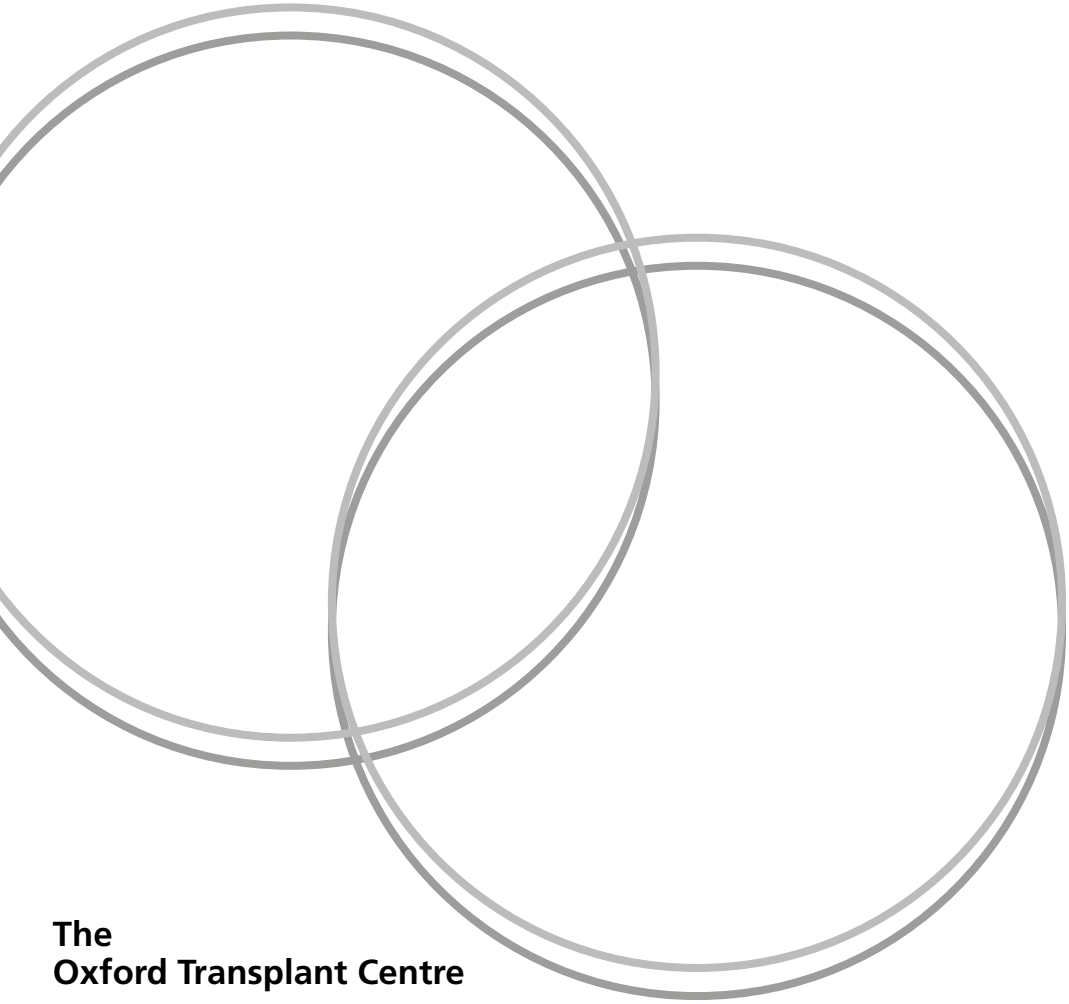
Oxford University Hospitals
NHS Foundation Trust

The Live Donor Programme and Laparoscopic Donor Nephrectomy

Information for donors



The
Oxford Transplant Centre

Contents

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Introduction

The information in this booklet will help you understand what to expect from the Oxford Live Donor Team and the assessment process at the Oxford Transplant Centre.

It also describes the operation to remove the donor kidney. This is called a laparoscopic donor nephrectomy. If this operation is going ahead you will be given another booklet giving more details about what happens when you come into hospital and afterwards. You should already have been given a booklet called "Gift of Life".

It is a good idea to write down any questions you may have and bring these to your assessment appointment.

Donor Types

There are different types of live donor kidney transplants performed:

- **Living Related**

  This is where a person donates to a blood relation: e.g. mother to son, father to daughter, sibling to sibling, etc.

- **Living Unrelated**

  This is where a non-blood relation donates, e.g. husband to wife, friend to friend.

- **Paired Exchange**

  When a donor and recipient unfortunately do not match, they are incompatible. But it may be possible to find a match with another donor and recipient pair who are in the same situation. The donated kidneys can be swapped between the two pairs.

  Compatible pairs who have a poor matching score can also be entered into the scheme to try to find a better match.

  This scheme is called the 'National Living Donor Kidney Sharing Scheme', which was previously called the 'Paired Exchange Scheme'. More information about this scheme can be found in the separate leaflet 'Paired Donation'.

- **Non-directed altruistic donation**

  This is where a person donates a kidney to someone they have never met before and who is not known to them. More information about this type of donation can be found in the leaflet "Altruistic Donation".

- **Directed altruistic donation**

  This is where an individual donates a kidney to someone specific, but who they do not have any relationship with. Also, the donor does not wish the recipient to know who donated the kidney.

- **Direct incompatible transplantation with desensitisation**

  This is when a donor and recipient are incompatible with each other This is either because of their blood groups or tissue type.

  It may still be possible to donate directly after the recipient has had desensitisation treatment so that their body can accept an incompatible kidney.

Living Donor Assessment Clinics

You will have a number of tests and clinics to go through to check that you are fit and healthy enough to donate.

We will be asking for your formal consent to go ahead with certain tests during the assessment process, and also for your consent again for the operation itself.

We will not go ahead without your consent, so it is very important that you know, and understand, about kidney donation.

We will give you lots of information about donation. It is important to ask us any questions that you have, so that you are clear about everything and are able to give proper consent.

Learning and understanding about donation is **not** something that someone else can do for you.

To help you, you will have your own living donor nurse coordinator who will guide you through the whole process.

The assessment process takes about 2- 4 months to complete. This is from the day you are considered suitable to go ahead. If more investigations are needed, it can take longer.

The decision to donate **must** be voluntary. If you change your mind once you have started the process, you can stop the process and you do not have to donate.

More information about the investigations that are needed are described in the 'Your Questions Answered' booklet.

Living Donor Seminar (Clinic 1)

Once the team has received your completed 'donor health questionnaire' and GP summary, you and your recipient will be invited to a living donor seminar. If you are an altruistic donor, you will be invited to come on your own.

Your living donor nurse coordinator will explain the work up process and give you all the information you need to make an informed decision about if you want to go ahead with donation.

At the appointment, blood samples will be taken to check compatibility with your recipient. There is a list of the blood tests that we take at the back of this leaflet.

The results of these tests are usually ready in 2-3 weeks. Your live donor nurse coordinator will write to you with the results, and you will be asked to discuss your compatibility with the person you wish to donate to.

We will not tell your recipient about your results. We hope that you can discuss it with them. This is because you and your recipient need to agree that you will donate to them. Remember, donation is **voluntary**.

If several people have volunteered to be donors for someone, the donors and recipient need to decide who will be donating.

Your living donor nurse coordinator will wait to hear from you to find if you want to go ahead. If you do, we will arrange live donor clinic 2 (medical and surgical assessment).

Medical and Surgical Donor Assessment (Clinic 2)

Once you have informed the live donor team that you wish to continue, you will be invited to a second appointment.

As it is not possible to do all the tests in one day, a minimum of 2 clinic appointments are needed to complete donor work up.

Depending on the results, extra tests or investigations may be needed. Your living donor nurse coordinator will keep you up to date.

During this appointment, you will seen by a consultant surgeon and consultant nephrologist (renal doctor) for surgical and medical assessment to make sure you are fit for the operation.

This appointment also involves taking more blood and urine samples, doing a tracing of your heart (ECG) and a chest X-ray.

For the second of these clinic appointments, you are required to have investigations to check your kidneys' function and a CT scan to look at your kidney anatomy – what they look like and if they have a good shape.

A clinical Psychologist and Consultant Psychiatrist may also see you as part of your donor assessment to check that you are emotionally ready.

Once all your investigations have been completed, the transplant team discuss the results and if they are happy, the consultant nephrologist will consider you medically suitable to donate.

Your live donor nurse coordinator will then let you know that you have been signed off as fit to donate.

Independent Assessment – Human Tissue Authority

The Human Tissue Authority (HTA) is the regulatory body that governs all transplants that are done in the UK.

You and your recipient will be seen by an Independent Assessor to comply with the law concerning living donation in the UK.

Your live donor nurse coordinator will arrange an appointment for you and your recipient. You will be asked to provide evidence of your relationship eg. birth certificates, marriage certificates or family photographs that you are both identifiable in.

You will also need to bring photographic identification to the appointment.

You will be given separate information about this.

Preoperative Assessment Clinic (Clinic 3)

Once a theatre date has been confirmed, you and your recipient will be asked to come in for a pre-operative assessment clinic, 2 weeks before surgery.

At this appointment, further blood samples are taken to make sure the transplant can go ahead safely. This is preparation for the surgery.

At this final appointment you will meet with a consultant surgeon. Your surgeon will go over the risks and benefits of living donation with you and get your consent for your surgery.

The operation is carried out under general anaesthetic, so an anesthetist will also see you at this clinic. The anaesthetic risks will be explained and a full anaesthetic assessment will be done.

You will also meet with a pharmacist, who will tell you about the medications that you will go home with, after you are discharged.

You will have the opportunity to talk to your live donor nurse coordinator. They will explain:

1) what will happen when you arrive at the Day Surgery Unit on the day of your operation
2) what happens during your hospital stay
3) what will happen after you have been discharged home

Before the operation – Oral contraception, HRT or complimentary medicines

If you are taking the contraceptive pill or hormone replacement therapy, then these medications need to be stopped 6 weeks before the date of your surgery. You must stop any herbal or complimentary medications 2 weeks before surgery. If you do stop taking any of these, it can postpone the operation.

Financial Considerations

The Human Tissue Authority (HTA) and the Department of Health (DoH) support reimbursing reasonable expenses to a living donor that are a direct result of the donation.

For example, this can include loss of earnings due to recovery at home and travel expenses to and from clinics.

Each claim is assessed by NHS England and is not guaranteed.

A link to the reimbursement policy can also be found here:
https://www.england.nhs.uk/wp-content/uploads/2018/08/comm-pol-reimbursement-expenses-living-donors-v2.pdf

Donor Surgery – Laparoscopic donor nephrectomy

Removing a kidney for any reason is called a nephrectomy. A donor nephrectomy is removing a kidney from a donor like you. There are two types of operation to remove the kidney: open (traditional) or laparoscopic (known as key-hole). At the Oxford Transplant Centre, all donor nephrectomies are performed laparoscopically.

A small (2cm) cut or incision is made into the belly button area. Through this incision a camera attached to a long tube is put into the belly or abdomen. This lets the surgeon see the inside of the belly on a television monitor.

Then 3 or 4 more small incisions are made into the abdomen and the instruments that will do the operation are put in. These are attached to long tubes and are controlled by the surgeon from the outside.

Where these incisions are made will depend on whether the right or left kidney is being removed.

Inside the abdomen, the kidney is carefully cut away from the supporting tissues around it. Only the blood vessels taking blood in and out of the kidney and the ureter (the tube which takes urine from the kidney to the bladder) are left attached to the kidney.

Now an 8-10cm incision is made to the lower part of the abdomen to allow for removing the kidney. The side of the abdomen this cut is made on will depend on which kidney is being removed.

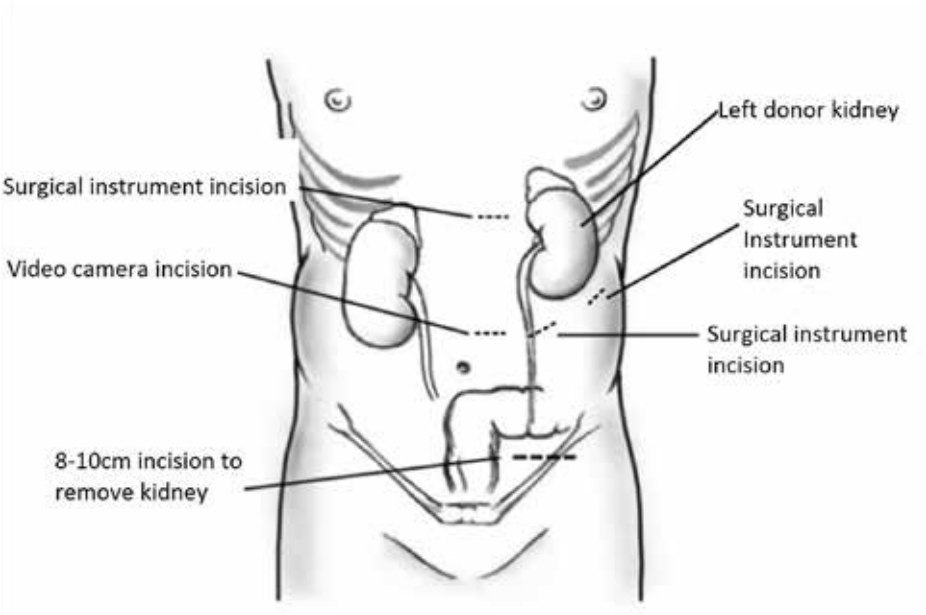
The ureter and the blood vessels are then stapled shut and cut free from the surrounding tissues, and the kidney with its blood vessels and ureter is brought out though the largest abdominal wound.

The insides of the wounds are stitched shut with internal, dissolvable stitches These do not need to be removed. Skin glue will be applied to the edges of the incisions to close the skin, and usually no dressings are needed.

The operation takes about 2 to 4 hours.

Full details of what happens when you come into hospital and afterwards are contained in our booklet "**Laparoscopic donor nephrectomy**." We will give you a copy of this booklet once it has been confirmed that the operation is to go ahead.

A diagram of a laprascopic donor nephrectomy



What are the risks of the operation?

A donor nephrectomy, like any operation, carries risks. Most of these risks are small, and complications can usually be treated.

The main risks during the operation are of damage to other organs inside the abdomen (approximately 1 in 200 donors) or significant bleeding requiring blood transfusion (approximately 1 in 100 donors). Either of these complications might require a larger operation. This means converting the keyhole surgery to open surgery to allow the surgeon to deal with the complication safely.

Anyone having major surgery is at risk of developing blood clots (deep vein thrombosis or pulmonary embollii). To prevent these, we will give you injections to thin the blood, surgical stockings to increase blood flow back from the lower legs, and we will encourage you to mobilise as soon as possible following surgery.

The risk of death resulting from surgical complications for this operation is 1 in 3,300 donors. This is is about the same chance of having a fatal road accident.

More minor complications include wound, urinary tract and chest infection. These happen in roughly 1 in 3 donors.

Because the operation cuts through the muscles of the abdomen, this can leave weaker areas and sometimes patients can develop a hernia at one of the incision sites. This may need further surgery if it is causing problems.

In the longer term, donors have a slightly higher risk of needing treatment for high blood pressure because kidneys help to control blood pressure.

Donors' lifetime risk of kidney failure severe enough to need dialysis will remain very low. This can be slightly higher than before donation, if you were to develop a disease that affected your remaining kidney in the future.

The careful assessment process and hospital care aim to minimise these risks, but cannot remove them completely. If your medical history or anatomy puts you at a higher risk than average, this will be discussed with you. If the risk to you is considered to be too high, we may recommend that you do not donate.

Day of Surgery

On the day of surgery you are admitted to the Day Surgery Unit from where you will go directly to the operating theatre. Before the surgery, you will be seen by the surgeons who will go through the consent form. They will also make a mark on the side of your body where the operation will take place. You will be taken to theatre in the morning and the person who is receiving the kidney will be taken to theatre in the afternoon.

Very occasionally your operation may be delayed or cancelled due to unexpected emergencies or a shortage of beds within the hospital. If this does happen, we will make every effort to reschedule your operation for the earliest opportunity.

During the operation

Once you are put to sleep with general anaesthetic, you will have a small plastic tube, called a cannula, put into an artery to monitor your blood pressure. You will have another cannula put into a vein to give medication and fluid during the operation. You will also have a urinary catheter put in. The staff will then turn you into the right position for the operation, depending on which kidney you are donating.

The surgeons then start the surgery and the operation itself will take about 2-4 hours.

After the operation

The physiotherapist will expect you to be up, moving around and taking care of your personal needs within the first day after the operation.

Your urinary catheter will be removed after 24 hours.

You will have a control button linked to an infusion pump containing strong painkiller. This is called a patient controlled analgesia (PCA). This will allow you to give yourself pain relief when you need it by pressing the button. You will have this for the first 24 hours and then you will be switched to taking pain relief by mouth. This is the pain relief you shall be discharged home with.

Most people are discharged home after 2-3 days. The time that you stay in hospital will depend on your general health, how quickly you recover and your doctors' opinion on how you are doing.

We would expect you to return to normal levels of general activiy within 6-8 weeks.

Follow up Clinic

You will be invited to clinic 6 weeks after your operation. At this appointment, blood and urine samples will be taken and you meet with the Consultant Surgeon to make sure that you have recovered as expected.

After this, you will be invited to attend an annual follow up clinic appointment at the Oxford Transplant Centre. This is run by the Live Donor Team and there is a general health check. This includes blood tests, blood pressure check, measuring your weight and a urine test. The live donor nurse coordinator who sees you in this clinic will let your GP know the results of this annual check.

Further information

We have leaflets on:

- Living Kidney Donation – Your Questions Answered
- Paired Living Kidney Donation – Your Questions Answered
- Could I Be Living Kidney Donor?
- Laparoscopic Donor Nephrectomy – Admission And Discharge Information

Online information:

http://www.kidney.org.uk/living-donor/

Understanding blood results

This is meant as a general and very informal guide to understanding your blood results. There is a wide range of what are considered 'normal' levels. To be outside this range for a test does not immediately mean you have a disease or kidney failure.

The haematology blood screen is about the red and white cells of the blood, and the biochemistry screen shows how well bodily functions and organs are working.

Haematology profile

- **Hb or haemoglobin**

  how much haemoglobin, you have. Haemoglobin carries oxygen in the blood to where it is needed by the cells of the body. If less oxygen is being carried due to a low level, the body cannot work properly. Low results are known as anaemias and raised levels as polycythaemias.

- **White cells**

  These go up in number in bacterial infections.

- **Platelets**

  These are cells in the blood which are responsible for blood clotting. We all need some, but too many or too few of these could lead to problems with bleeding.

Biochemistry profile

- **Urea**

  A kidney function test. Urea increases with age. It goes up when kidneys are not working properly, and also when we are dehydrated.

- **Creatinine**

  A waste product filtered out by kidneys. It is a more sensitive sign of early kidney failure than the urea level.

- **Glucose**

  The blood sugar level. It is higher in diabetes and in some kidney, thyroid and pituitary gland.

- **Bilirubin**

  Sometimes called ‘the jaundice level’. It can show liver disease. It can be raised in both liver and gall bladder disease.

- **Cholesterol**

  One of the main causes of heart disease (coronary artery disease). Most is made in the body but it can also be eaten in our food. This is why it is very important to have a balanced diet.

Virology

Blood is also tested for hepatitis B, C and HIV. We will ask for your consent before testing for these.

NOTES

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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