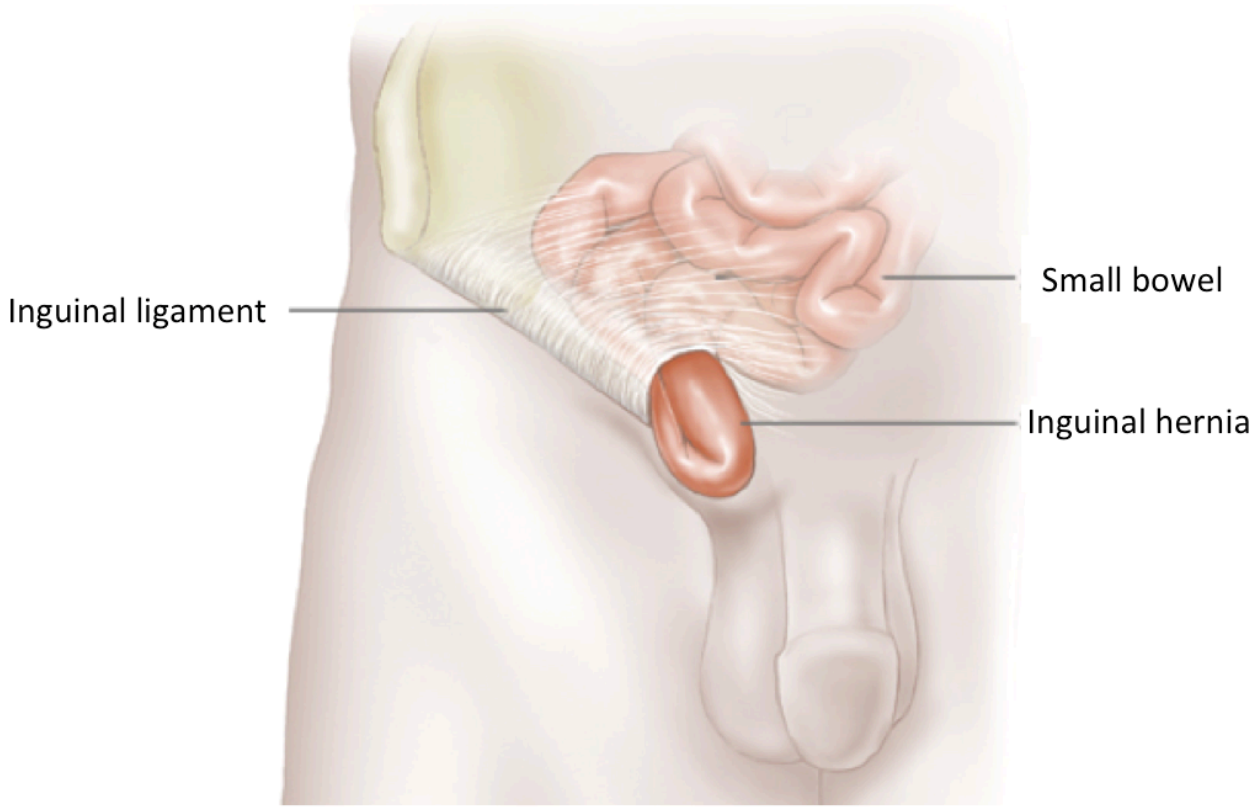
ADAM BARTLETT

Inguinal hernia repair



A hernia is an abnormal protrusion on an organ through a weakness in the abdominal wall. The abdominal muscles are usually strong enough to keep your internal organs in place, when a weakness develops, they may protrude through the musculature, leading to a hernia. An inguinal (pronounced "ing-win-al") hernia is the most common type of hernia. An inguinal hernia usually occurs when fatty tissue or a part of your bowel, such as the small or large intestine, protrudes through the inguinal canal. through into your groin at the top of your inner thigh. The inguinal canal is a potential passage that allows for the passage of the testicles in men to descend into the scrotum during development, taking with them blood vessels and the spermatic cord. In women a remnant persists as the round ligament. As a result of the canal either remaining open at the time of development or becoming more open from musculature weakness, fatty tissue or a part of your bowel, such as the small or large intestine, protrudes through the inguinal canal, forming an inguinal hernia. Straining, for example on the toilet or lifting heavy weights, increases pressure inside the abdomen and can trigger a hernia. Inguinal hernias occur mainly in men and more common with age, due to weakening of the abdominal wall.

How does a hernia usually present?

Most inguinal hernia appear as a swelling in your groin or as an enlarged scrotum, which may be painful. The swelling will often appear when you are straining or lifting something and disappear when you lie down and relax. In a small number of people they may present with bowel obstruction due to

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incarceration of bowel within the hernia, which is a medical emergency.

Why is it necessary to operate on an inguinal hernia?

Most people with an inguinal hernia have pain, and repairing the hernia will alleviate the pain. In addition an inguinal hernia is potentially dangerous as the herniated bowel may become incarcerated leading to bowel obstruction or strangulation as a result of the blood supply to the bowel being compromised. Only surgery can repair the hernia, they will not go away on their own.

How is the hernia repaired?

Surgery is the only way to repair the hernia. There are two approaches;

Open hernia repair: This is the traditional approach where an incision is made over the inguinal area, the hernia is reduced (pushed back into the abdomen) and synthetic mesh is placed over the weakness in the abdominal wall to prevent further herniation. This operation can be done under a general anaesthetic (where you will be asleep), or under local anaesthetic with sedation (where you will be awake).
Laparoscopic hernia repair: This is also called "key hole" surgery. A camera, known as a laparoscope, connected to a high intensity light is introduced through a small incision just below your umbilicus (belly button). A further two little puncture wounds (5mm) are made below this in the midline to allow the surgical instruments to be introduced. To provide space for the surgery to be performed carbon dioxide is insufflated. The hernia is pulled back into the abdomen; a piece of synthetic mesh is placed over the hole and tacked into place to prevent further herniation.

There are advantages and disadvantages to both methods. With the laparoscopic approach there is usually less pain after the operation both immediately post operatively and long term, you are less likely to have wound infections, and consequently it is associated with a quicker return to normal activity. The laparoscopic hernia operation takes slightly longer, and it can only be done under a general anaesthetic. The risk of hernia recurrence is difficult to compare. In a large analysis of some 7000 patients' that underwent hernia repair, the recurrence rate was reported to be around 2-3% for open repair and 5-6% for laparoscopic repair (O'Reilly E et al., Annals of Surgery, 2012; 255(5):846). In another analysis involving around 7000 patients, there was no difference in the recurrence rate with the laparoscopic approach (McCormack K, et al., Cochrane Database Syst Rev. 2003(1):CD001785). It appears that the recurrence rate is dependent upon a number of factors, including size, whether it is bilateral or unilateral or recurrent. Discuss the advantages and disadvantages of laparoscopic and open surgery with your surgeon before deciding on the most appropriate treatment for you.

What are the main risks with having the hernia repaired?

An inguinal hernia repair is a routine operation with very few risks, however all surgery has some risks. Complications occur in about 5% of cases and most are mild and easily resolved. The principal risks include recurrence (see above), wound infection or hematoma (blood collection), seroma (clear tissue fluid collecting in the space left by the hernia), chronic pain, and groin numbness. General risks of surgery includes, wound infection, deep vein thrombosis (DVT) or pulmonary embolism. There is an increased risk of post- operative complications if you are overweight or if you smoke.

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What tests are done?

Most patients do not require any radiological tests. The diagnosis is made by clinical examination. You may require routine blood tests prior to the operation as part of your anaesthetic workup

Will repair of the hernia affect my sex life?

There is no evidence that repair of an inguinal hernia will affect your sexual function. In the first few days following surgery there may be some discomfort as a result of the surgical dissection. Although extremely rare the blood supply to the testicle can be compromised, but this is usually associated with the repair of very large inguinal herniae.

Are there any alternatives?

There are no other effective treatments for the management of inguinal hernia. Some people wear supports (trusses or corsets) to hold their hernia in. These devices are not recommended as they may cause more harm than good. There may be certain situations where your doctor may think wearing a support is a better option, but this is rare. This usually relates to the presence of other medical issues. In that instance alternative treatment strategies may be discussed.

How long will I be in hospital?

Most patients will come into hospital on the day of their operation, and will be able to go home later the same day (day stay). If there is any issue with pain control or ability to pass urine, you may be kept in over night.

What happens before the operation?

Prior to the operation you will be asked to complete an anaesthetic questioner. This will be passed onto the anesthetist that will be looking after you during the operation. Depending upon your medical status you may require an assessment or other investigations. You will need to have bloods taken in the recent weeks prior to surgery, and these may need to be repeated. You will be given specific instructions about when to stop eating and drinking, please follow these carefully as otherwise this may pose an anaesthetic risk and we may have to cancel your surgery. You should bath or shower before coming to hospital as you normally would. You do not need to shave any of the abdominal or pubic hair. You should take all your normal medication even on the day of surgery with a small amount of water. If you are on any medication that affects blood clotting you need to let the surgeon know well in advance of your surgery, as they may need to be stopped.

What happens when I arrive at the hospital?

You will be seen by the nursing staff and taken to your room. You will be asked to change into a theatre gown. The surgeon and anaesthetist will visit you and answer any questions that you have. You will be asked to sign a consent form, and the surgeon will mark the operative site with indelible ink to avoid any potential confusion. You will be taken into the operating room by a nurse who will with you until you are asleep.

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What happens after the operation?

You will be woken in the operating room after the operation has been completed, and taken into the recovery area. You will have an intravenous line in you arm that is attached to fluid, and enables the staff to give you medication. You will have an oxygen mask over your mouth that will administer supplemental oxygen. A blood pressure cuff will be on one of your arms, and intermittently inflate to measure you blood pressure. You will be able to eat and drink as soon as you are hungry after the procedure. You will normally be able to get out of bed a few hours after surgery although the nurses will assist you the first time.

How much pain will I experience post-operatively?

Most people only experience mild-to-moderate pain, which is readily controlled with oral analgesia (painkillers). You may experience some pain from your incisions, especially on movement. If you do, the nurses will give you analgesia. You may notice some discomfort and swelling in the scrotum especially if the hernia was large. At the time of discharge you will be given a supply of painkillers and post-operative instructions on what to take when. After about 7 days most of the discomfort should disappear.

How long will it take to recover from the anaesthetic?

Whilst most of the effects of anaesthesia wear off in a few hours, it is common to have poor concentration and memory for a few days thereafter. It is important that you do not make important decisions, sign legal documents or operate machinery or equipment for at least 24 hours after the general anaesthetic. You will not be able to drive home from the hospital, so you will need to make arrangements for someone to pick you up, and be available to keep an eye on you over night.

When can I return to normal activities?

You can return to normal physical and sexual activities when you feel comfortable. It is normal to feel tired after surgery, so take some rest, two or three times a day, and try to get a good nights sleep. After a week or so, you should be able to resume your normal daily activities.

When can I start driving?

You should not drive for at least 48 hours after the laparoscopy. Before driving you should ensure that you could perform a full emergency stop, have the strength and capability to control the car, and be able to respond quickly to any situation that may occur. Please be aware that driving whilst unfit may invalidate your insurance, and you should check with the conditions of your insurance policy as they do vary

When can I return to work?

You can return to work as soon as you feel up to it. This will depend on how you are feeling and the type of work that you do. If you have a relatively sedentary job then you may feel ready to return within 3-4 days. If you are involved in manual labor or heavy lifting you need longer off work.

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What can I eat?

There are no dietary restrictions after repair of your inguinal hernia and you may resume a normal diet as soon as you are hungry. It may take a few days before your appetite returns. When you feel hungry start with light frequent meals and then increase at your own pace.

When will my bowel movements return to normal?

It may take three or four days to have a normal bowel movement. If you have not had a bowel movement three days after surgery, a mild laxative should help. Alternatively Alpine tea, prune juice or kiwifruit may be equally effective. I

How do I care for my wounds?

The dressings are usually changed the following morning, and we leave them undisturbed until you are seen the following week. It is not an issue taking a shower, they can get wet, but avoid soaking in the bath. If they do fall off then there is no need to replace them unless you feel it is more comfortable. Steri-strips are placed over the incision sites under the dressings. These will usually fall off within a week or so. If any are still in place after a week you can gently remove them. The incisions are closed with dissolvable stitches that do not need to be removed. The incisions will probably be red and uncomfortable for 1-2 weeks and some bruising and swelling is common. After the incisions have healed there will be a small, scar like scratch. It is ok to use Bio-oil on the incisions after the first week to help reduce scar prominence.

When should I seek help?

If you have concerns then either ring the surgeon directly or the hospital for advice. If it is medical emergency then dial 111 for an ambulance to take you to an acute hospital. You should let us know if you have a discharge of blood or pus coming from your wounds, develop a fever over 38.5 ° C, vomiting that continues more than three days after surgery, inability to have a bowel movement after four days, have persistent pain not relieved with your prescribed painkillers or persistent abdominal distension (bloating of your tummy), develop increasing pain or swelling around your wounds.

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