



### What is an inguinal hernia?

An inguinal hernia is a bulge or lump you can either see or feel in the groin. The hernia is caused by a weakness in the abdominal wall and typically contains fat, bowel, or both.

### Hernia anatomy

Inguinal hernias can be either direct or indirect.

**Indirect hernia:** During development, the testicles pass from the abdomen into the scrotum through a gap in the abdomen. Typically, this gap closes soon after birth. If the gap remains, a hernia may form.

**Direct hernia:** A hernia passes through a weakness in the muscles of the abdominal wall. This may occur following activities that increase abdominal pressure such as straining or when lifting heavy objects.

### What are the signs and symptoms?

Hernias may be asymptomatic (without any symptoms) or cause pain. The hernia is typically reducible and will disappear when you lie down. Occasionally, the hernia is stuck and unable to reduce despite lying down or even with manual pressure. This is called incarceration; patients with this problem will have severe pain and will need to present to the emergency department for surgical assessment. Rarely, if the hernia contains bowel this may result in a bowel obstruction. Patients with a bowel obstruction present with nausea, vomiting and constipation. This is a surgical emergency and is life-threatening.

### What tests are required?

None usually, as the diagnosis remains clinical. In select circumstances, an ultrasound may be useful.

### What are the options of management?

Conservative or surgical. A conservative approach avoids surgery. This option is preferable for elderly, frail patients with

multiple medical problems or patients with a reducible hernia causing minimal symptoms. However, there is a small risk of incarceration present, and most patients will require surgery in the long-term.

Hernias can be repaired laparoscopically (keyhole) or by the open approach. Ultimately, the choice of approach will depend on patient circumstances, and you should discuss these options further with your surgeon. An open procedure is performed through an incision 4-5cm in the groin whilst laparoscopic surgery is performed through three small incisions, the largest of which is 1 centimetre in length. Laparoscopic surgery requires a general anaesthetic whereas an open procedure can be performed under a local anaesthetic, spinal anaesthetic, or a general anaesthetic.

### What are the possible complications?

The most common complication is urinary retention, which is the inability to pass urine. This is more common in men who have pre-existing problems passing urine and may result in a catheter being placed temporarily. Other more common complications include bleeding and seromas. These are fluid collections in the space where the hernia was, they typically resolve with time but occasionally may require additional procedures.

Other complications include

- Infection of the wound or mesh. Managed with antibiotics. Surgery may rarely be required to remove the mesh if the infection is persistent.
- Chronic testicular or groin pain. This is a challenging situation and patients with this complication are managed in partnership with pain specialists.
- Damage to the tube passing from the testicle which reduces the ability to produce sperm.
- Major vessel or bowel injury. This is more common in laparoscopic

surgery and may result in a more complex operation being required.

If the procedure is performed laparoscopically, there is always the risk of needing to convert the operation to an open procedure to allow the procedure to be completed safely.

Finally, there is always the risk the hernia may come back. This is fortunately uncommon.

### What to expect following your procedure?

Both procedures typically require an overnight admission. You will wake from anaesthesia with dressings over dissolvable sutures. It is normal to experience some pain from the procedure which is easily managed with painkillers. You will be encouraged to ambulate after surgery and will be discharged from hospital if you are tolerating a diet, able to pass urine, your pain is controlled with painkillers, and you are ambulating independently.

The laparoscopic dressings should remain intact for 4 days. The dressing is waterproof to splashes only. After 4 days, remove them yourself. If you are concerned, see your general practitioner. The dressing for the open procedure should be left intact for one week, this dressing is also waterproof to splashes. Once removed, see your GP if you have any concerns.

Gentle exercises are encouraged. Avoid heavy lifting for 2-4 weeks. You may drive if you are able to put your foot on the brake in an emergency or have ceased taking any painkillers. Usually this occurs after 1-2 weeks.

Post-operative follow-up usually occurs in two weeks and will be arranged on discharge with your surgeon.