



Abdominal Wall Hernia

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Abdominal Wall Hernia

- *Definition*
 - *External*
 - *Interparietal*
 - *Internal*

 - *Reducible*
 - *Non-reducible (aka incarcerated)*
 - *Strangulated*



Abdominal Wall Hernia

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



Location

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



Groin hernia

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



Groin Hernia

- *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

- *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

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



Complications

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



Umbilical Hernia

- *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

- *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

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



Spiegelhelian Hernia

- *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*
 - *12th 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

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