidney from one person to another person who has little or no kidney function. For more information about the kidneys, see also [What do kidneys do?](#) and [the separate leaflet called Chronic Kidney Disease](#).

Although dialysis can be used to make up for the loss of kidney function, this is inconvenient and time-consuming. Therefore, a kidney transplant is the treatment of choice for kidney failure.

### Who can have a kidney transplant?

In order to have a kidney transplant:

- You should be well enough to have the operation.
- The transplant should have a good chance of success.
- You are able to take the recommended treatments after the transplant, including immunosuppressant medicines (see below).

Some people are unable to have a kidney transplant. The reasons for this include severe heart disease or having cancer that has spread to several places in the body.

# Kidney donations

Unlike many other types of organ donation, it's possible to donate a kidney while you're alive because you only need one kidney. This is called a living donation.

People who want to be considered as a kidney donor are tested to ensure they are a suitable donor and are fit for the operation needed to remove a kidney. Living donations are usually from a close relative, who is more likely to share the same tissue type and blood group. This reduces the risk of the body rejecting the kidney.

Kidney donations are also possible from people who have recently died. This is known as deceased kidney donation. This type of kidney donation has a slightly lower chance of long-term success than a living donation. People who need a kidney transplant, but don't have a suitable living donor, will have to wait until a suitable deceased donor kidney becomes available.

Demand for kidney donations from recently deceased people is much greater than the number of kidneys available. There are strict guidelines about how donations are allocated. Children and young adults are generally given priority because they'll most likely gain long-term benefit from a transplant. For older adults, a scoring system is used to determine who should be given priority for a kidney transplant.

## The NHS Organ Donor Register

In England, consent is required before organs can be donated. A person can give their consent to become an organ donor after death by joining the NHS Organ Donor Register or by discussing their wishes with close relatives. This is called an 'opt-in' system.

Alternatively, a person's organs can be donated if an authorised person, such as a relative or friend, gives consent after the person has died.

Joining the NHS Organ Donor Register is quick and simple. You can remove yourself from the register at any time, and you can specify which organs you're willing to donate.

Some other countries have an 'opt-out' system where it is assumed you have no objection to donation when you die, unless you register that you do have an objection.

# Waiting for a kidney transplant

Most people with kidney failure need dialysis while they wait for a donated kidney to become available. The time a person spends on the waiting list for a kidney transplant is variable but in the UK it is often about two to three years.

If you're on the waiting list for a kidney transplant, the transplant centre will need to contact you at very short notice once a kidney becomes available. Therefore, you must inform the centre if there are any changes to your contact details, or if you become unwell, such as if you develop an infection.

Make sure you always have an overnight bag ready for when the call comes, and make arrangements so you can go to the transplant centre as soon as a donor kidney becomes available.

While waiting for a donated kidney to become available, it's important to stay as healthy as possible by:

- [Eating a healthy diet.](#)
- [Taking regular exercise if possible.](#)
- [Cutting down on alcohol.](#)
- [Stopping smoking.](#)

## The transplant procedure

If you receive a kidney from a living donor, this will be a carefully planned operation. If you're waiting for a deceased donor kidney, the transplant centre will contact you when a suitable kidney becomes available. Some final checks will be performed to be sure the transplant should go ahead.

The new kidney will be placed in the lower part of your tummy (abdomen). Your own kidneys will usually be left in place.

Because of the risk of further problems, people who have had a kidney transplant require regular check-ups for the rest of their lives.

# Living with a kidney transplant

Having a healthy lifestyle after a kidney transplant goes a long way to minimise the risk of complications. Therefore, it's recommended that you:

- Eat a healthy diet.
- Lose weight if you're overweight.
- Take regular exercise if possible.
- Cut down on alcohol.
- Stop smoking.

You will need to take medicines that stop your body attacking and rejecting the transplanted kidney (immunosuppressants) after the kidney transplant. A combination of two or three different immunosuppressants is usually taken long-term.

Immunosuppressant medicines reduce your body's ability to fight infections. Therefore you will need to reduce your risk of infections – eg, wash your hands frequently, get enough rest, and drink plenty of fluids. You should also avoid close contact with people who have infections..

## What are the risks of having a kidney transplant?

Although the risk of any serious complications has become much less, complications can still occur. Most complications occur in the first few months after a transplant, but may develop after many years.

### Short-term complications

- **Infection:**
  - Minor infections, such as urinary tract infections (UTIs), colds and flu, are common after kidney transplants.
  - Potentially more serious infections, such as pneumonia and cytomegalovirus (CMV), can also occur but less often.

- **Blood clots:**
  - Blood clots can develop in the arteries that have been connected to the donated kidney.
  - In some cases, it may be possible to dissolve the blood clots by using medication. However, the donated kidney often has to be removed if the blood supply is blocked.
- **Narrowing of the artery connected to the donated kidney:**
  - This can sometimes occur after a kidney transplant. In some cases, it can develop months, or even years, after the transplant.
  - The artery often needs to be stretched to widen it, and a small metal tube called a stent may be placed inside the affected artery to stop it narrowing again.
- **Blocked ureter:**
  - The ureter is the tube that carries urine from the kidney to the bladder and it can become blocked after a kidney transplant. It can be blocked soon after the transplant, or may occur months or years later, usually due to scar tissue.
  - It may be possible to unblock the ureter by draining it with a small tube passed into the ureter and above the blockage. Sometimes an operation may be needed to unblock the ureter.
- **Urine leakage:**
  - After surgery, urine may occasionally leak from where the ureter joins the bladder. This usually occurs during the first month after the transplant.
  - A urine leak usually needs a further operation to repair it.

- **Acute rejection:**

- Acute rejection means your immune system suddenly begins to attack the donated kidney because it recognises it as foreign tissue.
- Despite the use of immunosuppressants, acute rejection is a common complication in the first year after a transplant, affecting up to 1 in 3 people.
- In many cases, acute rejection does not cause any symptoms and is only detected by a blood test.
- If it does occur, it can often be successfully treated with a short course of more powerful immunosuppressant medicines.

Dr Krishna Vakharia, 30th July 2022

The National Institute for Health and Care Excellence has recommended the use of a medication called imlifidase to help desensitise the body by temporarily removing a substantial amount of a person's antibodies so that a transplant can be done. It could allow for a donor kidney to be used that otherwise may not have been a suitable match.

Certain criteria would have to be met. Your doctor will discuss this with you if you are eligible and meet the criteria.

For more information on this, see the Further Reading section below.

## **Long-term complications**

Long-term complications are mainly due to the side-effects of immunosuppressant medicines. Immunosuppressants can cause a wide range of side-effects, including:

- An increased risk of infections.
- An increased risk of diabetes.
- High blood pressure.
- Weight gain.
- Abdominal pain.
- Diarrhoea.

- Extra hair growth or hair loss.
- Swollen gums.
- Bruising or bleeding more easily.
- Thinning of the bones.
- Acne.
- Mood swings.
- An increased risk of certain types of cancer, particularly lymphoma or skin cancer.

Even if you develop any side-effects, you should never suddenly stop taking your medication because your kidney could be rejected. Speak with your GP or transplant team for advice.

## How long do kidney transplants last?

How long a transplanted kidney lasts depends on a number of different factors. These include whether or not the kidney came from a living donor, how well the kidney is matched in terms of blood group and tissue type, and the age and overall health of the person receiving the kidney.

If you have a kidney transplant that fails, you will need to go back on dialysis but you can usually be put on the waiting list for another transplant.

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## Further reading

- [Organ Donation](#); NHS Blood and Transplant
- [Assessment of the Potential Kidney Transplant Recipient](#); tHE Renal Association (2010)
- [Renal Replacement Therapy Services](#); NICE Quality Standard, Nov 2014 – last updated Oct 2018
- [Guidelines on Renal Transplantation](#); European Association of Urology (2015)
- [Organ Donation and Transplantation \(UK\)](#)
- [Guidelines for Living Donor Kidney Transplantation, United Kingdom Guidelines](#); The Renal Association (March 2018)
- [Post-Operative Care in the Kidney Transplant Recipient – Clinical Practice Guideline](#); The Renal Association (February 2017)

- [Imlifidase for desensitisation treatment before kidney transplant in people with chronic kidney disease](#); NICE Technology appraisal guidance, July 2022

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