

Abdominal Examination

★ General:- <ul style="list-style-type: none"> ▪ Student: <ol style="list-style-type: none"> 1- Washes hands before and after exam. 2- Introduces himself to the patient. 3- Dresses professionally in white coat . 4- Seeks permission for doing examination. 5- Closes the door & in presence of a nurse . 			
*General Considerations			
1. The patient should be lying supine comfortably with one pillow under the head & his arms at side or folded across the chest .			
2. The patient should be exposed from the nipple to the middle of the thigh .			
3. The examiner stands on the right side of the patient & uses his right warm hand (if he is right handed)			
I .Inspection			
Comment on:			
1. Abdominal size & contour (from foot side of the patient)			
2- Localised abdominal swelling or bulge(relation to anterior abdominal wall & respiration)			
3- Respiratory movement (type & limitation)			
4- Visible peristalsis or Pulsation . (in 3&4 look tangential to abdominal wall)			
5- Abdominal Skin:			
• skin pigmentation .			
• scars of previous surgery(number, site ,size ,level , type of healing & impulse on cough)			
• Striae			
• Dilated veins (site & direction of blood flow)			
6- Subcostal angle (Measure by 2 thumbs)			
7- Divarication of recti (ask the patient to rise from supine position without using his arms)			
8- Umbilicus : site , shape ,impulse on cough , pigmentation , fistula ,discharge or nodule			
9- Supra-pubic hair : male or female distribution			
10- Hernial orifices & external genitalia (during standing) for impulse on cough or hypospadias , swelling or empty scrotum (ectopic or undescended testis).			
11- Perineum & peri-anal region: for any peri-anal disorder .			
12- Back : swelling , dimple , deformity of spine or scar .			

II. Palpation			
<p>-Flex patient's hips& knees with a pillow under his knee to relax abdominal wall.</p> <p>-Ask the patient to point the site of complaint and start palpation as far as possible in the diagonally opposite region .</p> <p>-Palpate the nine regions systematically in S shape direction approaching the site of the complaint last of all .</p> <p>-Palpate by the flat of the right hand .</p>			
<p>A-Superficial (light) palpation:-</p> <p>-Palpate the abdomen gently</p> <p>-Comment on tenderness(look for facial expression) , rebound tenderness, guarding , rigidity and superficial swellings .</p>			
<p>B- Deep palpation:-</p> <ul style="list-style-type: none"> • Palpate each abdominal compartment deeply for deep tenderness and any swelling. • Organ palpation : <p>1-Liver :</p> <p>- The fingers lie on a line parallel to the right costal margin (parallel to lower border of liver) .</p> <p>- Start examination in right iliac fossa in the right mid-clavicular line (for lower border of right lobe) then in the middle line above the umbilicus (for lower border of left lobe) while asking the patient to take deep breaths in and out from his mouth.</p> <p>-keep your hands stationary & ask the patient to take a deep breath ,try to feel the lower border of the liver as it move downwards on inspiration .</p> <p>- If the lower border is felt , measure the distance , in centimeters ,below the costal margin & below the xiphisternal junction respectively .</p> <p>-The lower border of the liver can be felt by 6 methods :</p> <ol style="list-style-type: none"> 1-Radial border of the hand (standar classical methods) . 2-Fingers tips . 3- Bimanual method (if not felt by 1&2). 4-Hooking method (for shrunken liver) . 5- Dipping method (in case of massive ascites) <p>-Comment on :</p> <ul style="list-style-type: none"> • Size (in cm below costal margin) • Lower border (sharp or rounded) • Surface (smooth or nodular) , • Tenderness. • Consistency (firm or hard) . • Pulsation 			

<p>2-Gall Bladder:</p> <ul style="list-style-type: none"> -Try to palpate the gall bladder by the radial border of hand or fingers tips in the right midclavicular line (as right lobe of liver). -Gall bladder swelling : is felt in the right hypochondrium , pyriform ,smooth , moves up & down with respiration ,with rounded border , tender & disappear as you palpate upwards. 			
<p>3-Spleen:-</p> <ul style="list-style-type: none"> -Starts examination in right iliac fossa and move your hand towards the left costal margin asking patient to take deep breaths in and out from his mouth. - Feel the left costal margin along its length as the position of the enlarging spleen is variable. -The anterior end of the spleen can be felt by : <ul style="list-style-type: none"> 1-Radial border of the hand . 2-Fingers tips . 3- Bimanual method (if not felt by 1&2).Try to palpate the spleen by your right hand while the left hand press forwards on the patient's 9-11 left ribs ribs . 4-If the spleen is not felt , Bimanual method is done while putting the patient in the right lateral position . 5-Hooking method (If the spleen is not felt). Put the patient in the right lateral position & try to palpate the spleen while you stand on the left side of the patient &your fingers hooks along the left costal margin . 6- Dipping method (in case of massive ascites) 			
<p>4-Kidneys: (Using a bimanual technique)</p> <ul style="list-style-type: none"> - Place one hand posteriorly in the loin with your index in renal angle (between last rib and lateral border of erector spinae muscle) and the other hand over the upper quadrant. - Push the 2 hands together gently and firmly while asking the patient to take deep breath in & out. - Renal swelling produce fullness in the renal angle , can be pushed to by the anterior hand to renal angle and pushing the swelling by the posterior hand , renal swelling fall again to strike &rest on the posterior hand (ballotment) - Comment on : site ,size ,shape ,surface ,consistency& relation to respiration 			
<p>5-Complete palpation by examination inguino-Scrotal region & external genitalia if needed .</p>			

<p>III.Percussion :</p> <p>*Method:</p> <ul style="list-style-type: none"> - Start Percussion from resonance away & parallel from the suspected dullness . - Moves the wrist only for percussion - Percuss by right middle finger on the middle phalanx only of the left middle finger . - Start percussion 			
<p>1-Percuss the liver & measure liver Span :-</p> <ul style="list-style-type: none"> -Percusses upper border (heavy percussion) starting from the 2nd. intercostal space in the right mid-clavicular line . 			
<ul style="list-style-type: none"> -Percusses lower border..(light percussion) starting in the right iliac fossa in the right mid-clavicular line . 			
<ul style="list-style-type: none"> -Measures the liver span between these two points in centimeters with a ruler in the mid-clavicular line . 			
<p>2-Percuss for spleen (Splenic Dullness):-</p> <ul style="list-style-type: none"> -The patient holds breath in during full inspiration(if the spleen is not markedly enlarged) - Percusses for the anterior end of the spleen, starting from the right iliac fossa upwards to the left costal margin. - Percusses below and above the left costal margin. -If no dullness, percusses over Traub's area to detect splenic enlargement less than 2-3 times. 			
<p>3-Percussion of kidney :</p> <ul style="list-style-type: none"> -Anterior percussion of renal swelling show dullness with occasional bands of colonic resonance . 			
<p>4- Shifting dullness:- (for moderate ascites)</p> <ul style="list-style-type: none"> - Percuss from the midline of the abdomen to the right flank till the dull note is obtained. - Keep the finger in place. - Ask patient to rolls to the other side. 			
<ul style="list-style-type: none"> - Wait for at least 10 seconds then percuss again (on the same side) -Ascites is suggested if note becomes resonant. Confirmed by obtaining a dull note while percussing back towards the umbilicus. -Shifting dullness should be done on both sides . 			
<p>*Fluid thrill:- (for marked ascites)</p> <ul style="list-style-type: none"> -Place your left hand on the patient's left flank. - Put the patient 's right hand on the anterior abdominal wall in the midline to avoid any possible thrill transmitted via the abdominal wall. - Flick the abdominal wall over the patient's right flank by your right middle finger. 			

IV. Auscultation			
<p>Auscultate all four quadrants and comments on:</p> <ul style="list-style-type: none"> - Bowel sounds: best around the umbilicus, for at least 3 minutes before deciding they are absent. -Bruits :aortic, renal angle , iliac arteries bilaterally) and liver (hepato- ma) 			
V. P-R & P-V examination			
- Palpate pelvic organs for any abnormality			
*Special Signs:-			
<p>Murphy's sign:</p> <ul style="list-style-type: none"> -Place your left thumb on the tip of right 9th costal cartilage and ask the patient to take a deep breathing. -If the patient suddenly catch his breath due to accentuation of pain; suggesting cholecystitis. 			
<p>Boas' sign :</p> <ul style="list-style-type: none"> - In cholecystitis ,there is an area of hyperaesthesia between 9th &11th rib posteriorly on the right side(compare sensation on both sides) . 			
<p>Sheren's triangle:</p> <ul style="list-style-type: none"> - In acute appendicitis, there is hyperaesthesia between the umbilicus ,right anterior superior iliac spine & symphysis pubis . 			
<p>Psoas Sign: - (patient laying on left side)</p> <ul style="list-style-type: none"> - In acute retrocaecal appendicitis ,there is flexion deformity of right hip with accentuation of pain on extension . 			
<p>Obturator Sign:- (patient laying supine)</p> <ul style="list-style-type: none"> -In acute pelvic appendicitis ,there is lateral rotation deformity of right hip with accentuation of pain on medial rotation . 			
<p>Rovsing's Sign :-</p> <ul style="list-style-type: none"> -In acute appendicitis , sharp pressure in the left iliac fossa ,leading to pain in the right iliac fossa . 			

