The Abdominal Exam

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Introduction

INVESTIGATION

EXAMINATION

HISTROY

DX
DIAGNOSIS

Abdominal Examination 5 Major Steps

- Inspection .
- Palpation .
- Percussion .
- Auscultation .
- Special maneuvers .

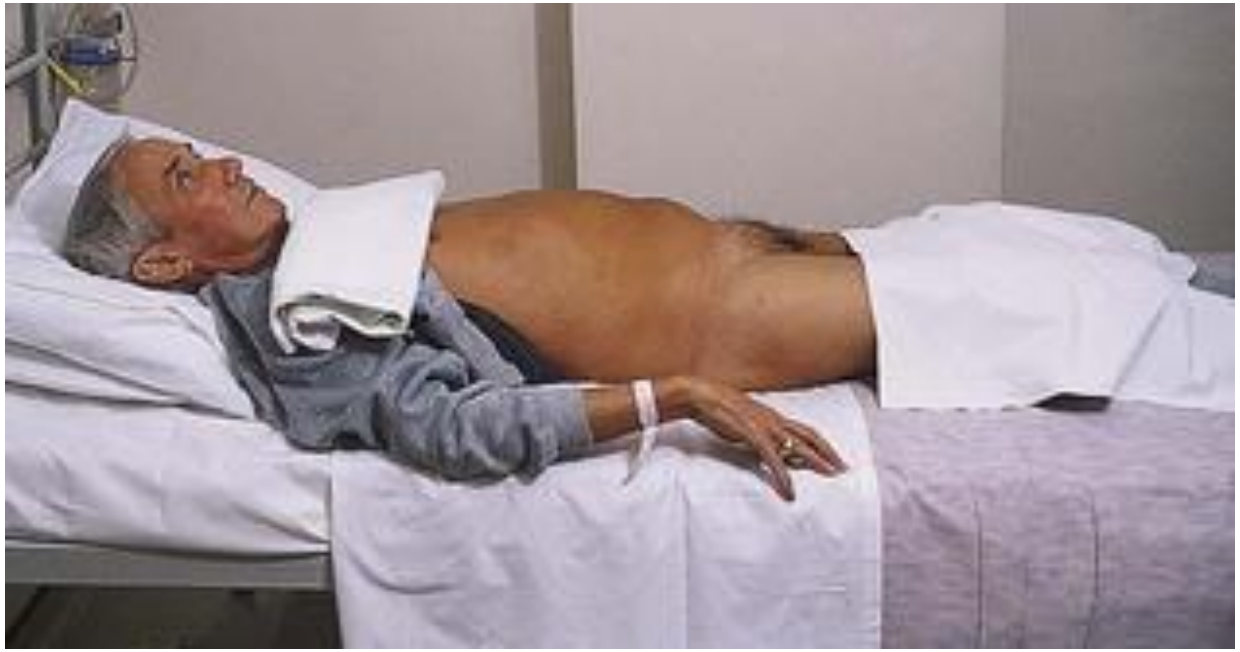
The Principle of Inspection

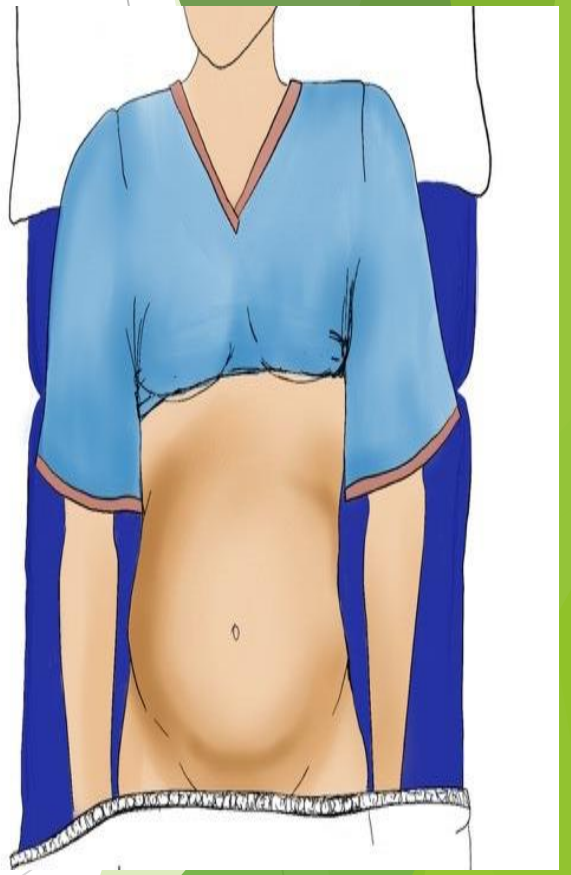
1ST POSITION 2ND Exposure 3rd site of inspection

- Position : Supine
- Exposure : below nipple to genitalia
- Site : from the foot of the bed then from the right side of the patient

Remember

- Chaperon
- Good light
- Wash hands
- Introduce your self




GENERAL
INSPECTION
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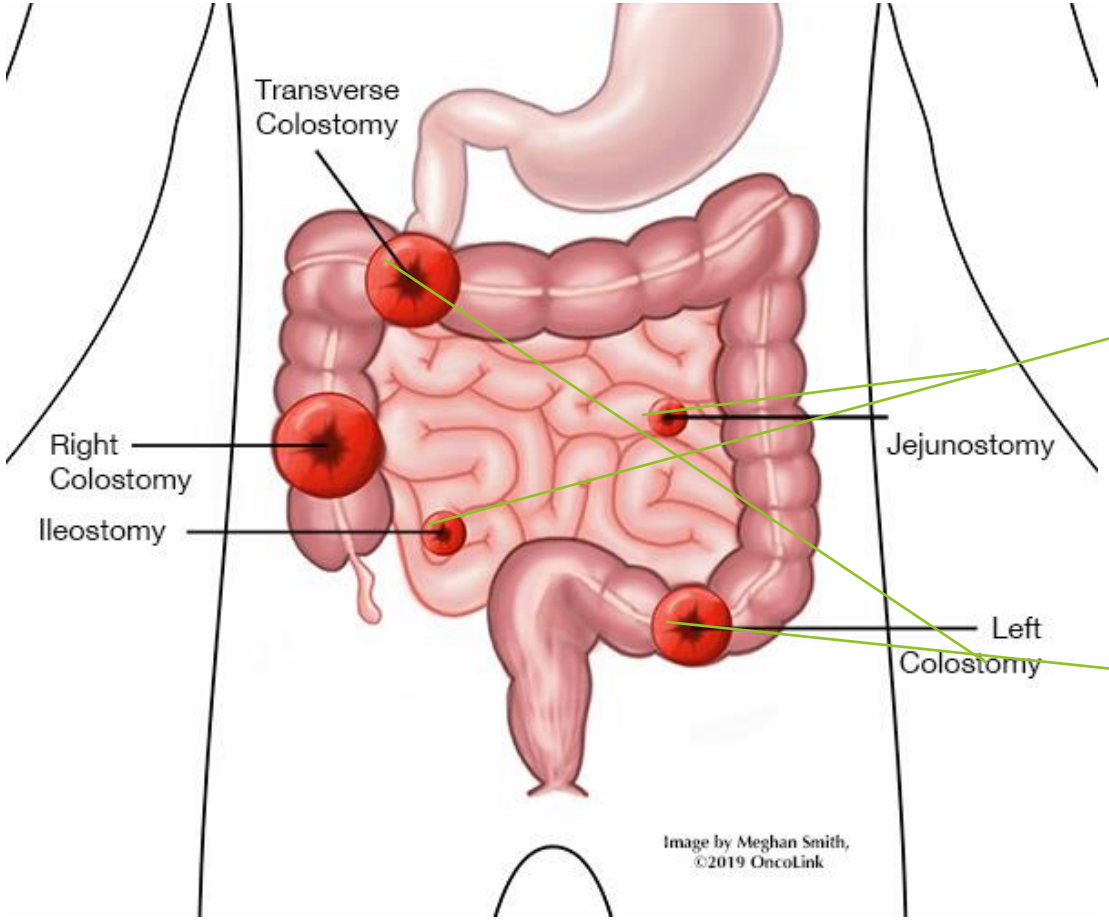
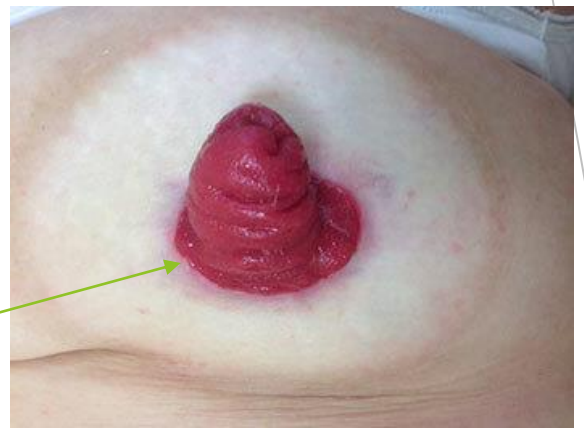
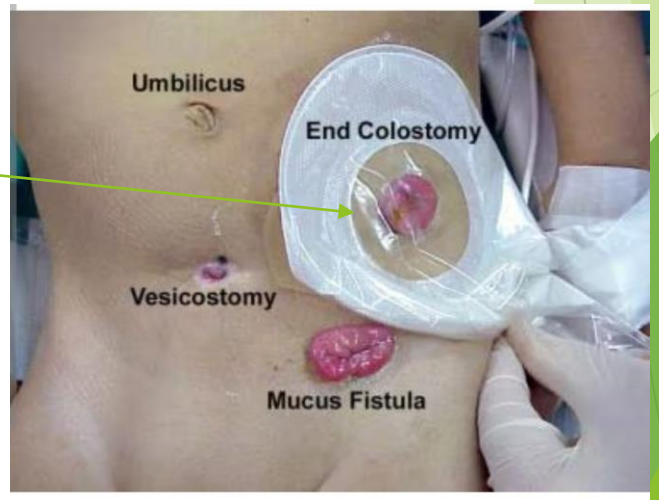
What is important during Inspection should complete these answers !

- Is the abdomen move with breathing? To exclude peritonitis!
- Is the abdomen distended? The grade of distention range from scaphoid abdomen, flat abdomen, distended in the flanks, distended .
- Is the umbilicus centrally located? To exclude asymmetry!
- Any abnormal swelling?
- Are the Hernial Orifices intact ?! No expansile cough impulse !
- Any another abnormalities like abnormal rash or pigmentation or dilated veins or ulcers or scars , striae, stoma ……

Surgical Stomas



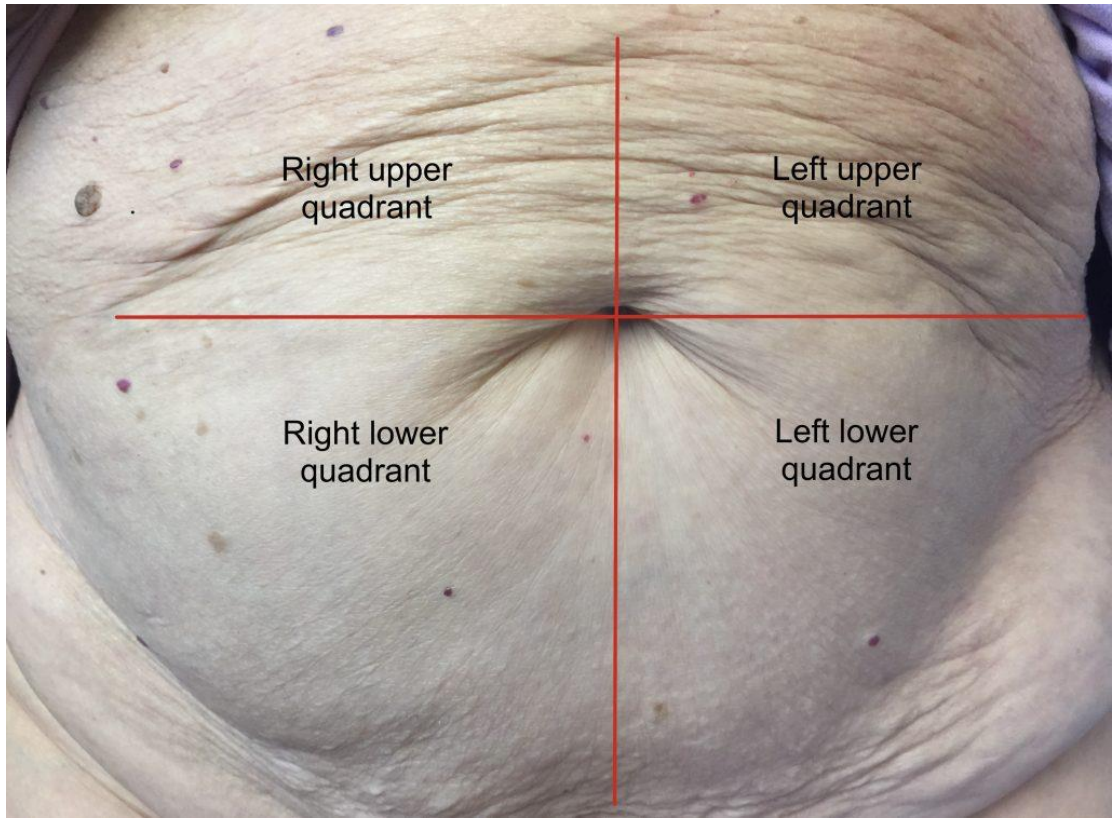




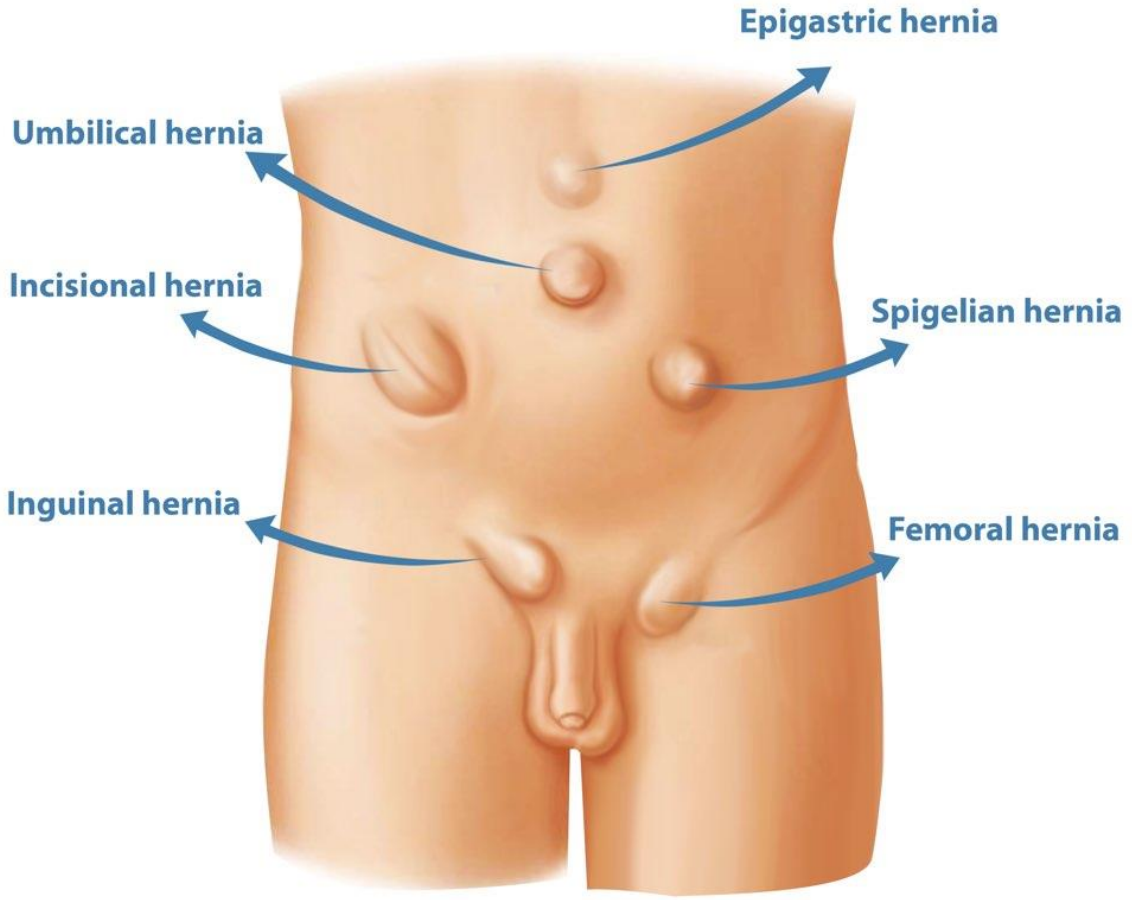
What is the 5 Fs of the abdominal distention ?

- FAT
- FLUID (ASCITIS)
- FLATUS (OBSTRUCTION)
- FECES (OBSTRUCTION)
- FETUS (PREGNANCY)

Look for Asymmetry



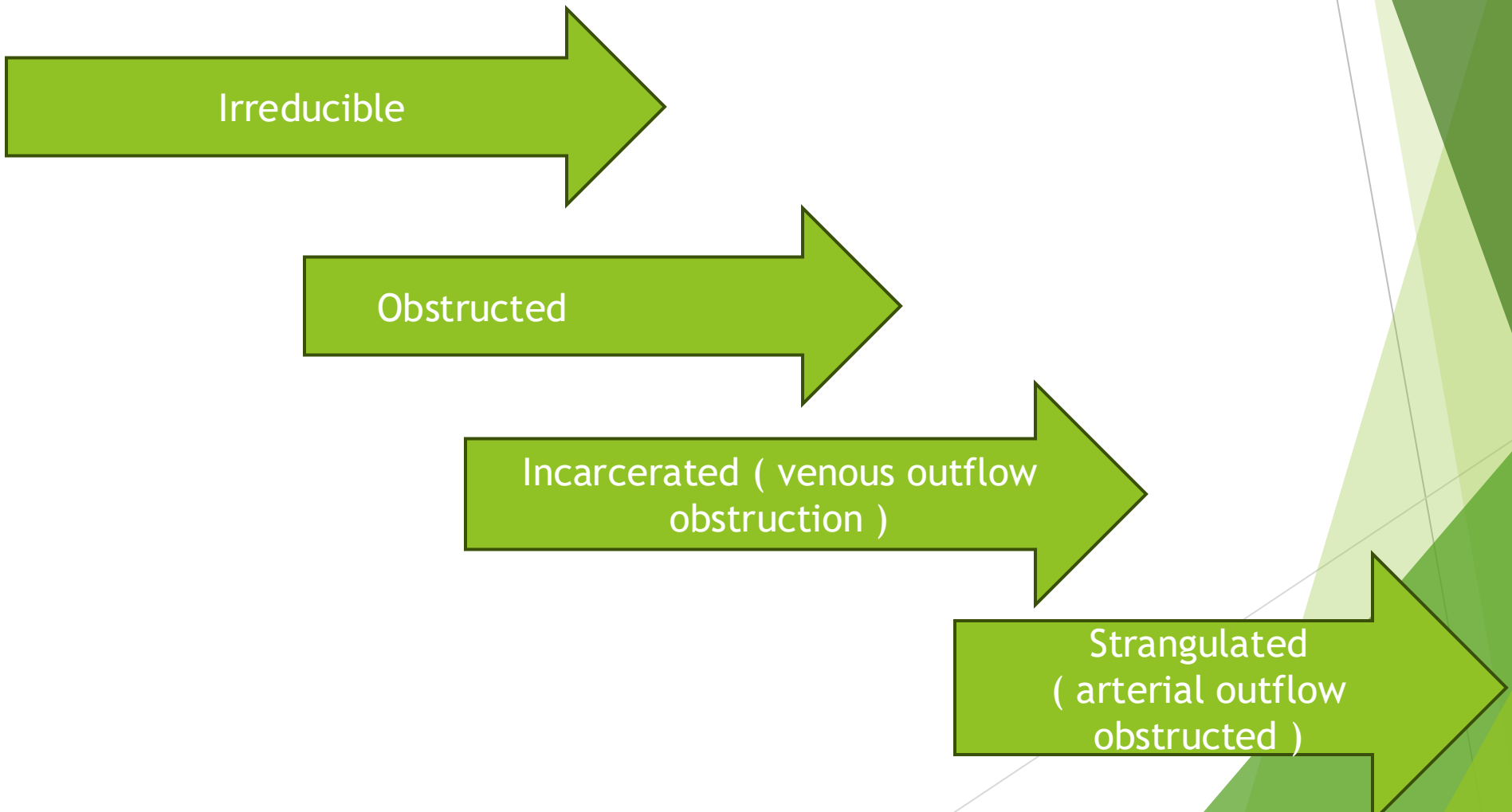
Look for hernia



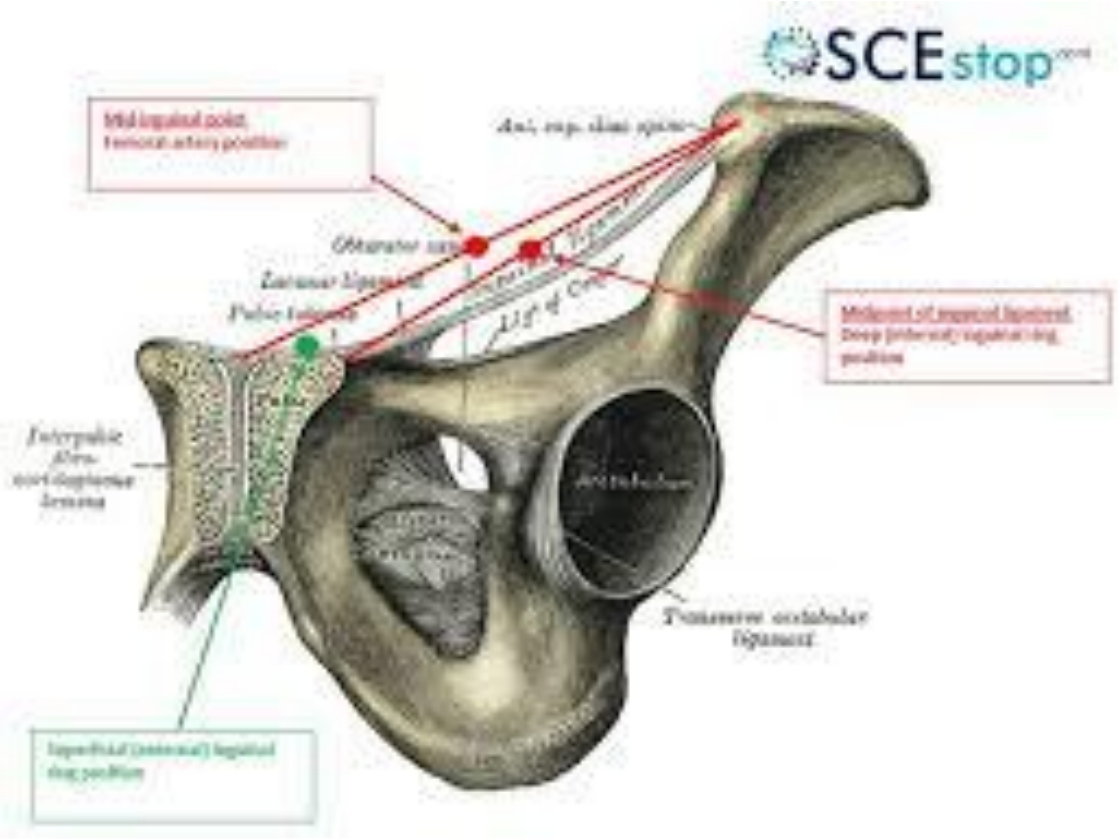
Examination of hernia

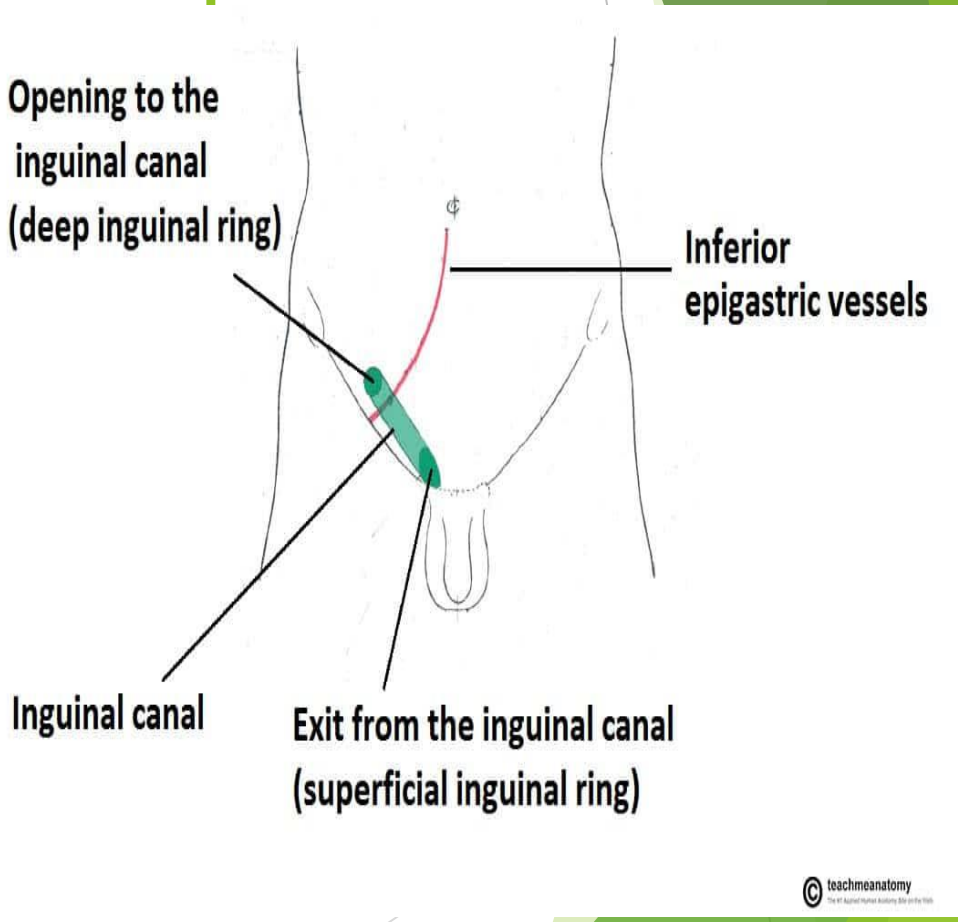
- It’s a protrusion of internal organ through a weakness in the wall , it has an expansile cough impulse .
- Starting examination of a hernia by stimulation of a cough impulse and recognizing its spontaneous reduction .
- If not do palpation and feel its spontaneous reduction of expansile cough impulse
- You may ask the patient to sand up for you o increase the intrabdominal pressure .
- If you find irreducible hernia do not reduce it .

Stages of hernia complication

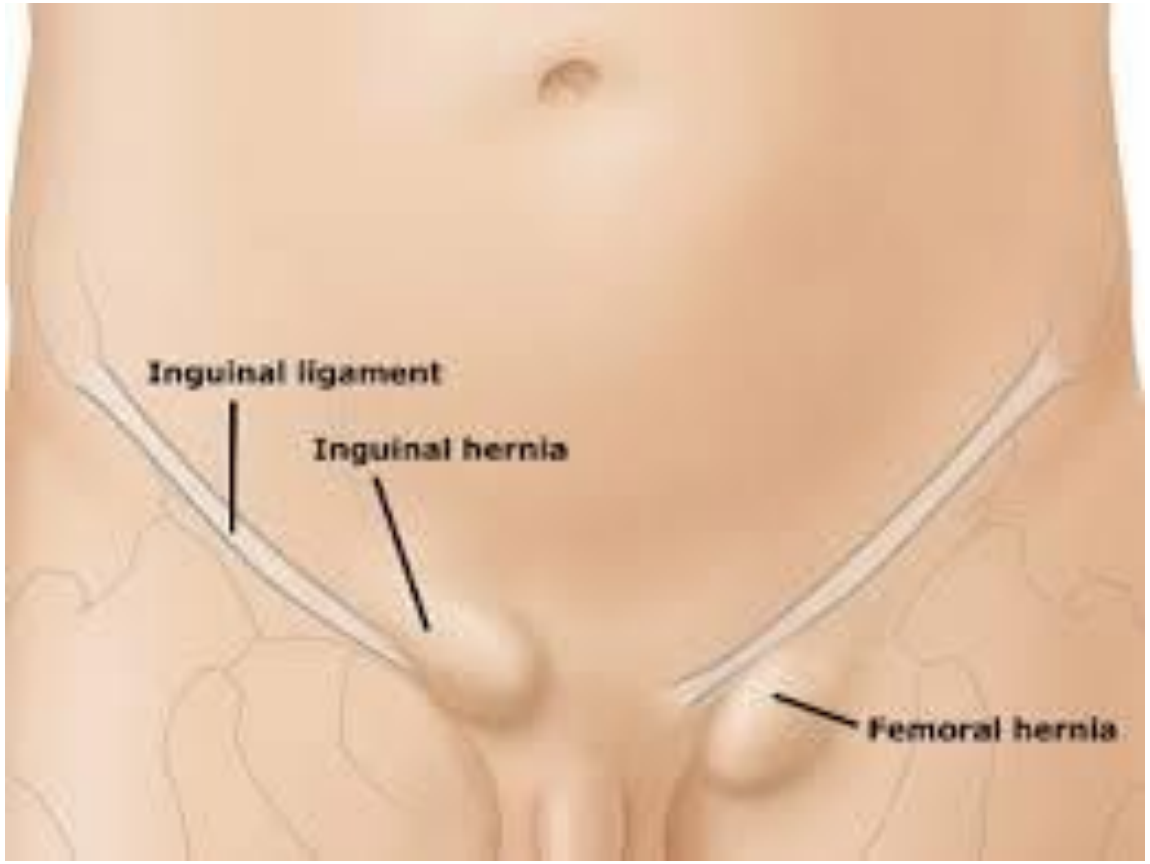


Look for hernia at the mid point of the inguinal ligament VS mid inguinal point !

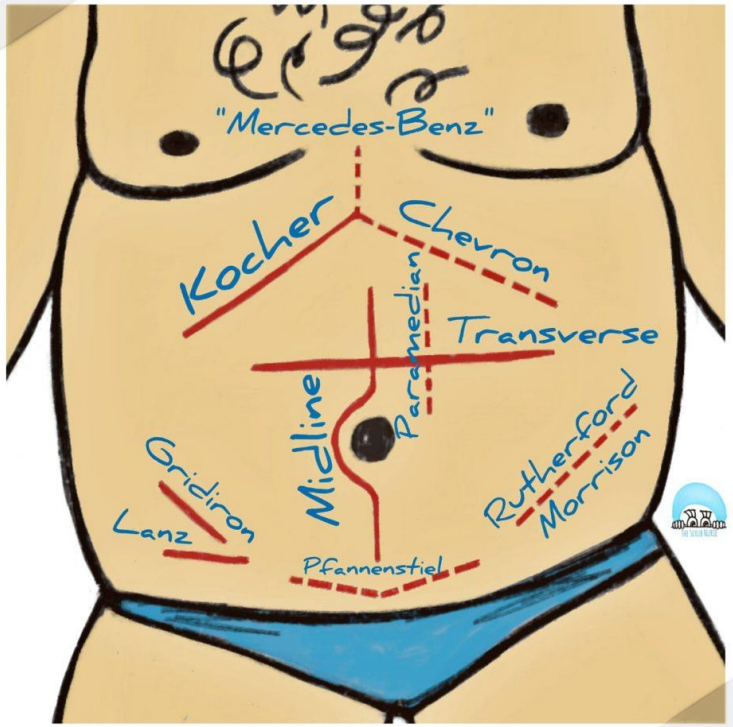




Inguinal VS femoral hernia



Surgical abdominal scars



Palpation

- Is usually done to asses :

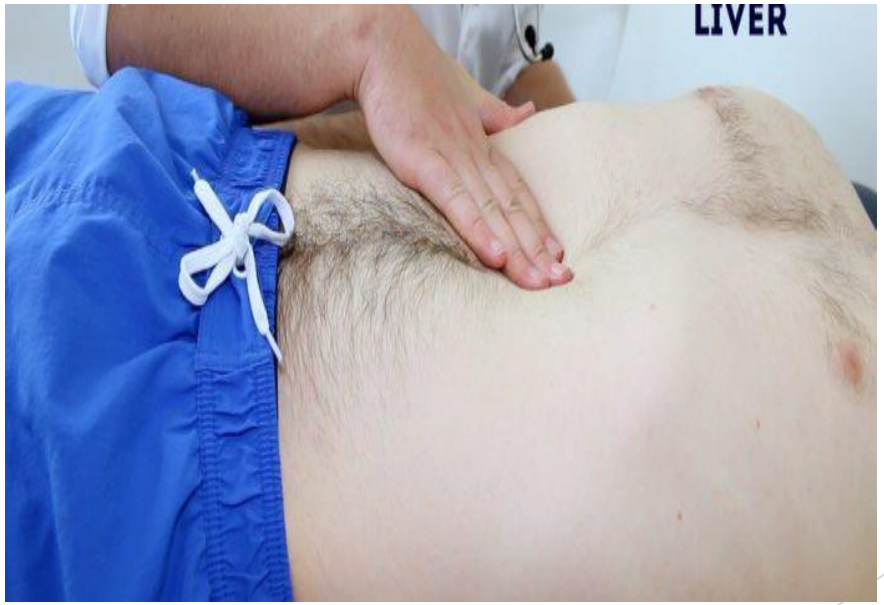
1- Tenderness

2- Masses

3- Hernial orifices

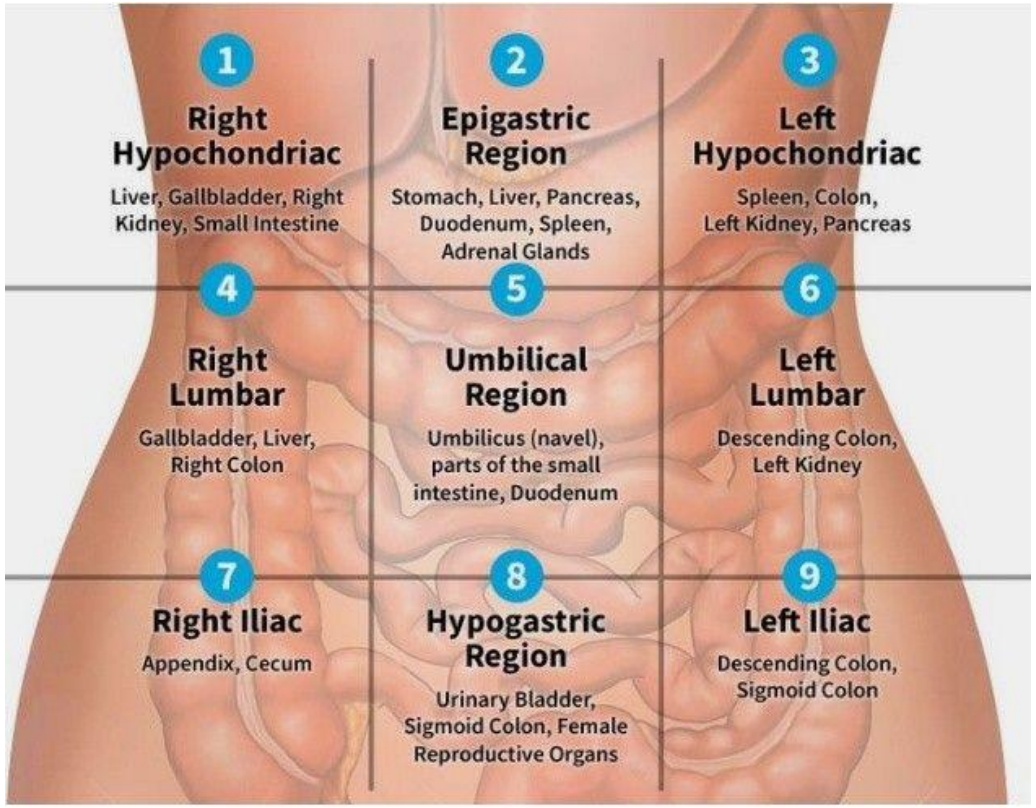
4- organomegaly

(put your whole hand)



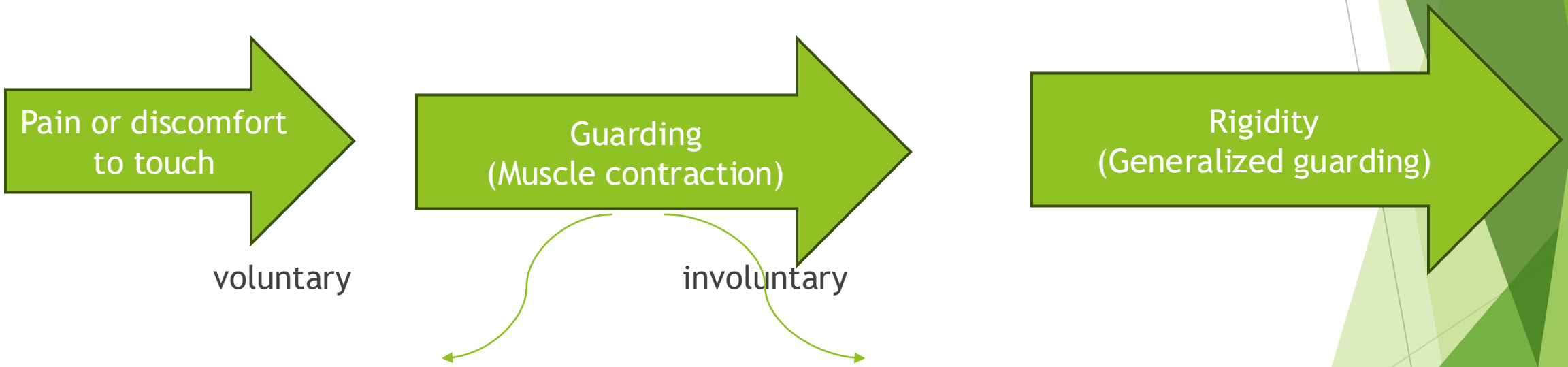
The principles of palpation

- The ideal position for abdominal examination is to sit or kneel on the patient's right side with the hand and forearm in the same horizontal plane as the patient's abdomen.
- Should be done with a warm hands
- Before touching the patient gain permission 1st then ask for any pain in the abdomen .
- Palpation should be performed in 3 stages in the same order—superficial or light palpation, deep palpation, and organ palpation. Maneuvers specific to certain diseases are also a part of abdominal palpation.
- The examiner should begin with superficial or light palpation from the area furthest from the point of maximal pain and move systematically through the 9 regions of the abdomen


1
Right Hypochondriac
Liver, Gallbladder, Right Kidney, Small Intestine
2
Epigastric Region
Stomach, Liver, Pancreas, Duodenum, Spleen, Adrenal Glands
3
Left Hypochondriac
Spleen, Colon, Left Kidney, Pancreas
4
Right Lumbar
Gallbladder, Liver, Right Colon
5
Umbilical Region
Umbilicus (navel), parts of the small intestine, Duodenum
6
Left Lumbar
Descending Colon, Left Kidney
7
Right Iliac
Appendix, Cecum
8
Hypogastric Region
Urinary Bladder, Sigmoid Colon, Female Reproductive Organs
9
Left Iliac
Descending Colon, Sigmoid Colon

The Palpation

- There are 3 stages of tenderness



Palpation / Assessment of masses
What should you do when you asses any mass at the abdomen ?

1- the 5 S : site, size, shape, surface and surrounding skin

2- edges and margin. (well defined or not)

3- consistency.

4- below or above the abdominal wall muscle.

5-tenderness

6- its relation to other internal organs

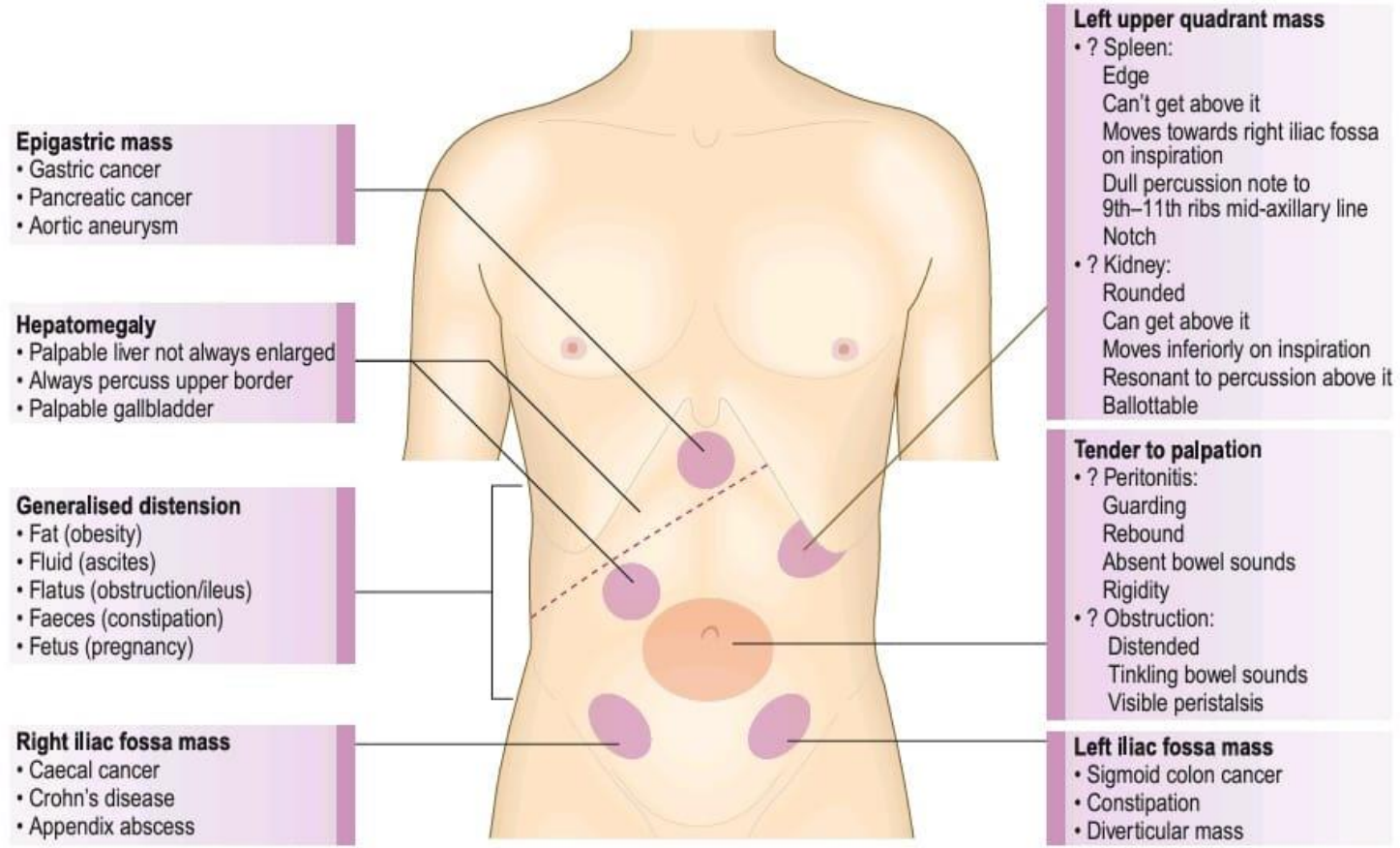


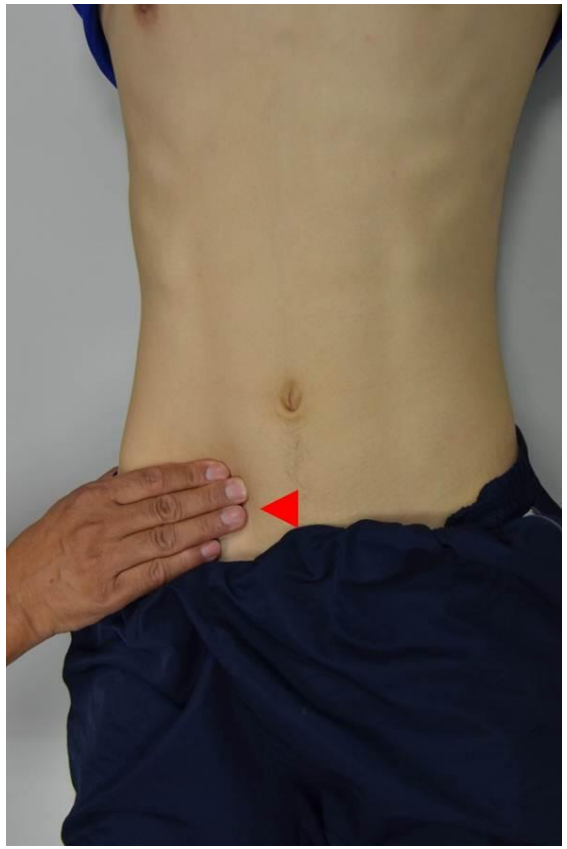
Fig. 6.12 Palpable abnormalities in the abdomen.

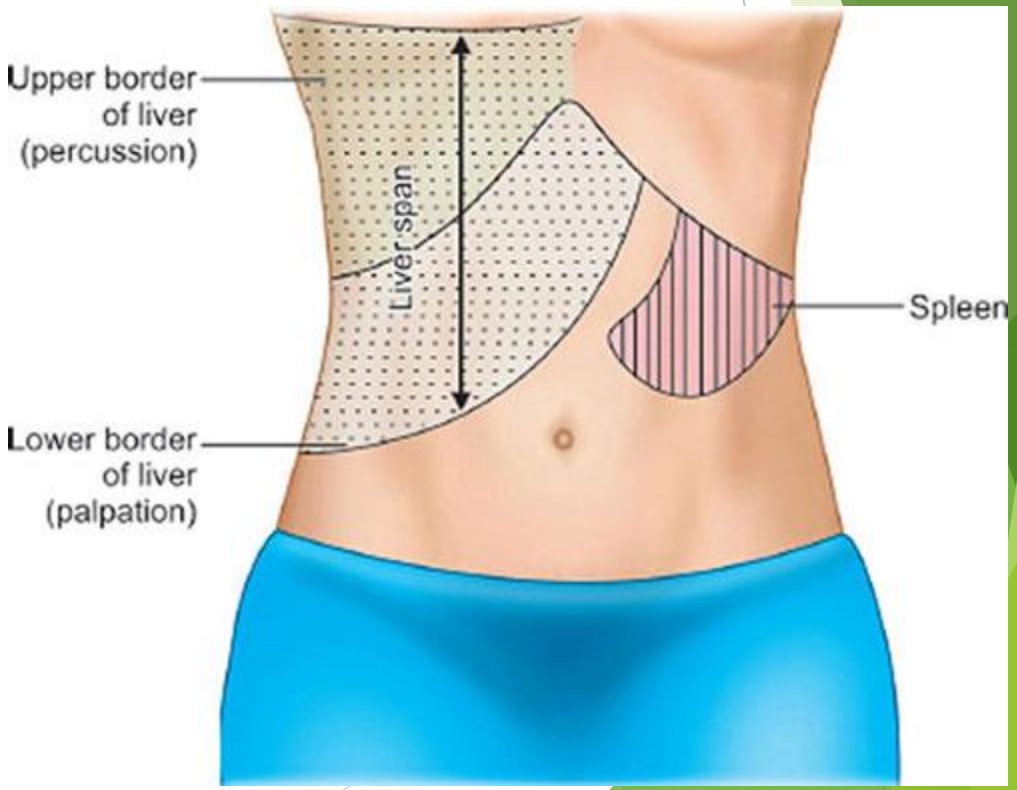
Organomegaly Assessment

- LIVER
- KIDNEYS
- SPLEEN

HEPATOMEGALY

- Assessment of hepatomegaly include both percussion and palpation .





Palpation for the liver edge

- Place your hand flat on the skin of the right iliac fossa. •
- Keep your hand stationary.
- • 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, 1cm at a time, between each breath the patient takes until you reach the costal margin or detect the liver edge.
- • If you feel a liver edge, describe:
- • size • surface: smooth or irregular , nodular • edge : smooth sharp or irregular rounded ;define the medial border • consistency : soft or hard • tenderness • pulsatility .
- Please note palpation of the gallbladder started at the RIF (right iliac fossa)

Percussion of the liver edge

- Start percussion to identify the upper edge which is normally located at the 5th rib . So at the midclavicular line identify the 2nd intercostal space which located against the sternal angle percussion will give resonance till the 5th intercostal space which is expected to be dull now .
- Lower edge identified with palpation of liver edge then percussion to make sure you are palpating the liver as it dull to percussion .

Splenomegaly

- It should be enlarged 3 fold to be palpated
- Start at the umbilicus then move diagonally along the patient takes deep breath 1cm each movement toward the left hypochondrium till reaching the costal margin .
- It has a characteristic notch
- You can not get above it
- Dull to percussion
- To better assess the spleen you may ask the patient to lie on his flank or you can compress the left flank with your left hand while palpation done with your right hand

Look for kidney enlargement

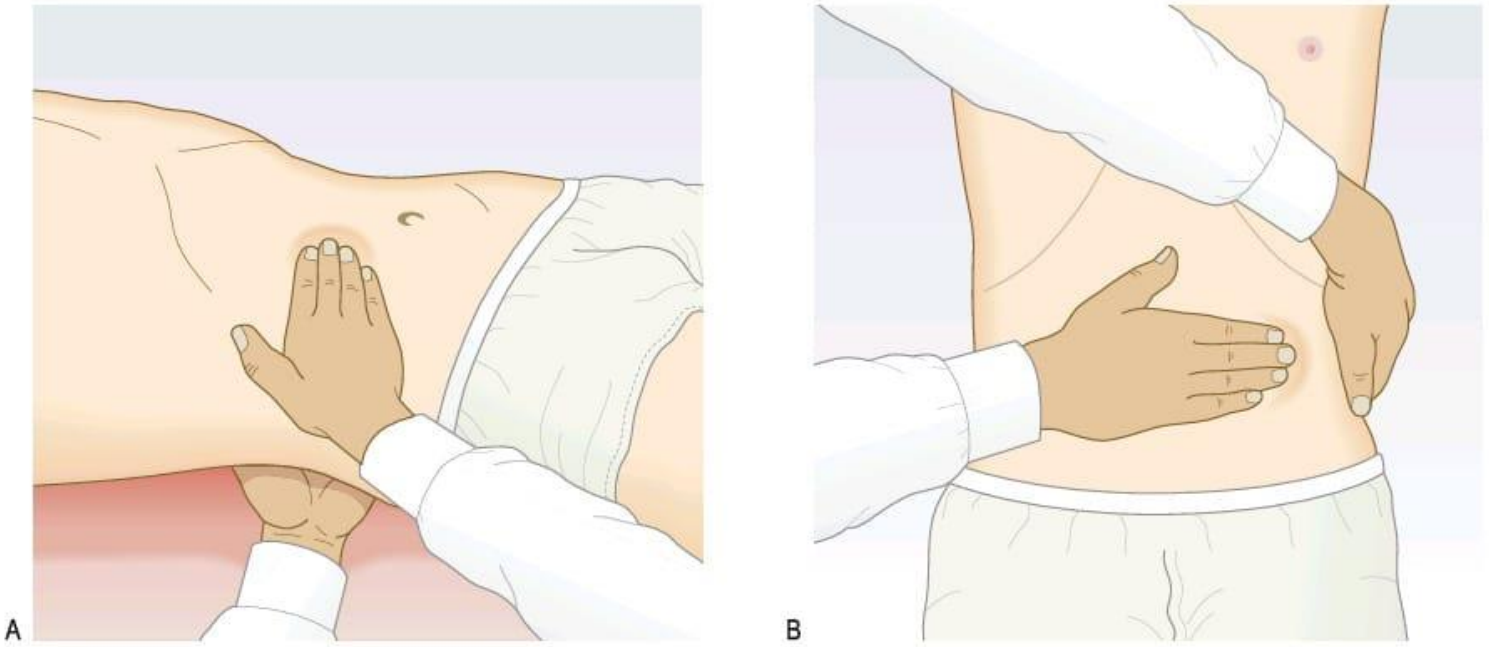


Fig. 12.12 Palpation of the kidney. A Right kidney. B Left kidney.

6.13 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 into 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)

Normally found by palpation or percussion

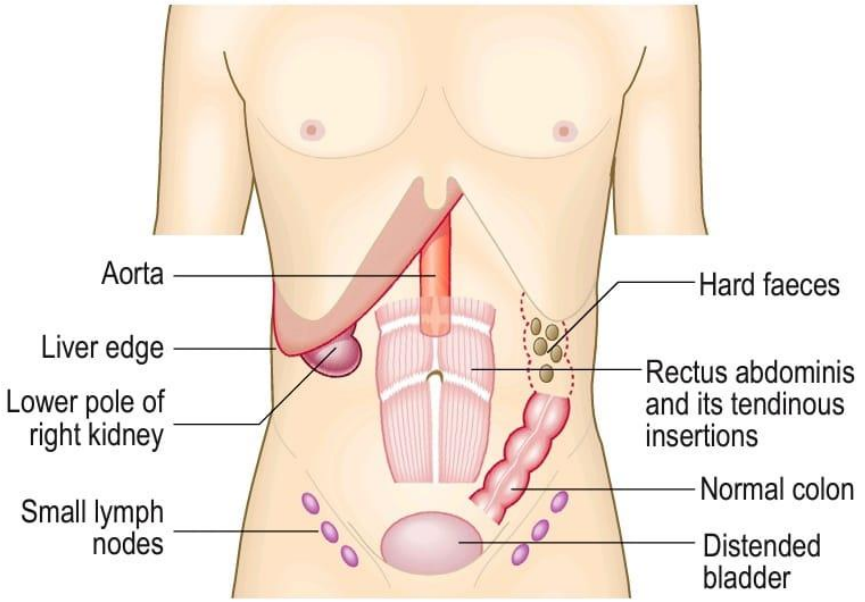


Fig. 6.14 Palpable masses that may be physiological rather than pathological.

Examination for ascites

- Its started by inspection as fully distended abdomen we use flickering maneuvers .
- If not we use shifting dullness

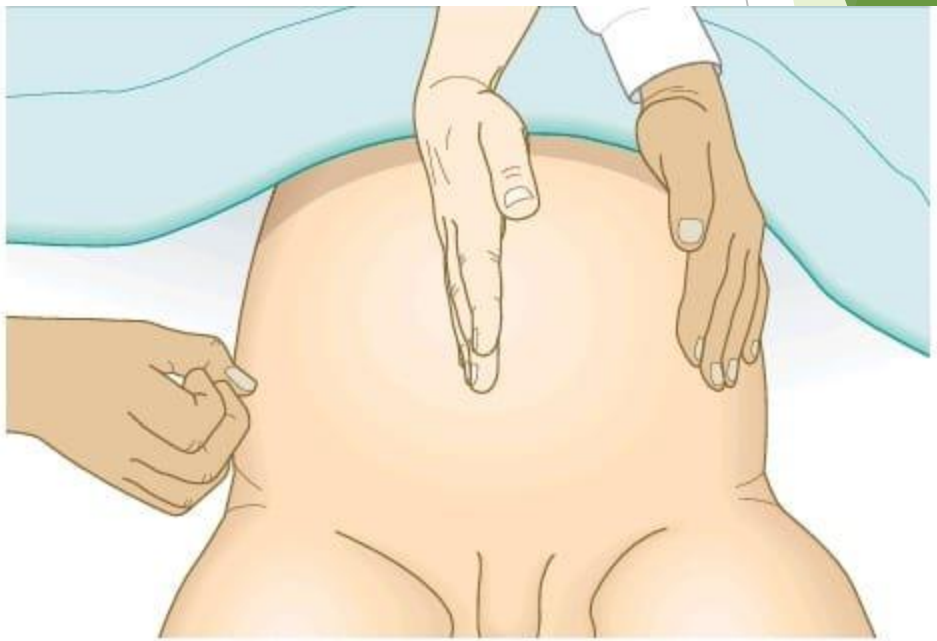


Fig. 6.19 Eliciting a fluid thrill.

Shifting dullness

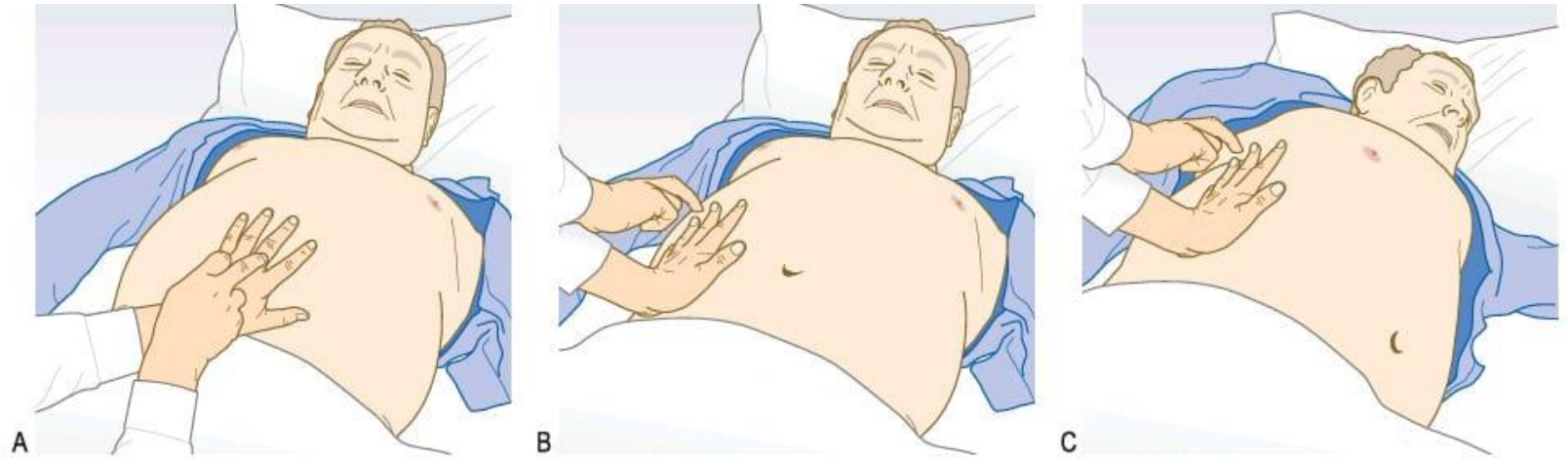


Fig. 6.18 Percussing for ascites. A and B Percuss towards the flank from resonant to dull. C Then ask the patient to roll onto their other side. In ascites the note then becomes resonant.

Per rectal exam (PR)

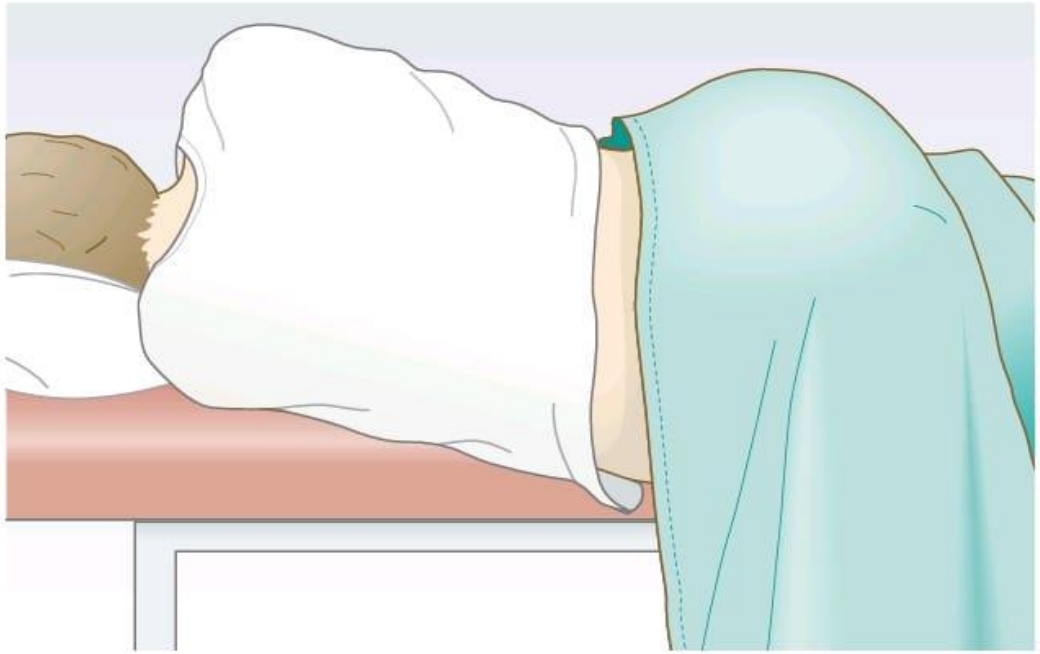


Fig. 6.23 The correct position of the patient before a rectal examination.

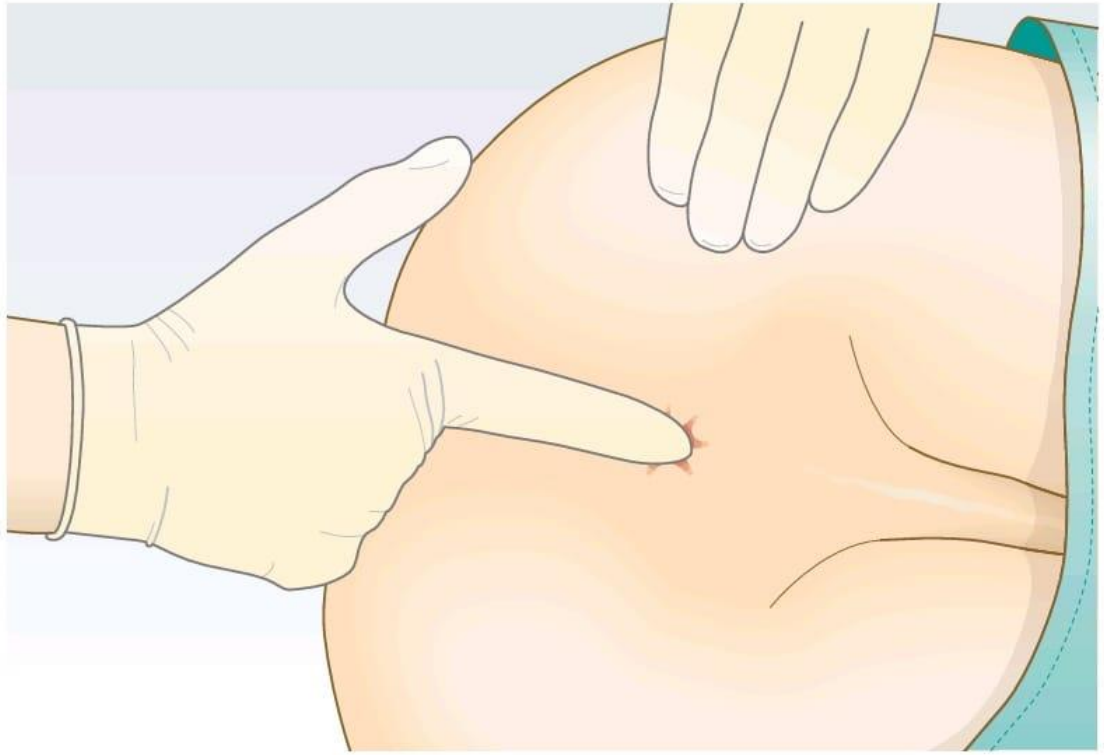


Fig. 6.24 **Rectal examination.** The correct method for inserting your index finger in rectal examination.

Per rectal exam (PR)

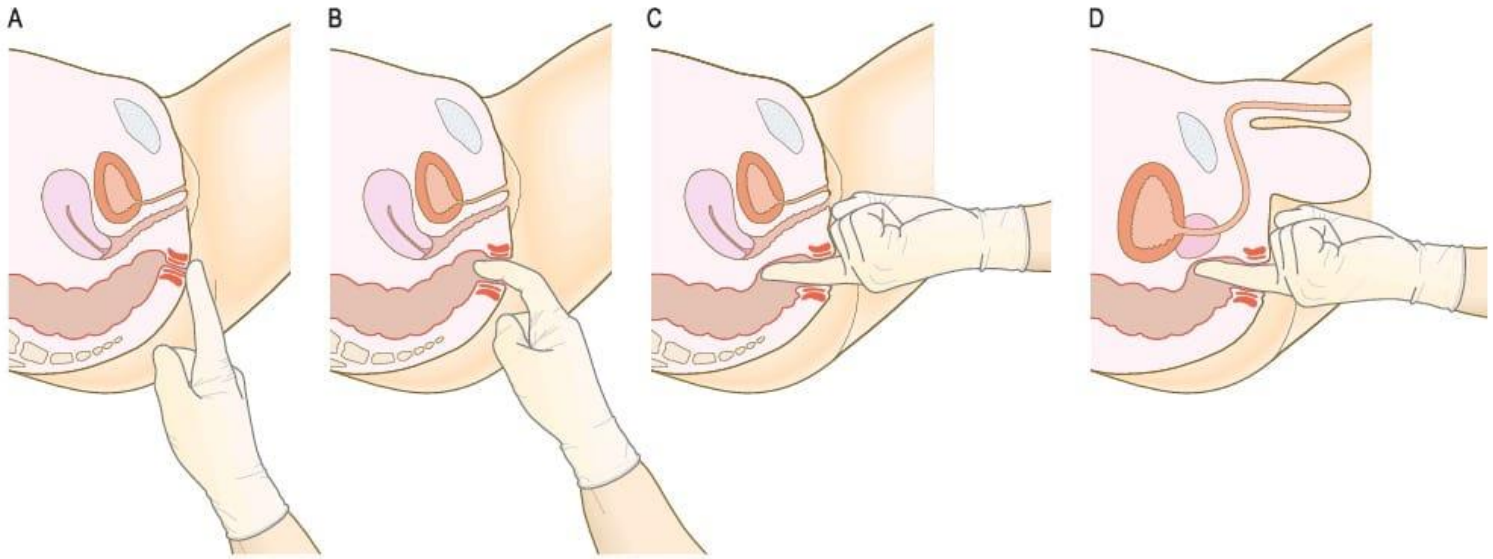


Fig. 6.25 Examination of the rectum. A and B Insert your finger, then rotate your hand. C The most prominent feature in the female is the cervix. D The most prominent feature in the male is the prostate.

Scrotal Exam
scrotal pathology vs inguinal hernia

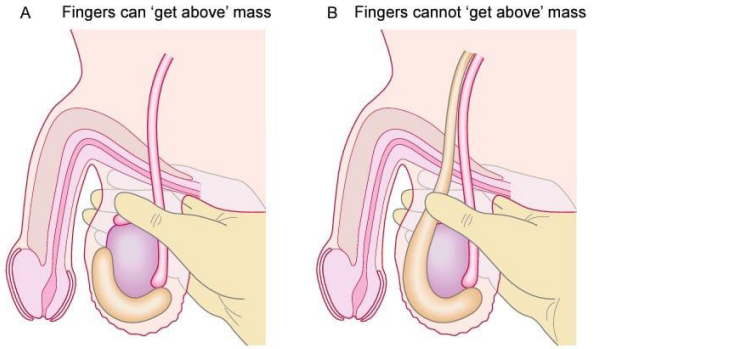


Fig. 11.48 Testing for scrotal swellings. A It is possible to 'get above' a true scrotal swelling. B This is not possible if the swelling is caused by an inguinal hernia that has descended into the scrotum. A hydrocele may also extend into the inguinal region.

273

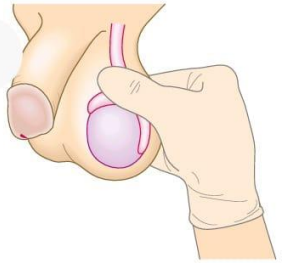
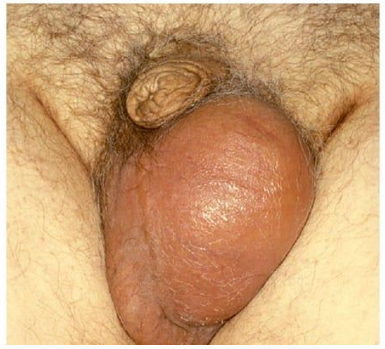


Fig. 11.49 Palpation of the epididymis. The epididymis is readily felt only at the top of the testis.



Auscultation

- Its usually done to 1st ensure bowel sound , so put your diaphragm of the stethoscope at the Right iliac fossa to better illustrate bowel sound as it is the usual location of the ileocecal valve .

- 2nd to look for Bruit in specific artery like renal artery or the aorta or maybe in special live tumor .
- Usually it is prioritize in pediatric population before palpation

Special test

6.10 Specific signs in the 'acute abdomen'

Sign	Disease associations	Examination
Murphy's	Acute cholecystitis: Sensitivity 50–97% 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: Sensitivity 20–70% 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
Grey Turner's and Cullen's	Haemorrhagic pancreatitis, aortic rupture and ruptured ectopic pregnancy (see Fig. 6.13)	Bleeding into the falciform ligament; bruising develops around the umbilicus (Cullen) or in the loins (Grey Turner)

Rebound tenderness

- Its usually done to show peritonitis .
- Its one of the criteria of diagnosis appendicitis .
- You can do it by stimulation of cough impulse or gentle percussion at the expected inflamed site .