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# Hernia management in Primary Care Who and When to refer

**Mr Eriberto Farinella**

Consultant Surgeon in General & Emergency Surgery  
(Laparoscopy, GI Surgery, Coloproctology)



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- Who and when to refer
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  - type of hernia
  - symptoms
  - red flags
- Hernia complications (incarceration and strangulation)
- Loss of domain and what to do in primary care
- Optimization before surgery



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# Mr Eriberto Farinella

Consultant Surgeon in General & Emergency Surgery  
(Laparoscopy, GI Surgery, Coloproctology)

Lister Hospital since October 2014 (QE2 and HCH)

Emergency Surgery Lead

Clinical Governance Lead for General Surgery

Surgical Lead for National Emergency Laparotomy Audit



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# Mr Eriberto Farinella

Consultant Surgeon in General & Emergency Surgery  
(Laparoscopy, GI Surgery, Coloproctology)

Choose & Book and Private patients in Pinehill Hospital

Laparoscopic & Open Hernia Surgery

Abdominal Wall Reconstruction Surgery

Laparoscopic Cholecystectomy

Proctology (haemorrhoids, fissure, abscess, fistula, pilonidal sinus)

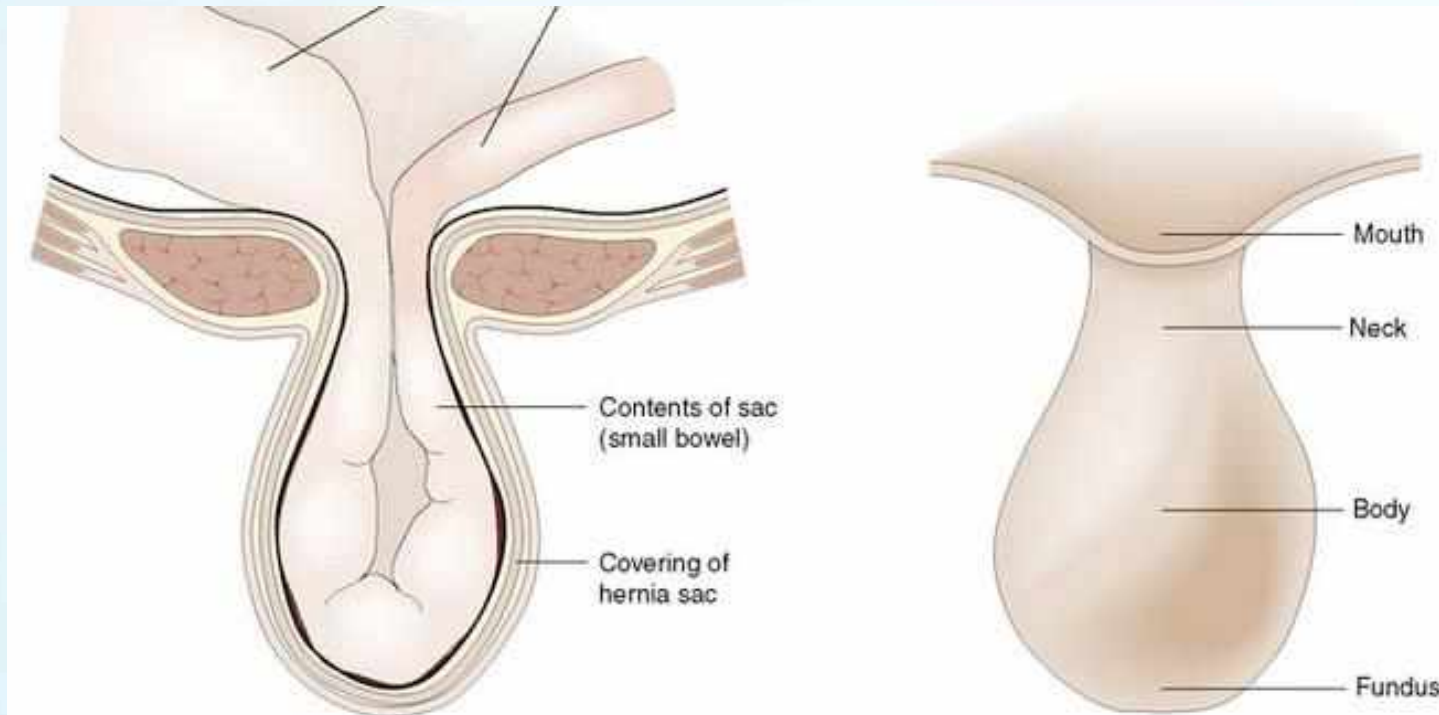
Laparoscopic & Open GI Surgery

Laparoscopy adhesiolysis/peritoneal biopsies

# Anatomy of the hernia

- 1- Defect of abdominal wall
- 2- Hernial sac
- 3- Contents of sac

## Symptoms and Complications



# Anatomy of the hernia

Once the intra-abdominal contents have herniated the natural history of the hernia is to increase in size

**It does not resolve spontaneously**

**PREVENT LOSS OF DOMAIN**



# Abdominal wall weakness & Types of hernia

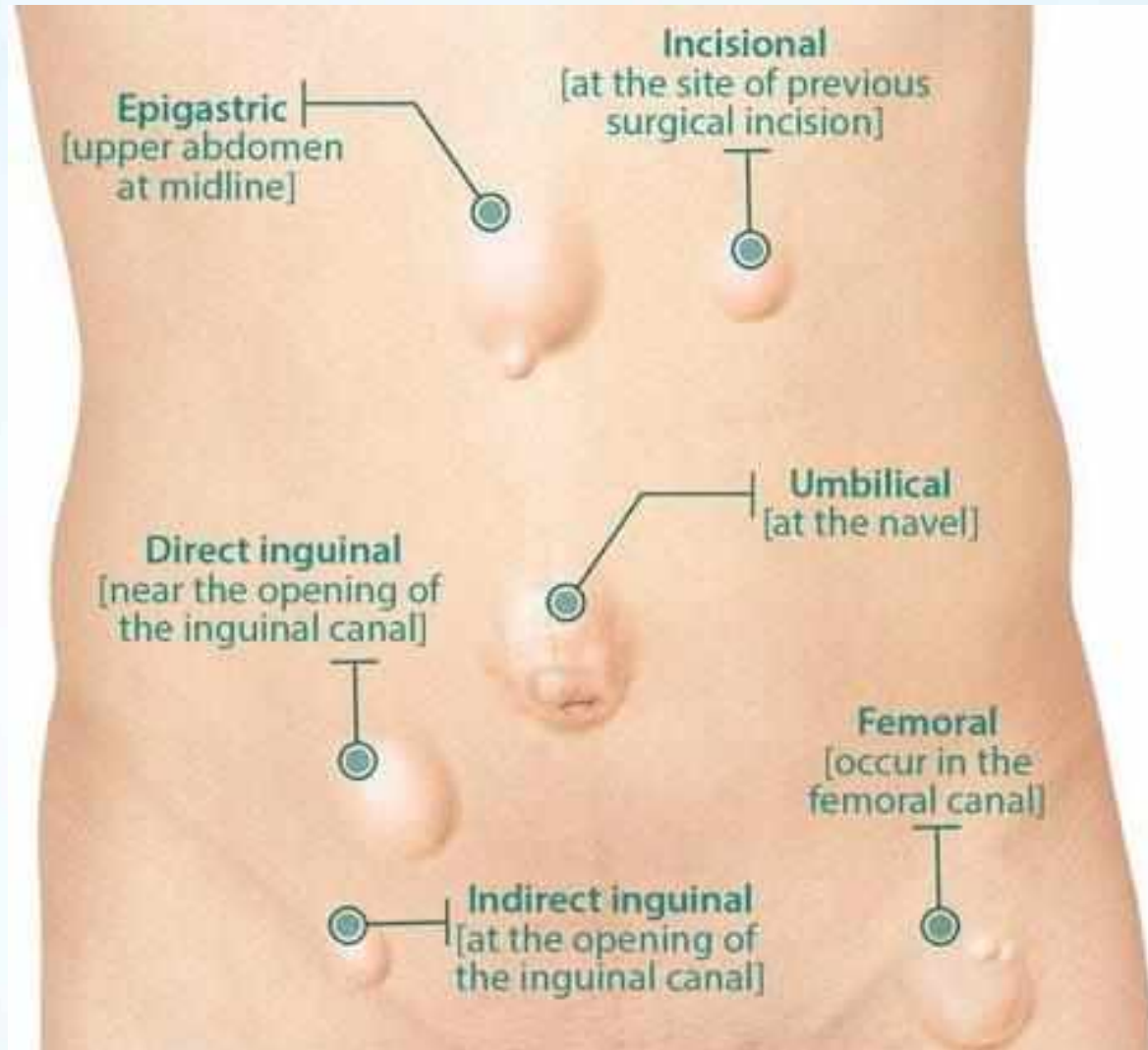
Linea alba

Umbilicus

Surgical incision

Inguinal canal

Femoral canal



# Abdominal wall weakness & Types of hernia

Linea alba

Umbilicus

Surgical incision

Inguinal canal

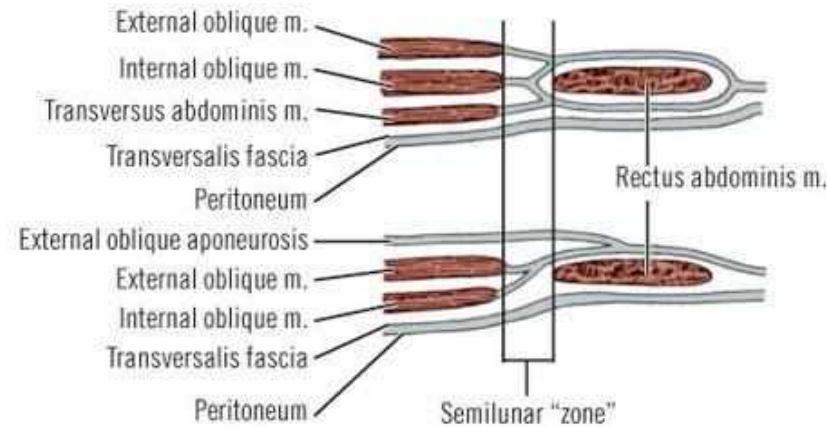
Femoral canal

Linea semilunaris



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# Abdominal wall weakness & Types of hernia

Linea alba

Umbilicus

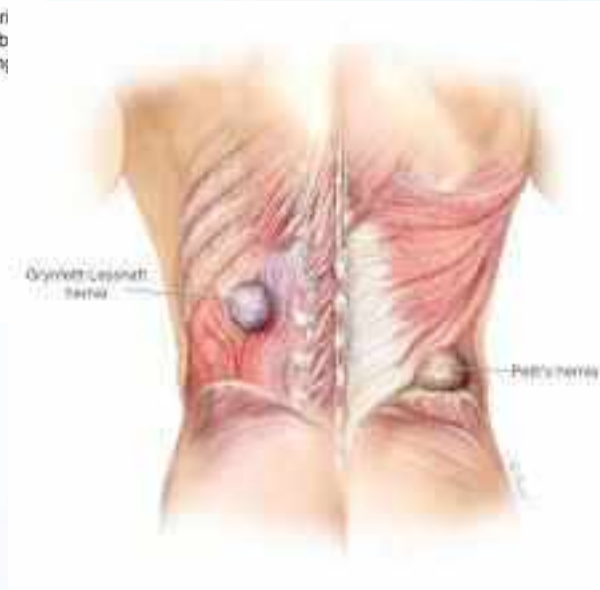
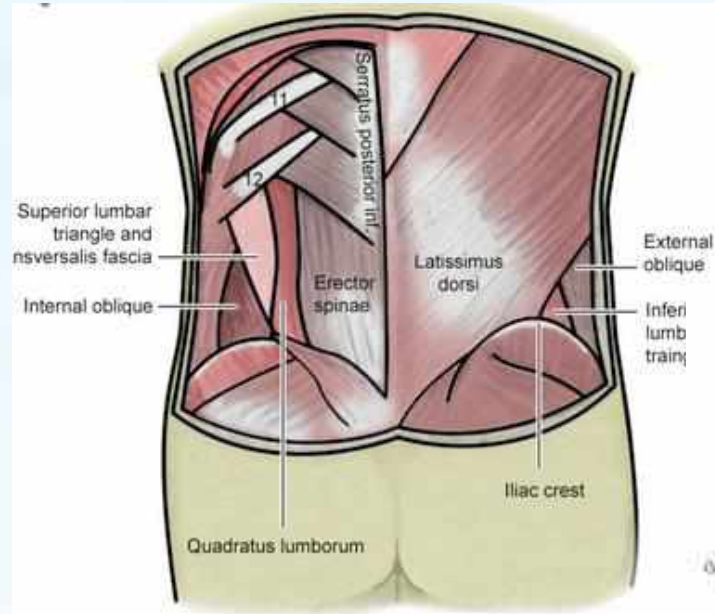
Surgical incision

Inguinal canal

Femoral canal

Linea semilunaris

Superior & Inferior Lumbar triangles

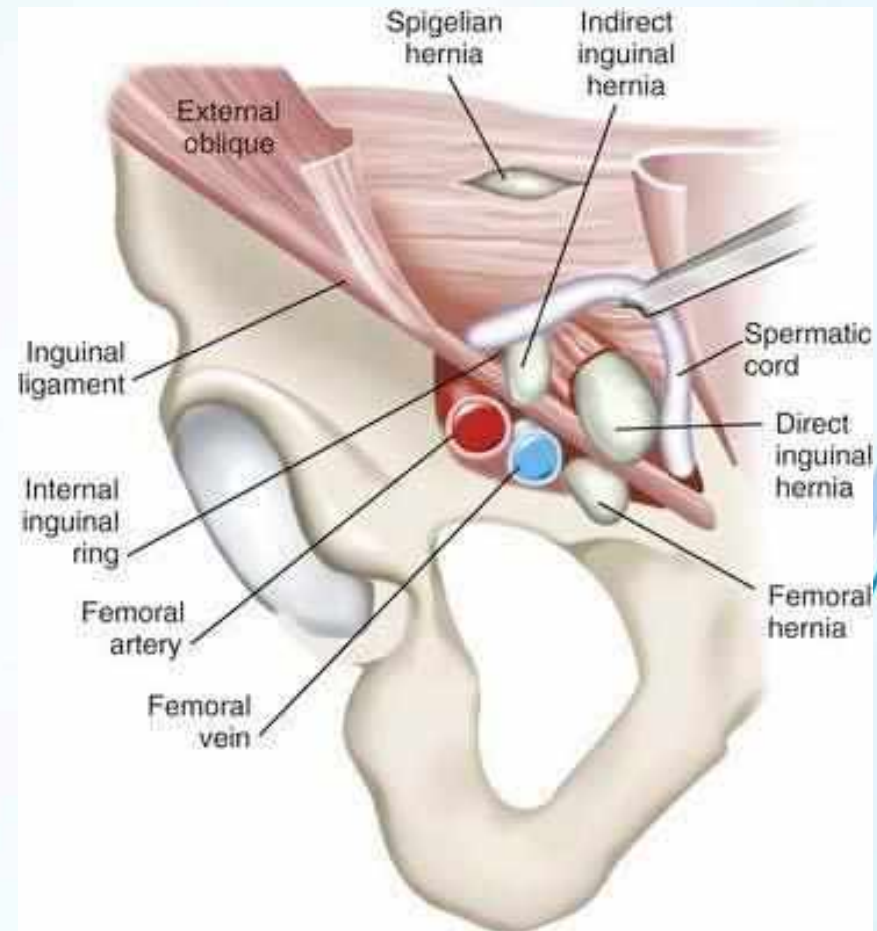
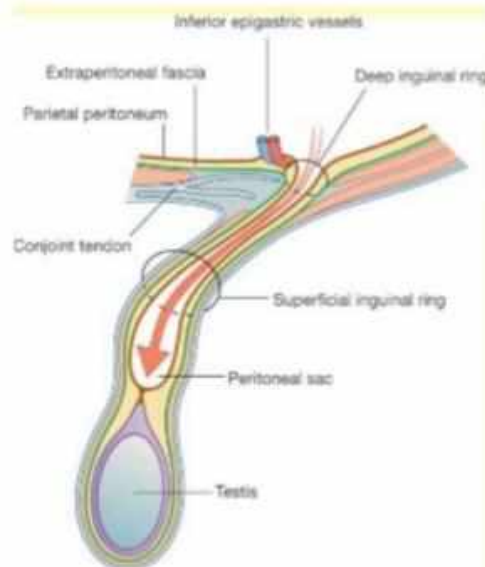
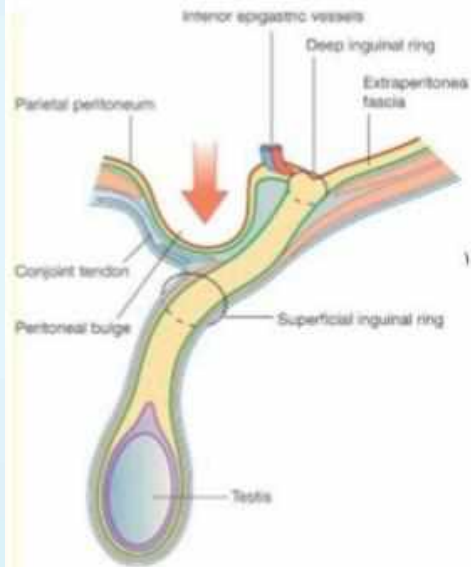


# Abdominal wall weakness & Types of hernia

## Inguinal and Femoral Hernias

Direct

Indirect



# Who and when to refer

- Patient
- Type of hernia
- Symptoms
- Red Flags
- Complication - what to prevent
- Loss of Domain - what to do in primary care

# Who and when to refer - Patient

- “The patient is currently asymptomatic but **work** in a **heavy manual occupation....**”
- what if retired and gardening or young student playing sport?
- “....and there is an **increased risk of strangulation** and **future complications**”
- maybe when bowel involved BUT this is potentially valid for all hernias

# Who and when to refer - Type of Hernia

## Inguino-scrotal hernia

- risk of loss of domain and complications
- impact on quality of life



# Who and when to refer - Type of Hernia

## Femoral hernia

- higher risk of complication (incarceration/strangulation)



# Who and when to refer - Type of Hernia

## Incisional hernia

- iatrogenic
- risk of complications, loss of domain (often bowel involved)
- abdominal wall function (respiratory)

Any other reason for referring this case?



# Who and when to refer - Type of Hernia

## Recurrent hernias

- failure of previous repair which was indicated
- more symptomatic

36yo F

PMH: Marfan's syndrome

Emergency repair of incarcerated femoral hernia (No mesh and no bowel resection)

PC: asymptomatic recurrent groin hernia ?femoral ?inguinal



# Who and when to refer - Symptoms

- The most common symptom is a bulge or lump in the affected area, more prominent when standing up
- Discomfort or pain, especially when lifting, coughing or bending over
- Pressure or a feeling of heaviness
- Burning or aching sensation at the site of the bulge
- Affecting bowel or urine function (constipation or incomplete voiding), respiratory function or mobilization/free of movements
- Skin alterations (ulcerations)

# Who and when to refer - Red flags

- Progressive increase in size over previous months, especially if bowel involved
- More difficult to reduce or becoming only partially reducible
- Increasing frequency and severity of episodes of pain
- Tender and/or painful on reduction
- Previous episode of incarceration with or without bowel obstruction secondary to the hernia

# Hernia complications - What to prevent

## Incarceration, Obstruction and Strangulation

- **Incarceration** is the state of an external hernia, which cannot be reduced into the abdomen
- It is **caused by** (1) tight hernial sac neck; (2) adhesions between hernial contents and the sac; (3) development of pathology in the incarcerated viscus; (4) impaction of feces in an incarcerated colon
- Important finding because it **implies an increased risk of obstruction and strangulation**
- Therefore incarceration requires **urgent surgical repair**

# Hernia complications - What to prevent

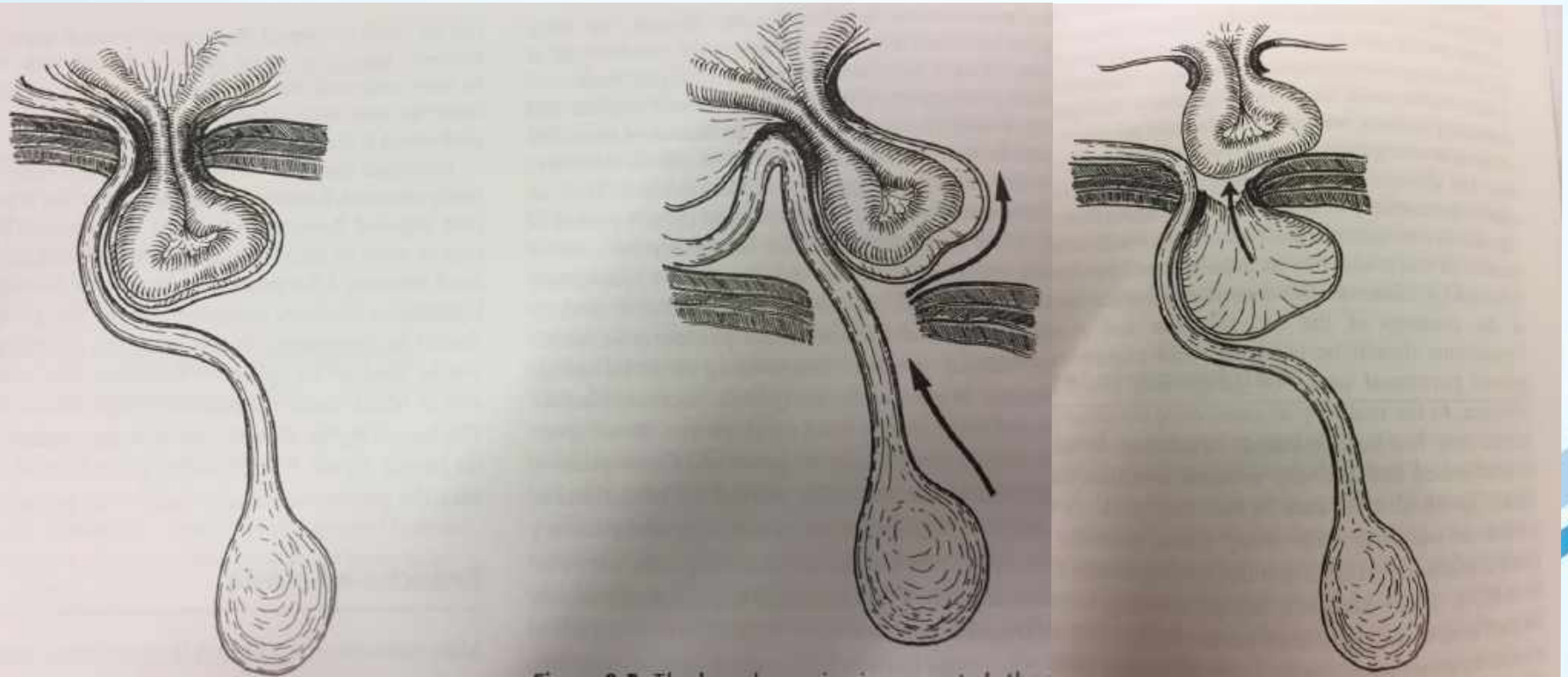
## Incarceration, Obstruction and Strangulation

- If **Reduction** of an incarcerated hernia is performed it **must be gentle**
- Forcible reduction can damage the hernial contents (bowel perforation) or cause reductio-en-mass
- If bowel with compromised blood supply is reduced, structuring and adhesions between bowel loops will lead to obstruction weeks later
- **Best policy is to repair incarcerated hernia and check viability of the bowel**

# Hernia complications - What to prevent

## Incarceration, Obstruction and Strangulation

### Reductio-en-mass

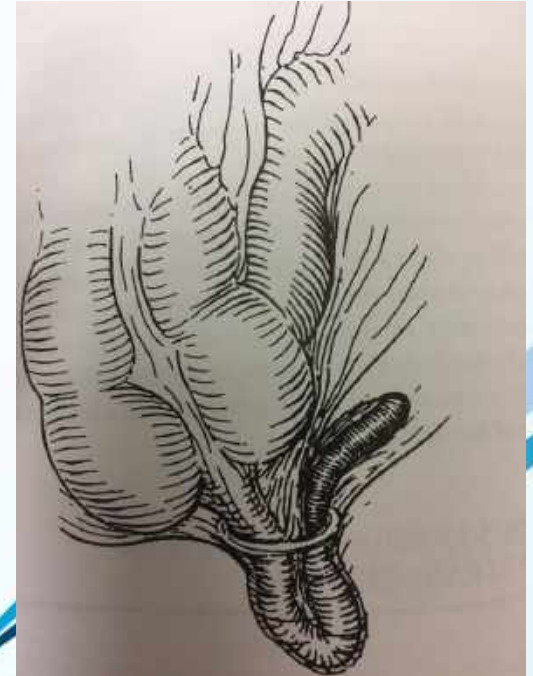
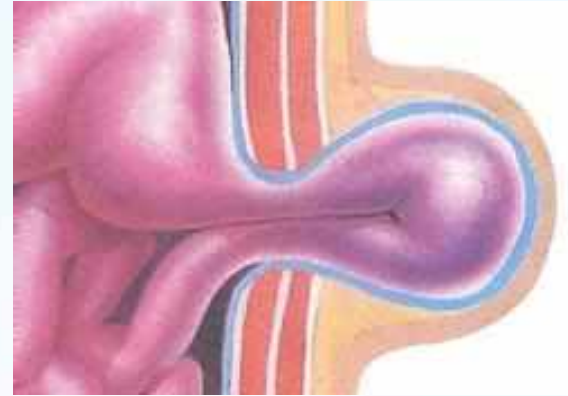


# Hernia complications - What to prevent

## Incarceration, Obstruction and Strangulation

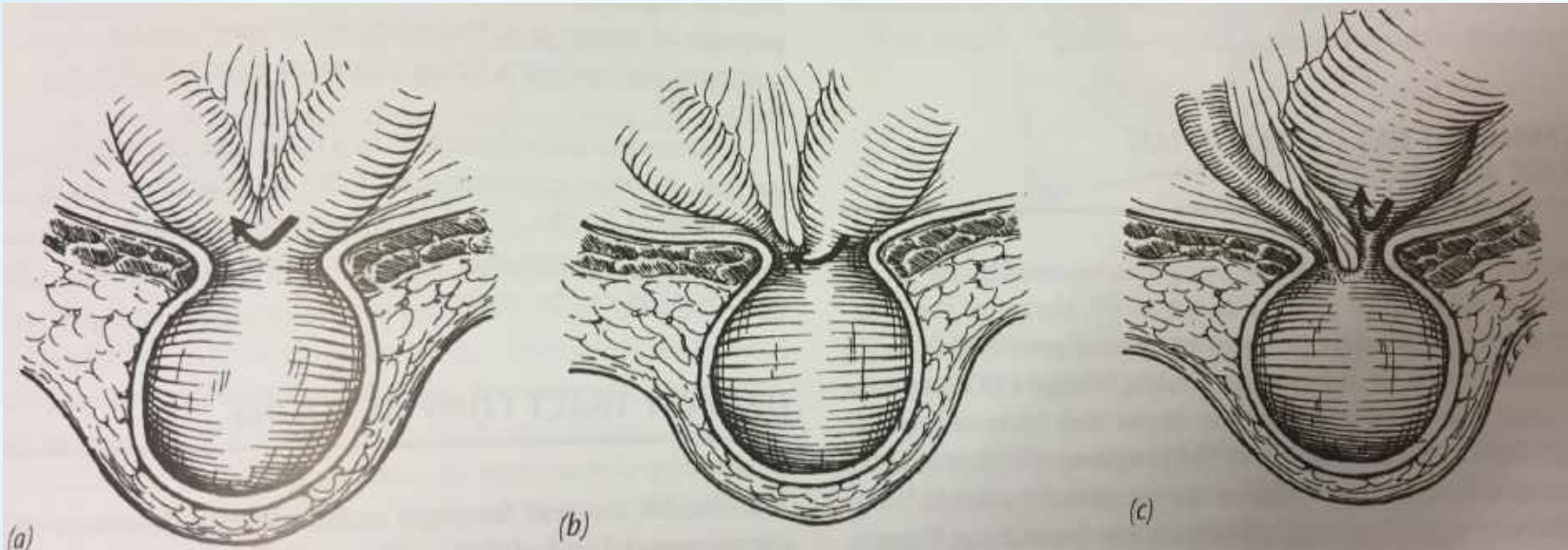
### Mechanisms of Strangulation

### Maydl's hernia



# Hernia complications - What to prevent Incarceration, Obstruction and Strangulation

## Richter's hernia



# Hernia complications - What to prevent Incarceration, Obstruction and Strangulation

Emergency case





# Hernia complications - What to prevent

## Incarceration, Obstruction and Strangulation

Emergency case



# Loss of Domain - Definition

- Inability of the abdominal cavity to accommodate the viscera, without prohibitively high intra-abdominal pressure
- Extrusion of 15-20% or more of intra-abdominal volume

Elective case on waiting list  
(BMI 45, 162Kg)



# Loss of Domain - What to do in Primary Care

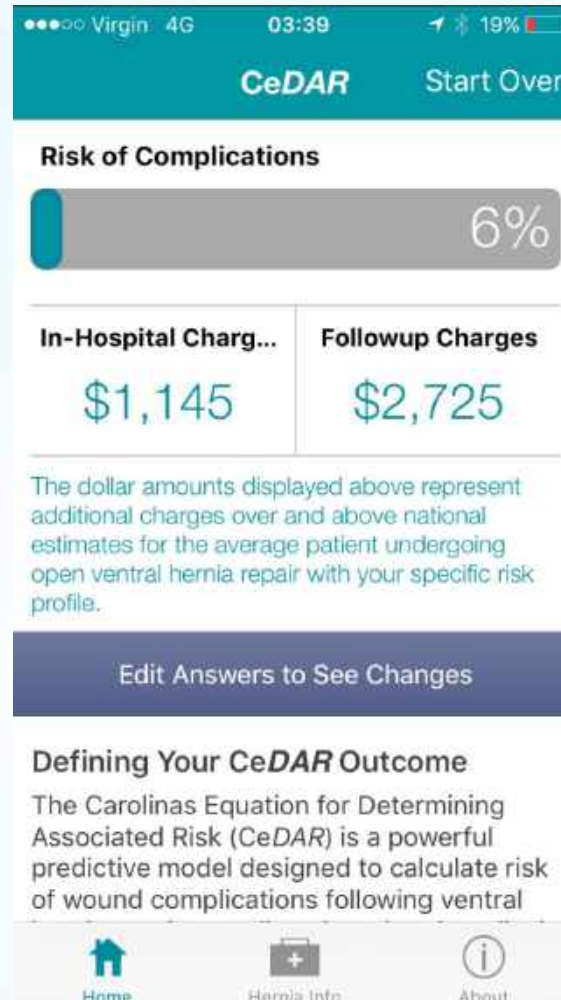
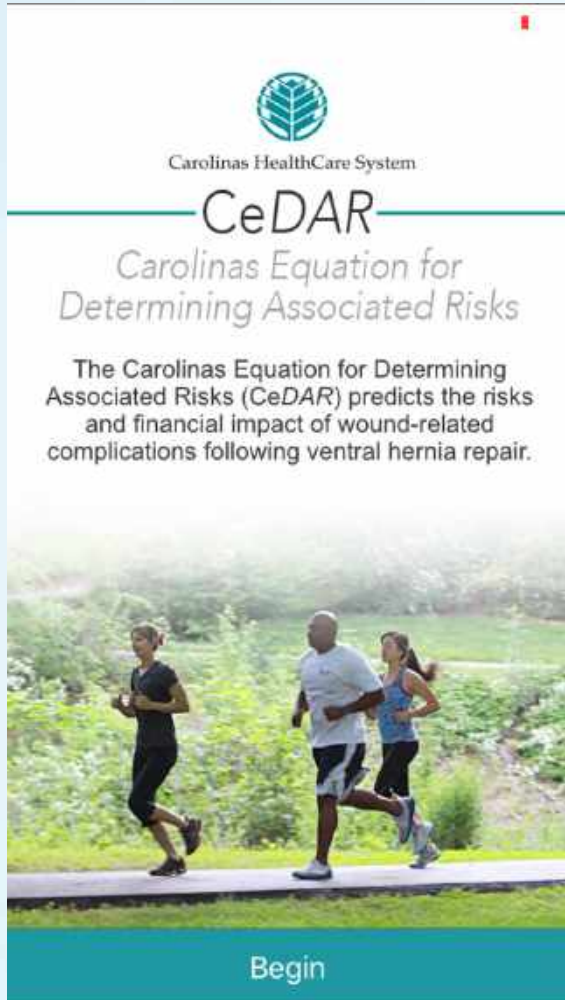
- **Pre-operative optimization**
- **Abdominal binder** to contain loss of domain



# Pre-operative Optimization

- **Ideal BMI <30, at least between 30-35**
- **Smoke cessation, at least 1 month prior to surgery**
- **Optimal glycemic control**
- **Break in anticoagulant therapy (if possible)**
- **Skin preservation to avoid infection in view of mesh implantation**

# CeDAR predicts risk and financial impact of wound-related complications following Ventral Hernia Surgery



# CeDAR predicts risk and financial impact of wound-related complications following Ventral Hernia Surgery

Virgin 4G 03:38 20%

< Back CeDAR Reset

Enter the patient's **height**

ft in

Enter the patient's **weight**

lbs

Units

English Metric

Home Hernia Info About

Virgin 4G 03:37 20%

< Back CeDAR Reset

Does the patient use tobacco products?

Yes No

Home Hernia Info About

Virgin 4G 03:37 20%

CeDAR

Does the patient have uncontrolled diabetes?

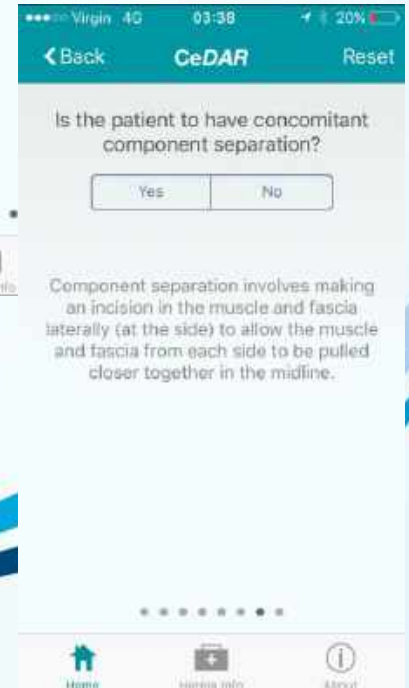
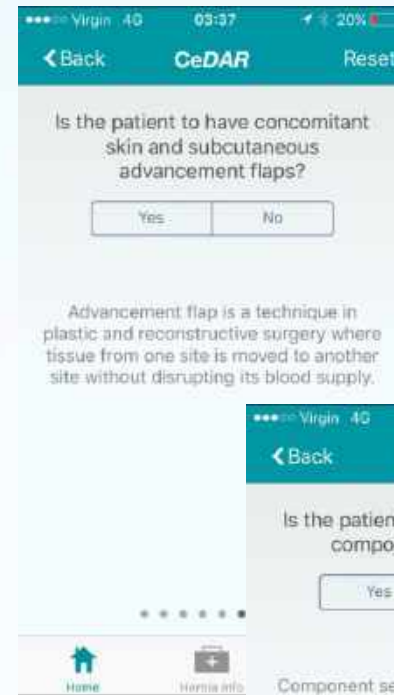
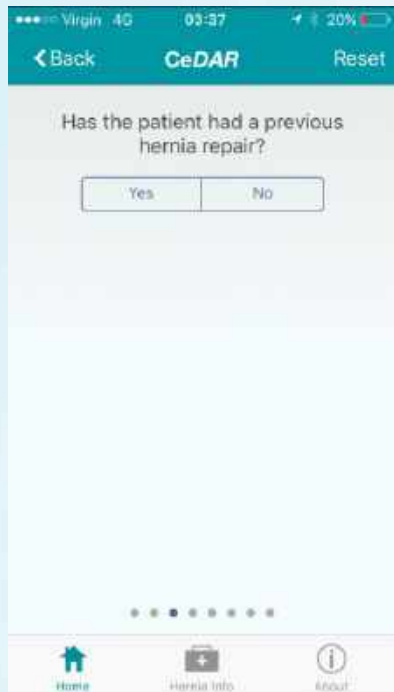
Yes No

Poor control affects the body's ability to heal wounds and fight infection. Choose yes if the patient is diabetic and

- has had a HbA1C is greater than 7.3% within the last 3 months, or
- has not had a HbA1C checked within 3 months, or
- has an average fingerstick blood sugars over 180 mg/dL over the last month, or
- does not check a fingerstick blood sugars at least daily

Home Hernia Info About

# CeDAR predicts risk and financial impact of wound-related complications following Ventral Hernia Surgery





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# THANK YOU!



# Title Here

Subtext