

## Abdominal Hernias

**A hernia is a defect in the abdominal wall that allows intra-abdominal organs to protrude through. The word hernia means 'something coming through'.**

### What causes hernias?

The abdominal wall is a sheet of tough muscle and tendon that runs down from the ribs to the upper legs at the groins and acts as the body's corset. The function of the abdominal wall includes holding in the abdominal contents, mainly the intestines. However, if a weakness occurs in that wall, the corset effect is lost causing organs to push through the opening. The resulting bulge, which is often quite visible against the skin, is the hernia.

### Types of hernia

Most hernias are abdominal hernias and these will be the focus of this CMScript. These hernias occur in the tummy and the groin areas as shown on the diagram on the left.

#### Ventral/ Incisional hernias

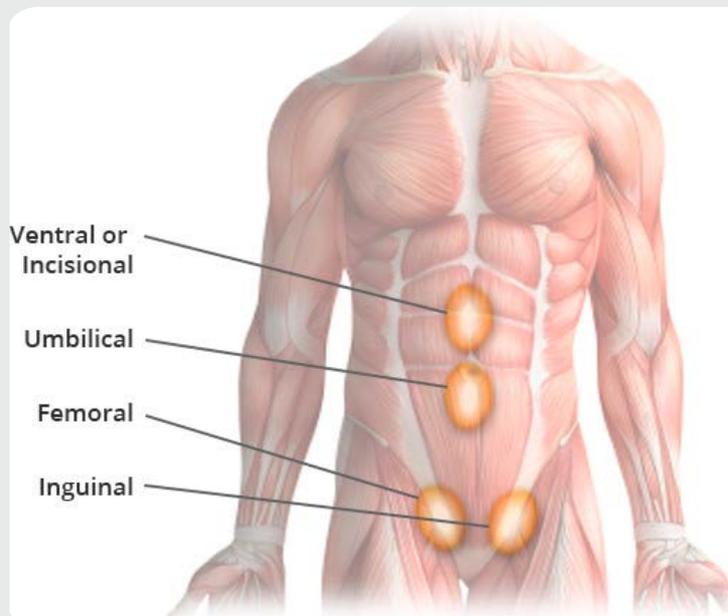
These may occur after an abdominal surgery as the intestines push through the incision scar or the surrounding, weakened tissue.

#### Umbilical hernias

The umbilical area (navel or belly button) is an area of natural weakness prone to hernia. Umbilical hernias occur when fatty tissue or a part of the bowel pokes through the abdomen near the belly button. This type of hernia can occur in babies if the opening in the abdomen, through which the umbilical cord passes, does not seal properly after birth. Adults can also be affected, possibly as a result of repeated strain on the abdomen.

#### Groin hernias

Inguinal and femoral hernias are both groin hernias often associated with ageing and repeated strain on the abdomen. They occur when fatty tissue or a part of the bowel pokes through into the groin at the top of the inner thigh.



**Figure 1: Location of some common abdominal hernias**

In terms of the likelihood of developing these hernias, inguinal hernia is the most common type and affects mainly men. Femoral hernias are less common than inguinal hernias and tend to affect women more than men.

There are other types of hernia that can affect the abdomen namely: epigastric hernias (fatty tissue protrudes through the abdominal area between the navel and lower part of the breastbone); spigelian hernias (the intestines push through the abdomen at the side of the abdominal muscle, below the navel); diaphragmatic hernias (organs in the abdomen move into the chest through an opening in the diaphragm) and muscle hernias (part of a muscle pokes through the abdomen; they also occur in leg muscles as the result of a sports injury).

## Signs and symptoms of hernias

In many cases, a hernia causes a range of symptoms. It may be a painless lump or even a severely painful tender, swelling, and visible tissue protrusion that cannot be pushed back.

If a patient has a hernia, it is advisable to see a health care practitioner immediately if any of the following symptoms develop:

- Sudden, severe pain especially when bending over, coughing, or lifting heavy objects,
- Nausea and/ or vomiting,
- Difficulty passing stools (constipation) or wind,
- The hernia becomes firm or painful, or cannot be pushed back in.

These symptoms may indicate that either the blood supply to a section of an organ or tissue trapped in the hernia has become cut off (strangulation), or a piece of bowel has entered the hernia and blocked the blood flow (obstruction). Strangulated hernia and obstructed bowel are medical emergencies and need to be treated as soon as possible.

## What causes a hernia?

Most hernias may seem to not have an apparent cause while others are caused by a combination of muscle weakness and strain. Depending on the cause, a hernia can develop quickly or over a long period of time.

Common causes of muscle weakness include:

- failure of the abdominal wall to close properly in the womb, which is a congenital defect
- age
- chronic coughing
- damage from injury or surgery

## Other factors

There are other factors that strain the body and may cause a hernia, especially if the muscles are weak, include:

- pregnancy, which puts pressure on the abdomen
- constipation, which causes strain when having a bowel movement
- lifting heavy weight
- fluid in the abdomen
- sudden weight gain
- surgery in the abdomen
- persistent coughing or sneezing

## How is a hernia diagnosed?

History and physical examination remain the best means of diagnosing hernias. The doctor may feel for a bulge in the abdomen or groin that gets larger when standing, coughing or straining. Physical examination can however be difficult, especially in patients with obesity, pain or abdominal wall scarring. In these cases, additional examinations may be required to make the correct diagnosis and to confirm suspected complications of hernias. Some of the investigations that can be done to confirm a hernia in adults are:

- Ultrasound scan (USS) of abdomen
- Computed tomography (CT) scan of abdomen
- X-ray of abdomen

The doctor may also request some laboratory tests which include a blood gas, a full blood count and an analysis of the urea and electrolytes to assess kidney function. In patients below 18 years, who present with uncomplicated hernias no investigations are done to confirm the diagnosis.

## Treatment

Treatment for hernias is depends on the size and the severity of symptoms.

If the hernia is growing larger or causing pain, the doctor may decide to operate to relieve discomfort and prevent serious complications. During the operation, the doctor will reinforce the weakened abdominal wall tissue and repair any openings. The most common hernia repair techniques are standard open hernia repair and minimal-

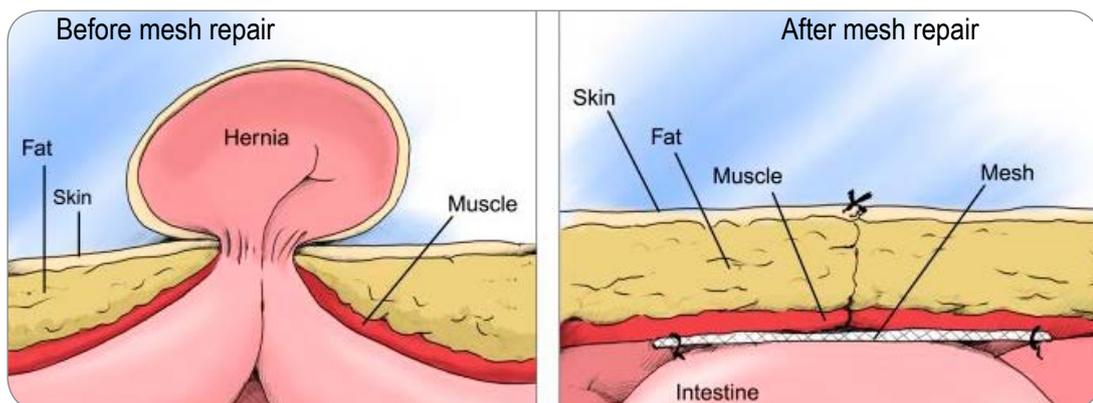


Figure 2: Hernia before and after mesh repair

ly-invasive laparoscopic hernia repairs, both using mesh implants. The diagram below illustrates a hernia before and after mesh repair.

### **What is covered as PMB level of care?**

The diagnosis, treatment and care of life threatening hernias are PMB level of care. Since there is no evidence for the need of any investigations in an uncomplicated hernia in patients below 18 years, the doctor has to provide a motivation should any diagnostic investigations be required.

### **Are all hernias PMB level of care?**

Not all hernias in adults are PMB level of care. Uncomplicated hernias in adults are not PMB level of care. Complicated hernias are a life-threatening emergency, irrespective of age and the management thereof constitutes PMB level of care. Emergency hernia repair indications for surgery are bowel obstruction, strangulation and perforation.

In patients who are below the age of 18 years, all hernias are PMB level of care even, if there is no obstruction and or gangrene observed.

### **Are meshes used for surgical repair PMB level of care?**

Not all mesh types will be covered as PMB level of care. Some meshes might require the surgeon's motivation. Others may be totally excluded from funding. It is important to find out if the type of mesh used will be paid in full by the medical scheme.

### **Is both open and laparoscopic hernia repair PMB level of care?**

Both open and laparoscopic hernia repairs are PMB level of care. However, a guideline was published by the Council for Medical Schemes (CMS) recommending some surgical equipment for laparoscopic procedures which should be covered as PMB level of care. If the surgeon uses equipment which is not within the medical scheme recommended basket, the medical scheme will not be obliged to pay for the cost of those items in full. It therefore remains the responsibility of the surgeon to ensure that the equipment used for surgical procedures will be covered in full.

### **References**

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### **WHAT ARE PRESCRIBED MINIMUM BENEFITS?**

Prescribed Minimum Benefits (PMBs) are defined by law. They are the minimum level of diagnosis, treatment, and care that your medical scheme must cover. The scheme must pay for your PMB condition/s from its risk pool, and in full. There are medical interventions available over and above those prescribed for PMB conditions, but your scheme may choose not to pay for them. A designated service provider (DSP) is your scheme's healthcare provider (e.g. doctor, pharmacist, hospital) for the treatment or care for a PMB condition. If you choose to use a non-DSP voluntarily, you may have to pay a portion of the bill as a co-payment. Co-payment will not apply where a member has involuntarily used a non-DSP owing to an emergency medical condition, significant distance from a DSP, or non availability of a DSP. PMBs include 270 serious health conditions, any emergency conditions; and 25 chronic diseases. Information on these conditions can be found on the Council for Medical Schemes (CMS) [website](#).

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