

# Hand-assisted laparoscopic donor nephrectomy

This leaflet aims to answer your questions about having a hand-assisted laparoscopic donor nephrectomy. It explains the benefits, risks and alternatives, as well as what you can expect when you come to hospital.

If you have any further questions, please speak to a doctor or nurse caring for you.

## What is a hand-assisted laparoscopic donor nephrectomy?

It is an operation to remove a kidney from one person so that it can be transplanted into another person. It is the form of keyhole surgery that we use at Guy's and St Thomas' because it is safe and allows patients to recover relatively quickly.

## What happens during a hand-assisted laparoscopic donor nephrectomy?

You will come into hospital either on the morning of surgery or on the evening before surgery.

The operation takes place under general anaesthesia (while you are asleep). You can find more information about anaesthesia in our leaflet **Having an anaesthetic**. If you have not received a copy, please ask us for one.

The surgery can take about three hours. The surgeon makes a cut 7-8cm long in the middle or lower part of the abdomen, through which they place their hand to hold the kidney while operating. Two or three smaller holes about one centimetre long are made to one side of the abdomen and the keyhole instruments used in the operation are placed through these. Once the kidney is removed it is stored on ice ready to be transplanted.

While you are asleep for your operation you will have a catheter put into your bladder to drain the urine. This is usually removed the following day. You may also have a drain (a small plastic tube) left in your wound to drain any excess fluid – this will be removed before you go home.

## Why should I have a hand-assisted laparoscopic donor nephrectomy?

If you wish to donate a kidney at Guy's and St Thomas', this is the type of surgery that we offer. We have chosen it because we believe it strikes the best balance between safety and comfort for you.

## What are the risks?

In most cases these operations go well without complications. However, about one in every six people who undergo this type of surgery has some sort of problem afterwards. In almost all cases this is a relatively minor problem, but some people have more significant problems that need further treatment. This may lead to a prolonged hospital stay, or even a further operation in rare cases. Some of the more important problems are detailed below, together with the likelihood of these happening.

- Tissue fluid may collect under the wound producing a lump called a seroma. This is fairly common, but usually slowly disappears without the need for further treatment.
- In some cases the surgical wound may become infected which might need treatment with antibiotics. This happens in around one in every 10 cases.
- About one in every 15 men develops pain in the testicles following surgery. This usually affects the testicle on the same side as the operation and may persist for several days or even for a few weeks following surgery. This is usually treated with painkillers.
- A hernia (where tissue/organs within the abdomen bulge under the skin due to a weakness in the abdomen wall) can develop around one of the surgical scars. An operation to repair it may be needed in up to one in 20 people.
- You might develop a urine infection, needing antibiotics. This affects around one in 30 people.
- Sometimes people can develop an infection within the abdomen, needing a further keyhole operation to wash this out. This happens to about 1 in 33 people.
- About one in every 35 people develops a chest infection after surgery. This could need treatment with antibiotics or chest physiotherapy. This is more likely to happen if you smoke or are overweight. If you currently smoke, we strongly recommend that you stop smoking at least six weeks before the date of your operation.
- It is not always possible to carry out the entire operation using keyhole surgery. If necessary, the surgeon may need to make a larger cut under your ribcage to finish the operation. This may mean that you take a little longer to recover from the operation. The chance of this happening is in one in 100 people.
- Significant blood loss, resulting in the need for a blood transfusion, happens in about one in every 500 cases.
- Small blood clots may form in the legs causing leg pain and swelling. This is called a deep vein thrombosis or DVT. This is more likely to happen if you smoke or are overweight. In rare cases (one in every 600 people) a piece of clot may break off and travel up to the lungs which can be very serious and in some cases may be life-threatening or even fatal. When you come into hospital you will be given a copy of our leaflet **Preventing hospital-acquired blood clots**. If you do not receive one, please ask us for a copy. After the operation you will be measured and fitted with anti-embolism stockings to reduce the risk of blood clots forming in your legs. You will also be given injections to thin the blood until you are fully mobile.

- Nearby organs such as the bowel or spleen may be damaged. This is very rare, but may mean that the spleen needs to be removed or that you need further surgery.
- Worldwide, the risk of dying following this type of operation is estimated to be one in 3000 people. By comparison, the risk of dying after an appendicectomy (appendix removal) is about twice as high.
- There have been very rare cases of donors losing the function of their remaining kidney because of severe complications at the time of surgery. This is a very rare event and has only ever happened once in the UK, but could lead to you needing dialysis.
- On average you are no more likely to suffer kidney failure yourself as a result of being a donor compared to the general population. Among otherwise healthy people, the risk of kidney failure after donation is less than one in 200. An individual's risk of developing kidney failure in the future can be influenced by other factors, such as high blood pressure, ethnicity, obesity and cigarette smoking. Any increased risk will be discussed with you when you see the doctor.

### **Risks to the transplanted kidney:**

There is a small chance that the kidney will not work when it is transplanted, usually due to a serious technical problem such as a blocked artery or vein. Overall this happens in 1 in 100 kidneys that are transplanted, but this is much less likely to happen if the kidney comes from a living donor.

Most kidneys from living donors are transplanted into the intended recipient as planned, but very occasionally the kidney cannot be used for the intended recipient once surgery has begun. Across the whole of the UK this has only happened twice in the last ten years. It is very unlikely that this will happen to you, but it is your decision about what should then happen to your kidney. Your transplant coordinator and surgeon will help you make that decision and will record your wishes before the operation. We will give you a factsheet from the Human Tissue Authority with further information about the options.

### **Risks to the transplant recipient:**

Some problems that your recipient may experience in the early post-operative period include chest, wound or urine infection, bleeding (which may need a blood transfusion or a further operation), blood clots in the leg veins (DVT) or in the lungs, a fluid collection around the transplanted kidney, a urine leak from the transplanted kidney and delayed or sluggish kidney function.

All transplant recipients must take anti-rejection medication, and if there is any kidney rejection this medication may need to be boosted. Anti-rejection medications cause an increased risk of infection (particularly viral infections) and cancer (particularly skin cancer). Your recipient will be given advice and medication where required to reduce these risks.

At the end of the first year we expect that 96 out of 100 transplanted kidneys from living donors will still be working and 98 out of 100 transplanted recipients will still be alive. In recipients where transplantation is more complex success may be lower. For more information please visit this website or speak to one of the transplant team:

<http://www.odt.nhs.uk/uk-transplant-registry/organ-specific-reports/>

and click on **Annual report on kidney transplantation**

## **Are there any alternatives?**

Hand-assisted laparoscopic donor nephrectomy is the only type of surgery offered for living kidney donation at Guy's and St Thomas', as we feel it is most safe and allows patients to recover relatively quickly. There are other types of operation, such as open surgery (through a cut) or fully laparoscopic (keyhole) surgery, which are preferred in some other hospitals.

## **How can I prepare for a hand-assisted laparoscopic donor nephrectomy?**

If you are a smoker, you should stop at least six weeks before the operation. We advise this because complications are more common in smokers.

If you are overweight, you should try to lose some weight before surgery because complications are more likely if you are overweight.

We will send you information about how to prepare for your hospital visit along with your admission letter. Please read this information carefully.

If you are on any medications, please keep taking these up until the day of surgery, unless we advise you otherwise.

## **Giving my consent (permission)**

We want to involve you in decisions about your care and treatment. If you decide to go ahead with the surgery, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves. In addition, you will be asked to fill in a consent form regarding the fate of the kidney in the unlikely event that the kidney was out and we were unable to transplant it.

You may also be asked to participate in an audit or a research project around live donation. If this is the case, somebody will explain the project in detail to you at the time.

If you would like more information about our consent process, please speak to a member of staff caring for you.

## **Will I feel any pain?**

You will feel some pain following the operation. You will be given strong painkillers to help with this, and when you go home you will be given a supply to take with you.

It is quite common to feel bloated or constipated for a couple of weeks after the operation. It normally gets better by itself, but we can give you some medication to help if it is needed.

## What happens after a hand-assisted laparoscopic donor nephrectomy?

Normally you will be able to sit up at the edge of the bed on the evening following the surgery, and you can eat and drink if you feel like it. The next day your catheter will be removed and you will be encouraged to sit out of bed and to start walking around the ward.

You will be given fluid into the vein before and after surgery which can sometimes cause ankle or leg swelling. This will disappear within a few days.

Most people are well enough to go home between three and five days after surgery, although complete recovery can take up to three months.

## What do I need to do after I go home?

You should plan to take around six weeks off work to recover from your surgery (or up to three months if you do manual work). We also advise you not to lift heavy weights for three months after the surgery to allow the deep part of the cut to heal and reduce the chance of you getting a hernia.

We recommend that you do not drive for at least two to three weeks after your operation; you need to be able to perform an emergency stop. You may also find that wearing a seat belt is uncomfortable at first. Please check with your insurance company before you start driving again.

## What should I do if I have a problem after I have left hospital?

If you feel unwell, have any queries or experience any of the symptoms listed below, please call your donor coordinator between 9am and 5pm on weekdays (you should already have their contact details):

- increased pain to wound area
- excessive discharge from wound
- fever
- discomfort or burning during urination
- increased frequency of urination
- cloudy urine, or urine with an unusual smell.

Outside of these times, please call Guy's Hospital on **020 7188 7188** and ask for the **transplant surgery registrar on call**. We would prefer that you come to us with any problem rather than go to your GP or to your local hospital.

## Will I have a follow-up appointment?

You will be given a follow up appointment for between two and four weeks after the surgery, and once per year after that. Your live donor coordinator will also ring you over the first couple of weeks to check that all is well.

The first appointment is to check your wounds have healed up and that you are well. The date and time of this appointment will be given to you before you go home.

The yearly appointments can be at a kidney clinic or at your GP. We recommend life-long follow-up to make sure your remaining kidney is working well and that your blood pressure is within the normal range.

## Contact us

If you have any questions or concerns, please contact Lisa Silas (pre-transplant matron) on **020 7188 5688** or email **[lisa.silas@gstt.nhs.uk](mailto:lisa.silas@gstt.nhs.uk)**

## Further information

### Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

**t:** 020 7188 8748 9am to 5pm, Monday to Friday

### Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

**t:** 020 7188 8801 (PALS) **e:** [pals@gstt.nhs.uk](mailto:pals@gstt.nhs.uk)

**t:** 020 7188 3514 (complaints) **e:** [complaints2@gstt.nhs.uk](mailto:complaints2@gstt.nhs.uk)

### Language Support Services

If you need an interpreter or information about your care in a different language or format, please get in touch:

**t:** 020 7188 8815 **e:** [languagesupport@gstt.nhs.uk](mailto:languagesupport@gstt.nhs.uk)

### NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

**t:** 111

### NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

**w:** [www.nhs.uk](http://www.nhs.uk)

### Get involved and have your say: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, and to become a member:

**t:** 0800 731 0319 **e:** [members@gstt.nhs.uk](mailto:members@gstt.nhs.uk) **w:** [www.guysandstthomas.nhs.uk/membership](http://www.guysandstthomas.nhs.uk/membership)