

WHAT IS A HERNIA?

A hernia is a lump that results from a part of the intestine (*bowel*) or fatty tissue slipping through a weakness in the abdominal wall. The most common hernias are **inguinal hernias** (*groin hernias*). They are most often found in men.

WHAT ARE THE SYMPTOMS?

The most common symptom of a hernia is a lump in the groin. Sometimes the lump is painful, but a small hernia may not even be noticed and may only be found as part of a routine examination. The lump often disappears when the patient is lying down, and may not be obvious after a night's sleep.

However, a hernia can be dangerous if it gets trapped and twisted in the weak spot in the abdominal wall and becomes tender. This is known as a **strangulated hernia**. If the intestinal loop is damaged, its contents can leak out. Gangrene and peritonitis, which can be life-threatening, may occur as a result. Strangulation is an emergency requiring urgent surgery.

HOW IS IT DIAGNOSED?

A hernia is usually diagnosed through a simple physical examination. Sometimes your family doctor or specialist will arrange an ultrasound examination of the groin in conjunction with this physical examination.

WHAT IS AN INGUINAL HERNIA?

There are two types of inguinal hernia:

- **Indirect inguinal hernia**, which is common in children – they may be present at birth – as well as young people and adults. They are mostly seen in males but can also occur in females.
- **Direct inguinal hernia**, which mostly afflicts adults, especially middle-aged and elderly men.

Indirect inguinal hernias

An indirect inguinal hernia is located in the inguinal canal. In males, this is the location of the spermatic cord.

- Typically, the hernia is discovered when it descends down towards the scrotum.
- The hernia may be present at birth.
- The treatment for this type of hernia is surgical repair. Although this can be performed immediately after birth, some surgeons prefer to wait until the child has reached the age of two before operating.



Direct inguinal hernias

This type of hernia usually appears later in life.

- It is often found on both sides.
- Obesity and hard physical work can contribute to its development.
- Cigarette smoking, chronic constipation, prostate disease and chronic coughing can also contribute.
- It can be seen and felt towards the middle of the **inguinal ligament** (*groin*).
- Surgery is again the standard treatment for this type of hernia.
- When a very elderly person has a hernia, the doctors may decide not to operate if the hernia is unlikely to cause complications.



Less Common Hernias

Femoral hernias are rare, and mostly seen in middle-aged and older women who may have given birth several times. These hernias are present lower in the groin than an inguinal hernia.

Umbilical hernias – a hernia or weakness of the umbilicus (*belly button*).

Incisional hernias – a hernia or weakness usually in a previous abdominal scar.

WHY SURGERY?

The majority of these hernias require surgical repair to alleviate symptoms and to prevent possible strangulation of the intestine. The most common form of repair is to insert an artificial mesh in the defect, sometimes under local anaesthetic. General anaesthetic is more commonly used but may be precluded by a patient's pre-existing medical problems. Trusses should only be seen as a temporary measure whilst awaiting surgical repair.

WHAT KIND OF SURGERY IS USED TO REPAIR HERNIAS?

The operation for a groin hernia is one of the commonest surgical procedures.

The standard (*open*) operation involves a 10cm incision in the groin (*or both groins if there are hernias present on both sides*), finding the hernia and patching the defect with polypropylene mesh.



In endoscopic or keyhole surgery a 1.5cm (*3/4 inch*) incision is made just below the umbilicus (*belly button*) and two further tiny incisions are placed between the umbilicus and the pubic bone. The operation is performed with long instruments inserted through these incisions. A camera inserted through one of the small incisions lets the surgeon watch the operation on a TV screen linked to the camera inside the patient.



No further incisions are required even if there are hernias in both groins. The hernia is identified and the defect repaired with mesh as in the open (*non-keyhole*) operation.

It is usually carried out under general anaesthetic.

THE PROS AND CONS OF KEYHOLE HERNIA REPAIR

There are three main advantages of keyhole surgery:

- The small incisions result in less pain and earlier return to work, especially when hernias are present on both sides.
- The positioning of the mesh on the inside of the defect is mechanically better than when placed on the outside as in the non-keyhole operation.
- By positioning the mesh on the inside of the defect, the very sensitive nerves in the inguinal canal are not damaged or irritated by the mesh as can occur in the non-keyhole operation.

For recurrent hernias, keyhole surgery is also useful. A surgeon using the open technique has to dissect through tissue that is very scarred from the first operation.

This is much more difficult than a first-time operation and can lead to increased risks of complications. If the operation is done with the keyhole technique, the hernia is approached from the inside, where the tissue has not been affected by the first operation. This makes it much easier for the surgeon, and less painful for the patient.

Possible disadvantages of keyhole surgery:

- The operation can sometimes take longer. With experienced surgeons however there is very little difference in time taken between the keyhole and non-keyhole operation.
- In the exceptionally rare situation of a complication of the mesh, such as infection or mesh rejection, the mesh is more difficult to remove than when it is on the outside of the muscles as with the non-keyhole operation.
- Cost: Because the surgeon uses some disposable instruments during keyhole surgery, the cost is higher than open surgery.

SHOULD EVERYONE HAVE KEYHOLE SURGERY?

No. There are a number of reasons why an individual may be better off with the non-keyhole operation:

- Very large hernias may not be suitable for keyhole repair.
- Patients with previous lower abdominal surgery may not be suitable.
- Patients unable to tolerate a general anaesthetic may not be suitable.
- Patients who do not have a need for quick recovery may prefer the non-keyhole operation.

CAN THE HERNIA COME BACK?

Recurrence rates for modern hernia repairs (keyhole or non-keyhole) are very low, around 1-2%. The keyhole operation for inguinal hernia also prevents the future development of a femoral hernia. There is no evidence linking recurrence of a mesh hernia repair with physical activity either immediately after the operation or later.

AFTER THE OPERATION

Take your painkillers (4 to 6 hourly) for the first 2 days. The painkillers are very effective, but may make you constipated, so take plenty of water and fruit etc to keep your stools soft.

1. After the first couple of days you will be able to cut down on the use of the painkillers, using the medication only as needed.
2. Take it easy for the first 2 to 3 days. You can move around the house etc but do not do any heavy lifting/ carrying shopping/digging the garden etc.
3. You will find that you are quite comfortable at rest in one position but that changing position from sitting to standing to lying down may be uncomfortable.
4. After a week you should find you are fairly comfortable doing most of the normal day-to-day activities.
5. If the wound becomes red, very tender, hot and oozy then it may be infected. The 'danger time' for wound

infection is about 5 to 7 days after the operation. Should this happen you should contact your GP or specialist immediately to get some antibiotics, which will sort out the problem in the vast majority of cases.

6. The stitches are dissolvable and do not need removing. The dressing can be removed after about 7 days if you wish. Otherwise it can be left on until you see your surgeon in clinic about 2 weeks after the operation.
7. You may notice some bruising and swelling around the wound and even in the scrotum if the hernia was particularly large. This can occur sometimes. If the scrotum is swollen then wearing a pair of tight Y fronts is usually helpful.
8. One week after keyhole repair and 2 weeks after open repair you should be able to drive a car.
9. Arrange a suitable time for a follow up visit about 2 weeks after the operation.

WHEN WILL I BE BACK TO NORMAL?

After Keyhole Surgery

From the time you awake from the anaesthetic the repaired hernia is already stronger than a normal groin! Naturally you will be a little tender for the first few days but after a week or two there is no need to limit your activities, other than common sense regarding any discomfort from the tiny wounds.

After Open Surgery

Like the keyhole option, the repaired hernia is already stronger than a normal groin, but you will find it takes longer to return to normal activities and will need to take it easy for at least 2 to 3 weeks.

DO I HAVE A CHOICE OF HOSPITAL?

Yes, you can choose to go to Southern Cross Hospital, St George's Hospital, or The Oxford Clinic in Christchurch.

COSTS

Costs vary depending on your health insurance. If you have no private insurance the cost to you will be higher.

Charges incurred are for the surgery (*including consultation prior to your operation*), an anaesthetist, the hospital and items used during your hospital stay. You are welcome to ask for an estimate of the costs for your treatment.

Occasionally patients require additional medical care and may incur charges for pathology, radiology and other specialists.

Please check your health insurance policy as to what it will provide for you and ensure that your insurance is up to date.

If your hernia has occurred as the result of an accident, ACC will either fully fund or partly fund the operation, depending on the circumstances. Feel free to ask if you qualify.

Major credit cards are accepted for both hospital and surgical costs.

**THE HERNIA
CLINIC**

The Hernia Clinic

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INFORMATION ABOUT HERNIA REPAIR BY KEYHOLE OR OPEN SURGERY

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