





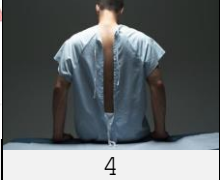



Abdominal Examination

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Osce Team Leaders: Abdulrahman Bahkley & Sarah Habis

Abdominal Examination


#	Subject steps	Pictures	Notes
A	Preparation: <u>Pre-exam Checklist:</u> WIPE	 Be the one.	Very important.
1	W ash your hands.	 1	✓ Position: flat, or lying on one pillow. ✓ Exposure: ideally, from nipples to mid thighs, but expose up to the groin and tell your examiner the ideal exposure.
2	I ntroduce yourself to the patient, confirm patient's ID, explain the examination & take consent.	 2	
3	P ositioning of the patient and his/her Privacy.	 3	
4	E xposure. full exposure of the trunk.	 4	
B	Examination: <u>General appearance:</u> (ABC2DEVs)	A B C D E	
1	A pppearance: young, middle aged, or old, and looks generally ill or well.		✓ Begin by observing the patient's general health from the end of the bed. ✓ Around the bed I can't see any medications, Or IV line ...etc.
2	B ody built: normal, thin, or obese	✓ Begin by observing the patient's general health from the end of the bed. ✓ Observe the patient's general appearance (age, state of health, nutritional status and any other obvious signs e.g. jaundice, cyanosis, dyspnea). ✓ General appearance: Jaundice. Weight and wasting. Skin: <ul style="list-style-type: none"> - Pigmentation. - Hereditary hemorrhagic telangiectasia. - Porphyria cutaneatarde. - Systemic sclerosis. 	
3	C onnections: such as nasal cannula (mention the medications), nasogastric tube, oxygen mask, canals or nebulizer, Holter monitor, I.V. line or cannula (mention the medications).		
4	C olor: jaundiced, pale, or cyanosed.		
5	D istress: in pain, respiratory (using accessory muscles), or neurological (abnormal movements) distress.		
6	E lse: mental functions: consciousness, alertness, and orientation.		

7	Vital signs: <ol style="list-style-type: none"> 1) Pulse rate 2) Blood pressure (BP) 3) Temperature 4) Respiratory rate 	Rate: counting over 30 seconds, normally 60-100. Rhythm: regular or irregular. Synchronization by comparing with the other side (radio radial or radio femoral delay). Character and volume: determined from the carotid. Blood pressure (BP) Normal BP defined as a systolic reading less the 140, and diastolic reading less than 90. □ Temperature: Normal body temperature ranges from 36.6-37.20C. □ Respiratory rate: It is traditional to count it while taking the pulse. The normal rate at rest should not exceed 25 beat per minute (range 16-25).
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Example: The patient looks well, lying comfortably on the bed, not distressed. The patient has a good body shape, not obviously using his accessory muscles, there is no heard wheezes and he is not connected to I.V lines, oxygen mask or chest tubes.

C	Head to toes From peripheral to central or other wise. In the exam, if the examiner tells you to examine the abdomen, start locally from the abdomen than move peripherally if you have time. IF your time is up make sure to finish with I would like to complete my examination with...		
1	The hand:		
a	Dorsum: <ul style="list-style-type: none"> • Muscle wasting. • Symmetrical warm • Pigmentations & erythema marginatum • Skin lesion (including scars). • Tendon xanthomata (hyperlipidemia). 		
			 <p style="font-size: small;">Panel A: Interdigital xanthoma</p>
b	Palm: <ul style="list-style-type: none"> • Signs of nicotine staining. • Palmar erythema: chronic liver disease, liver cirrhosis. • Dupuytren's contracture: alcoholic liver disease. • Pallor of palmar creases anemia becomes clearer with hyperextend fingers. 		
			

<p>c</p>	<p>Nail:</p> <ul style="list-style-type: none"> • Clubbing: chronic liver disease, IBD. • Leukonychia: hypoalbuminemia, liver disease, or nephritic syndrome. • Koilonychias: iron deficiency anemia. 				
		<p>d</p>	<p>Flapping tremor:</p> <ul style="list-style-type: none"> ✓ (due to accumulation of toxins). (Asterixis) 		<p>Hepatic encephalopathy. Renal failure.</p>
<p>e</p>	<p>Pulse: Radial puls. Both sides.</p>	<p>https://www.youtube.com/watch?v=E-LKF_pUWDA</p>	<p>Rate, Rhythm, Volume and the Character of the pulse.</p>		
<p>f</p>	<p>Arm and axilla:</p> <ul style="list-style-type: none"> ✓ Bruising. ✓ Petechiae. ✓ Muscle wasting. ✓ Scratch marks. ✓ Spider nevi. ✓ Acanthosis nigricans. ✓ Lymphadenopathy. 	 <p>Bruising</p>	 <p>Petechiae</p> <p>Purpura</p> <p>Petechiae</p>		
	 <p>Spider nevi.</p>		 <p>Lymphadenopathy.</p>		

2	The head:	
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Face

a Eye:

- **jaundice:** (in the sclera liver disease, hemolytic anemia.
- **Pallor (in the conjunctiva):** anemia.
- **Xanthelasma** (in the periorbital regions: hyperlipidemia, primary biliary cirrhosis.
- **Iritis:** IBD.



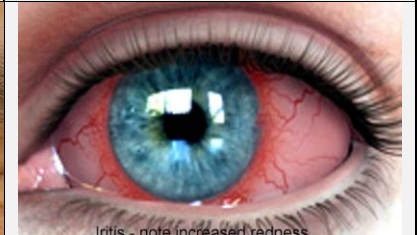
jaundice



Pallor (in the conjunctiva):



Xanthelasma



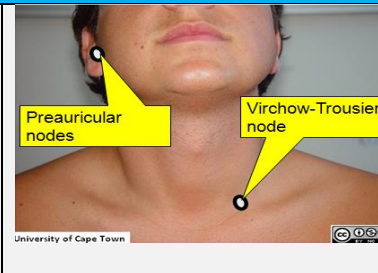
b Mouth:

- False teeth must be removed for complete examination of the mouth.
- Oral hygiene.
- Fetor hepaticus.
- Mouth ulcers: aphthous ulcer, angular stomatitis.
- Gum hypertrophy, pigmentation, or candidiasis.
- The tongue:
 - ✓ Coating over the tongue, especially in smoker.
 - ✓ Lingua nigra; black tongue.
 - ✓ Geographical tongue.
 - ✓ Leukoplakia.
 - ✓ Glossitis; smooth, red, sore tongue.
 - ✓ Macroglossia.




Neck:

1. **Virchow's nodes:** enlarged left supraclavicular lymph nodes.
2. **Troisier's sign:** presence of Virchow's nodes in gastric cancer patients.



Metastases to lymph node in left supraclavicular fossa also known as Virchow's node (or **signal node**) giving positive Troisier's sign, is one of the first visible metastatic manifestation



Chest:

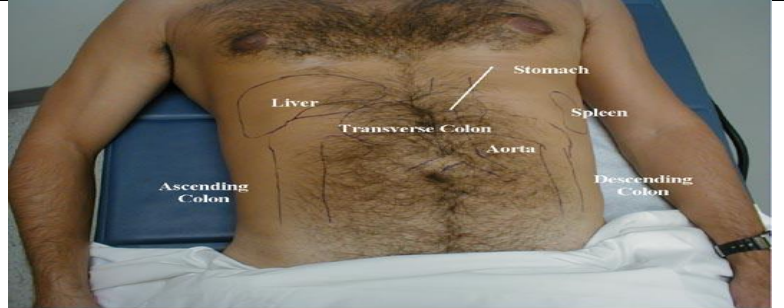
1. Spider nevi: chronic liver disease.

2. Gynecomastia.



3

Abdomen examination



A: Inspection

a

1. **Symmetry:** ask the patient to take deep breaths through the mouth and watch.
2. **Scars.**
3. **Abdominal distension** (remember the 5 F's): ascites causes full flanks.
4. **Local swelling.**



Symmetry



b

1. **Prominent veins, pulsations, or peristalsis (by squatting).**
2. **Skin lesion:** rash, cautery marks, scratch marks (for pruritus), Sister Joseph sign (nodules near the umbilicus indicate umbilical metastasis).
3. **Skin discoloration:**
 - Grey Turner's sign; purple discoloration of the flanks: severe acute pancreatitis.
 - Cullen's sign; blue discoloration of the paraumbilical area: severe acute pancreatitis.
 - General pigmentation: Addison's disease.



C

Striae:

- Silver pale: obesity, pregnancy.
- Purple: Cushing's syndrome, early after pregnancy.

Condition of umbilicus:

- Inverted: normal.
- Everted: abdominal distension, umbilical hernia.
- Semilunar (lunate): para umbilical hernia.



B: Palpation.

Ask the patient if he has any pain before starting.

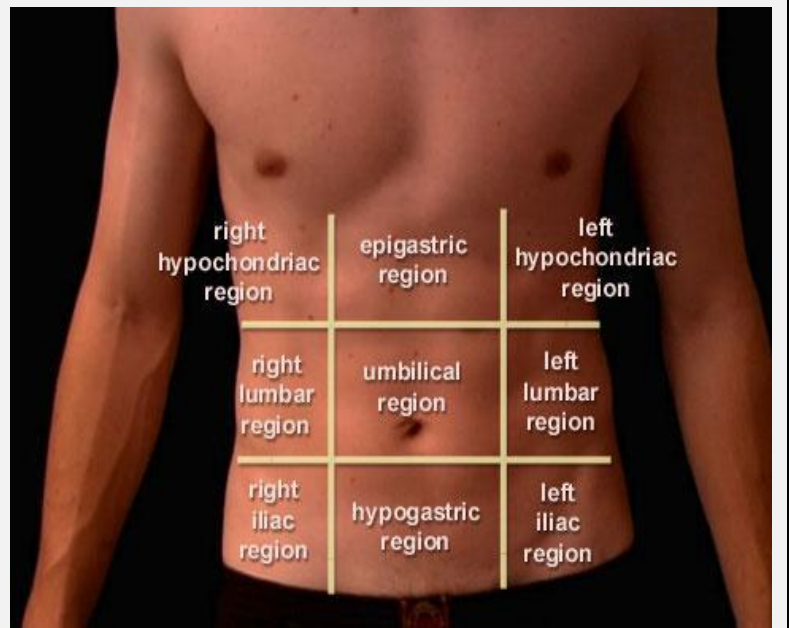
1. Superficial palpation: For superficial masses, guarding, rigidity, or tenderness.

Guarding

- ✓ Resistance to palpation due to contraction of the abdominal muscles.
- ✓ May result from tenderness or anxiety.
- ✓ Protective reflex in sensitive patient.
- ✓ Voluntary or involuntary.

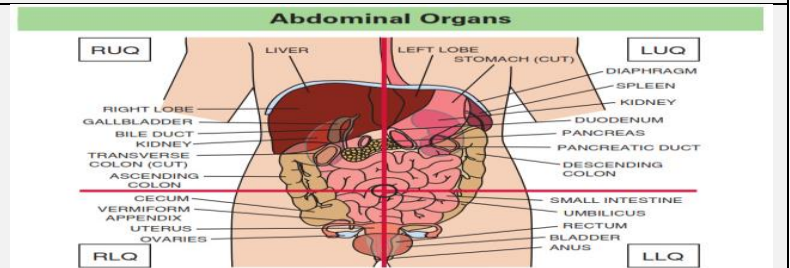
Rigidity


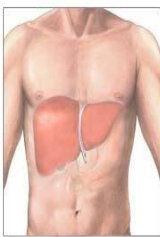


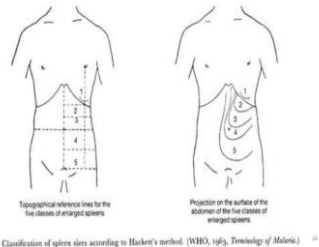

- ✓ Constant contraction of the abdominal muscles.
- ✓ Always associated with tenderness
- ✓ Indicates peritoneal irritation.
- ✓ Pathological cause.
- ✓ Involuntary.



2. Deep palpation:

For deep masses, e.g. a tumor, organomegaly.

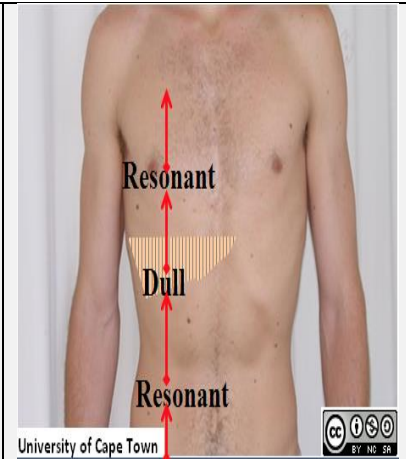
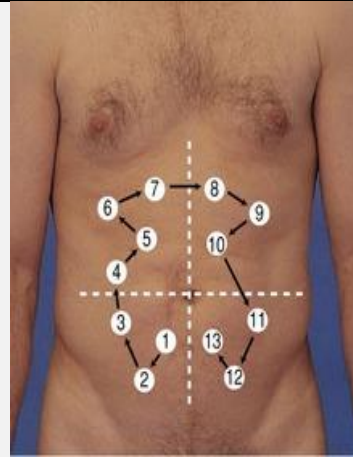


<p>1</p>	<p>❖ Liver:</p> <ul style="list-style-type: none"> Start at the right iliac fossa, putting your hand parallel to the right costal margin. With each expiration, the hand is moved 1-2 cm closer to the right costal margin. Mark the lower edge of the liver by a marker or ask the patient to point it. Go to the right 2nd intercostal space, at the midclavicular line, and start to percuss, liver dullness is usually at the fifth or sixth intercostal space. Measure the liver span: "the liver is palpable... cm below the costal margin, with span of... cm". If there is hepatomegaly, you must comment on: <ul style="list-style-type: none"> ✓ Edge: tenderness, consistency, regularity, and pulsation. ✓ Surface: smooth or nodular. ✓ Span: normal liver span less than 13 cm, and it is more in men than women. 	 <p style="text-align: center;">LIVER PALPATION</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Normal liver</p>  </div> <div style="text-align: center;"> <p>Enlarged liver due to hepatomegaly</p>  </div> </div> <p style="text-align: right;">ADAM</p>	<p>Techniques in abdominal palpation:</p> <ul style="list-style-type: none"> ✓ Ask the patient if there is any tenderness in the abdomen, and examine that area at the end. ✓ Ask the patient to breath gently through the mouth. ✓ Watch the patient face when you palpate to detect tenderness. ✓ Don't remove your hand from the patient's abdomen. ✓ Start from right iliac fossa, moving clockwise or anticlockwise, and end at the umbilical region. ✓ Use the palmar surface of your fingers, but for edges or masses use the lateral surface of the fingers because it is the most sensitive part. ✓ All the hand's movement should occur at the metacarpophalangeal joints. ✓ If you find any mass, describe it as a lump. 				
<p>2</p>	<p>❖ Gallbladder:</p> <ul style="list-style-type: none"> Hand should be perpendicular to the costal margin, palpating from medial to lateral. Murphy's sign: sharp pain and cessation of inspiration (at the top of it) during palpation, which indicates acute cholecystitis. 	<p>3).Palpation of the gallbladder</p>  <p>Murphy's sign: acute cholecystitis Courvoisier's sign pancreatic carcinoma</p>					
<p>3</p>	<p>❖ Spleen:</p> <ul style="list-style-type: none"> Start from the right iliac fossa to the left hypochondrium, i.e. move obliquely. Identify the notch of spleen. If you can't palpate it, use bimanual maneuver; role the patient to the right side and do palpation by bimanual push at the 11th and 12th ribs area. 	 <p style="font-size: small;">Classification of spleen sizes according to Harker's method. (WHO, 1965, Zimnitsky of Malenia)</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">Spleen</th> <th style="width: 50%; text-align: center;">Kidney</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ✓ Has no palpable upper border. ✓ Has a palpable notch. ✓ Moves inferomedially (during inspiration). ✓ Not ballotable. The percussion note is dull over it. ✓ A friction rub may be heard over it. ✓ Can't get above it. </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ✓ Palpable upper border. ✓ No notch. ✓ Moves inferiorly. ✓ Ballotable. ✓ Resonant on percussion ✓ No friction rub over it. ✓ Can get above it. </td> </tr> </tbody> </table>	Spleen	Kidney	<ul style="list-style-type: none"> ✓ Has no palpable upper border. ✓ Has a palpable notch. ✓ Moves inferomedially (during inspiration). ✓ Not ballotable. The percussion note is dull over it. ✓ A friction rub may be heard over it. ✓ Can't get above it. 	<ul style="list-style-type: none"> ✓ Palpable upper border. ✓ No notch. ✓ Moves inferiorly. ✓ Ballotable. ✓ Resonant on percussion ✓ No friction rub over it. ✓ Can get above it.
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<p>4</p>	<p>❖ Kidney:</p> <ul style="list-style-type: none"> Bimanual maneuver (ballotment). Not felt in normal people. 	 <p>Figure 22-26. Palpating the right kidney (A) and the left kidney (B).</p>					

C: Percussion: Comment on the sound produced

a

- **Liver span (mentioned above).**
- **Spleen:**
 - ✓ Percuss over the lowest intercostal spaces in the left anterior axillary line.
 - ✓ Percussion over Traube's Triangle (the area where we can percuss the enlarged spleen but still under the rib cage), which has the following boundaries:
 - ✓ **Upper border:** the sixth rib.
 - ✓ **Lower border:** the left costal margin.
 - ✓ **Lateral border:** anterior axillary line.
 - ✓ It overlaps the last two intercostal spaces.
- If the spleen is enlarged 3 times or more, it will cross the midline.

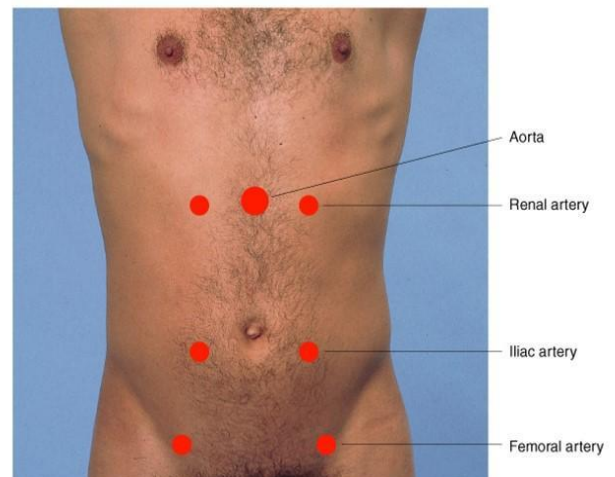


b

- ❖ **Ascites:**
 - Shifting dullness (for moderate ascites):
 - Fingers directed downward (toward the groin).
 - Start percussion from the midline, and move to the left flank (away from you).
 - When you find the area of dullness, fix your hand, role the patient to your side, and wait for 30 seconds, then percuss again.
 - If the area becomes resonant, the test is positive.
 - For completion, continue your percussion towards the midline, until the percussion note becomes dull.
- Fluid thrill (for huge ascites):
 - Ask the patient to place one hand firmly on the centre of his/her abdomen, with the fingers pointed downward.
 - Flick one side of the abdominal wall. Feel the transmitted pulsations by the other hand, which you placed it on the other side of the abdominal wall.
- Dipping maneuver: Using two hands for palpation in case of huge abdominal distension.

D: Auscultation:

- **Bowel sounds:**
 - ✓ Two/minute, best heard on the right lumbar and epigastric areas.
 - ✓ Exaggerated sounds indicate intestinal obstruction, whereas absent sounds (for 3 minutes or more) indicate paralytic ileus.
- **Friction rub:** May be audible over the liver or spleen, and indicate abnormality of the peritoneum.
- **Arterial bruit:**
 - ✓ Over the liver: hepatocellular carcinoma (HCC).
 - ✓ Over renal arteries on either sides of the midline 1 cm above the umbilicus: renal artery stenosis.
- **Venous hum:** Heard between the xiphisternum and the umbilicus: portal hypertension.



Listening points for bruits on the abdomen

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4	<p>To complete the examination: Tell the examiner that “I will conclude my examination by doing PR & External genitalia.”</p>	<p><u>Rectal Examination (PR)</u> https://www.youtube.com/watch?v=bK1GTLpL_F8</p> <p><u>External Male Genitalia Examination</u> https://www.youtube.com/watch?v=jMHsbgsJ-1g</p>
5	<p>After the examination:</p> <ul style="list-style-type: none"> ✓ Ensure that the patient is comfortable. ✓ Make explanations to the patient, answer his/her questions and discuss management plan. ✓ If necessary, order diagnostic investigations. ✓ Dispose of sharps and waste material according to infection control standards. ✓ Wash hands. ✓ Document the procedure. 	