

About your Hernia Operation

Introduction

We expect you to make a rapid recovery after your operation and to experience no serious problems. However, it is important that you should know about minor problems which are common after this operation, and also about more serious problems which can just occasionally occur. The section of this booklet headed "*What problems can occur after the operation?*" describe these, and we would particularly ask you to read them. Headings from this section of the booklet will be included on the consent form which you will be asked to sign before your operation.

What is a hernia?

A hernia is a bulge due to bowel or fat from inside the abdomen protruding out through a weak area. The most common kind is an inguinal hernia, in the groin. Above the ligament of the groin is a small hole, deep in the muscle wall of the abdomen, through which arteries and veins pass to the testicle. In women a fibrous band passes to the groin. If this hole, or the area near to it becomes weak and stretched, then a pocket (or sac) of the membrane lining the abdomen (the peritoneum) can bulge through. On standing, coughing, or vigorous activity, this sac becomes filled with bowel, or fat from inside the abdomen. This produces a bulge, and may cause discomfort. The contents of a hernia sac usually go back into the abdomen on lying down, although sometimes they need to be pushed back gently. Sometimes a small hernia can cause aching without an obvious bulge: the hernia is then only found during examination by a doctor.

If a hernia has been present for a long time, then it can become very large, and in a man can even fill the scrotum. When this happens, it may stay out most of the time, and prove very difficult to push back.

Inguinal hernias are less common in women than men but another kind of hernia (a femoral hernia) is commoner in women than men, and can usually be distinguished by specialist examination. Repair is almost always advised for femoral hernias because there is greater risk of complications caused by the hernia becoming trapped (strangulated).

Is a hernia harmful?

Hernias are usually troublesome only because they cause a bulge and aching: these symptoms are a nuisance but not medically dangerous.

The most serious risk of a hernia is strangulation, which means that it fills with bowel which becomes completely trapped, and its blood supply may then be cut off. This produces sudden severe pain, and requires an urgent operation, when the affected piece of bowel may need to be removed. Strangulation is not very common, and many people have hernias for years without them ever becoming strangulated. Obstruction of the bowel can also occur if the bowel becomes trapped, and this demands an operation, even if the blood supply has not been cut off. The risks are greater with a femoral hernia than an inguinal hernia (your doctor will tell you which type they suspect you have).

How can a hernia be treated?

The one permanent cure for a hernia is through surgical repair, which may be done through an incision in the groin ("Open repair") or by laparoscopic (keyhole) surgery which is done through three small incisions. Operation is usually advised because a hernia will not go away and may get larger: it can cause inconvenient symptoms and there is a small danger of strangulation. If a hernia is causing no problems, then an operation is not essential, and you can discuss the need for operation with the surgeon.

A truss (a supportive undergarment) can be used to hold a troublesome hernia inside while you are up and about. It is essential that it is put on before you get up, and while the hernia is not bulging out. In general, an operation is a much better treatment for any hernia which is causing symptoms. Since local anaesthetic can be used, and general anaesthetics are very safe nowadays, advanced age or medical problems should not usually prevent any troublesome hernia from being repaired by an operation.

How is a hernia repair operation done?

Principles of hernia repair

As described above, hernias may be inguinal or femoral. They may be new (primary) or recurrent (after a previous repair operation). They may be in male or female patients. All of these things contribute to the type of operation which is suggested (or to the suggestion not to have an operation)

A new (primary) hernia on one side in a man will usually be repaired through an open operation through an incision in the groin (usually 6-12 cm long). This can be done under either local or general anaesthetic as a day-case procedure in a community hospital.

A new (primary) hernia on one side in a woman will usually be repaired with a laparoscopic (keyhole) operation. This is because of the greater incidence of femoral hernias in women, which may be missed during an open operation.

First time hernias in both groins or recurrent hernia will usually be repaired with a laparoscopic (keyhole) repair.

Some surgeons offer laparoscopic (keyhole) repairs to individuals (male or female) for one-sided primary hernias because it may lead to an earlier return to normal activities.

It is important to be aware that:

1. Laparoscopic repair is not always possible if a patient has a previous history of low abdominal or pelvic surgery (appendicectomy, prostate surgery, hysterectomy etc.). Your surgeon will advise you about this.

2. Laparoscopic hernia repair can only be performed once due to scarring after the procedure.
3. If laparoscopic repair is performed for a primary hernia on one side and a hernia develops later on the other side, or if the repaired hernia recurs, laparoscopic repair will not be an option.
4. Occasionally the surgeon will need to convert from a laparoscopic repair to an open repair during surgery for technical reasons.

Open repairs

These are usually done through an incision about 12cm long in the groin. At operation, one of the muscle layers is opened, and the sac of the hernia is then carefully separated from the arteries, veins, and tube from the testicle in men or the fibrous band in women. Any bowel or fat from within the abdomen is pushed back, and the sac is then either stitched back into the abdomen or tied off at its neck and removed.

A repair is then done, to strengthen the weak area, and to restore the hole for the arteries and veins of the testicle / fibrous band to its normal small size. The repair is necessary to prevent the hernia from coming back. This is usually done by stitching a plastic mesh over the whole area. Occasionally stitches are used (without a mesh) – for example for femoral hernias. Both these methods have been shown to give good long term results, and the chance of the hernia coming back is about 2% (1 in 50) for most people.

Laparoscopic repairs ('keyhole surgery')

Some surgeons use a telescopic method to repair hernias. This needs to be done under a general anaesthetic. The telescope is inserted just below or to the side of the tummy button and gas is introduced through the telescope to open up the space between the muscles in the lower part of the abdomen and the groin. Two tiny (5mm) incisions are made in the lower abdomen for further instruments which are used to place a sheet of plastic mesh to repair the

hernia. Laparoscopic repair has advantages for patients with hernias in both groins (“double hernias”) and also for recurrent hernias (because it avoids the scarred area resulting from previous operations). The success of laparoscopic surgery is similar to ordinary hernia repair up to about five years after the operation but the results beyond that time are not yet known.

What about the anaesthetic?

An open hernia operation, through an incision in the groin, can be done either under a general or local anaesthetic. Laparoscopic hernia repair is always performed under general anaesthetic. The surgeon may suggest either of these options for you, but do ask if you have a special preference, or if you want to know more about each. A general anaesthetic is usually given by injection into your hand or arm, while local anaesthetic is injected into the area of the operation. During repair under local anaesthetic you will be aware that “something is happening” in the area of the operation, but this should not be painful.

The operation usually takes 30-60 minutes. Even under a general anaesthetic the surgeon will usually inject some long acting local anaesthetic, to try to make you as comfortable as possible afterwards. In addition, some anaesthetists insert a long acting painkiller in the form of a suppository while you are still asleep.

You will be advised clearly about having no food for about six hours before the operation, and nothing to drink for two or three hours beforehand. After the operation you can walk about as soon as you feel able: a nurse will be sure you can manage when you first get up.

Will I have any stitches?

Most surgeons place all the stitches under the skin, so they do not need to be removed. Some use stitches that require removal. You should be told clearly about this before you leave hospital

What about the recovery?

Going home

This depends on how fit you are, who is at home with you, and how comfortable you are after the operation. A plan may be made for you to go home on the day of operation, but you may stay in hospital one night after a hernia repair (occasionally longer if you are unfit or live alone). In general you can go home as soon as you feel able to do so.

Pain and painkillers

People vary a lot in the amount of pain they feel after hernia repair. Some get very little discomfort, but it is common to experience pain during the first three or four days, particularly when getting up from lying or sitting, and when returning to a chair or bed. The muscles which have been stitched together are active and pulling at those times. Use the painkillers you will be given to help you to become active and to sleep with comfort.

You are likely to get aching and “pulling” as you become more active during the first month, as the tissues are stretched and become supple again, and as the mesh “beds in”. If you need mild painkillers, then Paracetamol (Panadol) is a reasonable choice.

Bathing and showering

You can wash the wound carefully with soap and water, bathe or shower after about two days, and when any dressing has been removed. Avoid the use of talc for about a week. Some surgeons use a transparent dressing, which can be left on for several days, even when washing or bathing: you will be advised about this. Many surgeons use glue on the wound. This allows immediate splashing / showering and no dressing needs to be removed.

It is probably wise to avoid swimming until the wound is sound and dry - about ten days after operation.

Walking

You can start to walk about as soon and as much as you want, although you will be quite stiff at first, and will probably not feel like walking long distances during the first week after the operation.

Driving

You can start to drive when you feel confident to control it in an emergency - we recommend seven days after the operation.

Work, sport, and heavy lifting

You can return to work and normal daily activities as soon as you feel comfortable enough to do so. People who work from home or who can go back part time often do so very soon after operation. If you need to drive yourself or spend all day on your feet then you are unlikely to get back for at least two weeks (often three weeks). If your job involves heavy manual work or lifting you should probably not return for about one month.

You can get back to sport and other physical activity as soon as your discomfort allows. It is sensible to start these activities gradually, and work your way back to full fitness. Violent or contact sports are best avoided for about one month. Avoid very heavy lifting for a month.

Sex

A hernia operation should have no special effect on your sex life, and you can resume sexual intercourse as soon as you are sufficiently comfortable.

What problems can occur after a hernia operation?

Bruising, swelling and bleeding

Bruising, swelling, and hardness are common in the area the hernia repair. They are caused by the fluid and blood clot under the wound, pulling together of the tissues by stitches, and later by the formation of scar tissue. This will all settle with time. Sometimes bruising may go down into the genitals, which may become black and blue.

This is simply the easiest direction for bruising to go after a hernia repair, and it will all return to normal.

Sometimes bruising can be very extensive. Occasionally bleeding from a small blood vessel under the skin or near the repair can produce a collection of blood, visible as a bulge under the wound (a haematoma). This may settle slowly on its own, but sometimes needs to be let out by a further operation. If a bleeding spreads down into the scrotum, some swelling may remain around the testicle for a long time.

After laparoscopic hernia repair you may develop a lump at the site of the previous hernia. This does not necessarily indicate that the operation has failed. It is fairly common to develop small collections of blood in the space from which the hernia was removed. These settle by themselves, initially becoming hard and painless then disappearing altogether.

Rarely a patient can bleed into the pelvis after a laparoscopic hernia repair because of the amount of dissection required. If this happens, the patient will be transferred or readmitted and advised further.

Numbness

A small area of numbness of the skin is common, just below the inner end of the wound. This is caused by division of a nerve which crosses the area of the hernia. The nerve may be divided in order to do a good repair. The area of numbness will get smaller. Since it is small and lies under the pubic hair it is not usually noticeable. This is much less common with laparoscopic repair than open repair.

Pain

About one patient in 20 may develop persistent pain in the area of a hernia operation and this can sometimes be very troublesome. It is probably due to stretching of a nerve during the operation or tethering of a nerve as part of the healing process. It often responds to a special pain killing injection, but very occasionally it may be necessary to operate on the area again to look for the trapped nerve and to try to release it. This is again less common with laparoscopic repair.

Patients can develop shoulder-tip pain for up to 24 hours after laparoscopic surgery which should settle with the painkillers given.

Risk to the testicle

Because a hernia lies next to the artery and vein to the testicle, and the tube which carries sperms, all these are at risk during the operation. They are in greater danger during surgery for a recurrent hernia (one which has been repaired before). If the artery is damaged, then the testicle may shrivel up, or may need to be removed. If the tube carrying sperms is damaged, then fertility will depend on sperm from the other testicle (which are usually quite sufficient). Before operation for recurrent hernia, the surgeon will sometimes advise removal of the testicle in older patients, in order to do the best possible repair.

Infection

Infection of the wound is a risk, but is uncommon. If the wound starts to become red, then antibiotics may be needed. If pus starts to come out, then the wound may need to be opened up to release the infection. Infection increases the chance of a hernia coming back. If mesh becomes infected another operation may be needed to remove it, and the hernia will then need to be repaired again later on.

Deep vein thrombosis (DVT)

Deep vein thrombosis is a possible problem after hernia repair, but is rare. If you are at particular risk then special precautions will be taken to reduce the risk. Moving your legs and feet as soon as you can after the operation, and walking about early, all help to stop thrombosis occurring.

Recurrence (the hernia coming back)

This is a small risk. The chance of this happening is less than 1 in 20 in your lifetime after repair of a hernia for the first time.

Bladder problems

In older men there is a small risk of difficulties in passing urine following hernia repair (open or laparoscopic). This is greater if the patient has

had previous problems with urination or flow and if they have bilateral hernia repairs.

If - after the operation - you have difficulty passing urine, you should contact your emergency doctor for advice. This may occasionally require the insertion of a urinary catheter through the penis for a couple of weeks until things have settled down.

The risks of a general anaesthetic

If you choose a general anaesthetic, this has some risks. Some of the risks are increased if you have chronic medical conditions, but in general they are as follows:

- **Common temporary side-effects** (risk of 1 in 10 to 1 in 100) include bruising or pain in the area of injections, blurred vision and sickness (these can usually be treated and pass quickly).
- **Infrequent complications** (risk of 1 in 100 to 1 in 10,000) include temporary breathing difficulties, muscle pains, headaches, damage to teeth, lip or tongue, sore throat and temporary difficulty speaking.
- **Extremely rare and serious complications** (risk of less than 1 in 10,000). These include severe allergic reactions and death, brain damage, kidney and liver failure, lung damage, permanent nerve or blood vessel damage, eye injury, and damage to the voice-box. These are very rare and may depend on whether you have other serious medical conditions.

What should I do if there is a problem?

If there is an acute problem such as persistent severe pain, discharge, bleeding, fever, an inability to pass urine or an inflamed or discharging wound, it is best to contact your own family doctor first. Your doctor may suggest that you see the surgeons at the hospital, and if this is necessary, he/she will make the arrangements.

Should you be unable to get urgent medical help from a General Practitioner, then come to the Emergency Department of the Royal Devon and Exeter Hospital.

The surgical team who did your operation will always be prepared to see you at the request of your own doctor or the doctors who see you urgently in the hospital. If you attend hospital urgently, you may be looked after by a different surgical team initially. If there is any concern in the longer term, the surgeon responsible for your operation will see you in clinic at the request of your family doctor.

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