



# *Abdominal Wall Hernia*

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# *Abdominal Wall Hernia*

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- *Definition*
  - *External*
  - *Interparietal*
  - *Internal*
  
  - *Reducible*
  - *Non-reducible (aka incarcerated)*
  - *Strangulated*



# *Abdominal Wall Hernia*

- *Richter's hernia*
- *Littre's hernia*



# *Location*

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- *Groin*
- *Umbilicus*
- *Linea alba (epigastric)*
- *Surgical incisions*
- *Semi-lunar line*
- *Diaphragm*
- *Lumbar triangles*
- *Pelvis*



# *Groin hernia*

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- *Indirect inguinal*
  - *scrotal*
- *Direct inguinal*
- *Femoral*



# *Groin Hernia*

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- *Men > women*
- *Right > left*
- *10% of premature babies*
- *5% of adult population*



# *Indirect Hernia Anatomy*

- *Indirect hernia*
  - *Dilated persistent processus vaginalis*
  - *Within spermatic cord*
  - *Follows indirect course*
  - *Complete vs. incomplete sac*
  - *Sliding hernia*
  - *Cord lipoma*



# *Direct Hernia Anatomy*

- *Hesselbach's triangle*
  - *Inguinal ligament (base), rectus (medial), inferior epigastric vessels (lateral)*
- *Sliding hernia*





# *Femoral Hernia Anatomy*

- *Inferior to inguinal ligament*
- *Women > men*
- *Cloquet's node*
- *Usually on medial aspect of femoral sheath*



# *Diagnosis*

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- *Groin swelling that resolves with supine position*
- *Precipitating factors*
  - *Increased intra-abdominal pressure*
  - *Defects in collagen synthesis*
  - *Smoking*
- *Examine erect and supine*
- *Does not transilluminate*



# *Groin Hernia Differential Diagnosis*

- *Hydrocele*
- *Varicocele*
- *Epididymoorchitis*
- *Torsion of testis*
- *Undescended testis*
- *Ectopic testis*
- *Testicular tumor*
- *Femoral artery aneurysm*
- *Lipoma*
- *Lymphadenopathy*



# *Treatment*

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- *Expectant management*
- *Surgical repair*
  - *Mesh*
  - *Open*
  - *Laparoscopic*
    - *TEP (totally extra-peritoneal)*
    - *TAPP (transabdominal pre-peritoneal)*



# *Complications*

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- *Recurrence*
- *Neuralgia*
  - *Ilioinguinal*
  - *Iliohypogastric*
  - *Genitofemoral*
  - *Lateral cutaneous*
- *Ischemic orchitis*
- *Injury to vas deference*
- *Wound infection*
- *Bleeding*



# *Umbilical Hernia*

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- *Women > men*
- *Risk factors*
  - *Obesity*
  - *Pregnancy*
- *May rupture with ascites*
- *Repair primarily or with mesh*



# *Umbilical Hernia*

- *Common in infants*
- *Close spontaneously if <1.5 cm*
- *Repair if > 2 cm or if persists at age 3-4 years*
- *Repair primarily or with mesh*



# *Epigastric Hernia*

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- *Incidence 1-5%*
- *Men > women*
- *Pre-peritoneal fat protrusion through decussating fibers at linea alba*
- *Between xiphoid and umbilicus*
- *20% multiple*
- *Repair primarily*





# *Incisional Hernia*

- *Risk factors*
  - *Technical*
  - *Wound infection*
  - *Smoking*
  - *Hypoxia/ ischemia*
  - *Tension*
  - *Obesity*
  - *Malnutrition*
- *Laparoscopic vs. open repair*



# *Parastomal Hernia*

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- *Variant of incisional hernia*
- *Paracolostomy > paraileostomy*
- *Low rate if through rectus muscle*
- *Traditionally relocate stoma, repair defect*
- *Concern for mesh erosion*
- *Laparoscopic repair*



# *Spieghelian Hernia*

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- *Rare*
- *Hernia through subumbilical portion of semi-lunar line*
- *Difficult to diagnose*
  - *Clinical suspicion (location)*
  - *CT scan*
- *Repair primarily or with mesh*



# *Lumbar Hernia*

- *Congenital, spontaneous or traumatic*
- *Grynfeltt's triangle*
  - *12<sup>th</sup> rib, internal oblique and sacrospinalis muscle*
  - *Covered by latissimus dorsi*
- *Petit's triangle*
  - *Latissimus dorsi, external oblique and iliac crest*
  - *Covered by superficial fascia*



# *Pelvic Hernia*

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- *Obturator hernia*
  - *Most commonly in women*
  - *Howship-Romberg sign*
- *Sciatic hernia*
- *Perineal hernia*