

# Examination of Hernia

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A hernia is the protrusion of an organ or part of it through its containing wall

The common ones in order of frequency in adult life are:

- inguinal
- umbilical
- incisional
- femoral
- epigastric.

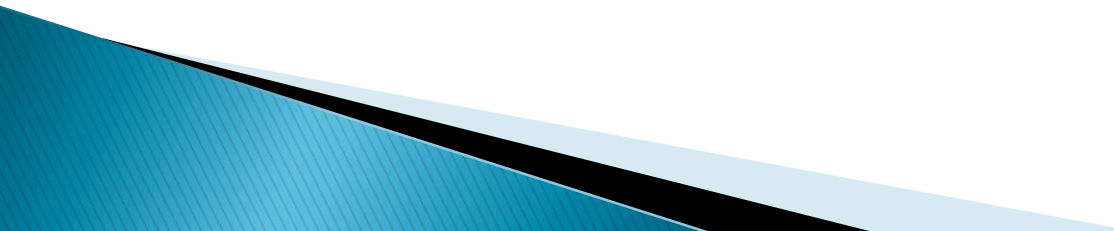
In childhood, umbilical hernia is more common than inguinal hernia.

Types of rare hernia:

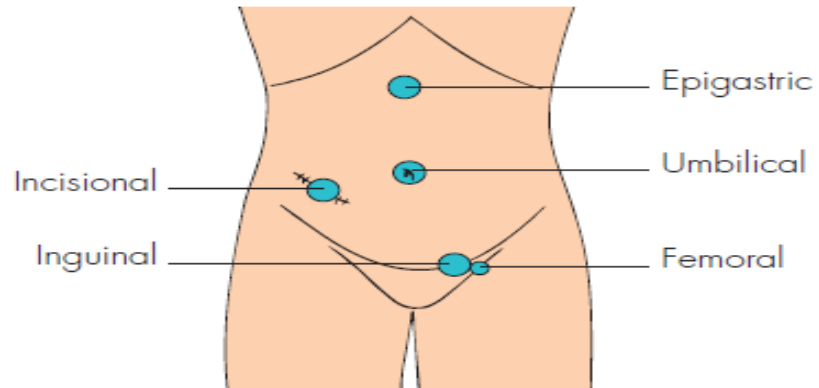
- spigelian
- obturator
- lumbar
- gluteal

Although the femoral hernia is found more often in women than in men, the commonest hernia in women is the inguinal hernia.

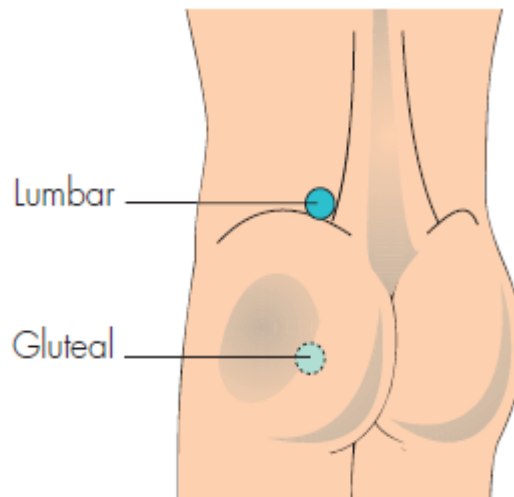
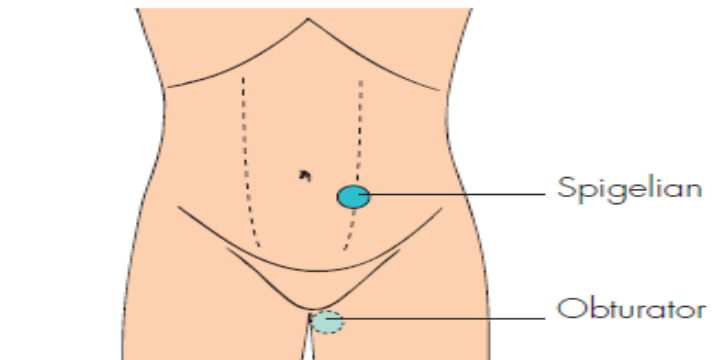
Certain physical signs are common to all herniae but are not always present:

- they occur at congenital or acquired weak spots in the abdominal wall;
  - most herniae can be reduced;
  - most herniae have an expansile cough impulse.
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### The common herniae

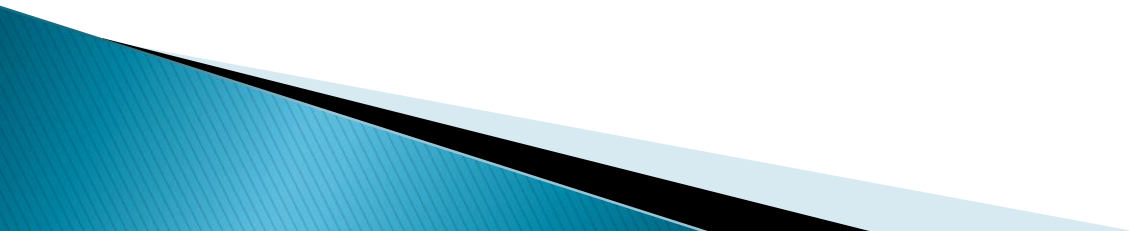


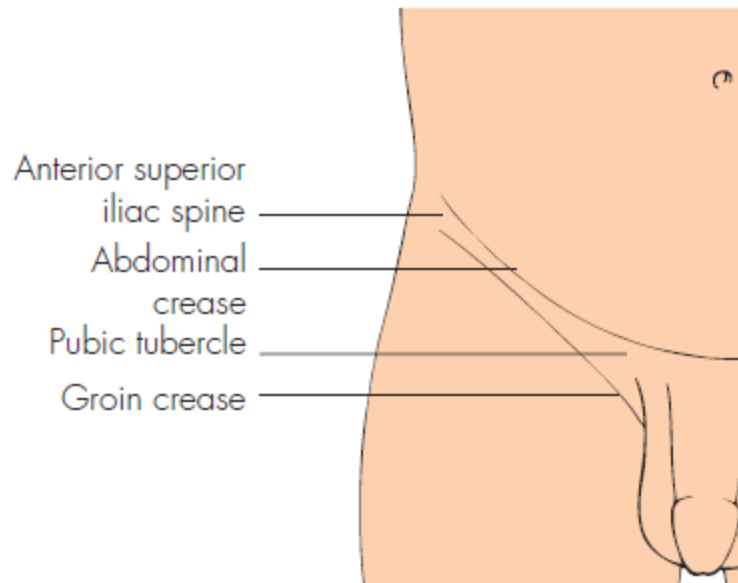
### The rare herniae



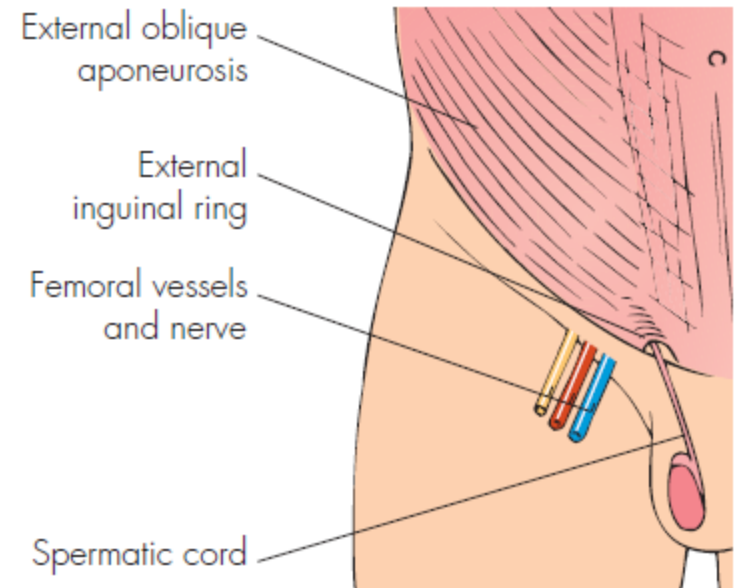
## INGUINAL HERNIA

An inguinal hernia is the protrusion of part of the contents of the abdomen through the inguinal region of the abdominal wall. To understand inguinal herniae it is necessary to understand the anatomy of the inguinal canal

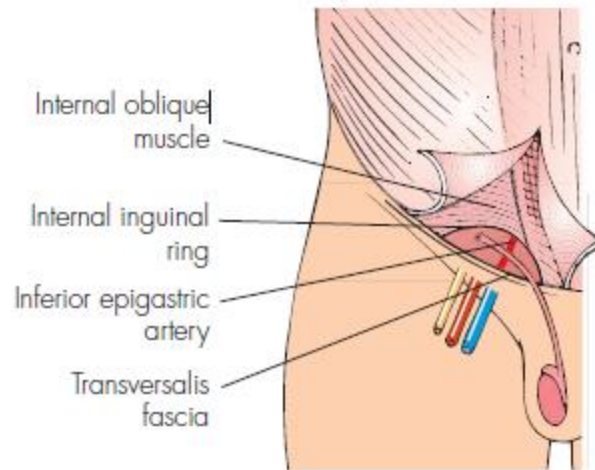




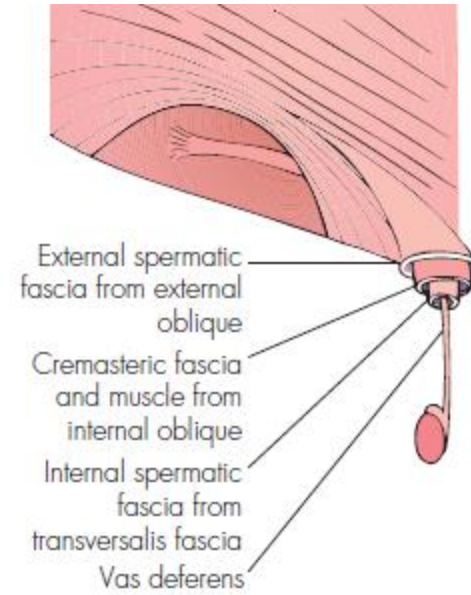
**Surface landmarks**



**The external oblique muscle**



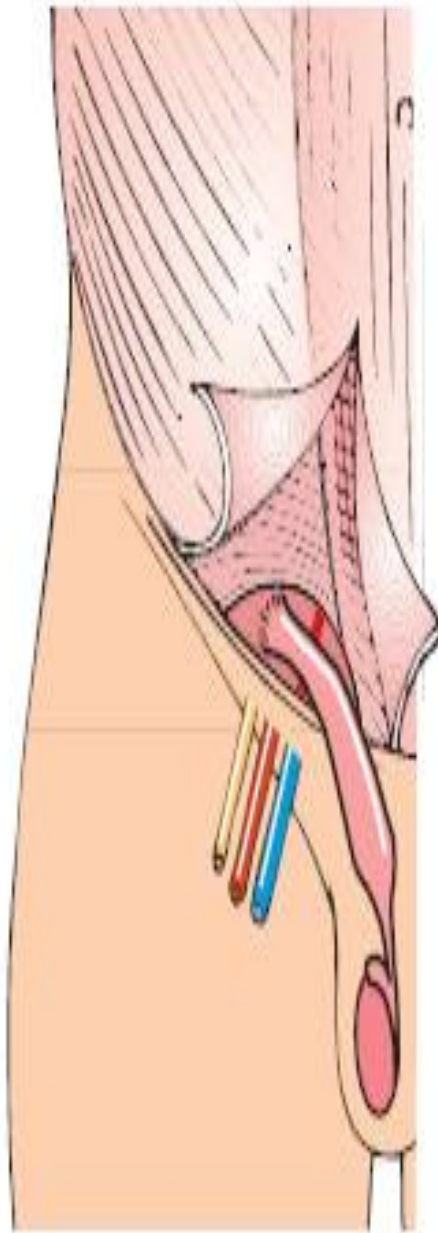
**The internal oblique muscle**



**The coverings of the spermatic cord**

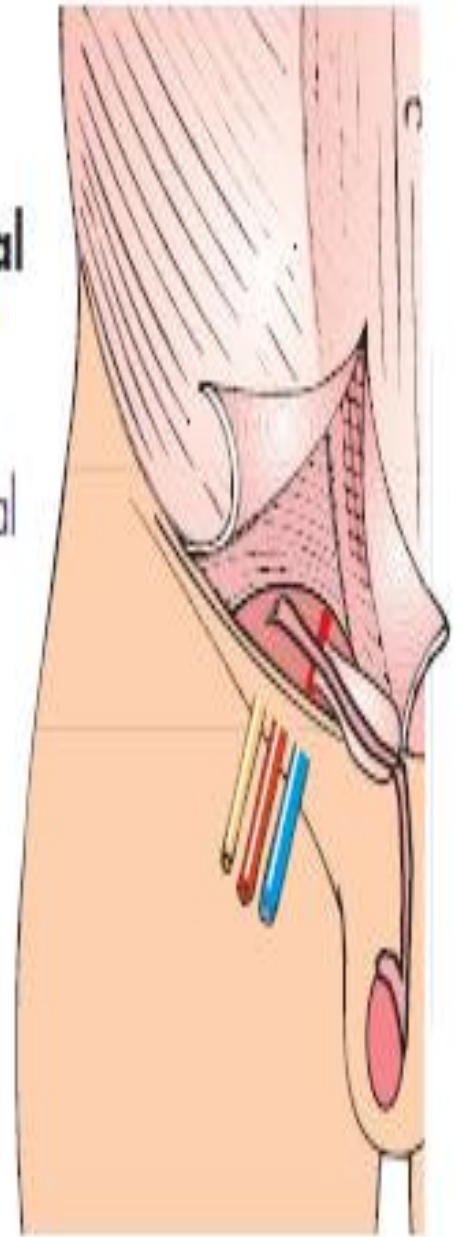
## An indirect inguinal hernia

Sac begins at the internal ring and is inside the spermatic cord



## A direct inguinal hernia

Sac appears medial to the inferior epigastric artery and is outside the spermatic cord





Ask the patient to stand up. When palpating the groin, stand at the patient's side.



The upper crease of the mons veneris indicates the crest of the pubis and the level of the pubic tubercle. Note that it is not low down in the crease of the groin.



Place your examining hand flat on the groin parallel to the inguinal ligament and your other hand on the patient's back to stop you pushing him over. You will then be able to manipulate and probably reduce the hernia with ease.

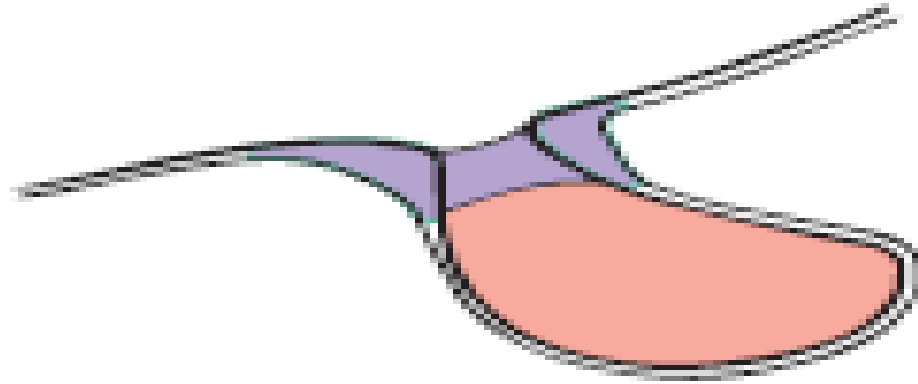


A left indirect inguinal hernia, moving obliquely down towards the scrotum



This is a right direct recurrent inguinal hernia. The original inguinal hernia probably developed because of the disruption and distortion of the abdominal wall caused by the previous abdominal operation. Always look for a scar in the groin. The bulge is coming out directly towards you.

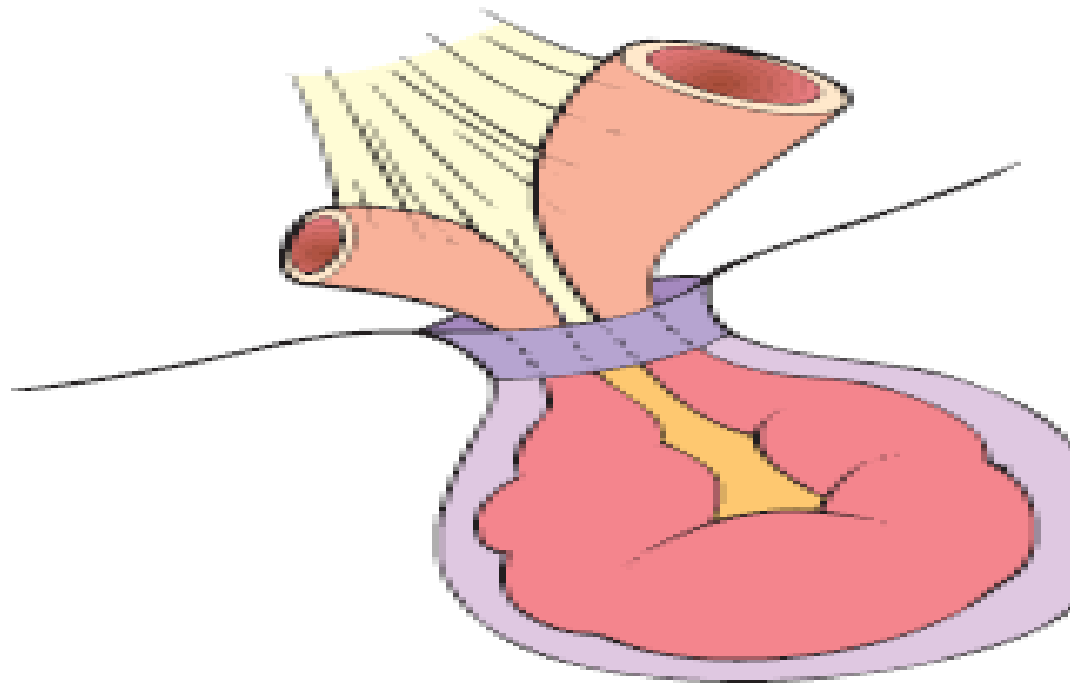




## **Neck of sac**

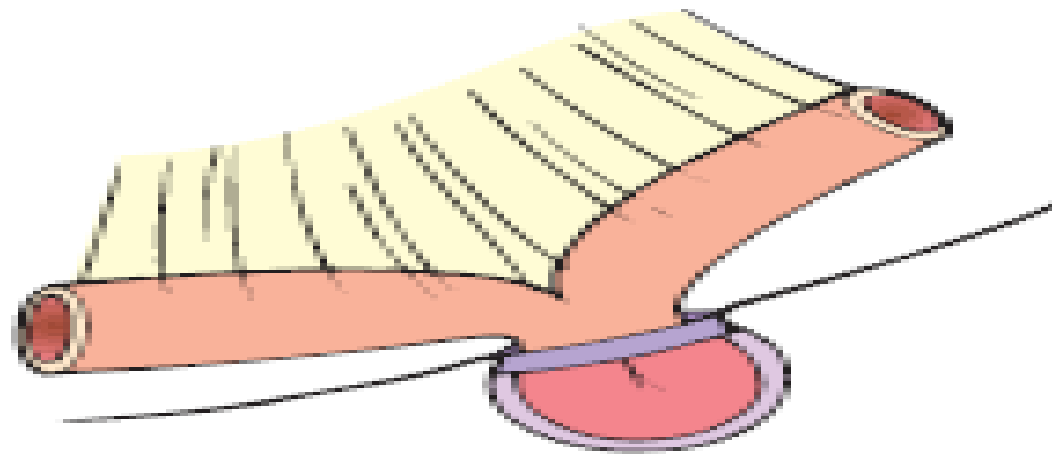
This tight ring of peritoneum is usually the site of any strangulation.

## SOME DEFINITIONS



### **A strangulated hernia**

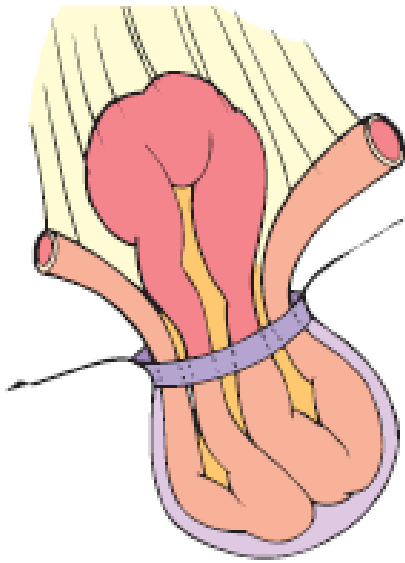
The blood supply of the contents of the hernia is cut off. When a loop of gut is strangulated there will also be intestinal obstruction.



## Richters hernia

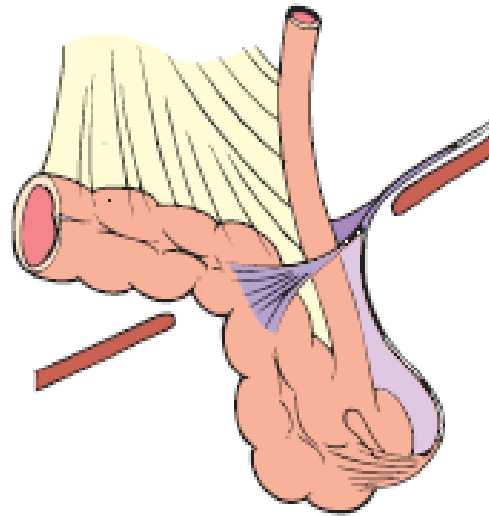
**A strangulated hernia**  
If the sac is small, a knuckle of bowel can be caught in the sac and strangled without causing intestinal obstruction. This is called a *Richter's hernia*.





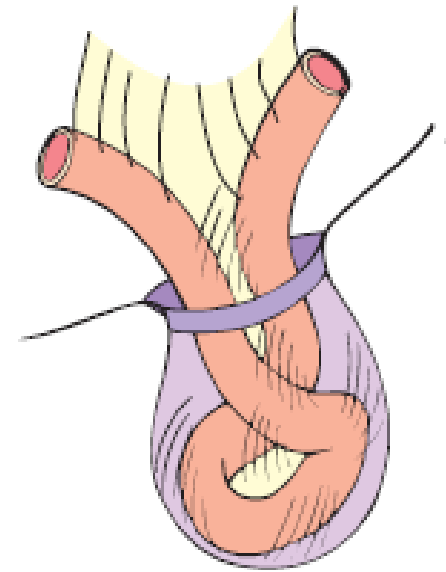
### Maydl's hernia

When two adjacent loops of bowel are in the sac, the intervening portion in the abdomen is the first to suffer if the neck of the sac is tight, because it is the centre of the whole loop involved. Thus the strangulated piece is intra-abdominal. This is a rare variety of strangulation.



### Sliding hernia

If bowel which is normally extraperitoneal forms one side of the sac, it is thought to have slid down the canal pulling peritoneum with it, hence the name *hernia-en-glissade*. The sac can contain other loops of bowel, and the gut forming the wall of the sac can be strangulated by the external ring.

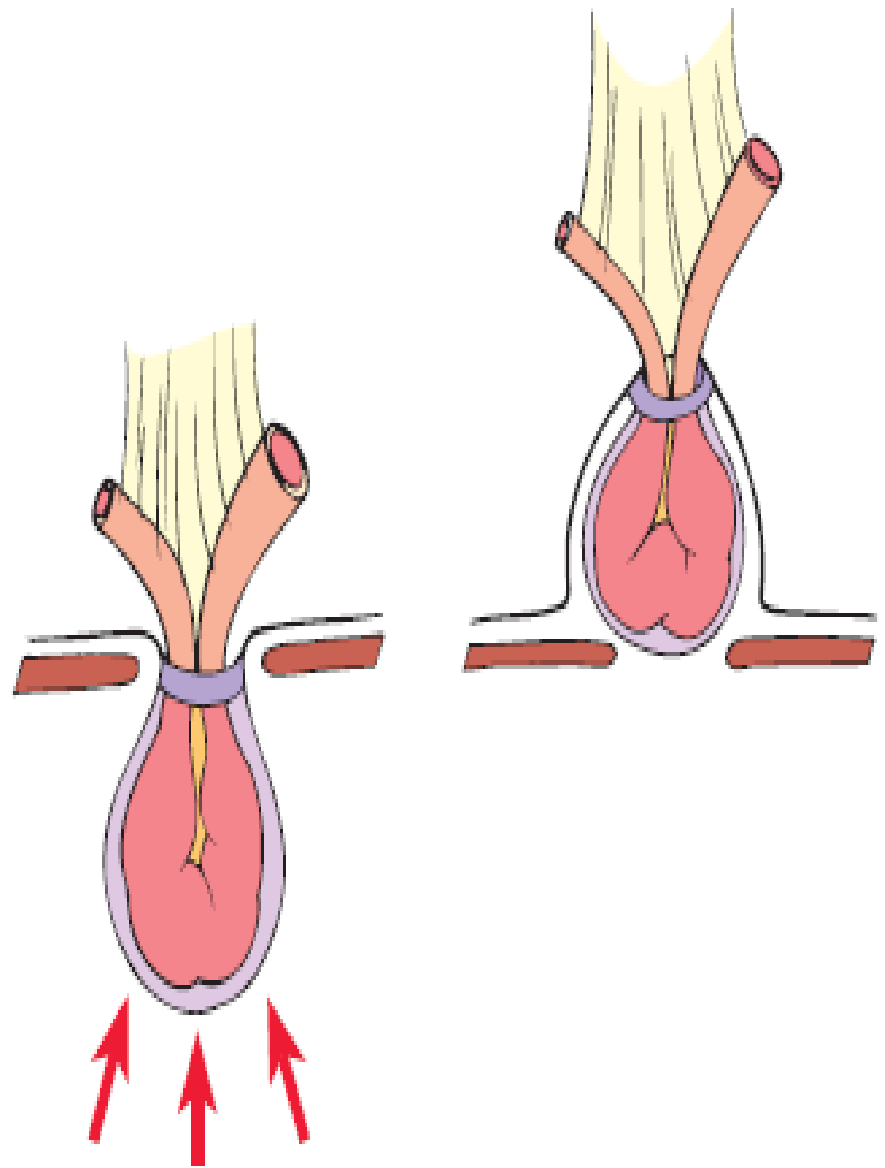


### Incarceration

The contents are fixed in the sac because of their size and adhesions. The hernia is irreducible but the bowel is not strangulated or obstructed.

## Reduction-en-masse

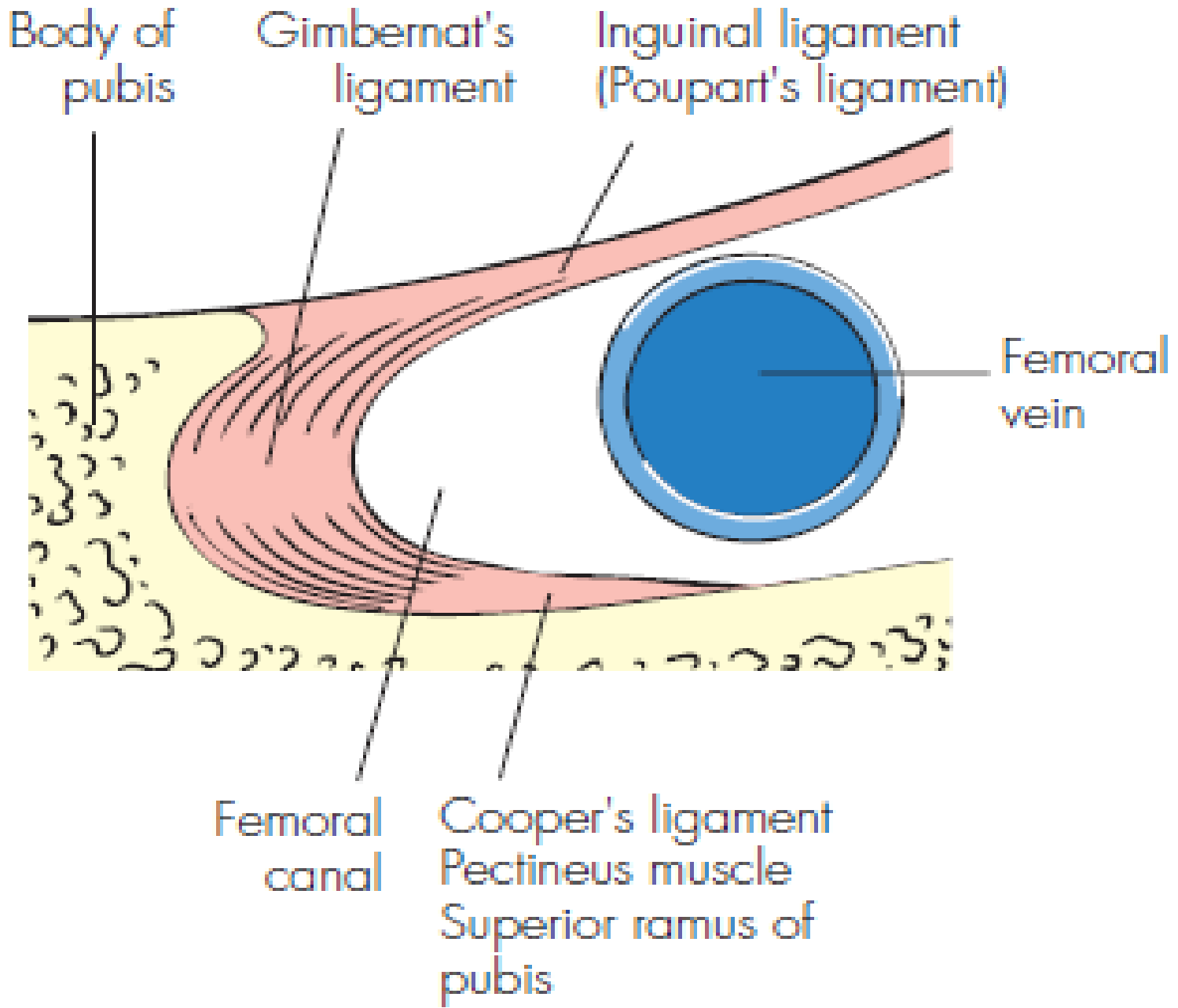
It is possible to push a hernia back through the abdominal wall, so apparently reducing it, without actually pushing the contents out of the sac. If they were strangulated in the first position they will still be strangulated in the second. Never push hard when trying to reduce a hernia.





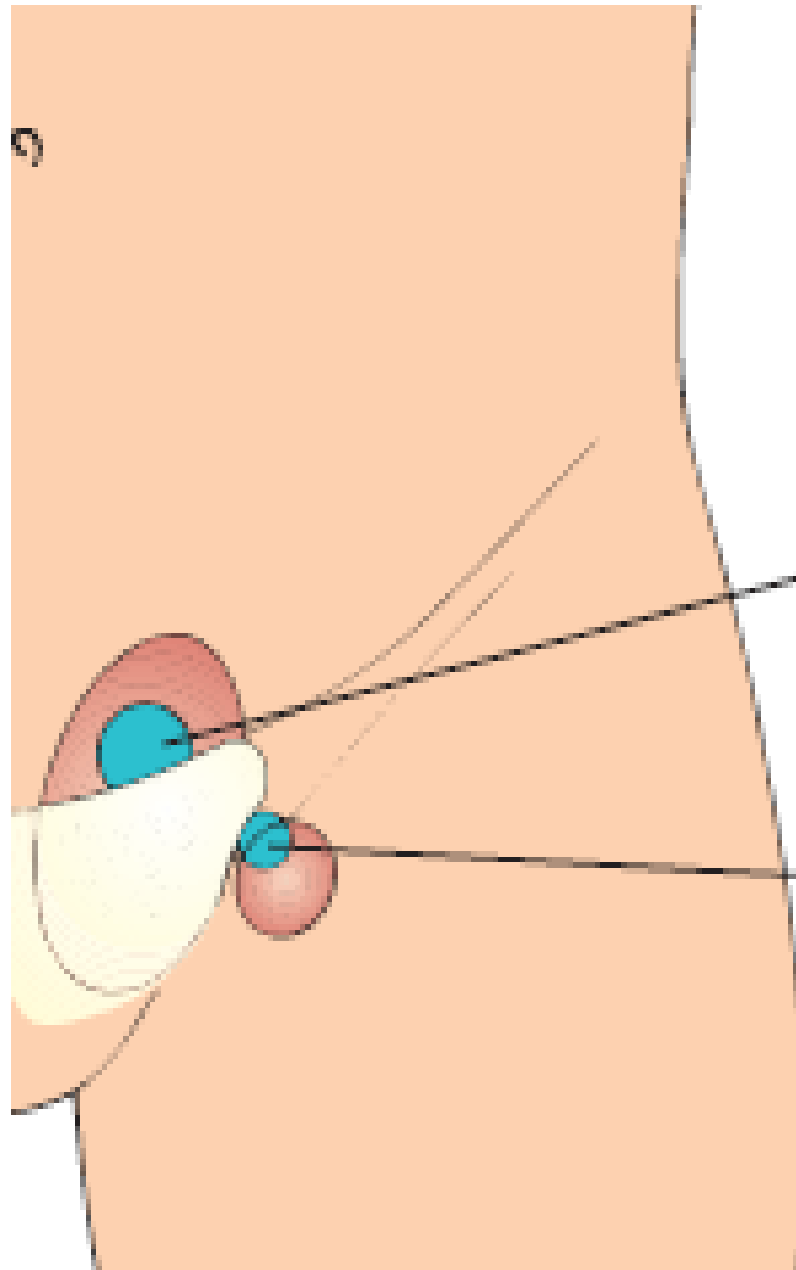
A right encysted hydrocele of the cord. It is clearly separate from the testicle. You can get above it and there is no cough impulse in the swelling or in the groin above it





A larger femoral hernia, in an elderly woman, with a wide neck stretching laterally over the femoral vein.





## **Inguinal herniae**

Appear through the external inguinal ring, above and medial to the pubic tubercle

## **Femoral herniae**

Appear through the femoral canal below and lateral to the pubic tubercle

# The differential diagnosis of inguinal hernia

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Femoral hernia

Vaginal hydrocele

Hydrocele of the cord or the canal of Nuck

Undescended testis

Lipoma of the cord



# The differential diagnosis of femoral hernia

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Inguinal hernia

Enlarged lymph gland

Sapheno-varix

Ectopic testis

Psoas abscess

Psoas bursa

Lipoma

# The differential diagnosis of a lump in the groin

Inguinal hernia

Femoral hernia

Enlarged lymph glands

Sapheno-varix

Ectopic testis

Femoral aneurysm

Hydrocele of the cord or hydrocele of the canal of Nuck

Lipoma of the cord

Psoas bursa

Psoas abscess

**GOOD LUCK**

