

Laparoscopic nephrectomy surgery

This leaflet explains more about laparoscopic nephrectomy including the benefits, risks and any alternatives, and what you can expect when your child comes in to hospital and when they leave.

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

What is laparoscopic nephrectomy?

A nephrectomy is an operation to remove a kidney. Laparoscopic means an operation where several small incisions (cuts) are made to perform the surgery, rather than one large one (as in traditional surgery). It is also known as keyhole surgery due to the small incisions. Your child may have two or three small cuts – one to two centimetres in size.

Why does my child need to have a laparoscopic nephrectomy?

The reasons why it is necessary to remove a kidney are different for each patient. Common reasons are that it may be causing problems, for example with urinary infection, high blood pressure or pain. There are some other less common reasons and if this is the case with your child, your doctor will discuss them with you.

Although most people have two kidneys, it is possible to have a normal life with only one kidney. If you have questions about this please speak to your doctor.

The advantage of keyhole surgery over traditional surgery is that much smaller wounds are made. A smaller wound means less pain, a faster return to normal activity and smaller scars.

There are two ways of doing laparoscopic nephrectomy. One method involves going through the stomach (transperitoneal). The other way is to go from behind the stomach (retroperitoneal). Each of these two methods differently affects how much of the ureter (the tube between the kidney and the bladder) is removed during surgery. Your doctor will explain which method they will use with your child and why.

What are the risks?

Although the surgery is usually done without any problems. These are some of the risks which your doctor will discuss with you.

- There is a small risk of infection (less than one in 20 patients). We usually give antibiotics at the time of the surgery to reduce this risk.
- Excessive bleeding can sometimes occur (also for less than one in 20 patients). However, it is rare for children to require a blood transfusion (one in 12 patients). It is also very unusual to have to return to the operating theatre for more surgery because of bleeding.

- Sometimes during the operation the surgeon realises it is not possible to perform the kidney removal using keyhole surgery (around one in 10 patients). If this happens then traditional surgery is performed and the kidney is removed through a larger wound.
- Very rarely when keyhole surgery is performed, other nearby organs or blood vessels can be damaged. This is very unusual (around one in 100 patients) and something the surgeon takes special care to avoid.
- Sometimes kidney removal does not stop the problem that it was supposed to treat; for example urinary tract infection, high blood pressure or pain. This is something the surgeon will discuss with you.

Are there any alternatives?

Sometimes a wait-and-see approach may be used instead of surgery. This may cause continuing problems from the things that the kidney removal was going to treat.

Instead of removing the kidney using keyhole surgery, it is possible to remove the kidney with traditional surgery. If this method is used there will be a single larger wound with more discomfort after the surgery, slower recovery and a larger scar.

Under certain circumstances the problem causing the kidney damage can be repaired. The repair will stop the kidney from becoming any weaker, but it is unusual for a repaired kidney to become stronger.

How can you prepare for laparoscopic nephrectomy?

There is no specific preparation for laparoscopic nephrectomy. However all children having surgery with general anaesthetic, will be asked to attend a pre-assessment clinic.

At this appointment, we will make sure your child is fit for their general anaesthetic. You will also be given information about what will happen on the day of your child's surgery or planned test before their hospital stay. You and your child will get the chance to ask any questions you want.

Please make sure you bring a list of any medication that your child is taking, including any over-the-counter or alternative medicines.

On the day of surgery you will need to bring your child to the ward on time so that you can meet the surgeon and the anaesthetist.

General anaesthetic for children

General anaesthetic is medicine that is used to make sure a person is asleep and does not feel any pain during surgery. Specially trained doctors, called anaesthetists, care for all patients that have an anaesthetic. All children having surgery will be cared for by paediatric (children's) anaesthetists who have been specifically trained to give anaesthetics to children. There is more information in our leaflet called **Your child's general anaesthetic**. Please ask the doctor for a copy.

Giving my consent (permission)

We want to involve you in decisions about your child's care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to your child having the operation and that you understand what it involves.

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

What happens during laparoscopic nephrectomy?

We'll take your child to the anaesthetic room next to the operating theatre and you can go with your child and wait with them until they have fallen asleep. A nurse will come with you and then take you back to the ward once your child is sleeping.

After the surgery, the wounds will be closed with dissolvable stitches. Sometimes medical glue is used to close wounds, which usually comes off within a couple of days. Sometimes it will be important that your child also has a urinary catheter. This is a tube in the bladder that drains urine. If it is needed it will be put in during the operation.

The anaesthetic and surgery will take approximately three hours.

Once your child begins to wake up, you may be able to sit with them in the recovery room while the anaesthetic wears off.

When your child is fully awake and comfortable, they will be able to go back to the ward.

Will there be any pain?

Having a kidney removed is a big operation and can be quite painful. Therefore it is very important to keep the pain under control by taking regular paracetamol. While your child is in hospital the nurse will give them pain relief as prescribed. The nurse can also give extra pain relief if necessary.

When your child is discharged (ready to leave hospital) the nurse or ward pharmacist will give you pain relief medicines to take home with you and a letter for your GP. Sometimes it may be necessary for your child to have antibiotics to prevent any infections. Please follow the instructions that we give you about taking these medicines carefully.

What happens after laparoscopic nephrectomy?

Your child will have regular nursing checks on the ward.

Your child may not feel like eating straight away. If this happens their appetite will usually return by the following morning.

If there is a urinary catheter this is usually removed on the first day after the surgery.

Usually children stay for at least one night on the ward. The length of time your child will need to stay depends on the method the surgeon used to remove the kidney. You should consider travelling home by car or taxi rather than on public transport.

What do I need to do after I go home?

Your child will be able to have a bath four days after the operation.

Your child will be sore for a few days after the operation. In the first week they will probably still need painkillers and should gradually build up to normal activities (including school). Your child can return to school when they are comfortable, this is usually after one week but may be longer. However, your child should not do anything too strenuous and must not take part in any contact sports (such as rugby or football) for 4 to 6 weeks.

You should seek medical attention from your GP or Emergency Department (A&E) for your child if they have signs of infection.

- Signs of urine infection include needing to pee more frequently, increasing pain, cloudy or smelly urine and high temperature (temperature range?).
- Signs of wound infection include redness or discharge from the wound or high temperature.

Looking after your child's wound?

If your child had **laparoscopic nephrectomy** (keyhole surgery) they will have a couple of small cuts caused by the operation which may be closed with dissolvable stitches or medical glue – both of these will dissolve over time. The stitches or glue may be covered by small dressing strips. The dressing strips fall off in their own time (this can be any time up to a week later).

If your child had an **open nephrectomy** (traditional surgery) they will have a slightly larger wound with dissolvable stitches and possibly medical glue. There may be dressings to help protect the skin from rubbing on clothes and keep the wound clean. The dressing can fall off in its own time (this can be any time up to a week later).

Will there be a follow-up appointment?

A follow-up appointment with paediatric urology is not always necessary. We will send you an appointment in the post. The follow-up appointment will be for 4 to 6 months after the operation.

Contact us

If you have any questions or concerns following your child's surgery, please contact Beach Ward, **t:** 020 7188 8844 (For a reply in two working days email the medical team, **e:** evelinaurologydoctors@gstt.nhs.uk)

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.evelinalondon.nhs.uk/leaflets

Evelina London Medicines Helpline

If you have any questions or concerns about your child's medicines, please speak to the staff caring for them or contact our helpline.

t: 020 7188 3003 10am to 5pm, Monday to Friday **e:** letstalkmedicines@gstt.nhs.uk

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

Language and Accessible 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

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

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 **w:** www.guysandstthomas.nhs.uk/membership



Leaflet number: 4581/VER1

Date published: May 2018

Review date: May 2021

© 2018 Guy's and St Thomas' NHS Foundation Trust
A list of sources is available on request