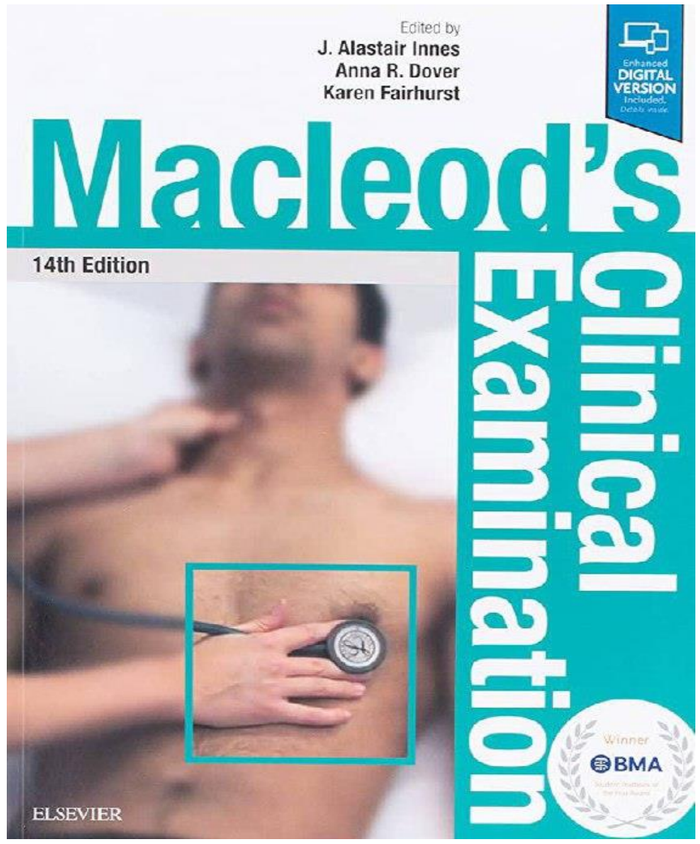



**Outlines:**

- **General Examination**
- **Abdominal Examination**

  Inspection / Palpation / Percussion / Auscultation
- **Hernias**
- **Rectal examination**

**For Full Material, please JOIN this WhatsApp Community:**

**Done By:** A.O.Alwikhyan , MD.

**Introductory:** Section 2 CH.6 Gastrointestinal System Examination.

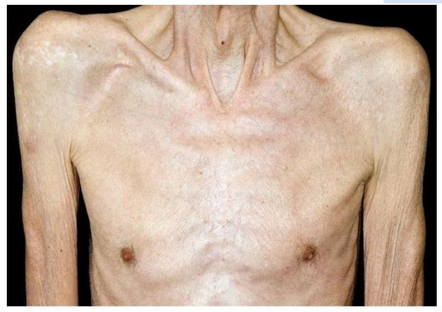
**Note: This summary contains all Macleod's important notes.**

# Gastrointestinal System Examination

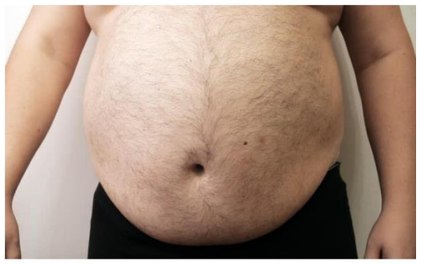
## A- General Examination

### The General inspection

- Note the patient's general appearance. Are they in pain, cachectic, thin, well nourished or obese?
- Record **height, weight, waist circumference** and **body mass index** .
- Note whether **obesity** is truncal or generalised. Look for abdominal striae or loose skin folds.
- **Loose skin** folds signify recent weight loss**.**



Cachectic patient

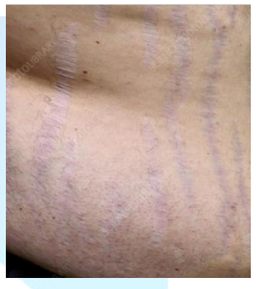


Truncal Obesity

**Striae**

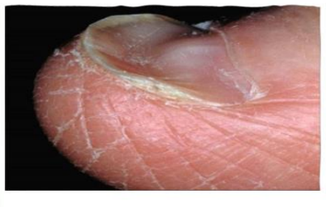
• Asymmetric raised linear streaks (stretch marks).

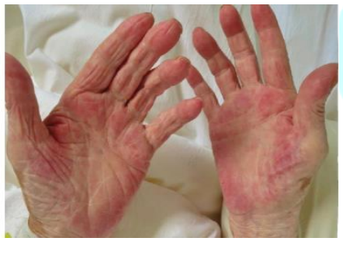
1- Rapid wt.gain. 2- Pregnancy. 3- Cushing Disease.



### Hands Examination

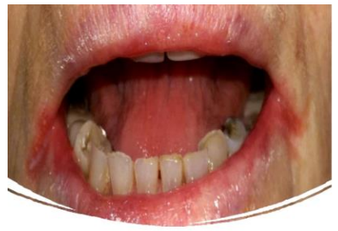
Inspect the patient's hands for **Clubbing** (IBD, Cirrhosis, Celiac), **Koilonychia** (spoon-shaped nails) and **Signs Of Chronic Liver Disease**, including **leuconychia** (white nails), **Flapping Tremor** , **Dupuytren's Contracture** and **Palmar Erythema .**



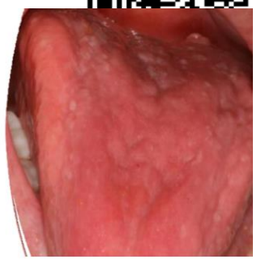


### Mouth, Throat And Tongue.

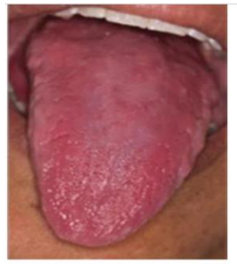
- Stigmata of **Iron Deficiency** include **Angular Cheilitis** (painful cracks at the corners of the mouth) and **Atrophic Glossitis** (pale, smooth tongue).
- The tongue has a **beefy, raw appearance** in **folate & vit .B12 deficiency.**
- Mouth and throat **aphthous ulcers** are common in coeliac and **IBD .**



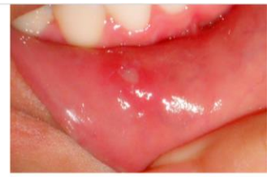
Angular cheilitis



atrophic glossitis



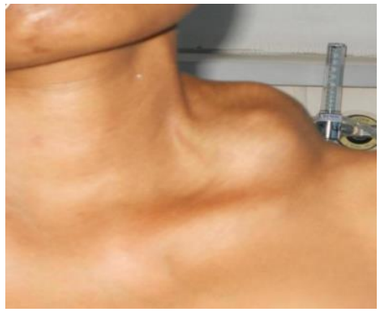
Beefy raw apperance



Aphthous ulcer

### Lymph Node Examination

- Gastric and pancreatic cancer may spread to cause enlargement of the **left supraclavicular lymph nodes (Troisier's sign).**
- More widespread lymphadenopathy with **hepatosplenomegaly suggests lymphoma**.



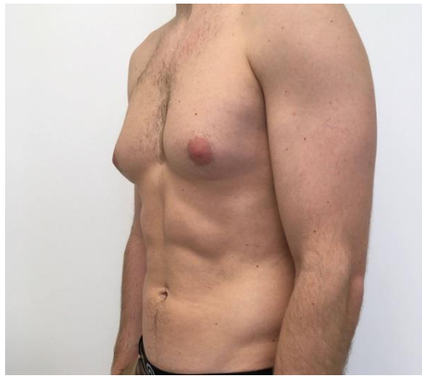
### Chest

1- **Gynecomastia :**
- Breast enlargement in Males.
- Reduced breakdown of Estrogens.

**2-** Breast **Atrophy**.

**3- Hair Distribution.**

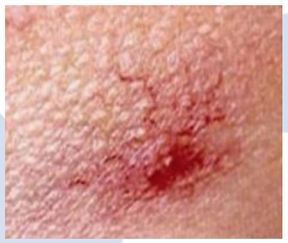
**4- Spider Nivea.**



## Chronic Liver Disease Signs

**Certain signs (stigmata) suggest chronic liver disease :**

**1- Spider naevi.**



- isolated **telangiectasias** that characteristically fill from a central vessel and are found in the distribution of the **SVC** (upper trunk, arms and face).
- Women may have **up to 5 spider naevi in health.**

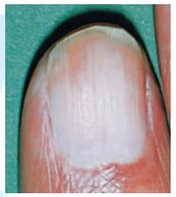
**2- Palmar erythema .**

- Both 1 & 2 are caused by **excess oestrogen** associated with reduced hepatic breakdown of sex steroids .
- Palmar erythema and numerous spider naevi are **Normal During Pregnancy**. In men, these signs suggest chronic liver disease.

3- **Gynaecomastia** (breast enlargement in males)

- **with loss of body hair & testicular atrophy**, due to ↓ breakdown of oestrogens.

**4- Leuconychia**



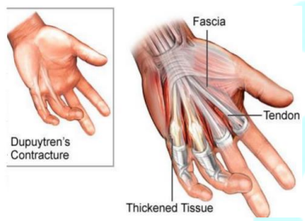
- caused by **hypoalbuminaemia,** may also occur in protein calorie malnutrition (kwashiorkor), **malabsorption** due to protein-losing enteropathy, as in **coeliac disease**, or **heavy and prolonged proteinuria** (nephrotic syndrome).

**5- Finger clubbing**

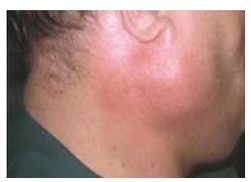
- **liver cirrhosis**, **IBD** and **malabsorption** syndromes.

**6- Dupuytren's contracture** of the palmar fascia

- linked with **alcohol-related chronic liver disease.**




**7- bilateral parotid swelling due to sialoadenosis:** may be a feature of **chronic alcohol abuse.**



## Signs that suggest Liver Failure

- **Asterixis, a coarse flapping tremor** when the arms are outstretched and hands dorsiflexed, which occurs with **hepatic encephalopathy.**
- **Fetor hepaticus,** a distinctive **'mousy' odour** of dimethyl sulphide on the breath, which is evidence of **portosystemic shunting** (with or without encephalopathy) **.**
- **Altered mental state,** varying from **drowsiness** with the day/night pattern reversed, through confusion and disorientation, to **unresponsive coma.**
- **Jaundice :** Do not confuse the diffuse yellow sclerae of jaundice with small, yellowish fat pads (pingueculae) sometimes seen at the periphery of the sclerae.
- **Ascites.**
- **Late neurological features,** which include **spasticity**, **extension** of the arms and legs, and **extensor plantar responses.**

- **Liver failure produces additional symptoms of encephalopathy, which can be graded.**

**6.11 Grading of hepatic encephalopathy (West Haven)**

| Stage | State of consciousness |
|---|---|
| 0 | No change in personality or behaviour<br>No asterixis (flapping tremor) |
| 1 | Impaired concentration and attention span<br>Sleep disturbance, slurred speech<br>Euphoria or depression<br>Asterixis present |
| 2 | Lethargy, drowsiness, apathy or aggression<br>Disorientation, inappropriate behaviour, slurred speech |
| 3 | Confusion and disorientation, bizarre behaviour<br>Drowsiness or stupor<br>Asterixis usually absent |
| 4 | Comatose with no response to voice commands<br>Minimal or absent response to painful stimuli |

## B- Abdominal Examination

- **Expose** the abdomen from **the xiphisternum to the symphysis pubis**, leaving the chest and legs covered.
- **Position** : comfortably **SUPINE** with the head resting on only one or two pillows to relax the abdominal wall muscles.

### Inspection

From the **Foot** of the bed for :
1- Umbilicus
2- Abdominal respiration (absent in peritonitis)
3- Symmetry & Swelling

Inspect From the **Right side** of for :
1- Skin note any striae, bruising or scratch marks.
2- Visible dilated veins
3- Scars
4- Abdominal stomas

#### ✓ Umbilicus

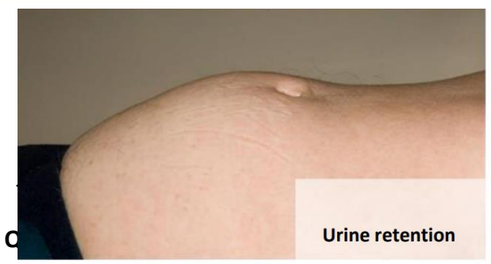
- is Normally located **centrally and usually inverted .**
- In obesity, the umbilicus is usually sunken;
- in ascites, it is flat or, more commonly, everted.

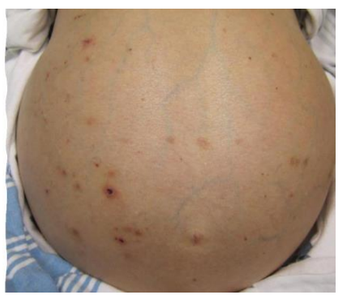
#### ✓ Symmetry & Swelling :

- Look from the foot of the bed for any asymmetry suggesting a localised mass.
- Abdominal swelling may be :

**Diffuse** : Ascites or Intestinal obstruction.

**Localized**: urinary retention, mass or enlarged organ such as liver.

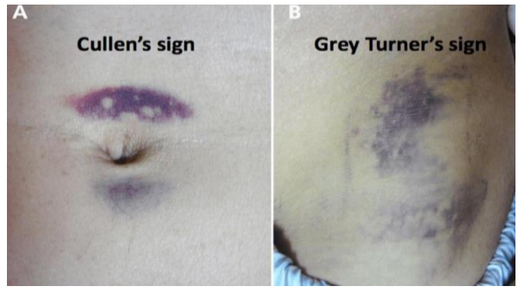


- Bleeding into the falciform ligament; gives 2 Signs :

1- **Cullen sign** is a hemorrhagic discoloration of the umbilical area due to intraperitoneal hemorrhage from any cause; one of the more frequent causes is **acute hemorrhagic pancreatitis.**

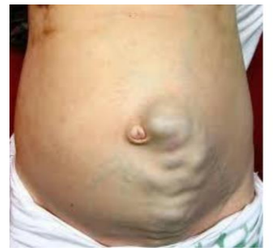
2- **Grey Turner sign** is a discoloration of the left flank associated with **acute hemorrhagic pancreatitis.**

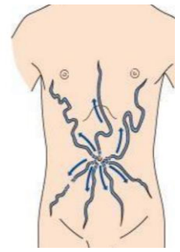


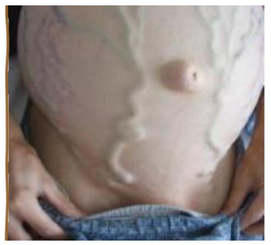

#### ✓ Visible veins

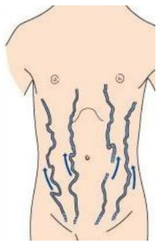
Suggest **Portal hypertension** or **Vena cava obstruction** :

1. In portal hypertension, recanalisation of the umbilical vein along the falciform ligament produces distended veins that drain away from the umbilicus: **the 'caput medusae'.**
   - Umbilicus may appear bluish and distended.
   - In contrast, an **Umbilical Hernia** is a distended and everted umbilicus that **does not appear vascular** & may have a **palpable cough impulse.**
2. Dilated tortuous veins **with blood flow superiorly are collateral veins** caused by **obstruction of the inferior vena cava.**
   - Rarely, superior vena cava obstruction gives rise to similarly distended abdominal veins, but these all flow inferiorly.





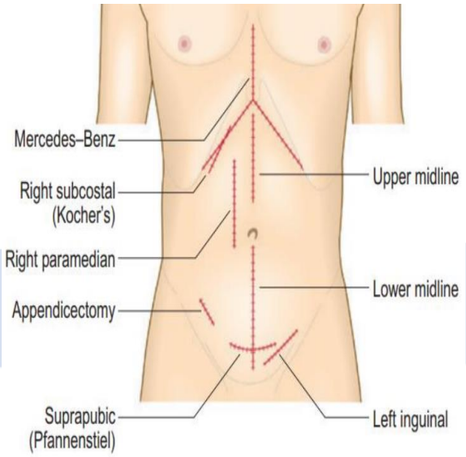


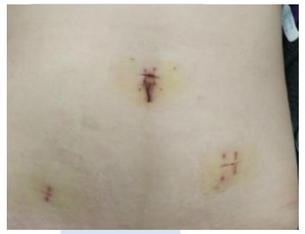


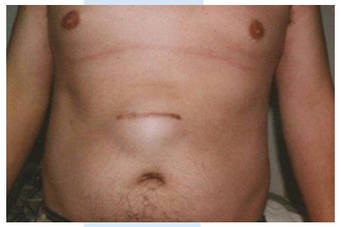
## ✓ Abdominal Scars & Stomas :

### Scars

- Note any surgical scars or stomas and clarify what operations have been undertaken
- A small infraumbilical incision usually indicates a previous laparoscopy. Puncture scars from laparoscopic surgical ports may be visible.
- An incisional hernia at the site of a scar is palpable as a defect in the abdominal wall musculature and becomes more obvious as the patient raises their head off the bed or coughs.

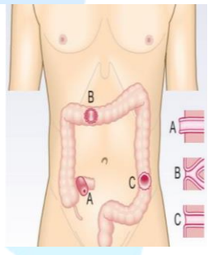




### Surgical STOMA :

- **Surgically created** opening between skin & hollow viscus.
- To divert feces outside body, where it's collected by bag.




## Palpation

**1- Light Superficial Palpation.**

a. Gain confidence. b.Superficial Masses & Tenderness. c. Guarding.

**2- Deep Palpation.**

a.Deep Masses. b.Deep Tenderness. c. Rebound Tenderness

**3- Palpation For Organomegaly:** Liver, Spleen & Kidneys.

## Tenderness

- Discomfort during palpation may be accompanied by **resistance to palpation**, **tenderness** usefully indicates underlying **pathology.**
- **Tenderness in several areas** on minimal pressure may be due to **generalized peritonitis** but is more often caused by anxiety.
- Severe superficial **pain** with **no tenderness** on deep palpation or **pain that disappears** if the patient **is distracted** also **suggests anxiety**.
  - ✓ **Voluntary guarding : voluntary contraction** of the abdominal muscles when palpation provokes pain.
  - ✓ **Involuntary guarding:** is the **reflex contraction** of the abdominal muscles when there is inflammation of the parietal peritoneum.
  - ✓ **Rigidity** : If the whole peritoneum is inflamed (generalised peritonitis) due to a perforated viscus, **the abdominal wall no longer moves with respiration**; breathing becomes increasingly thoracic and the anterior abdominal wall muscles are held **rigid (board-like rigidity).**
- **Site Of Tenderness** is **important** Tenderness in
  - ✓ **Epigastrium** → peptic ulcer.
  - ✓ **Right Hypochondrium** → cholecystitis.
  - ✓ **Left Iliac Fossa** →diverticulitis.
  - ✓ **Right Iliac Fossa** → appendicitis or Crohn's ileitis
- Ask the patient to **cough** or **gently percuss the abdomen** to elicit any pain or tenderness

### Rebound tenderness

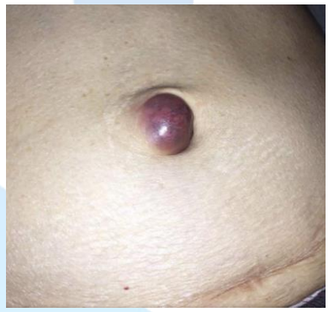
when rapidly removing your hand after deep palpation **increases the pain**, is a sign of intra-abdominal disease but not necessarily of parietal **peritoneal inflammation (peritonism).**

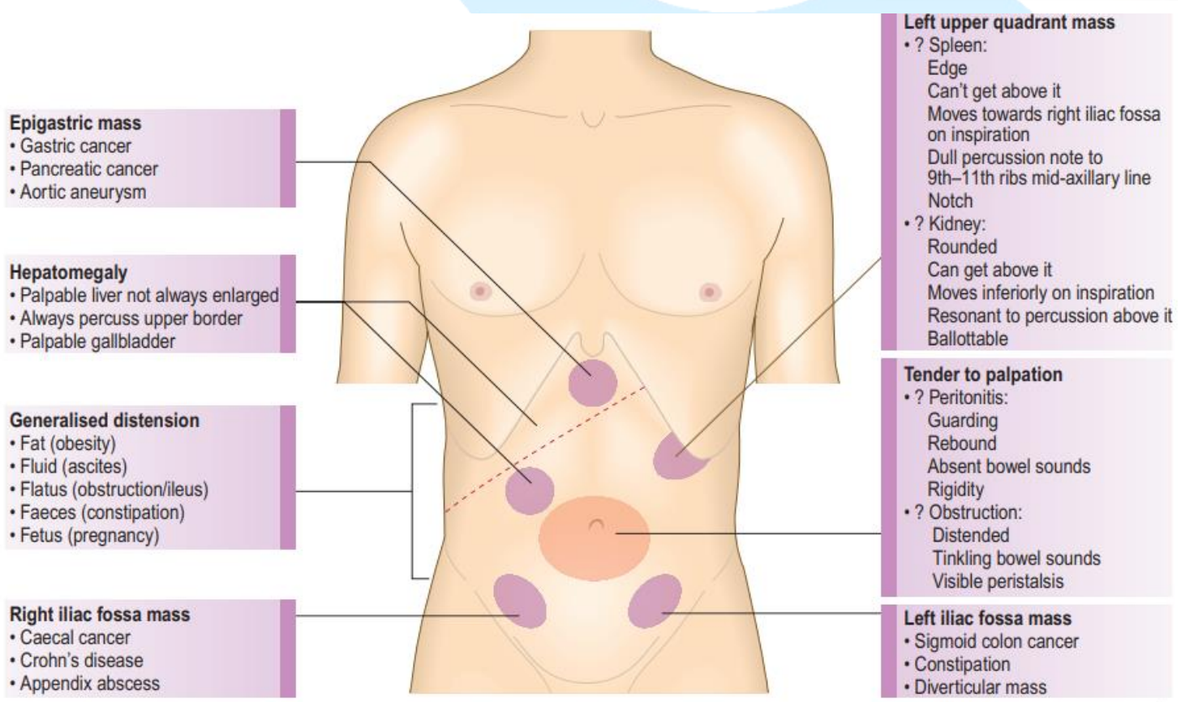
**6.9 Specific signs in the 'acute abdomen'**

| Sign | Disease associations | Examination |
|---|---|---|
| Murphy's | Acute cholecystitis:<br>Sensitivity 50–97%<br>Specificity 50–80% | As the patient takes a deep breath in, gently palpate in the right upper quadrant of the abdomen; the acutely inflamed gallbladder contacts the examining fingers, evoking pain with the arrest of inspiration |
| Rovsing's | Acute appendicitis:<br>Sensitivity 20–70%<br>Specificity 40–96% | Palpation in the left iliac fossa produces pain in the right iliac fossa |
| Iliopsoas | Retroileal appendicitis, iliopsoas abscess, perinephric abscess | Ask the patient to flex their thigh against the resistance of your hand; a painful response indicates an inflammatory process involving the right psoas muscle |

## Palpable Mass

- ✓ **Pulsatile mass** palpable in the upper abdomen may be **normal aortic pulsation** in a thin person, **a gastric or pancreatic tumour** transmitting underlying **aortic pulsation, or an aortic aneurysm**.
- ✓ **Pathological mass** can usually be **distinguished from normal palpable structures by site** (Fig. 6.13), and from palpable faeces as these can be indented and **may disappear following defecation**.
- ✓ **Hard subcutaneous nodule** at the umbilicus may indicate **metastatic cancer ('Sister Mary Joseph's nodule')**.






## Enlarged organs

- Examine the liver, gallbladder, spleen and kidneys in turn during deep inspiration.
- Do not start palpation too close to the costal margin, missing the edge of the liver or spleen.

### 1- Hepatomegaly :

- liver may be **enlarged** or displaced downwards by **hyperinflated lungs.**
- can result from **chronic parenchymal liver disease** from any cause .
- **enlarged** in **early cirrhosis** but often **shrunken in advanced cirrhosis.**
- **Fatty liver (hepatic steatosis)** can cause marked hepatomegaly.
- Hepatic enlargement due to **Metastatic Tumour** is **hard and irregular.**
- Enlarged left lobe may be felt in **Epigastrium** or **Left Hypochondrium.**
- In right heart failure the congested liver is usually **soft and tender**; a **pulsatile liver** indicates **tricuspid regurgitation.**
- A bruit over the liver may be heard in acute alcoholic hepatitis, HCC & AVM, **MCC for an audible bruit over the liver** is a **transmitted heart murmur.**

### Examination Sequence :

- Place your hand flat on the skin of the right iliac fossa.
- Point your fingers upwards and your index and middle fingers lateral to the rectus muscle, so that your fingertips lie parallel to the rectus sheath.
- Ask the patient to breathe in deeply through the mouth.
- Feel for the liver edge as it descends on inspiration.
- Move your hand progressively up the abdomen, 1 cm at a time, between each breath the patient takes, until you reach the costal margin or detect the liver edge.

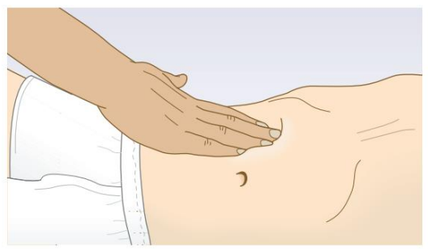
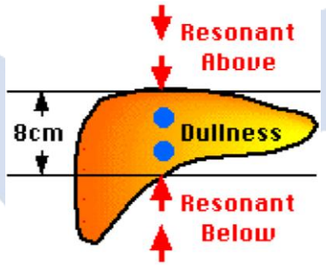


Fig. 6.14 Palpation of the liver.

## - If you feel a liver edge, describe:

• size • surface: smooth or irregular • edge: smooth or irregular; define the medial border• consistency: soft or hard • tenderness • pulsatility.

### Liver Span : (by Percussion):




- Ask the patient to hold their breath in full expiration.
- Percuss downwards from the right fifth intercostal space in the mid clavicular line, listening for dullness indicating upper border of liver.
- Measure the distance in centimetres below the costal margin in the mid‑clavicular line or from the upper border of dullness to the palpable liver edge**. [NL: 8-12cm].**
- The normal liver is identified as an area of dullness to percussion over the right anterior chest between the fifth rib and the costal margin.
- Resonance below 5th intercostal space → hyperinflated lungs or (Chilaiditi's sign).

## 2- Spleenomegaly

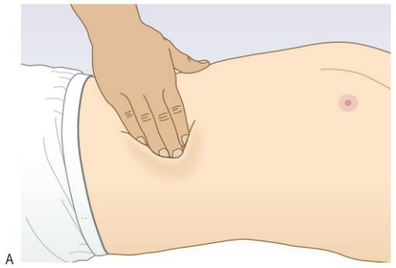
- has to enlarge **threefold before it becomes palpable**, so a palpable spleen always indicates splenomegaly.
- It enlarges from **under the left costal margin down and medially towards the umbilicus**
- A **characteristic notch** may be palpable midway along its leading edge, helping differentiate it from an enlarged left kidney .

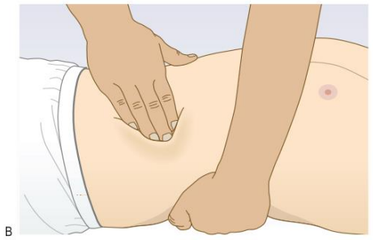
**6.12 Differentiating a palpable spleen from the left kidney**

| Distinguishing feature | Spleen | Kidney |
|---|---|---|
| Mass is smooth and regular in shape | More likely | Polycystic kidneys are bilateral irregular masses |
| Mass descends in inspiration | Yes, travels superficially and diagonally | Yes, moves deeply and vertically |
| Ability to feel deep to the mass | Yes | No |
| Palpable notch on the medial surface | Yes | No |
| Bilateral masses palpable | No | Sometimes, e.g. polycystic kidneys |
| Percussion resonant over the mass | No | Sometimes |
| Mass extends beyond the midline | Sometimes | No (except with horseshoe kidney) |

### Examination sequence:

- Place your hand over the patient's umbilicus. With your hand stationary, ask the patient to inhale deeply through the mouth.
- Feel for the splenic edge as it descends on inspiration.
- Move your hand diagonally upwards towards the left hypochondrium (Fig. 6.16A), 1 cm at a time between each breath the patient takes.
- Feel the costal margin along its length, as the position of the spleen tip is variable.
- If you cannot feel the splenic edge, palpate with your right hand, placing your left hand behind the patient's left lower ribs and pulling the ribcage forward (Fig. 6.16B), or ask the patient to roll towards you and on to their right side and repeat the above.
- **Feel** along left costal margin and **percuss** over the lateral chest wall.
- The normal spleen causes dullness to percussion posterior to the left **mid-axillary line beneath the 9th–11th ribs.**


A


B

## Important causes of hepatosplenomegaly include:

- lymphoma or myeloproliferative disorders, cirrhosis with portal hypertension, amyloidosis, sarcoidosis and glycogen storage disease.

**6.13 Causes of splenomegaly**

**Haematological disorders**
- Lymphoma and lymphatic leukaemias
- Myeloproliferative diseases, polycythaemia rubra vera and myelofibrosis
- Haemolytic anaemia, congenital spherocytosis

**Portal hypertension**

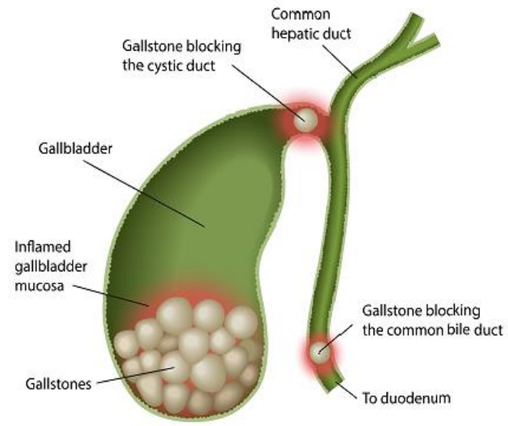
**Infections**
- Glandular fever
- Malaria, kala-azar (leishmaniasis)
- Bacterial endocarditis
- Brucellosis, tuberculosis, salmonellosis

**Rheumatological conditions**
- Rheumatoid arthritis (Felty's syndrome)
- Systemic lupus erythematosus

**Rarities**
- Sarcoidosis
- Amyloidosis
- Glycogen storage disorders

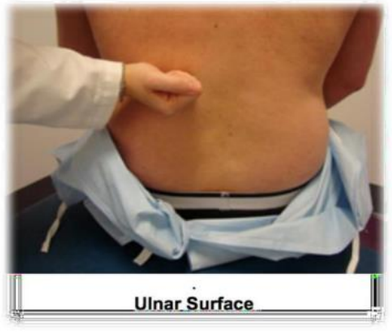
## 3- Gall bladder

- In a patient with **Right Upper Quadrant Pain**, test for Murphy's sign , a positive modestly increases the probability of acute cholecystitis.
- Palpable distension of the gallbladder has a characteristic globular shape. results from either **obstruction of the cystic duct**, as in mucocoele or empyema of the gallbladder, or **obstruction of the common bile duct** with a patent cystic duct, as in pancreatic cancer.
- In **a jaundiced patient a palpable gallbladder** is likely to be due to extrahepatic obstruction, such as from pancreatic cancer or, very rarely, **gallstones (Courvoisier's sign).**
- In **Gallstone Disease** the gallbladder may be **tender** but impalpable because of **fibrosis of the gallbladder wall.**

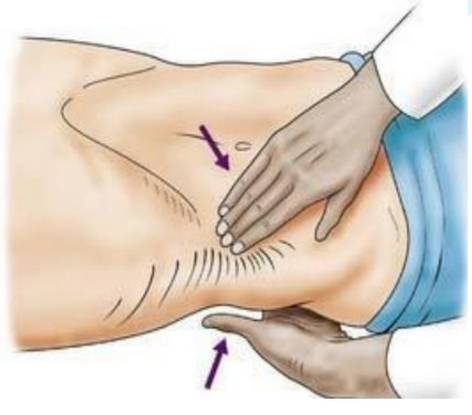



## 4- Kidney Examination

**Renal angle tenderness**




**Bimanual exam**



## Percussion

- Normal note is **Tympanic**.
- **Over mass** or fluid gives DULL
- Percuss **All Nine Quadrant** And **percuss for Ascites**

✓ **Ascites**

Ascites is the accumulation of intraperitoneal fluid .

➢ **Shifting dullness:** mild-moderate ascites.

➢ **Fluid transmitted thrill:** massive ascites.

**6.14 Causes of ascites**

| Diagnosis | Comment |
|---|---|
| **Common** | |
| Hepatic cirrhosis with portal hypertension | Transudate |
| Intra-abdominal malignancy with peritoneal spread | Exudate, cytology may be positive |
| **Uncommon** | |
| Hepatic vein occlusion (Budd–Chiari syndrome) | Transudate in acute phase |
| Constrictive pericarditis and right heart failure | Check jugular venous pressure and listen for pericardial rub |
| Hypoproteinaemia (nephrotic syndrome, protein-losing enteropathy) | Transudate |
| Tuberculous peritonitis | Low glucose content |
| Pancreatitis, pancreatic duct disruption | Very high amylase content |

### Examination sequence

➢ **Shifting dullness**

• With the patient supine, percuss from the midline out to the flanks (Fig. 6.17). Note any change from resonant to dull, along with areas of dullness and resonance.

• Keep your finger on the site of dullness in the flank and ask the patient to turn on to their opposite side.

• Pause for **10** seconds to allow any ascites to gravitate, then percuss again. If the area of dullness is now resonant, shifting dullness is present, indicating ascites.

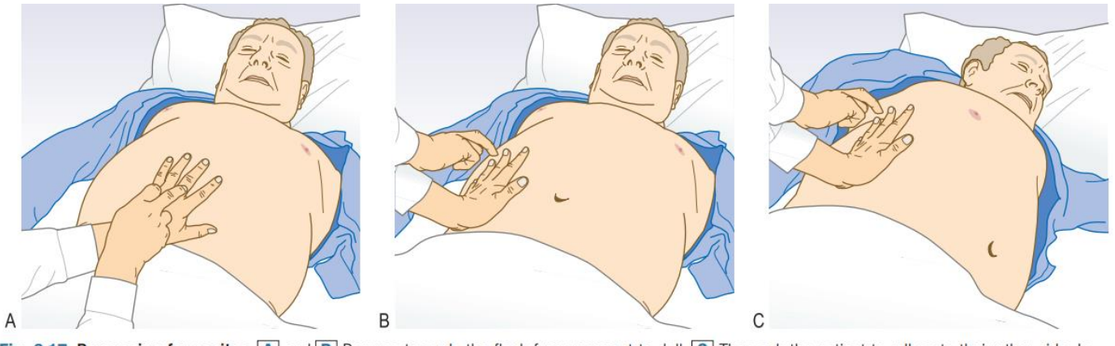



**Fig. 6.17 Percussing for ascites.** A and B Percuss towards the flank from resonant to dull. C Then ask the patient to roll on to their other side. In ascites the note then becomes resonant.

## ➢Fluid thrill

- If the abdomen is tensely distended and you are uncertain whether ascites is present, feel for a fluid thrill.
- Place the palm of your left hand flat against the left side of the patient's abdomen and flick a finger of your right hand against the right side of the abdomen.
- If you feel a ripple against your left hand, ask an assistant or the patient to place the edge of their hand on the midline of the abdomen (Fig. 6.18).
- **This prevents transmission of the impulse via the skin** rather than through the ascites.
- If you still feel a ripple against your left hand, a fluid thrill is present (detected only in gross ascites).

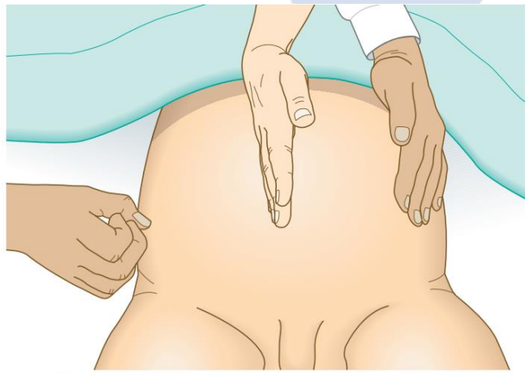
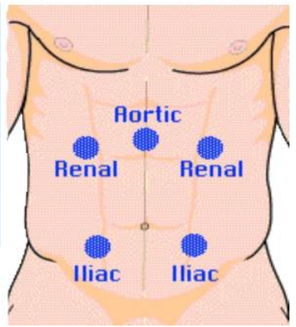


Fig. 6.18 Eliciting a fluid thrill.

## Auscultation (Bowel sound & Bruit)

### Bowel sounds



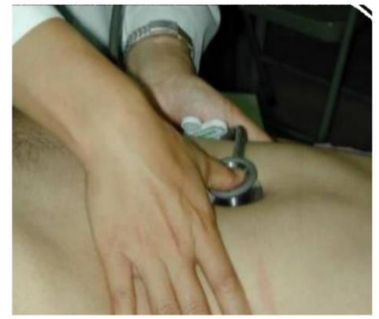

- **Normal bowel sounds** are gurgling noises from the normal peristaltic activity of the gut.
- They normally occur every 5–10 seconds but the frequency varies.
- Absence of bowel sounds implies paralytic ileus or peritonitis.
- In intestinal obstruction, bowel sounds occur with increased frequency and volume, and have a high-pitched, tinkling quality.
- **Bruits** suggest an atheromatous or aneurysmal aorta or superior mesenteric artery stenosis.
- **A friction rub**, which sounds like rubbing your dry fingers together, may be heard over the liver (perihepatitis) or spleen (perisplenitis).

### Examination sequence

- Listen for :
  - ✓ With the patient supine, place your stethoscope diaphragm to the right of the umbilicus and do not move it , up to 2 minutes before concluding that bowel sounds are absent.
  - ✓ 2–3 cm above and lateral to the umbilicus for bruits from renal artery stenosis.
  - ✓ above the umbilicus over the aorta for arterial bruits.
  - ✓ over the liver for bruits.

### Succussion Splash Test

- this sounds like a half-filled water bottle being shaken.
- Explain the procedure to the patient, then shake their abdomen by rocking their pelvis using both hands.
- An audible splash more than 4 hours after the patient has eaten or drunk anything indicates delayed gastric emptying, as **in pyloric stenosis.**



## C- Hernias

- The **inguinal canal** extends from the pubic tubercle to the anterior superior iliac spine
- It has an **internal ring** at the mid-inguinal point **(midway between the pubic symphysis and the anterior superior iliac spine)** and an external ring at the pubic tubercle.
- **The femoral canal** lies below the **inguinal ligament** and lateral to the pubic tubercle.

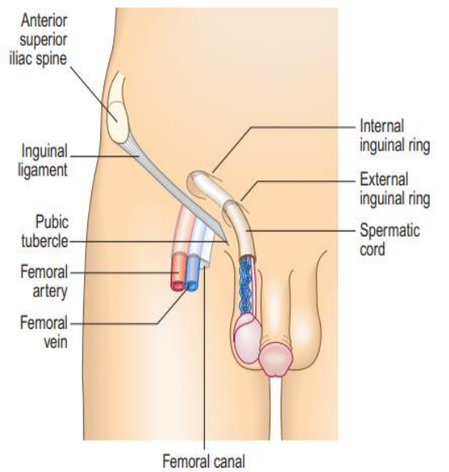



Fig. 6.19 Anatomy of the inguinal canal and femoral sheath.

- **Hernias are common and typically occur at** :

1- **Openings** of the abdominal wall, such as the **inguinal, femoral and obturator canals, the umbilicus and the oesophageal hiatus.**

2- **Sites Of Weakness** of the abdominal wall, as in previous surgical incision.

- An impulse can often be felt in a hernia during **coughing (cough impulse).**
- Identify a hernia from its anatomical site and characteristics, and attempt to differentiate between direct and indirect inguinal hernias.

## Examination sequence

• Examine the groin with the patient standing upright.

• **INSPECT** the inguinal and femoral canals and the scrotum for any lumps or bulges.

• Ask the patient to **cough**; look for an impulse over the femoral or inguinal canal and scrotum.

• Identify the anatomical relationships between the bulge, the pubic tubercle and the inguinal ligament to distinguish a femoral from an inguinal hernia.

• **PALPATE** the external inguinal ring and along the inguinal canal for possible muscle defects. Ask the patient to cough feel for cough impulse.

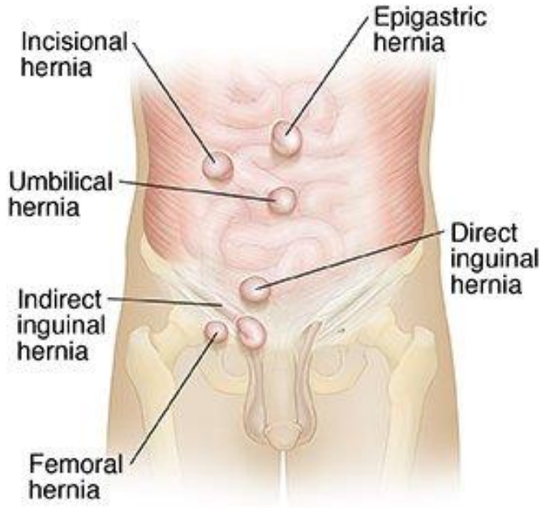
• ask the patient to lie down & establish whether **hernia reduces spontaneously. If so → Ring Occlusion Test**

• press two fingers over the **internal inguinal ring** at the mid-inguinal point and ask the patient to cough or stand up while you maintain pressure over the internal inguinal ring. **If the hernia reappears, it is a direct hernia. If it can be prevented from reappearing, it is an indirect inguinal hernia.**

• Examine the opposite side to exclude asymptomatic hernias.

## Indirect Inguinal Hernia

- bulges through the internal ring & follows course of the inguinal canal.
- It may extend beyond the external ring and enter the scrotum.
- comprise **85**% of all hernias and are more common in **YOUNGER MEN.**




## Direct Inguinal Hernia

- forms at a site of muscle weakness in the posterior wall of the inguinal canal and rarely extends into the scrotum.
- It is more common in **Older** men and women .

## Femoral Hernia

- projects through the **femoral ring and into the femoral canal.**
- Femoral hernias are palpable **below** the inguinal ligament and lateral to the pubic tubercle.
- Inguinal hernias are palpable **above** and medial to the pubic tubercle.

## Reducible Hernia

- the contents can be returned to the abdominal cavity, spontaneously or by manipulation.
- An abdominal hernia has a covering sac of peritoneum and the neck of the hernia is a common site of compression of the contents .
- If the hernia contains bowel, **obstruction may occur**.
- If the blood supply to the contents of the hernia (bowel or omentum) is restricted, the hernia is **strangulated.** It is **tense, tender and has no cough impulse,** there may be bowel obstruction and, later, signs of sepsis and shock.

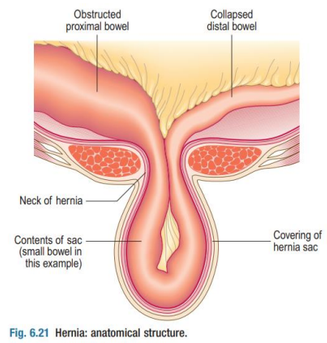
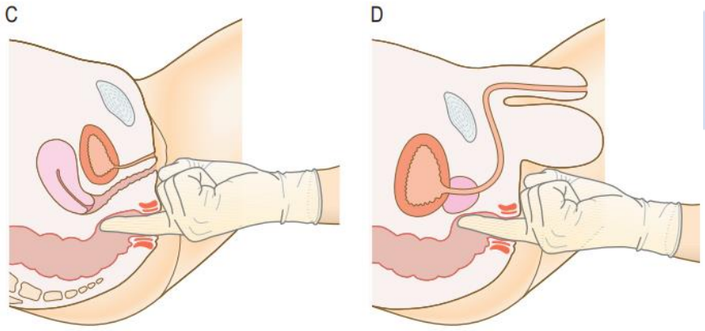


Fig. 6.21 Hernia: anatomical structure.

# D- Rectal Examination

- Digital examination of the rectum is important. Do not avoid it because you or the patient finds it disagreeable.
- The patient's **verbal consent** is needed, however, and the examination should be carried out in **the presence of a chaperone.**




- The normal rectum is usually **empty and smooth-walled**, with the coccyx and sacrum lying posteriorly.
- The **normal prostate is smooth and firm**, with lateral lobes and a **median groove between them**.

✓ **Haemorrhoids** ('piles', **congested venous plexuses** around the anal canal) are usually palpable if thrombosed.

✓ **Chronic Constipation** the rectum is often **loaded with faeces.**

✓ **Retroverted Uterus** and the normal cervix are often **palpable** through the anterior rectal wall and a vaginal tampon may be confusing.

✓ **Cancer of the lower rectum** is palpable as a **mucosal irregularity.**

✓ **Lateralised tenderness** suggests pelvic **peritonitis.**

✓ Gynaecological malignancy may cause a **'frozen pelvis'** with a hard, rigid feel to the pelvic organs due to **extensive peritoneal disease.**

✓ **Benign Prostatic Hyperplasia** often produces palpable **symmetrical enlargement**, but not if the hyperplasia is confined to the median lobe.

✓ **A hard, irregular or asymmetrical** gland with **no** palpable median groove suggests **Prostate Cancer.**

✓ **Tenderness** accompanied by a change in the consistency of the gland may be caused by **prostatitis or prostatic abscess**.

✓ The prostate is abnormally **small** in **hypogonadism**

## Examination sequence

• Explain what you are going to do and why it is necessary, and ask for permission to proceed. Tell the patient that the examination may be uncomfortable but should not be painful.

• Offer a chaperone; record a refusal. Make a note of the name of the chaperone.

• Position the patient in the left lateral position with their buttocks at the edge of the couch, their knees drawn up to their chest and their heels clear of the perineum.

• Put on gloves and examine the perianal skin, using an effective light source.

• **LOOK** for skin lesions, external haemorrhoids, fissures and fistulae.

• Lubricate your index finger with water-based gel.

• **Place the pulp of your forefinger** on the anal margin and apply steady pressure on the sphincter to push your finger gently through the anal canal into the rectum (Fig. 6.23).

• If anal spasm occurs, ask the patient to breathe in deeply and relax. If necessary, use a local anaesthetic suppository or gel before trying again. If pain persists, examination under general anaesthesia may be necessary.

• Ask the patient to squeeze your finger with their anal muscles and note any weakness of sphincter contraction. puborectalis muscle, which is readily palpable and contracts as a reflex action

• Identify the uterine cervix in women and the prostate in men.

• If the rectum contains faeces and you are in doubt about palpable masses, repeat the examination after the patient has defecated.

• Slowly withdraw your finger. Examine it for stool colour and the presence of blood or mucus.