Introduction

This booklet is designed to give you and your family information and advice about your operation. You are advised to read this information before you come into hospital and to make note of any questions you would like to ask.

Your surgeon has recommended that you have your hernia repaired and this is one of the most common operations carried out at our hospitals. You can usually go home the same day, providing you meet the day surgery criteria.

- You need to be collected on the day of surgery by a responsible adult, who must take you home in a car or taxi after your operation.
- You must have a responsible adult at home with you for at least 24 hours. You also need to have a telephone at home.
- You must not drive, cycle, operate machinery, drink alcohol, or be alone for a minimum of 24 hours after your operation.

**Leicester Royal Infirmary:** (0116) 258 5164 (day surgery)
**Leicester General Hospital**
- (0116) 258 4192 (day case 1)
- (0116) 258 8130 (day case 2)
**Glenfield Hospital:** (0116) 250 2490 (ward 24)

We want to make sure that your visit is comfortable and successful. To help us to do this, please read the following important information regarding your planned procedure, the admission process and your discharge home after surgery.
What is a Hernia?

What is a hernia?

A hernia is a weakness in the muscle of the abdominal wall. This allows part of your intestines or other organs to bulge through the muscles in your abdominal wall. The groin is a common area for such a hernia to form.

It is possible for a hernia to be present from birth. In men, this is the result of incomplete closure of the passage that allows the testicle to descend into the scrotal sac. The passage between the layers of the abdominal wall through which the testicle and its blood supply passes is called the inguinal canal. It is possible for this track to remain open into adulthood and to stretch with time – this type of hernia is commonly seen in younger patients. This type of hernia can also occur in females but it is rare. For most patients, weakness in the groin area develops as they become older which allows a hernia to develop.
Repairing a hernia requires putting the intestine back into its normal position in the abdomen and strengthening the weakness in the abdominal wall using a mesh. This is either stitched or ‘tacked’ (using titanium coils) into place. The mesh is placed into the hole or weakness (a bit like repairing a puncture on a tyre). The mesh and coils will not rust or corrode and do not have to be removed. This is left in the body and acts as a permanent barrier to prevent the hernia from returning.

There are two ways of repairing a hernia which is either via a small cut in the groin (an open repair) or via 3 small cuts in the abdomen (called a key hole repair). Your surgeon will discuss the advantages and disadvantages of both approaches and help you decide what is best for you.

**Open approach**

Before (intestines protruding)  After (mesh repair)
Laparoscopic approach (also called keyhole surgery)
What are the benefits

There are no alternatives to repairing your hernia and it is likely to get bigger without surgery. The risk of damage to your bowel (if it becomes trapped in the hernia) will be removed following surgery.

Open Hernia

This involves making a small cut in your groin. The hernia is repaired from the outside without entering the abdominal cavity and the mesh is then secured. Open hernia repairs can be undertaken under local anaesthetic (unlike a keyhole repair). The risk of a wound infection is slightly higher with an open repair, but the risk of damage to the intestines is smaller than with a keyhole repair.

Laparoscopic or Keyhole Hernia Repair

This operation is performed through small cuts made in your abdomen (belly). One of these will be in the region of your belly button while two other tiny cuts are made either side of your belly button. These cuts are called port sites. Hollow tubes are then placed into the cuts and through these your surgeon passes instruments to perform the operation. Carbon dioxide gas is put into your abdomen to allow the surgeon to see whilst they are operating.

Keyhole hernia repair may be more suitable in patients with hernias on both sides of their abdomen. Recovery and return to work may be slightly quicker with a keyhole repair. However, the chance of a major intestinal or vascular problems to be encountered is higher. In addition, there is a slightly higher risk of the hernia recurring in the future.

Both types of hernia repair are very safe, however complications can occur.
Are there any risks or complications involved?

During the operation:

**Damage to testicular vessels** - In men, the sperm tube (vas) and blood vessels supplying the testicle are very close to the hernia. Together they form part of the spermatic cord. Although rare, it is possible to damage these blood vessels during the operation. This can cause a reduction in the amount of blood reaching the testicle, which may make the testicle shrink and stop working properly.

**Damage to internal organs** - Sometimes, the bowel can be trapped or damaged during the operation. (Risk approx. 1 in 1000 patients). This is usually recognised before you go home and treated. However, if you experience severe abdominal pains, cramps, a swollen abdomen, severe vomiting and/or a change to in your bowel movements (constipation and/or diarrhoea) please contact the hospital immediately.

**Conversion from keyhole to open surgery** - Patients undergoing keyhole surgery will occasionally experience the surgeon being unable to do the operation with just keyhole surgery. In these cases the operation will be undertaken like a standard open hernia repair. This occurs in about 1-1.5% in 100 patients.

First 24 Hours:

**Difficulty passing urine** - Occasionally after hernia surgery some patients find it difficult to pass water. This is most common in elderly patients and those with known prostate problems. You will not be sent home until you have passed urine. If the problem persists it may be necessary to pass a small tube into your bladder. This is called a catheter. This is an uncomfortable procedure, but it does not require a general anaesthetic and can be performed on the ward. The catheter will be removed after 24 hours.
First Week:

Bowel disturbance - Your bowels may be quite slow to work at first, especially if you have been taking some strong painkillers. It is important not to allow yourself to become constipated. Straining changes the pressure inside the abdomen, and this should be avoided in the early days following your operation.

Bruising to groin/testicles - Some patients notice that they are very bruised after the operation. This will start to appear a few days after your operation. This bruising is quite normal and will disappear but it may take a few weeks for all of the bruising to disappear. This bruising is rare after an open hernia repair however more common with keyhole repair.

Chest infection - If you smoke, stopping about two weeks before your operation will help reduce the risk of an infection occurring. Also, getting up and about as soon as you feel able to is very important.

Deep vein thrombosis (DVT, blood clot in the lower leg) - Several precautions are undertaken to reduce this risk. A small injection may be given to you in your belly before your operation (this helps to thin the blood) and you may have to wear special compression stockings. You will also be encouraged to get up and about after your operation as soon as the effects of the anaesthetic have worn off.
Risks and complications

First Month:

Developing a lump - Some patients notice a lump in the groin a few days or weeks after their operation. They worry that the operation has not been successful. It is most likely to be caused by a collection of fluid in the area where the hernia was originally. This is called a ‘haematoma’ which will usually disappear on its own within a few weeks.

Numbness of the skin - Below the wound and at the top of the thigh can be quite common after the operation but this is not a cause for concern. The full return of normal sensation can take up to six months although very occasionally a small patch of skin will remain slightly numb.

Longer Term:

Chronic pain - This does sometimes happen after hernia operations. For some patients who are affected by this problem, discomfort can be felt for several years and may be severe. 1 in 20 patients feel some pain and in half of these individuals, it is severe. It is thought that this is due to irritation of the nerves in the area by the healing tissue.

Port site hernia – After the keyhole repair, the belly button incision, although it is repaired can sometimes persist as an area of weakness and a hernia may develop there in the future, which may require an additional operation to correct this.

Recurrence – There is a small chance of your hernia coming back. The risk of this is 1 in 100.
Are there any alternatives to the operation?

**Doing nothing** – This avoids an operation but may put you at risk (probably about 1% each year) from having a piece of bowel becoming trapped in the hernia. This is called strangulation and is dangerous because the trapped part of intestine may lose its blood supply. These patients may experience the symptoms listed below:

- Abdominal swelling
- Abdominal cramps
- Nausea and vomiting

In this situation an emergency operation is needed.

Wear a truss (support) – these can be uncomfortable to wear, do not repair the weakness in your abdominal wall and do not control the hernia.

**What Happens Before my Operation?**

If required you will be seen in a pre-assessment clinic before you come in for your operation. Please write down any questions concerning your surgery and ask the pre-assessment nurse or your surgeon before your operation. Depending on your general health and your age, you may of had some tests carried out. These will be have been examined before your surgery. Please also bring in all the medication you are currently taking.

You will be given a “patient related outcome measure” form (PROMs), which is important to fill in. Please bring the completed form with you to the ward when you come in for your surgery. These forms are part of a national questionnaire to ensure that patients derive benefit from their planned surgery.
What do I need to do before my operation?

Once a date has been agreed you will be sent a letter confirming the date of your operation. This letter contains starving instructions that you must follow.

The following points should be noted before coming into hospital:

- Follow your starving instructions.
- If you are having day surgery organise a responsible adult (over 18) to take you home in a car or taxi, and have a responsible adult to stay with you for 24 hours after your operation.
- Take your medicine as advised by the surgeon or pre assessment nurse. Your pre-assessment nurse, or GP, will advise you when you should stop taking Warfarin, Clopidogrel and Aspirin before surgery.
- Read all the information leaflets you have been given.
- If you smoke, it is recommended that you stop 48 hours before your operation. The hospital is a ‘smoke free environment’. This means you can not smoke in the hospital or outside on the hospital grounds.
- Do not bring valuables into hospital, as we can not be held responsible for any loss or damage.
- Please remove all jewellery; any jewellery you can not remove will be discussed at pre assessment.
- Take a bath or shower using shower gel provided at pre assessment.
- You do not need to shave the area, if needed this will be done during your operation.
Preparing for surgery — preventing blood clots

Anti-embolism stockings
To reduce the risk of a blood clot (DVT or deep vein thrombosis) you will be provided with stockings made from firm elastic. These give a graduated compression to the leg, from the ankle to the knees. They have the effect of ‘speeding up’ the circulation of the blood in your veins, making clotting less likely. These will be prescribed and supplied on the morning of surgery.

Preparing for surgery — MRSA
You may have heard of the infection called Methicillin Resistant Staphylococcus Aureus, or MRSA, that lives on skin and inside noses. The bacterium can live on your skin for a long time without you knowing it and without causing you any problems. MRSA infection can be difficult to treat and some patients may need to be given special antibiotics. Before surgery you will be tested for MRSA using cotton buds to swab your nostrils and perineum and, if necessary, any other areas. These swabs will be sent to our microbiology laboratory where they will be examined for MRSA. If the result is found to be positive you will be contacted and informed of this. Regardless of the test result, all patients will be given an antiseptic soap to wash with and nasal ointment to be used at home for five days before your operation date.

It is important that you bathe or shower before coming in for surgery as this helps to reduce the amount of skin bacteria (germs).
Preparing for surgery—MRSA prevention continued

**Bactroban** is a nasal antibacterial ointment.

Store Bactroban Nasal ointment at room temperature, between 68 and 77 degrees F (20 and 25 degrees). Do not refrigerate. Store away from heat, moisture, and light and do not store in the bathroom. Keep Bactroban Nasal ointment out of the reach of children and away from pets.

**Instructions for use:**

Apply 3 x per day for three days before your admission date.

Apply a match head or pea size amount of ointment from the tube directly into one nostril. Repeat in the next nostril.

Press the sides of the nose together to help spread the ointment.

Wash hands thoroughly after use.


**Stellisept** is an antimicrobial wash lotion—start using five days before your admission date.

**Instructions for use:**

Wet skin and apply directly onto skin using a clean wet cloth once daily instead of soap.

Wash from head to toe, avoiding eyes.

Wash around the nostrils.

Leave the soap on your skin/hair for a least 60 seconds before rinsing off from head to toe. If you wish to use your own shampoo or conditioner, use after rinsing off the liquid soap.
What will happen on the day of my operation?

We look forward to seeing you at University Hospitals of Leicester and want to make sure that your visit is comfortable and successful. To help us do this please read the following important information:

If you are ill, or cannot keep your appointment, please let us know as early as possible. Another patient may benefit from the cancellation of your appointment. Please follow instructions you have been given concerning medication at pre assessment.

You may go to the surgical day ward or an inpatient ward; it will say in your letter. The operating list can be a morning/afternoon list or an all day list, depending on the surgeon. Please be prepared to wait, if you are waiting for longer than expected the nursing staff will inform you.

- Bring a contact number for the person who is taking you home
- Only bring an overnight bag if you have been told at pre assessment it is necessary. The majority of patients will go home on the day of their operation.
- You must be collected on the day of surgery by a responsible adult, who must take you home in a car or taxi after your operation.
- You must have a responsible adult at home with you for at least 24 hours and you need to have a telephone at home.
- You must not drive, cycle, operate machinery, drink alcohol, or be alone for a minimum of 24 hours after your operation.
- You should come to the ward named in your letter, your details will be checked and you will directed into a waiting area or bed space.
- You will be admitted to the ward by a member of the nursing team. They will ask you a few questions and check your blood pressure, pulse and temperature. If any further checks are required these will be discussed with you.
What will happen on the day of my operation?

- It may be necessary to do a pregnancy test. This will be discussed with you.

- You will meet one of the surgical team who will check you have signed a consent form and go through the planned surgery. Please ask your surgeon if there is anything you do not understand.

- You will be visited by the anaesthetist or anaesthetic physician assistant. The anaesthetist is the doctor who will look after you when you are asleep. A physician assistant is a non-medically qualified practitioner trained in anaesthetics. The anaesthetic doctor will oversee your anaesthetic care.

- You will need to change into a theatre gown.

What will happen after the operation?

After you have come round in the recovery area you will be taken back to either your day case ward, or an inpatient ward depending on your personal circumstances. The staff will make sure you are comfortable and provide you with refreshments. If you have any discomfort or sickness, please let the staff know so that they can help you. If you are on the day ward, you will recover on the ward until your nurse is happy that you are well enough to go home. You will need to eat and drink before you can go home, and pass urine depending on type of surgery. You will be given a card with contact details for any questions you may have for the first 24 hours after discharge, any problems after this time you should contact your GP.
What happens after the operation?

There are 4 things you must not do for 24 hours after your general anaesthetic. They are:

- Do not drive a car or operate machinery, including kettles, irons, etc.
- Do not carry children in case you feel dizzy.
- Do not sign legal documents, as your judgement may be impaired.
- Do not drink alcohol.

Wound Care

You will have a dressing covering the wound (open surgery) or wounds (laparoscopic/keyhole surgery). Dressings needs to stay in place for at least 24 hours if possible but the ward will supply you with a small supply of dressings. It is suggested that the wound/s are covered for around four to five days after your operation, providing the wound/s are clean and dry. If you have a ‘pressure dressing’ in place the nurse on the ward will explain what you need to do. Showering is safe, pat the wound/s dry and re-apply dressing/s if necessary. Avoid using antiseptic washes or perfumed shower gels over the wound/s and you should also avoid soaking your wound/s in a bath until they have completely healed. The discharge letter will explain how to manage your wound at home.

The wounds may itch and there may be bruising however this is quite normal and will settle.
Tablets for Pain

You will have pain following your operation and the amount will depend on your operation and how well you take painkillers. If required, pain killing tablets will be given to you when you go home. Take them regularly as prescribed for the first few days.

If you run out of tablets you can take the empty box to your chemist who will let you know which tablets to buy; or you can arrange to see your own GP to get some more tablets. Everyone is different; do not be surprised if you are still having some pain for a week or two, this is quite normal. Even though we appreciate it will be painful, everybody is encouraged to move around as much as possible after their surgery. It will aid your recovery and may reduce your risk of experiencing long-lasting discomfort in your groin after surgery. Provided you do not undertake very strenuous exercise just after your surgery, you will not damage the repair in any way.

Please read the following instructions:

- Take painkillers when the pain starts. Don’t wait for it to get really bad.
- Take painkillers before you go to sleep so you are able to rest.
- If your pain is very bad take the painkillers regularly, i.e. 4 times a day, so they keep your pain away.
- Take painkillers when you wake up, so they are working before you get out of bed.

Painkillers can cause constipation, so you should drink plenty of water, and eat some high fibre foods like as fruit, vegetables and cereals. A few weeks after your surgery, you will receive another PROMS form to fill in to summarise the outcomes of your attendance at the hospital.
General advice

Driving
You must not drive for 24 hours after a general anaesthetic as you will not be covered by your car insurance. You may not be able to drive comfortably for a few weeks; this depends on how quickly your wound heals. Most surgeons will advise that you leave it at least 1 week until you drive following your hernia repair.

Work
The length of time you need to be off work depends on what your job is. Most people will be able to return to light duties after 2 weeks, if your job involves heavy lifting you may need up to one month of work. Please discuss this with the doctor doing your operation or the nurse. If you need a fit note, please ask the nurse before your operation.

Sex
You may return to your usual activities once you are comfortable, if you have any questions, please ask the pre-assessment nurse or the ward nurses.

Physical Activity
Do not do too much too soon. It is usual to feel some aches and pains for a few days, perhaps up to 2 weeks. Avoid strenuous activity for about 2 weeks after your operation.
Advice after your operation

If you are concerned about any symptom or problem at any time after you are sent home from hospital you should contact your GP. Alternatively, please ring the ward/hospital where you had your operation:

CONTACTS

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It would be helpful if you are able to tell them:

- The name of your consultant
- The operation that you had
- The date of your surgery
- Your hospital number

Please also make a note of the name of the person that you speak to for advice.
Patient agreement

I understand that if I do not follow the instructions about my operation it may be cancelled.

I have been given information leaflets and I have read and understood them.

I wish to have my operation done as day case.

Patient signature: ____________________________

Pre-assessment or admission nurse: ______________

Are your discharge home arrangements in place?

Date: ____________________________
Today’s research is tomorrow’s care

We all benefit from research. Leicester’s Hospitals is a research active Trust so you may find that research is happening when you visit the hospital or your clinic.

If you are interested in finding out how you can become involved in a clinical trial or to find out more about taking part in research, please speak to your clinician or GP.

If you would like this information in another language or format, please contact the service equality manager on 0116 250 2959