Femoral hernia

Femoral hernia

Basic anatomy The external iliac artery and vein pass below the inguinal ligament to become the common femoral vessels in the leg. The vein lies medially and the artery is lateral to the vein, with the femoral nerve lateral to the artery . They are enclosed in a fibrous sheath. Just medial to the vein is a small space containing fat and some lymphatic tissue (node of Cloquet). It is this space, Jules Germain Cloquet , 1790–1883, Professor of Anatomy and Surgery , Paris, France. Manoel Louise Antonio don Gimbernat , 1734–1816, Professor of Anatomy , Barcelona, Spain. boundaries of the femoral canal are the femoral vein laterally , the inguinal ligament anteriorly , the pelvic bone covered by the iliopectineal ligament (Astley Cooper's) posteriorly and the lacunar ligament (Gimbernat's) medially . This is a strong curved ligament with a sharp unyielding edge that impedes reduction of a femoral hernia (Figure 64.17). - The female pelvis has a di ff erent shape from the male, increasing the size of the femoral canal and the risk of hernia. In old age, the femoral defect enlarges further and femoral hernia is commonly seen in thin, elderly w omen. Summary box 64.11 Femoral hernia /uni25CF /uni25CF /uni25CF /uni25CF Diagnosis of femoral hernia Diagnostic error is common and often leads to delay in diag - nosis and treatment. The hernia appears below and lateral to the pubic tubercle and lies in the upper leg rather than in the lower abdomen. Inadequate exposure of this area during routine examination leads to failure to detect the hernia. The hernia often rapidly becomes ir reducible and loses any cough impulse owing to the tightness of the neck. It may only be 1–2 /uni00A0 cm in size and can easily be mistaken for a lymph node. As it increases in size, it is reflected superiorly and becomes di ffi cult to distinguish from a medial direct hernia, which arises only a few centimetres above the femoral canal. Summary box 64.12 Differential diagnosis /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF Investigations In routine cases, no specific investigations are required. However, if there is uncertainty then ultrasonography or CT should be requested. In the emergency patient, bowel obstruc - tion is often present and a plain radiograph is likely to show this. All patients with unexplained small bowel obstruction should undergo careful examination for a femoral hernia.

A B C Figure 64.17 Right femoral hernia: laparoscopic view. The slightly oblique inguinal ligament can be seen superolaterally above the defect. The external iliac vein is not seen. A, inguinal ligament; B, lacunar ligament; C, arch of pubic bone; D, fatty tissue overlying iliac vessels. Less common than inguinal hernia More common in women than in men Easily missed on examination 50% present as an emergency with very high risk of strangulation D Inguinal hernia Lymph node Saphena varix Femoral artery aneurysm Psoas abscess Rupture of adductor longus with haematoma

obstruction primarily to exclude malignancy , but it can identify an obstructing femoral hernia missed by clinicians. Surgery for femoral hernia There is no alternative to surgery for femoral hernia and it is wise to treat such cases with some urgency . There are three open approaches and appropriate cases can be managed laparoscopically . Low approach (Lockwood) This is the simplest operation for a femoral hernia but suitable only when there is no risk of bowel resection. It can

easily be performed under local anaesthesia. A transverse incision is made over the hernia. The sac of the hernia is opened and its contents reduced. The sac is also reduced and non-absorbable sutures are placed between the inguinal ligament above and the pectineal ligament overlying the pubic bone below . A small incision can be made in the medial lacunar ligament to aid reduction but there may be an abnormal branch of the obturator artery just deep to it, which can bleed. The femo ral vein, lateral to the hernia, needs to be protected. Some surgeons place a mesh plug into the hernia defect for further reinforcement. The inguinal approach (Lotheissen) The initial incision is identical to that of Bassini’s or Lichten stein’s operation into the inguinal canal. The spermatic cord (or round ligament) is mobilised and the transversalis fascia opened from the deep inguinal ring to the pubic tubercle, av oiding injury to the inferior epigastric vessels. This gains entry into the extraperitoneal space. A femoral hernia lies immediately below this incision and can be reduced by a combination of pulling from above and pushing from below . If necessary , the peritoneum can be opened to deal with the contents. Once reduced, the neck of the hernia is closed with sutures or a mesh plug, protecting the external iliac vein throughout; alternatively , a sheet of flat mesh may be laid over the defect in the extraperitoneal plane. The layers are closed as for inguinal hernia and the surgeon may place a mesh into the inguinal canal to protect against development of an inguinal hernia. High approach (McEvedy) This more complex operation is ideal in the emergency situa tion where the risk of bowel strangulation is high. It requires regional or general anaesthesia. Although McEvedy described a paramedian incision, most surgeons nowadays use the Nyhus modification, which is a transverse incision just above the inguinal canal, centr ed on the lateral border of the rectus muscle. The anterior rectus sheath is incised and the rectus muscle retracted. The surgeon proceeds deep to the muscle in the preperitoneal space. The femoral hernia is reduced and the Charles Barrett Lockwood , 1856–1914, surgeon, St Bartholomew’s Hospital, London, UK. George Lotheissen , 1868–1941, surgeon, the Kaiser Franz Joseph Hospital, Vienna, Austria. Peter George McEvedy , 1890–1951, surgeon, Ancoats Hospital, Manchester, UK. Lloyd Milton Nyhus , 1923–2008, Chief of Surgery , University of Illinois, Chicago, IL, USA. Arnold K Henry , 1886–1962, Professor of Surgery , Cairo, later Anatomy Professor, Royal College of Surgeons in Ireland, Dublin, Ireland. In dubious cases, the bowel is replaced into the peritoneal cavity for 5 minutes and then re-examined. The femoral defect is then closed with sutures or mesh. This approach allows a gener ous incision to be made in the peritoneum, which aids inspection of the bowel and facil - itates bowel resection. Bowel resection is not possible via the low (Lockwood) appr oach because the completed anastomosis will not be able to be returned to the abdominal cavity through the narrow femoral canal. The preperitoneal appr oach may be extended to gain access to repair bilateral femoral hernias through a single incision (Henry). Laparoscopic approach Both the TEP and TAPP approaches can be used for a femoral hernia and a standard mesh inserted in the extraperitoneal plane. This is ideal for reducible femoral hernias presenting electively , but there are increasing reports of the laparoscopic approach in the emergency setting, mainly with the TAPP approach. In women, the laparoscopic approach is recommended - because of the increased early recurrence observed in women, thought to relate more to misdiagnosis of the hernia (ingui - nal versus femoral) than true r ecurrence. The laparoscopic approach allows good visualisation of all the hernia orifices, removing any diagnostic uncertainty . -

---

Revision #1
Created 2025-12-31 15:23:45 UTC by Omar Ayman
Updated 2025-12-31 15:23:45 UTC by Omar Ayman