

Renal Services

Welcome to Transplantation

Introductory guide to kidney transplantation.

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Kidney transplantation is not a cure for your renal disease it is just another form of treatment, potentially freeing patients from the constraints of end stage kidney failure. It may not be suitable for every patient for a variety of reasons.

However for the right person, it can be the best form of treatment for renal failure.

What are the different types of kidneys available for transplantation?

There are several different types of kidney transplant a patient may receive:

Cadaveric DBD (Donation after Brain Death) kidney This is a cadaveric (deceased) kidney retrieved from a deceased individual declared brain dead on a life support machine.

Cadaveric DCD (Donation after Cardiac Death) kidney This is a cadaveric (deceased) kidney retrieved from a deceased individual who had died of a cardiac arrest, following withdrawal of life support.

This type of kidney may experience some impairment in its function, which usually recovers following its transplant. This impairment however may take a short time to reverse after the transplant, which may necessitate the recipient to remain on dialysis (if previously on dialysis) until the transplanted kidney functions normally. This may take up to several weeks. Extensive studies have shown however, that there is little or no difference in the long term survival between DBD and DCD kidneys. There is also a slightly higher risk that this type of transplant may never work following transplant.

Live kidney This is a kidney donated by a living individual, who may be genetically related to yourself, such as child/parent/sibling etc, or genetically unrelated to yourself, such as a spouse or friend. In all cases of live kidney transplantation, there must be some link between donor and recipient.

Altruistic kidney This is a live kidney retrieved from an unknown live donor who is donating their kidney for altruistic (unselfish) reasons.

Antibody Incompatible kidney This is a live kidney retrieved from a live donor, where there is some antibody incompatibility (either tissue type or blood group) between the donor and recipient. Recipients of such kidneys normally have to undergo plasmapheresis (blood washing) prior to the transplant operation, to help prevent acute (immediate) rejection of the kidney.



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Paired kidney: This is a live kidney retrieved from a live donor. In these situations, the donor A, cannot donate to their intended recipient B, due to either incompatible blood groups or tissue type antibodies. However, there may be a similar pair donor C and recipient D in the UK who cannot donate to each other for similar reasons. So donor A donates to recipient D and donor C donates to recipient B, simultaneously.

Would I be suitable for a kidney transplant?

Not every patient may be suitable for transplantation. This could be due to other medical conditions, or an on going (active) renal disease which may cause damage to a transplanted kidney.

All patients referred for transplantation by their consultant nephrologist (kidney specialist) are given education regarding the risks and benefits of transplantation. Patients will have to undergo various tests, as well as a strict medical and surgical assessment to determine their transplant suitability. These tests will include blood tests, cardiovascular or radiological assessments as required. In some patients there may be a requirement to remove one of their own native kidneys in preparation for a kidney transplant. This is usually in patients with polycystic kidney disease. If following assessment, a patient is found to be suitable for transplantation, they will be added to the national transplant register for a cadaveric (deceased) kidney transplant, unless specifically requested by the patient that they would not accept a cadaveric kidney and instead prefer to receive a live kidney transplant. This of course does require the availability of a suitable live kidney donor.

Will my transplant be successful?

For any kidney transplant, the preferred outcome is a life free from dialysis and the constraints of renal failure. However, in all cases of kidney transplantation, there can be complications in the recipient which can include risks associated with:

- Anaesthesia
- Surgery, including DVT and/or embolism.
- The side effects of the medication
- Rejection of the kidney. Patients must take anti-rejection drugs for the life of their transplant, otherwise the transplant will fail.

Long term complications of kidney transplantation may include:

- Transplant glomerulopathy (failure of the transplant and a possible return to dialysis)
- The development of a malignant disease as a side effect of the immunosuppression anti-rejection medication

Following kidney transplantation, you will be closely monitored in the out patient clinics, where any potential problems can be identified and if necessary appropriate treatment can be commenced. It is very important therefore to regularly attend transplant clinics following a kidney transplant. Initially these clinics are three times per week immediately following your discharge from hospital and gradually reduce to one clinic visit every three to six months.

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How do I get onto the transplant register?

If you have been successfully assessed as suitable for transplant listing, your details will be added to the cadaveric transplant register, where you will wait for a matched cadaveric kidney. Prior to registration, you will be asked to supply appropriate telephone numbers of family and friends who know your whereabouts. These numbers will aid the co-ordinator to contact you urgently in the event of a kidney becoming available. Once registered you may have to wait indefinitely for a kidney to become available.

What happens whilst I am on the transplant register?

Whilst awaiting cadaveric kidney transplant, you will be re-assessed at a transplant assessment clinic for your on-going transplant suitability. This will be similar to your initial medical assessment. The timing of your transplant assessment clinic will depend on your health, and can be anything from every six months to two years.

Once registered for transplantation, your life should remain as normal as possible. You will continue to see your renal doctor who will continue with your treatment plan and dialysis regime.

If you move house, change telephone contact numbers, or go away on holiday, it is vital that you contact the recipient transplant co-ordinator's to inform them of your change of details or holiday destination. If we are unable to get hold of you when a kidney becomes available, you will miss the chance of your transplant.

Tests and investigations that will be carried out

- During your transplant assessment, blood tests will be taken to check your blood group, your virology status [including Hepatitis B and C; HIV (you do need to consent verbally to this); Cytomegalovirus; Epstein Barr virus; Varicella Zoster virus (chicken pox) and Syphilis.
- In addition, bloods will be taken to determine your tissue type (how we match patients for transplant).
- Other tests performed to determine any patient's suitability for transplantation, **will** include an ECG (heart tracing) Echocardiogram of the heart and cardiopulmonary exercise testing (CPEX); as well as an abdominal X-ray.
- Patients aged 50 or over, diabetic, or who have received a previous kidney transplant will undergo myocardial perfusion imaging of their heart,
- Depending on a patient's medical history, further tests including Doppler scans (similar to ultra sound scanning) of both groin and neck may be required, as well as an exercise tolerance test if required.
- If all other cardiac tests prove inconclusive, a patient **may** have to undergo either a cardiac stress test and / or cardiac angiogram to examine the coronary arteries of the heart.
- With the examining doctor, a detailed questionnaire will be completed.
- Patients suffering from additional urological (bladder) problems may require urological tests to determine the suitability of their bladder for transplant.
- Patients suffering from polycystic kidney disease will have a CT scan to assess the actual size of their own kidneys, in preparation for any transplant to proceed.

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- Other relevant tests may be carried out as required by the examining Physician and/ or surgeon.

Annual review while on the transplant list

Whilst you are active on the transplant list awaiting deceased kidney transplantation, you will be asked to attend for an annual review (MOT) This may be between 6 and 24 months, depending on your medical and physical condition, and will reassess your suitability for deceased transplantation.

The examining doctor will go through the same detailed questionnaire as before, to compare results. Further testing to establish continuing cardiovascular suitability for transplantation may be required. Each patient is graded using a traffic light system of Green, Amber and Red.

If following your review, it's decided your medical fitness for transplantation has deteriorated since your previous assessment (code red), and that you are no longer medically suitable for transplantation, you will be informed of this decision and removed from the transplant list. If you disagree with this decision, you can be referred to another Transplant Centre for a second opinion.

Blood tests whilst on the transplant list

Whilst you are awaiting transplantation, you will have quarterly blood tests to monitor your antibody status. These bloods will either be taken by the nurses in hospital if you are on either haemodialysis, or peritoneal dialysis. If you are pre dialysis, you will be requested by the transplant department to attend hospital for these blood samples as and when required, and you must attend.

What happens if I get called for a kidney transplant?

If you are receiving a live kidney, the dates of the operation will be fully discussed with you by the live transplant co-ordinators some time prior to the scheduled operation. This will allow you to sort out any family, work, children or pet care issues etc.

If a cadaveric kidney becomes available for you, the transplant co-ordinator will contact you directly by telephone, or via your telephone contact numbers, (hence the importance to update any changes to your contact details). You will be fully informed by the transplant co-ordinator as to what to do, but you will be asked to come to University Hospital Coventry immediately for transplant assessment. If you are away from home when you are called, you are expected to make your own way to the hospital **immediately**. As this call can happen any time day or night it is important that any family, work, children or pet care issues are resolved beforehand and a plan of action is devised by yourselves.

On arrival at hospital, you will be medically assessed for transplant suitability. In addition, any dialysis requirements will be assessed and dialysis treatment given if necessary.

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Your blood will be tested (a cross match test) against the donor kidney. If this cross match is satisfactory, a theatre time will be arranged and the transplant should then take place. All this will occur within 4 – 24 hours of admittance to hospital.

Should it be decided upon medical examination that you are not suitable at that precise time to receive the kidney, due to infection or other medical problems, your transplant will be cancelled and you will be treated accordingly. The kidney will then be re-matched to another patient.

If this happens, your on-going suitability for transplant will be discussed at a formal transplant team meeting, and you may be suspended off the active transplant register until the issue is resolved. You will be fully informed of any decisions made at this meeting.

Should it be decided that the actual kidney is not suitable for transplantation, then the transplant will be cancelled, and you will be discharged back home immediately. You will remain active on the transplant register in preparation for another kidney offer.

What happens if I cannot have a kidney transplant?

If your Consultant Nephrologist does not think you are fit or medically suitable for kidney transplantation, you will not be referred for formal transplant assessment in the first instance. You will continue with your dialysis regime as per your treatment plan. If you are referred for transplant assessment by your Consultant Nephrologist, but during the initial medical or surgical assessment, it is decided you are not suitable for transplantation as a treatment mode; your name will not be placed on the transplant register. You will be fully informed of the reasons behind this decision, and can if you wish, ask for a second opinion at another transplant centre. You will continue with your dialysis regime as per your treatment plan.

If you are placed on the transplant register, but following a routine transplant assessment whilst awaiting transplant, it is decided that you are now no longer medically suitable for kidney transplant, your name will be removed from the transplant register and you will not be eligible to receive a kidney transplant. You will be fully informed of this decision and the reasons behind it. You will continue with your dialysis regime as per your treatment plan.

What happens if I receive a kidney transplant but it fails?

If you receive a transplant and it fails, then you may be eligible for a subsequent kidney transplant. In some instances it may be necessary to remove the failed transplant either prior to, or at the time of any subsequent kidney transplants.

You will need to be formally re-assessed both medically and surgically for re-transplant. If it is decided you are suitable for re-transplant, then your name will be re-listed onto the transplant register and the pathway for transplantation will begin again.

Patient Information

Contact details

Team Members:

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The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 7777 and we will do our best to meet your needs.

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