

*** - Examination sheet - ***

- (Summary & guide lines) - by Dr. Abd Elmaged Osta.

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1) - Examination of inguinal hernia .

- * - **Notes - 1** - Expose the patient from the umbilicus up to the knees .
- **2** - Inspection in standing position .

* - **EXAMINATION** : -→

1) - **Inspection** : - of groin for hernial (orifices) swelling & comment

- about :
- site , (unilateral or bilateral hernia) .
 - shape , (round or globular shape) .
 - size in cms .
 - skin overlying → for scars , sinuses, ulcers, skin color ...etc.
 - Extension of the swelling to the scrotum or not , (complete or incomplete hernia) .
 - Inspection for abdominal scars , (appendicectomy scar) .
 - Cough impulse test → expansile or not .
 - extension to the scrotum .

2) - **palpation** : - (better in supine position) :- →

- ask the patient's permission first & if there is a pain or not (communication skills) .
- palpate for hotness & tenderness .
- palpate for pubic tubercle & anterior superior iliac spine .
- relation of the hernia to the pubic tubercle : →
 - above and medial to it → inguinal hernia .
 - below and lateral to it → femoral hernia .
- palpate the hernial swelling for : →
 - consistency , (soft , doughy , firm) .
 - lower edge & relation of the swelling to the tests , (very important) .
 - cough impulse
 - +ve .
 - - ve .

* - **special tests**: -→ (**very important**) : →

- a) → **Reducibility test** , (better to do by the patient him self).
- b) → **Internal ring occlusion test** .
- c) → **Zeimmen test** .
- d) → **Invagination test** (don't do it).
- e) → **Tranillumination test** , (+ve in hydrocele).

* 3)- **Percussion & auscultation** → contraversal .
→ Do it in irreducible hernia .

* - Complete your examination by asking the examiner to examine the following : - →

- Scrotum & other tests .
- Chest examination , for any chest infection .
- **P.R** examination for benign prostatic hypertrophy .
- Abdominal examination regarding constipation & ascites.

(More details in the lectures)

- THANKS FOR ALL
& GOOD LUCK .

By doctor: - A. Osta.

* -2- Examination of varicose veins - *

- * - **Notes** : - 1 - Exposure both lower limbs up to the umbilicus .
- 2 - patient in standing position .

A) - **Inspection** : - →

1) - look from in front & back of the patient → (is it unilateral or bilateral) .

2) - look for tortuous dilated veins along which vein distribution

- : ↑
- long saphenous vein course .
 - short saphenous vein course .
 - or both distribution .

3) - skin changes , (red color) → thrombophlebitis .

4) - look for : -→

- **scars** → indicating previous surgery .
- **venous ulcer** → above medial malleolus .
- **venous eczema** → (lipodermatosclerosis) .
- edema of legs , (**& ankle flare**) .
- swellings
 - **blow out** .
 - **saphena varix** .
 - cough impulse , (expansile) .

B) - **palpation** : - (and comment) : →

1) - Ask the patient's permission first & if there is a painful area or not , (communication skills) .

2) - Palpate for hotness & tenderness indicating thrombophlebitis .

3) - Palpate for saphena varix

- thrills , pulsation .
- compressibility .
- palpable cough impulse .

4) - Blow out & pitting in deep fascia → (incompetent perforators).

5) - **Special tests** : -

- Tourniquet, (trendelburg) test .

- Multiple tourniquet test .

- Pertis test .

- Modified pertis test .

Both to assess the deep system .

- Hand-held Doppler , (clinical investigation) .

C) - **Percussion** : - →

→ **Schwartz** test , in a standing position .

D) - **Auscultation** : -

- For auscultate the femoral vein and popliteal vein & **S.F.J** & **S.P.J** , respectively , to role out A.V fistula → (machinery murmur) .

- To **finish** the examination by abdominal examination and P.R to role out any pelvic tumours →

primary varicose veins .

Secondary varicose veins .

(More details in the lectures)

* -3- Examination of ulcers & diabetic foot - *

- Q) - Examine this patient's foot (diabetic foot) ?.

- Note : - must be a complete exposure of both lower limbs .

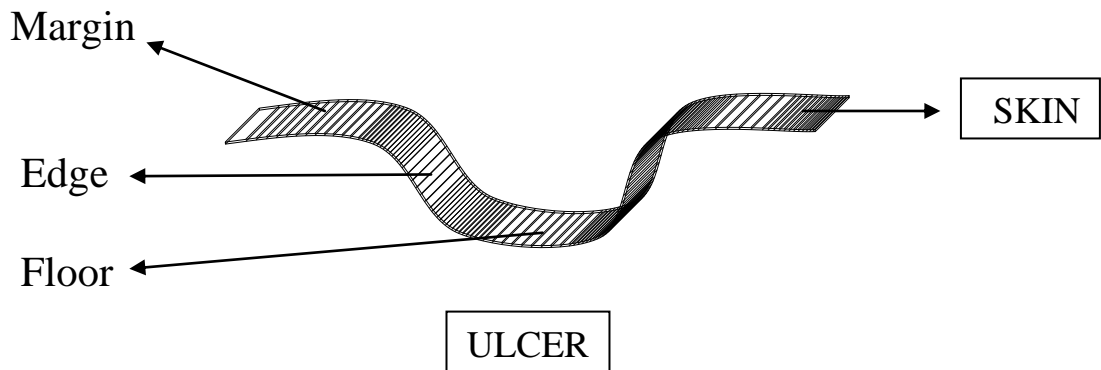
I) - **Inspection** : - →

A) - General inspection for ulcers & comments about : - →

- Shape , size , site of the ulcer .
- Number of ulcers & is it unilateral or bilateral ?.
- Discharge & comments about
 - colour .
 - smell .
- Inspection in between the toes .

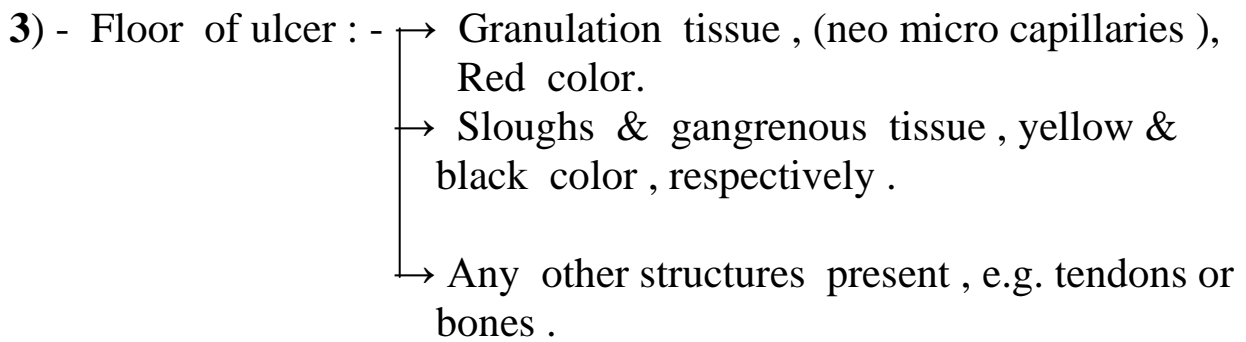
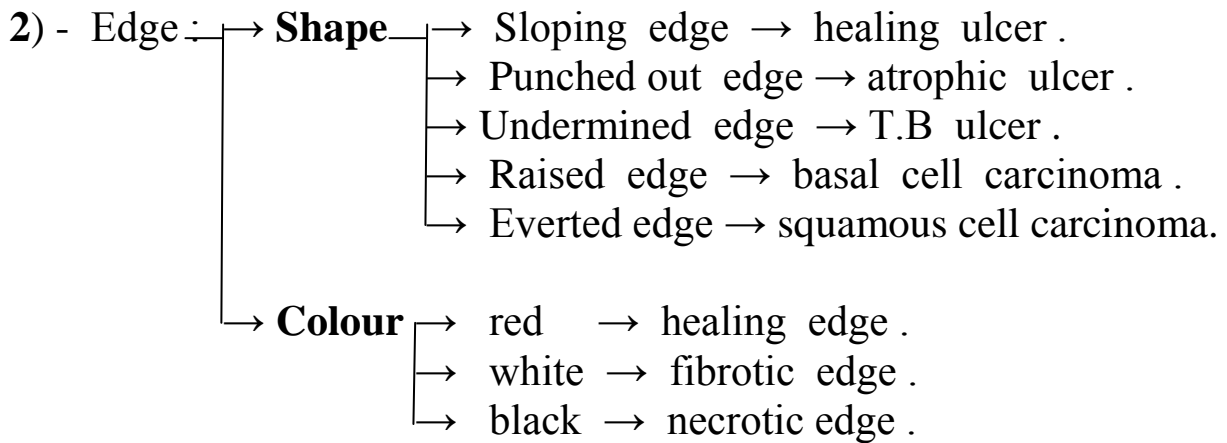
B) - Describe the ulcer as :

- 1) - skin around the ulcer, (margin).
- 2) - Edge.
- 3) - Floor.



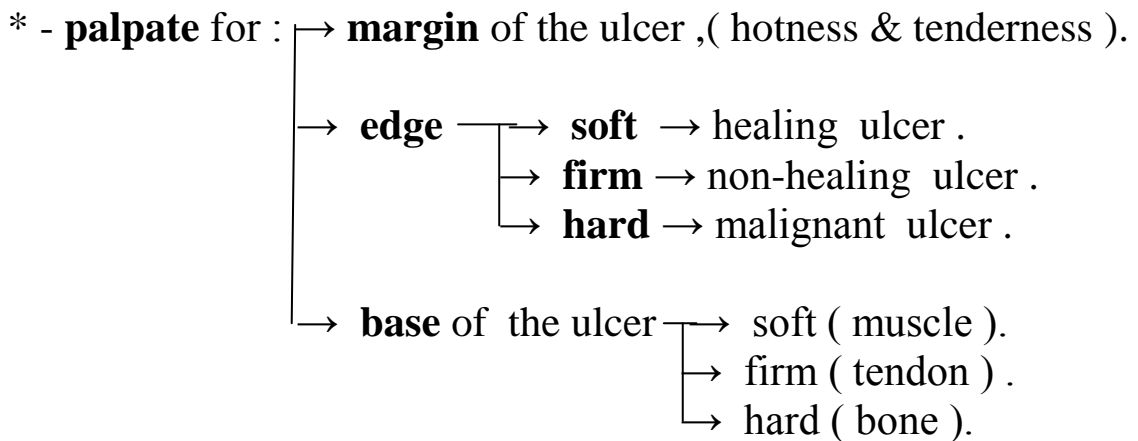
1) - Skin around the ulcer , (margin) : comment about : →

- Colour , (pigmented or red skin) .
- Chiny skin , (skin atrophy) .
- Dilated veins , (varicose veins) .
- Scars & hair distribution .



II) - palpation : - →

- **Note** : - → ask the patient's permission first & if there is a painful area or not ? , (communication skills) .



- **floor** → by inspection , what do you see ? .

- **base** → by palpation , what do you feel ? .

* - **Note** : - To finish the examination of diabetic foot , you must do complete **vascular & neurological** examination of lower limb.

* - **4 - Examination of parotid swelling, (salivary glands) - ***

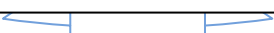
I) - Inspection : - →

- Shape , size , site , surface , of the swelling .
- Is it unilateral or bilateral swelling?.
- Comments about skin overlying , (redness , scars , sinuses) .
- Relation of sternocleidomastoid muscle to the swelling .
- Signs of **facial nerve invasion**
 - face symmetry .
 - eye closure .
 - bowing of the mouth .
 - showing of teeth .

II) - Palpation : - →

- Ask the **patient's permission** first & if there is a **painful area** or not ?.
- start palpation from the back of the patient & comment about : - →
 - 1) → hotness & tenderness , → (inflammation) .
 - 2) → Edges , → well defined or ill defined edge .
 - 3) → Consistency , → (soft , firm , hard) .
 - 4) → Attached to the skin or underlying structures or not attached.
 - 5) → Palpation of parotid duct, (at anterior edge of masseter muscle) .
 - 6) → look & palpate the parotid duct from inside the mouth .
 - 7) → **Bimanual palpation** of submandibular **g** ,(floor of the mouth) .
 - 8) → cervical lymph nodes palpation , (up & down method) .
- To finish the examination , you must do complete E.N.T examination.

More details in the lectures



* - 5 - Vascular Examination of lower limbs .

* - **Note** : - must be a complete exposure of both lower limbs up to the umbilicus .

I) - **Inspection** : - →

A) → look for **signs** of chronic ischemia , that's : →

- - Colour of the limb , which is pale or dark pigmented skin .
- - Chiny skin → due to loss of subcutaneous fat , (skin atrophy) .
- - Loss of normal hair distribution .
- - Gangrenous or amputated toes.
- - Muscle atrophy and brittle nails .
- - Empty veins , (venous guttering) .
- - Distal ischemic (arterial) ulcers.
- - look for any scars (due to previous vascular surgery) .

B) : → do **burger's test** : → rise the limb for **3** minutes.
→ put the limb down beside the bed.

And observe the color of a limb.

(more discussion in the lectures).

II) - **Palpation** : - →

- Ask the **patient's permission** first & if there is a **painful area** or not ?.

1) - feel the skin **temperature** & compare between both limbs .

2) - Examine the big toe for **capillary filling test** , by pressure on nail bed of the toes **or** pulp of big toe .

- normal capillary filling time up to **2** seconds .

3) - palpation for peripheral pulses & comment : - →

→ start with radial pulse _____ {
→ rate .
→ rhythm .

→ palpate the abdominal aorta → it's just lateral to & above the umbilicus .

- palpate femoral pulse → bilaterally .
- palpate popliteal pulse → bilaterally .
- palpate posterior tibial artery → bilaterally .
- palpate dorsalis pedis artery → bilaterally .

* - **ABI** : - **A**nkle **b**rachial **i**ndex test , → normal is (range 0.9 - 1.1).
- Do it for both sides .

(more details in the practice)

III) - **Auscultation** : - →

- listen to the bruit or murmur due to any arterial pathology ,
e.g. stenosis or AV fistula , so →

- auscultate over both femoral arteries.
- auscultate over both popliteal arteries.
- auscultate over abdominal aorta.

* - **To finish** the examination : -

→ you must do complete cardiovascular system .

→ you must do neurological examination of lower limbs ,
in cases of diabetic foot , (**sensory , motor , reflexes**) .

(More details in the lectures)

By doctor: - A. Osta.

* - 6 - Examination of the breast .

* - **Note** : - there is must be complete exposure of both breasts .

I) - Inspection :
 → **A)** - comparative inspection , (both breasts) .
 → **B)** - Regional inspection of the diseased breast.

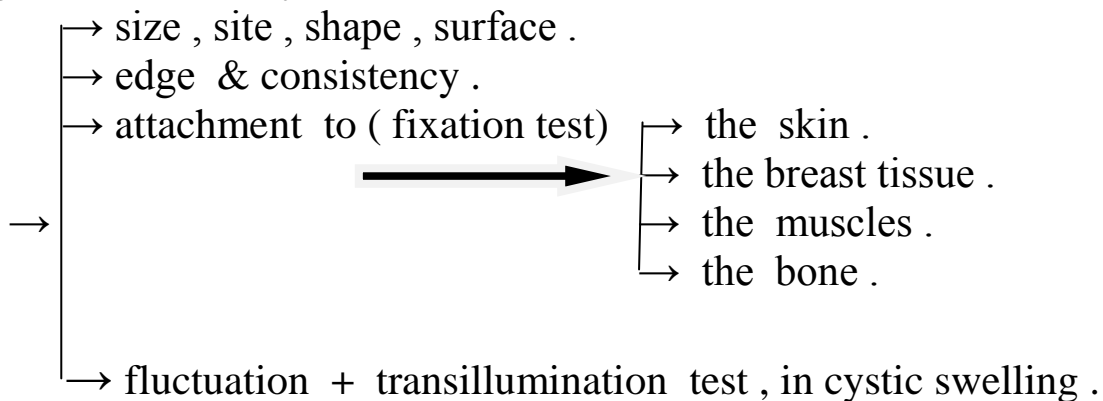
- A) - comparative inspection : -
 (by **4** ways)
 → both hands at the sides .
 → rise both hands up .
 → patient is pending forward .
 → both hands at waist .

- → Compare the size of both breasts & look for any visible lumps in both breasts .
- → Compare the level of both breasts & direction of both nipples.
- → Inspection of both axillae & underlying surfaces of both breasts.
- → **Peau d'orange** skin ,(is due to cutaneous lymphatic invasion & oedema & stretching of cooper's ligaments which attached to hair follicles).
- → Bending patient forward → and observe the level of both breasts .

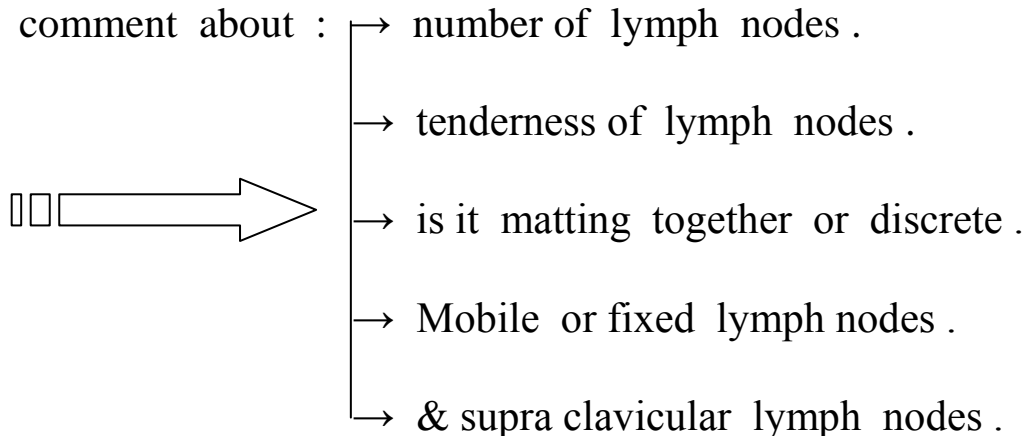
- B) - Regional inspection** : - of the diseased breast : →
- Breast mass → site , size , shape & surface of swelling .
 - scars , dilated veins , sinuses & colour of skin .
 - skin nodules , (indicating skin metastasis) .
 - Inspection for nipple discharge & nipple retraction & ulceration .

II) - Palpation : - →

- Ask the **patient's permission** first & if there is a **painful area** or not ?.
- palpate the **2** breasts & start by the normal breast first .
- palpate for hotness & tenderness .
- palpate all the **6** regions of the breast by the palmar surface of the fingers & detect any masses & comment about : - →



- **Examination of both axillae** : - for **5** groups of **lymph nodes**, and comment about :



III) _ Examination for distant metastasis : -→

- 1) → Examination of respiratory system , for consolidation & effusion , clinically lung metastasis.
- 2) → Abdominal examination , regarding liver metastasis & looking for hepatomegaly & ascites .
- 3) → **Skeletal metastasis** & bone nodules & bone tenderness.

* - 7 - Examination of thyroid gland . *

* - **Thyroid examination divided into 3 stages** : - →

I) - Thyroid swelling examination .

II) - Thyroid status examination .

III) - Examination for metastasis .

- **I) - Thyroid swelling Examination** : →
(As a **neck** swelling)

- **A) - Inspection** :→ comments about **swelling & skin** over lying ,

- Swelling
it self. →

- **Site** → midline , lateral or diffuse .
- **Size** → in centimeters .
- **Shape** → symmetrical or asymmetrical swelling.
- **Surface** → smooth or nodular .
- Relation of swelling to the sternocleidomastoid muscle & supra sternal notch .
- Pulsatile swelling or not .

- Skin over lying →

- Skin redness , (inflammation) .
- **Scar** → indicating previous surgery .
- Sinuses .
- Dilated veins of the neck & upper chest indicate ,
→ thoracic inlet syndrome .

* - **important tests** : - (to be done) ,

- 1 - Do swallowing test & observe .

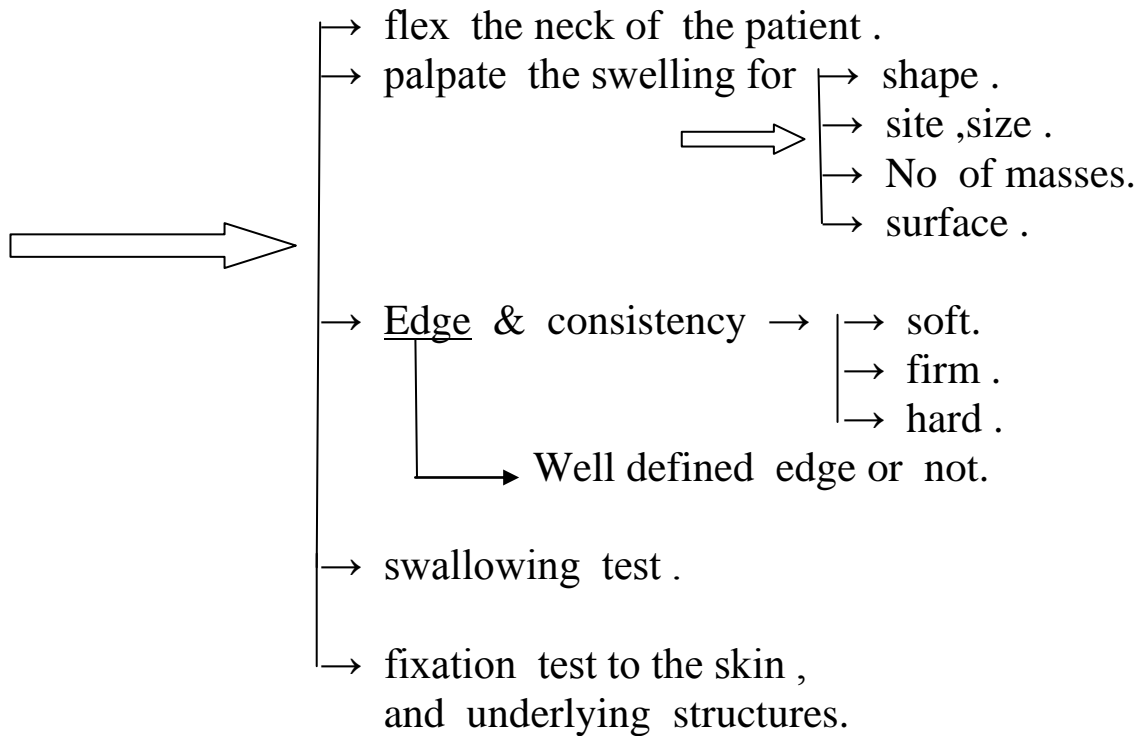
- 2 - Do protrusion of the tongue & observe .

- B) - Palpation : - →

- Ask the **patient's permission** first & if there is a **painful area** or not ?.

1) - from the **front** : - palpate for hotness & tenderness .

2) - from the **back** : - →



3) - palpation of the related structures & comment about : - →

- Tracheal deviation & thyroid cartilage .

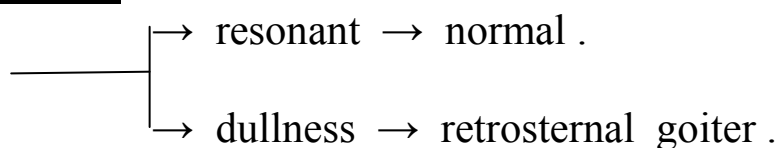
- Sternocleidomastoid muscle .

- Carotid pulse , (berry's sign) .

- Cervical lymph nodes , (up & down method) .

- Kocher test , if a large goiter → -ve or +ve test .

- C) - percussion : - → over manubrium sterni & observe ,



- D) - Auscultation : -

- at the upper pole for bruit , (+ve in **grave's** disease)
, due to hyper dynamic circulation .

- II) - Thyroid status examination : -

→ (hypo or hyperthyroidism).

* - Included the following : - → 1) - Eye signs .
2) - hand signs .
3) - Extremities .

1) - Eye signs : - → - lid lag & lid retraction .
- Exophthalmos .
- ophthalmoplegia .
- wrinkles of the forehead .
- loss of hair at the lateral side of eye brows ,
(hypothyroidism) .

2) - Hand signs : - → - warm , moist skin , (sweating) .
- pulse , (rate , rhythm , collapsing pulse) .
- fine tremors .
- pseudo clubbing , (thyroid acropathy) .
- palmar erythema .
- pallor and cyanosis .

3) - Extremities : - → - pre tibial myxoedema , (red thick skin
patches over the tibial chin) .

- tendon reflexes → exaggerated in hyperthyroidism .
→ delayed relaxation in hypothyroidism .
- proximal Myopathy , Weakness of the proximal limb muscles , (thyrotoxic myopathy) .

III) - Examination for metastasis : -

1) - Respiratory examination & looking for consolidation & effusion , clinically lung metastasis.

2) - Abdominal examination , regarding liver metastasis & looking for hepatomegaly & ascites .

3) - Skeletal examination for bone metastasis , & looking for → bone tenderness .
→ pathological fractures , commonly in long bones .
→ bone nodules , (commonly in a skull).

(More details in the lectures)

By doctor: - A. Osta.

* - 8) - Examination of the abdomen .

- **Note** : -

- 1 - Exposure → from mid chest up to the knees .
- 2 - start the examination by inspection of peripheral stigmata of abdominal diseases .

A) - Hands : - →

- 1) - Radial pulse
- ↳ Rate & rhythm .
 - ↳ special character
 - ↳ collapsing pulse .
 - ↳ pulsus paradoxus .

- **pulsus paradoxus** : - is a pulse that ↑ in volume on expiration & ↓ in volume in inspiration → this variation in pulse pressure occurs in many conditions e.g. → cardiac tamponade , asthma , tension pneumothorax .

- Assessed by measuring the difference in systolic blood pressure during inspiration & expiration .

- Difference > 15 mmHg is pathological condition .

2) - pallor of palmar creases in anemic patient .

3) - Cyanosis → peripheral cyanosis .

4) - signs of chronic liver disease or malignancy : -

- digital ,(finger) clubbing → liver cirrhosis .
- leukonychia → liver disease & in fungal infection .
- terry's lines (white nail line) → liver cirrhosis .
- palmar erythema → vasodilatation → ↑ estrogen level .
- Dupuytren's contracture → thickening of palmar fascia .
- liver flap → late sign of hepatic encephalopathy .

5) - Nicotine staining → in smoker patient .

B) - Eyes : - → anaemia , (pale conjunctiva) .

→ jaundice , (yellow sclera) .

C) - Mouth : - → smell → hepatic fetor .
→ pallor → in mucous membrane .
→ Cyanosis → central cyanosis .

D) - Neck : -→ Palpation of enlarged cervical lymph nodes
& Virchow's lymph nodes , (troiseir's sign) .
→ Examination of cervical lymph nodes groups by
up & down method .

E) - Trunk : - → look for both upper arms & chest wall for →
→ spider navi (liver failure) .
→ Tattoos , (transmission of hepatitis C & B) .
→ scratch marks → itching , (obstructive jaundice) .
→ Gynaecomastia .

*** - Abdominal examination : -**

- Abdominal exposure from mid chest up to mid thigh .

A) - Inspection : - →

- Stand at the end of the couch .

- look for abdominal distension ---→ distended abdomen .
→ flat abdomen .
→ scaphoid abdomen .

- movement with respiration , (& comment) .

- scars , sinus , fistula , → previous operations or cautary scars .

- Visible pulsation (AAA) , or visible lumps .

- Umbilicus → is it everted , inverted or flat .

- Ask the patient to cough or rise the head , to look for hernial orifices & previous surgical scars .

- Distended abdominal veins around the umbilicus in portal hypertension , (caput medosae) .

B) - Palpation : -

- Ask the **patient's permission** first & if there is a **painful area** or not ?.

- Divided into : -
- 1) → superficial palpation .
 - 2) → deep palpation .
 - 3) → palpation for organomegally .

1) → superficial palpation : - → for hotness & tenderness at **9** regions of the abdomen .
→ Always look at patient face .
→ At epigastric region , pause for pulsations , (aortic aneurysm) .

2) → deep palpation : → Deep palpation in the **9** regions of the abdomen .
→ Palpation for deep masses , it can be done by using two hands interlocked above each other .

3) → palpation for organomegally : -
→ **liver , spleen , kidneys .**

* → **liver** : - it's starts from right iliac fossa , ask the patient to breath inspiration & move your hands proximally between each breath , in order to detect the liver edge , which coming down onto the hands in inspiration .

- Measure the distance between costal margin & liver edge .

- Comment about liver edge : →

→	firm or soft edge .
→	smooth or nodular surface .

- Percuss the upper edge of the liver , starts from **2nd** intercostal space at mid clavicular line , which becomes dull at the **5th** intercostal space .

- Measure the liver spam , normal range is , (**8 - 12 cms**) .

* → **spleen** : - →

- Start palpation from right iliac fossa , & moving the fingers towards the left costal margin , as the patient breaths in each time .

- Characteristics of spleen are : -

1) - you can not get above the spleen .

2) - it moves with respiration .

3) - Dullness on percussion .

4) - splenic notch palpable on the superomedial edge .

5) - As it enlarges , it moves in the direction of the right iliac fossa .

6) - It can not be balloted , (compare to kidneys) .

* → **Kidneys** : - →

- Mass in the left loin or right , which is distinguished from other masses by : -

1) - Kidney mass descends with inspiration as it pushed down by the diaphragm .

2) - It can be balloted , (bimanual palpation) .

3) - The hand can get in between the swelling & the costal margin .

4) - Resonant on percussion .

C) - Percussion : -

→ Is applied for liver as above & spleen at mid axillary line , ribs 9,10,11 .

→ Percussion for ascites : - →

↳ shifting dullness .

↳ fluid thrill , (in large ascites) .

D) - Auscultation : -

- over the liver for bruit , (it's a murmur out side the heart) .
- over the abdominal aorta .

- Right & left iliac fossae & umbilical region for bowel sounds .
- Normal bowel sounds ranges from 5 upto 11 times / minutes .

- Complete the abdominal examination by : →
 - external genitalia **PR** .
 - palpate for both femoral pulses .
 - examine for oedema in lower limbs & sacral edema .

*** - Per rectal examination , PR : -**

- 1) - Inspection for : -
 - hemorrhoids & skin tags .
 - perianal fistulae .
 - anal fissures .

- 2) - Introduce your finger inside & **comment** on : - →
 - painful or painless PR .
 - Tension of anal sphincter .
 - full or empty rectum , constipation .
 - enlarged prostate or not in males .
 - Tenderness in Douglas pouch or not in females .
 - any abnormal rectal masses , thrombosed piles .

- 3) - Inspection the finger , for colour of stool ,
 - normal stool color .
 - black , (melena) .
 - red , (blood) .

(More details in the lectures)

- THANKS FOR ALL
& GOOD LUCK .

- By doctor: - A. Osta.