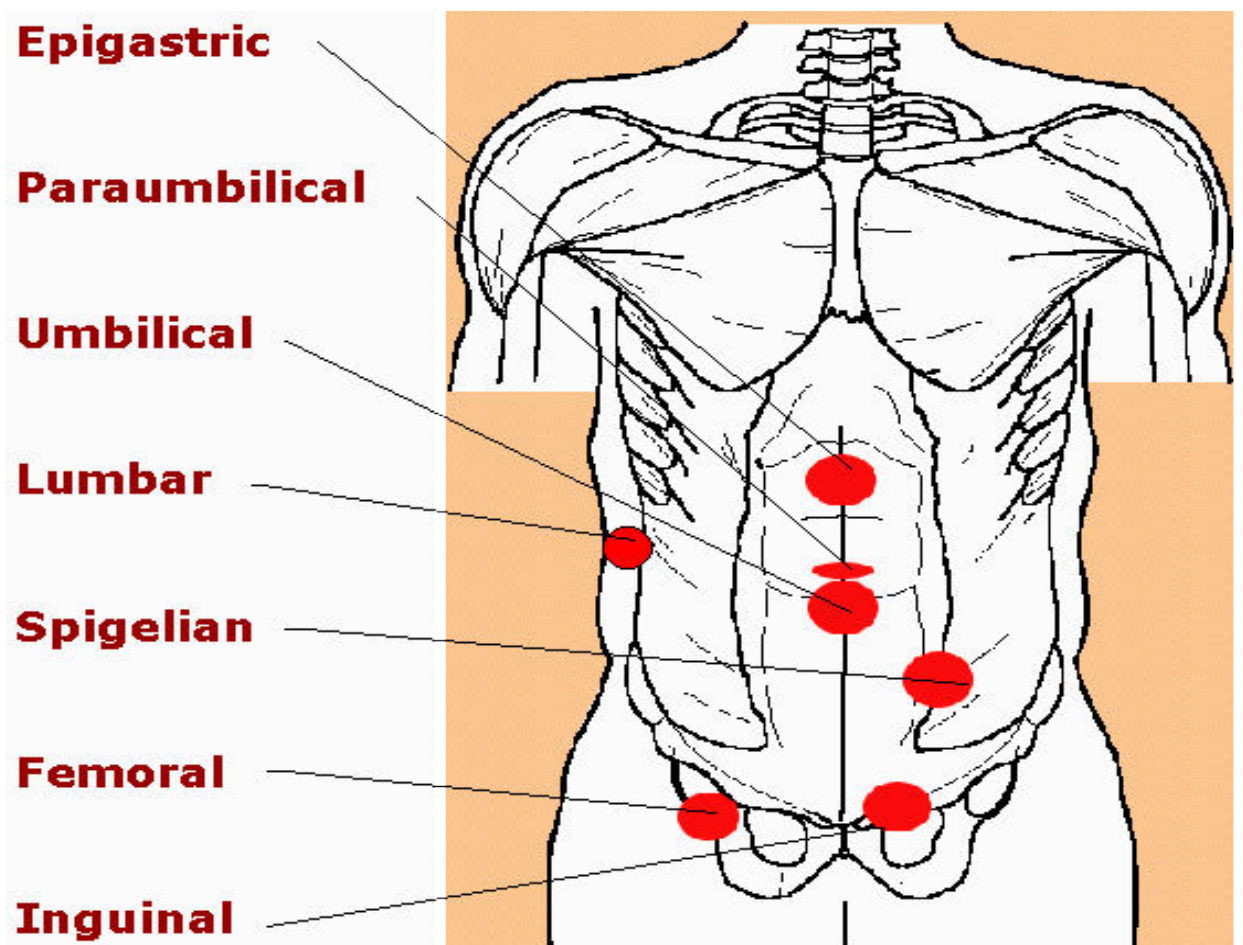


Hernia - Femoral hernia, Epigastric hernia, Paraumbilical hernia, Incisional hernia

Types of Abdominal Hernia

- Epigastric
- paraumbilical
- Umbilical
- lumbar
- Spigelian
- femoral
- inguinal



The Basic Feature Of All Hernias

- Occur at a weak spot .
- Reduce on lying down ,or with direct pressure.
- Have an expansile cough impulse

A hernia consist of 3 parts:

1.Sac:

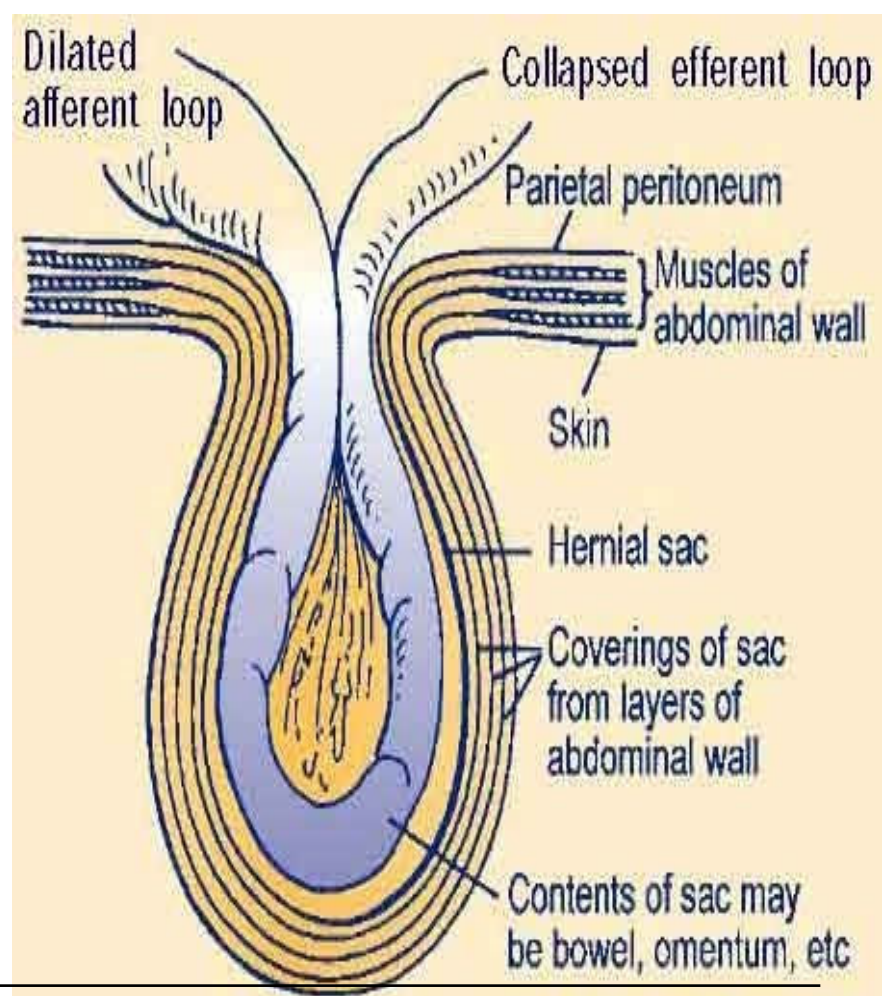
consist of a diverticulum of peritoneum.

2.Contents:

Omentum, small or large intestine, urinary bladder, Omentum, ovaries malignant nodules or ascetic fluid.

3.Coverings:

derived from the layers of abdominal wall.



Complications Of Hernias

- **Irreducible**

the hernia contents cannot be manipulated back into the abdominal cavity.

- **Incarcerated**

the contents of the sac are literally imprisoned in the sac of Hernia.

- **Obstruction**

the loop of the bowel become non functioning with normal blood supply .

- **Strangulated**

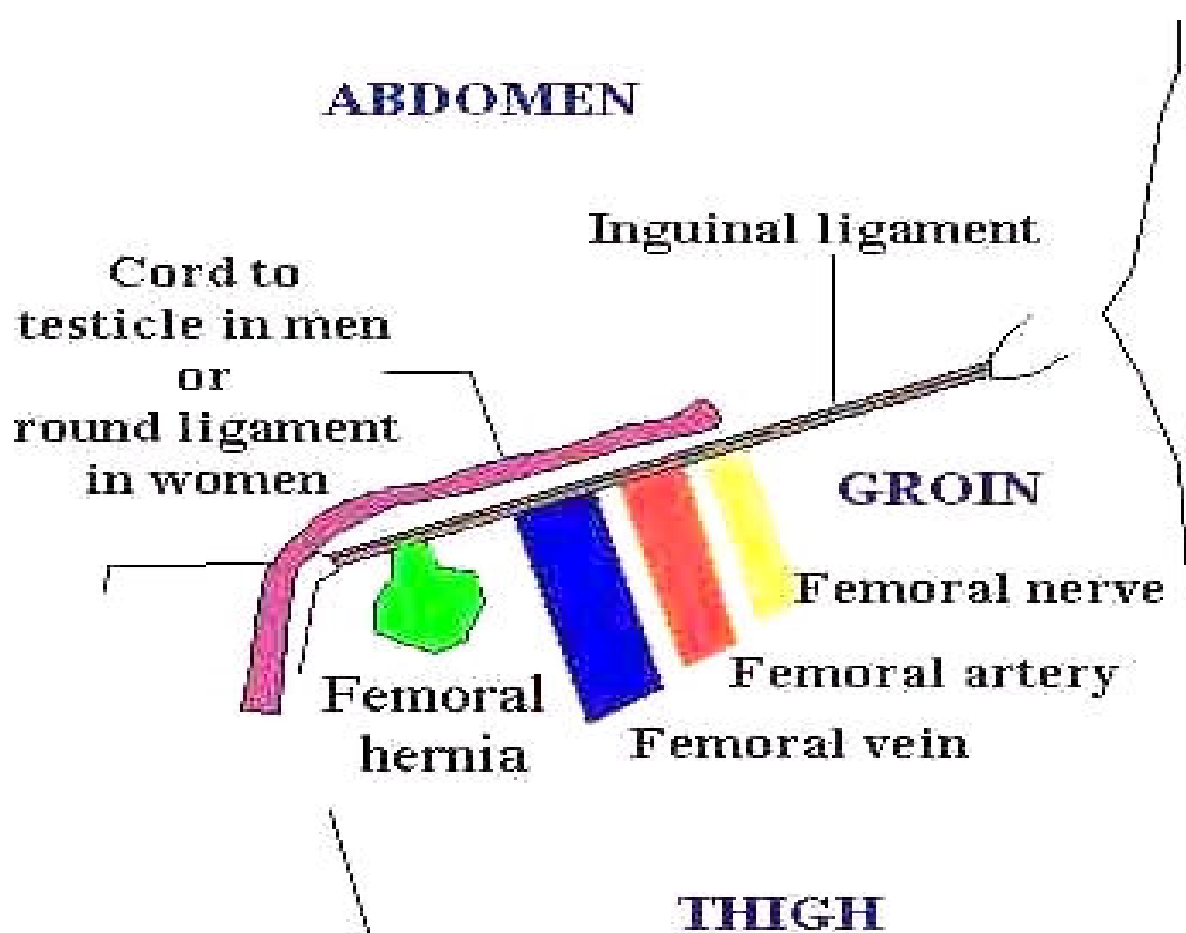
cut off the blood supply to the content sac (tender).

Femoral Hernia

Femoral Canal

- The major feature of the femoral canal is the femoral sheath.
- This sheath is a condensation of the deep fascia (fascia lata) of the thigh and contains, from lateral to medial, the femoral artery, femoral vein, and femoral canal.
- The femoral canal is a space medial to the vein that allows for venous expansion and contains a lymph node (node of Cloquet).
- Other features of the femoral triangle include the femoral nerve, which lies lateral to the sheath

Femoral Hernia



Femoral hernia

- Age: uncommon in children , most common in old age female .
- Sex: women > men (but still commonest hernia in women the inguinal hernia)
- Discomfort and pain
- Swelling in the groin
- Femoral hernia is more likely to be strangulated than the inguinal hernia
- Narrow neck➡ High risk for strangulation
- Multiplicity: often bilateral

Femoral hernia versus inguinal hernia

Inguinal hernia	Femoral hernia
1- more common in male	1- more common in females
2- pass through the inguinal canal	2- pass through the femoral canal
3- neck of the sac is above and medial the pubic tubercle	3- neck of the sac is below and lateral the pubic tubercle
4- less common to be strangulated	4- more common to be strangulated
5- can be treated without surgery	5- must be treated surgically
6- the two diagnostic signs of hernia +	6- the two diagnostic signs of hernia -
7- the sac mainly contain ; bowel	7- the sac mainly contains ; omentum

Femoral hernia repair

Femoral hernias should be repaired very soon after the diagnosis has been made because of the high risk of strangulation

There is no place for a truss for a femoral hernia

Different approaches :

Open VS Laparoscopic

Open surgery

Three approaches have been described for open surgery :

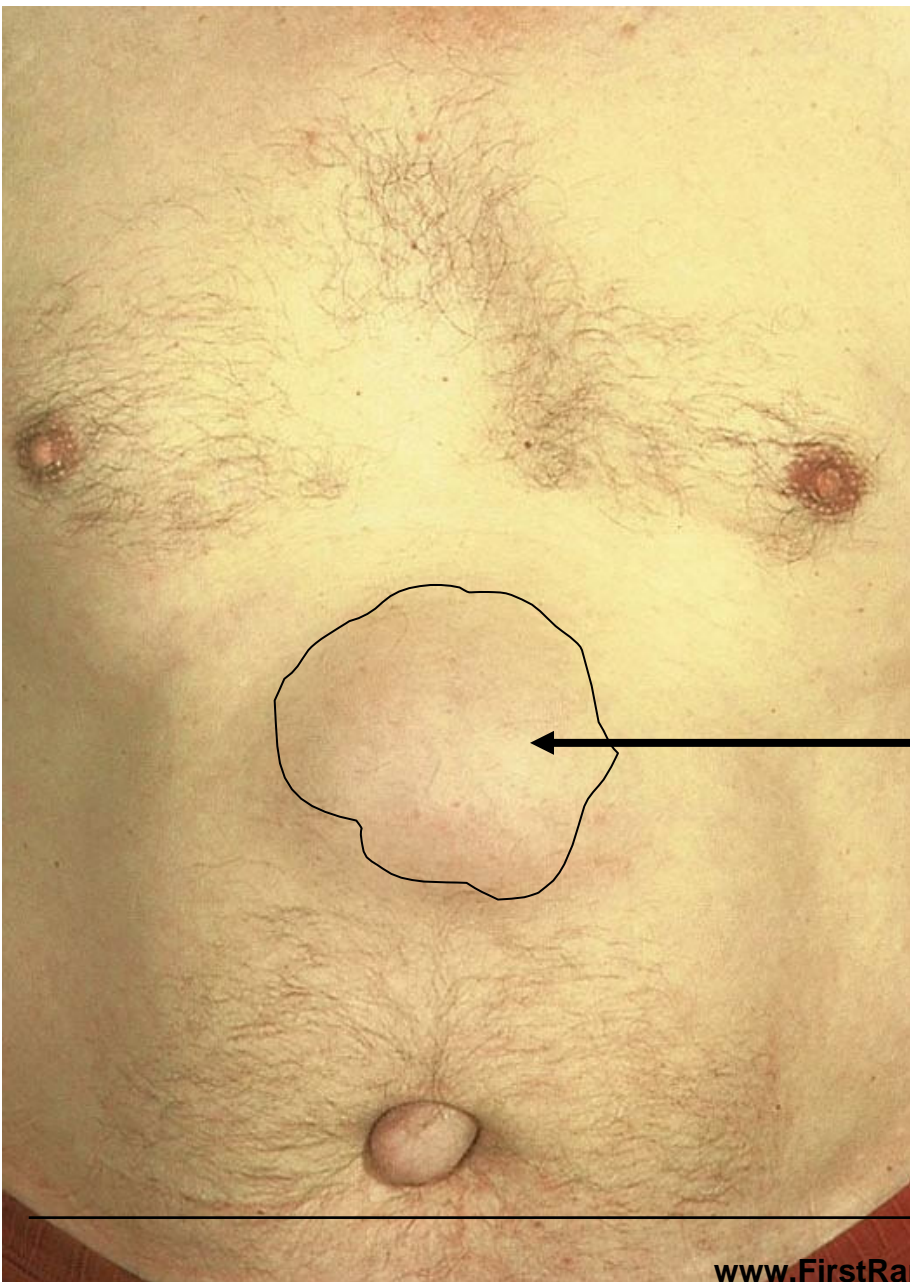
- Infra-inguinal approach (Lookwood)
- Supra-inguinal approach (McEvedy)
- Trans-inguinal approach (Lotheissen)

Each technique has the principle of dissection of the sac with reduction of its contents, followed by ligation of the sac and closure between the inguinal and pectineal ligaments.

Epigastric Hernia

- It occurs through the linea alba midway between the xiphisternum & the umbilicus
- It is a protrusion of extraperitoneal fat from the site of entry of a small blood vessel through the linea alba (fatty Hernia of linea alba)
- It is usually small in size, it may drag a pouch of peritoneum to form a true hernia
- The neck is usually too small to allow a hollow viscous to enter it, consequently the sac is empty or it contains small part of omentum (not true hernia)
- It is probably as a result of sudden strain that tears the interlacing fibers of linea alba

- Clinically; The patient is usually a manual worker, 30-50y in age, symptom less, incidentally discovered during routine exam
- Pain & tenderness is due to strangulated fat.
- Referred pain & dyspepsia
- Treatment: Excision & repair of defect.



Epigastric Hernia

- True umbilical Common in children
- Intestinal obstruction extremely rare
- Surgical repair if persisted after 3rd birthday

- Site: in the center of the umbilicus
- Size and shape: size can vary from vary small to very large. Shape is usually hemispherical.
- Composition: contain bowel, resonant to percussion
- They reduce spontaneously when the child lies down
- Reducibility: easy
- Cough impulse: invariably present

Acquired umbilical hernia

- Hernia through the umbilical scar , so it is a true umbilical hernia.
- Not common and is usually secondary to increase intra abdominal pressure.
- The most common causes
 - pregnancy
 - ascites
 - ovarian cyst
 - fibroids
 - bowel distension

Para-umbilical hernia

- Para umbilical usually middle age women obese or multiparous
- It is a protrusion through the linea alba just above or the umbilicus. As it enlarges it sags downward and can attain a large dimensions
- The neck of the sac is narrow as compared with the size of the sac & it's contents (omentum, small intestine or part of the colon). Usually loculated due to adhesions.

- Clinically; more common in women, obese, multiparous & 35-50y of age.
- It becomes irreducible due to adhesions & strangulation may occur.
- Pain colicky or dragging.
- The skin over it becomes reddened, smooth & may become excoriated.
- Treated by division of adhesions. & repair of defect “Mayo’s repair”

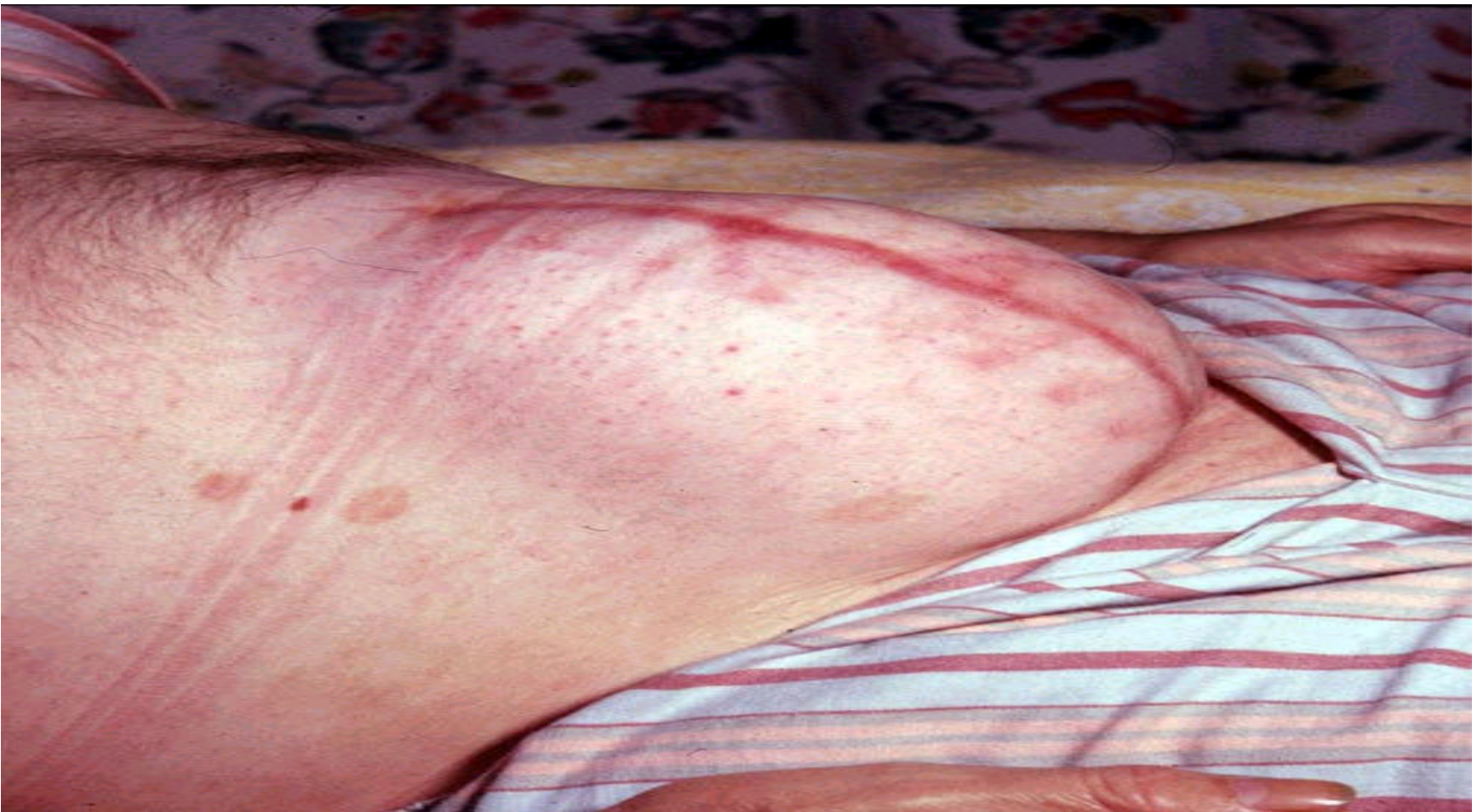


Incisional Hernia

- Protrusion through surgical wound
- Occur after 3-5% of abdominal operation
- **Causes**
 1. Midline ,vertical incision
 2. Poor technique
 3. Wound or chest infection
 4. Obesity

Strangulation is rare but repair is advisable

Incisional hernia



Prevention of Incisional Hernia

- Continuous Closure with Running Suture
- Monofilament slowly absorbable suture (PDS)
#1 or 2
- Suture: Wound Length < 4:1

Summary

- Hernias are common, morbid, and costly
- Best chance of success is mesh repair : uncontaminated field
- Laparoscopic vs Open still debated
- What can't be cured must be endured

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