

### What are ventral hernias?

A hernia is a bulge or lump passing through a weakness in the abdominal wall. Ventral hernias include umbilical (belly button), epigastric or incisional hernias.

### Anatomy

The umbilicus is located typically in the centre of the abdominal wall. Hernias that form here are usually acquired as an adult or uncommonly congenital and occur in childhood. These hernias usually contain fat from inside the abdomen. Occasionally they contain both fat and bowel.

Epigastric hernias are a bulge or lump passing through a weakness in the abdomen above the umbilicus in the midline.

Incisional hernias are hernias that form after surgery through a weakness created in the abdominal wall.

### What are the symptoms?

Some patients are unaware of these hernias. Symptoms that some patients experience from their hernias is a painful lump. The lump may be reducible and can be pushed back in, particularly when lying down. Rarely, the hernia may become suddenly painful and the patient unable to reduce the hernia. This occurrence is known as incarceration and patients should present for medical attention if this occurs. 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?

Usually, unnecessary as the diagnosis is clinical. On occasions, imaging such as a

CT may be performed prior to surgery for complex incisional hernias to assist with operative planning.

### 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. A conservative approach may also be adopted initially for patients who are overweight and weight loss measures supported due to the higher risk of complications from surgery and recurrence.

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. The incision for the open approach is tailored to the size of the hernia. Alternatively, a laparoscopic repair is performed through multiple small incisions, the largest measuring 1 cm in length. Both open and laparoscopic repairs are typically performed under a general anaesthetic.

### What are the possible complications?

- Infection: If superficial it may be managed with antibiotics or dressings. If there are concerns regarding the possibility of a mesh infection this may require additional surgery and its removal.
- Bleeding: Major bleeding requiring a transfusion or a return to theatre is uncommon for epigastric and umbilical hernia repair. More common in large incisional hernias.
- Seromas are a collection of fluid in the previous hernia space. If

asymptomatic these are managed conservatively.

- Chronic pain
- Recurrence: the risk is low for all hernia repairs other than incisional hernias.

### What to expect following your procedure?

All 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. Occasionally, a drain is placed which is removed within 5 days of being placed or when the output is minimal. 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.