

Inguinal hernia repair



Introduction

A hernia occurs when an internal part of the body pushes through a weakness in the muscle or surrounding tissue wall.

Your muscles are usually strong and tight enough to keep your intestines and organs in place, but a hernia can develop if there are any weak spots.

What is an inguinal hernia?

An inguinal (pronounced "ingwinal") hernia is the most common type of hernia. It can appear as a swelling or lump in your groin, or as an enlarged scrotum (the pouch containing the testicles). The swelling may be painful. The lump often appears when you're lifting something and disappears when you lie down.

What causes an inguinal hernia?

An inguinal hernia usually occurs when fatty tissue or a part of your bowel, such as the intestine, pokes through into your groin at the top of your inner thigh.

It pushes through a weak spot in the surrounding muscle wall (the abdominal wall) into an area called the inguinal canal.

Inguinal hernias occur mainly in men. Most are thought to result from ageing, although they can occur at any age. This is because as you get older, the muscles surrounding your abdomen (tummy) can become weaker.

Inguinal hernias can sometimes appear suddenly after putting pressure on the abdomen, such as straining on the toilet if you have constipation or carrying and pushing heavy loads. They have also been linked to having a persistent, heavy cough. Smokers have a higher risk of developing inguinal hernias due to the effect of Nicotine on the tissues.

Do you need an operation?

Not everyone with an inguinal hernia needs an operation. If you have a hernia that causes no pain or minimal discomfort, it is safe not to have surgery. Evidence from research shows:

- It is safe to leave a painless inguinal hernia
- Leaving a painless inguinal hernia does not increase complications
- An operation is only needed if it is painful

When is surgery needed?

Inguinal hernias can be repaired using surgery to push the bulge back into place and strengthen the weakness in the abdominal wall.

The operation is usually recommended if you have a hernia that causes pain, severe or persistent symptoms, or if any serious complications develop.

Complications that can develop as a result of an inguinal hernia include:

- **obstruction** – where a section of the bowel becomes stuck in the inguinal canal, causing nausea, vomiting, stomach pain, constipation and abdominal (tummy) swelling, as well as a painful lump in the groin
- **strangulation** – where a section of bowel becomes trapped and its blood supply is cut off; this requires emergency surgery within hours to release the trapped tissue and restore its blood supply, so it doesn't die. Surgery gets rid of the hernia to prevent any serious complications, but there's a chance it could return after the operation.

What happens during surgery?

There are 2 ways an inguinal hernia repair can be performed:

- **open surgery** – where one cut is made to allow the surgeon to push the lump back into the abdomen. This is the most common way to fix a hernia
- **laparoscopic (keyhole) surgery** – a less invasive, but more difficult, technique where several smaller cuts are made, allowing the surgeon to use various special instruments to repair the hernia

Currently in NHS Greater Glasgow and Clyde laparoscopic (keyhole) surgery is only offered to patients with a recurrent hernia or bilateral hernia (one hernia on each side).

There are advantages and disadvantages to both methods. The type of surgery you have depends on which method suits you and your surgeon's experience.

You should be able to go home on the same day as your surgery. It's important to follow the hospital's instructions on how to look after yourself. This includes eating a good diet to avoid constipation, caring for the wound and not straining yourself too soon.

Most people make a full recovery from inguinal hernia repair within 6 weeks, although many people can return to driving, work and light activities within 2 weeks.

Are there any risks from the operation?

An inguinal hernia repair is a routine operation with very few risks. However, up to 10% of hernias come back at some point after surgery. Around 2-4% of hernias return within 3 years.

Other potential complications of inguinal hernia repair include:

- A small number (10%) of patients having a hernia repair will have long term pain (moderate to severe) and permanent numbness in the groin area. This is usually caused by a nerve being damaged or trapped during surgery
- blood or fluid building up in the space left by the hernia (this usually gets better without treatment) painful swelling and bruising of the testicles or base of the penis (in men) pain and numbness in the groin area.
- damage to the blood supply to the testicle
- damage to the vas deferens – the tube that carries sperm to the testicles

Complications are more likely if you're aged over 50, smoke or have another illness, such as heart disease or breathing problems.

How it's carried out

An inguinal hernia repair can be carried out as either open surgery or laparoscopic (or keyhole) surgery, depending on your hernia and your surgeon's experience.

The hospital will send you instructions about when you need to stop eating and drinking before the operation.

The operation usually takes about 30-45 minutes to complete and you'll usually be able to go home on the same day.

Open surgery

Open inguinal hernia repair is often carried out under a general anaesthetic. This means you'll be asleep during the procedure and won't feel any pain.

In an increasing number of cases the operation is done using a local or a regional anaesthetic injected into the spine. This means you'll be awake during the procedure but the area being operated on will be numbed so you won't experience any pain.

Once the anaesthetic has taken effect, the surgeon makes a single cut (incision) over the hernia. This incision is usually about 6-8cm long. The surgeon then places the lump of fatty tissue or loop of bowel back into your abdomen (tummy).

A mesh is placed in the abdominal wall, (over the muscle and not inside your belly) at the weak spot where the hernia came through, to strengthen it.

When the repair is complete, your skin will be sealed with stitches. These usually dissolve on their own over the course of a few days after the operation.

If the hernia has become trapped (strangulated) and part of the bowel damaged, the affected segment may need to be removed and the two ends of healthy bowel rejoined. This is a bigger operation and you may need to stay in hospital for 4-5 days.

Laparoscopic (keyhole) surgery

General anaesthetic is used for keyhole inguinal hernia repair, so you'll be asleep during the operation.

During keyhole surgery, the surgeon usually makes 3 small incisions in your abdomen (instead of a single, larger incision).

A thin tube containing a light source and a camera (laparoscope) is inserted through one of these incisions, so the surgeon can see inside your abdomen. Special surgical instruments are inserted through the other incisions, so the surgeon can pull the hernia back into place.

There are 2 types of keyhole surgery:

- **Transabdominal preperitoneal (TAPP)** – instruments are inserted through the muscle wall of your abdomen and through the lining covering your organs (the peritoneum). A flap of the peritoneum is peeled back over the hernia and a piece of mesh is stapled or glued to the weakened area in your abdomen wall to strengthen it
- **Totally extraperitoneal (TEP)** – this is the newest keyhole technique. It involves repairing the hernia without entering the peritoneal cavity. A piece of mesh is positioned to cover the weakened area in the abdominal wall.

Once the repair is complete, the incisions in your skin are sealed with stitches or surgical glue.

Which technique is best?

The National Institute for Health and Care Excellence (NICE), which assesses medical treatments for the NHS, says both keyhole and open surgery for hernias are safe and work well. Read the NICE guidelines on using keyhole surgery to treat inguinal hernia (<https://www.nice.org.uk/guidance/ta83>).

With keyhole surgery, there's usually less pain after the operation because the cuts are smaller. There's also less muscle damage and the small cuts can be closed with glue.

Keyhole surgery tends to have a quicker recovery time in people who:

- have been treated before and the hernia has come back (recurrent hernia)
- have hernias on both sides at the same time (bilateral hernias)

However, the risks of serious complications, such as the surgeon accidentally damaging the bowel, are higher with keyhole surgery than with open surgery.

The risk of your hernia returning is similar after both operations.

Discuss the advantages and disadvantages of keyhole and open surgery with your surgeon before deciding on the most appropriate treatment.

Deciding which technique to use the choice of technique for inguinal hernia repair largely depends on:

- **your general health** – elderly people or people in bad health may be too weak or frail to safely have a general anaesthetic, so open surgery using local anaesthetic may be advised
- **the experience of your surgeon** – open surgery is more common than keyhole surgery, and not all surgeons have enough experience in keyhole techniques

Recent guidance from the British Hernia Society advises to repair most primary, single sided hernias (those appearing for the first time on just one side) using the open technique. Keyhole techniques are usually only recommended for recurrent or bilateral hernias.

Keyhole surgery can also be useful if your surgeon isn't sure exactly what type of hernia you have.

Recovery

You should be able to go home on the day of your operation. Get an adult to take you home in a car or taxi and follow any instructions you're given by the hospital.

After the operation, your groin will feel sore and uncomfortable. You'll be given painkillers to help relieve this discomfort.

Looking after yourself

An adult must stay with you for the first 24 hours after your operation in case you experience any problems.

If you're still in pain after going home, continue taking painkillers as advised by the hospital. Applying gentle pressure to your wound using your hand, or a small pillow can make coughing, sneezing and moving between sitting and standing more comfortable.

Make sure you follow the instructions your nurse gave you about caring for your wound, hygiene and bathing.

Straining on the toilet because of constipation can cause pain around your wound. You can reduce your risk of constipation by drinking lots of fluids and eating plenty of vegetables, fruit and high-fibre foods, such as brown rice, wholemeal bread and pasta. A mild, over-the-counter laxative may also help.

Activities

If the operation was carried out under a general anaesthetic (which puts you to sleep during your operation), your co-ordination and reasoning may be affected for a short time. Avoid drinking alcohol, operating machinery or signing legal documents for at least 48 hours after any operation involving general anaesthetic.

Over time, you can gradually return to your normal activities as soon as you're able to do them without feeling any pain.

Most people are able to do light activities, such as shopping, after 1 or 2 weeks. You should also be able to return to work after 1 or 2 weeks, although you may need more time off if your job involves manual labour.

Gentle exercise, such as walking, can help the healing process, but you should avoid heavy lifting and strenuous activities for about four to six weeks.

You may find sex painful or uncomfortable at first, but it's usually fine to have sex when you feel like it.

Driving

Speak to the medical professional in charge of your care for advice about when you can drive. It's usually advisable to avoid driving until you're able to perform an emergency stop without feeling any pain or discomfort (you can practice this without starting your car).

It will usually be 1 or 2 weeks before you reach this point after having laparoscopy (keyhole surgery), although it may take longer after open surgery.

It's usually recommended that you contact your car insurance company before starting driving again.

