Endocrine

Breast Examination

Breast Examination	
General inspection	
A-Preparation: Pre-exam Checklist: WIPE	
1- Wash your hands	
2- Introduce yourself to the patient, confirm patient's ID, explain the examination & take consent.	
3- Positioning of the patient "lying flat" and insure his/her privacy.	
4- Exposure. Full exposure of the trunk	
B-General appearance: ABC2DEVs	
1- Appearance: young, middle aged, or old, and looks generally well or ill.	Observe the patient's general appearance (age, state of health, nutritional status and any other obvious signs e.g. jaundice, cyanosis, dyspnea)
2- Body built: normal, thin, or obese	♣ Begin by observing the patient's general health from the end of the bed. ♣ The patient looks well (not cachectic), overweight (don't say obese), not connected to IV line nor O2 mask, no obvious pallor or cyanosis, no respiratory or pain distress (not tachypnic). Oriented to time, place and person. ♣ Also look for syndromes that associated with cardiac disease (Marfan, Down and Tunner syndromes).
3- Connections: 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- Color: jaundiced, pale, or cyanosed	
5- Distress: in pain, respiratory (using accessory muscles), or neurological (abnormal movements) distress	
6- Else: consciousness, alertness, and orientation.	

7- Vital signs: 1) Pulse rate* 2) Blood pressure (BP) 3) Temperature 4) Respiratory rate *Tachycardia in anemic patient: Increased cardiac output due to reduced oxygen-carrying capacity of their blood	Take the patient's radial pulse: 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. Take his/her blood pressure (sitting or lying and standing "postural hypotension"). Normal BP defined as a systolic reading less the 140, and diastolic reading less than 90. Temperature: Normal range 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 breaths per minute (range 16-25).

Breast Examination

1- Inspection of the breast
2- Palpate the breast
3- Palpate the lymph nodes
4- Examine the hand
5- Examine the back

Breast Examination

Position:

1- 45° degrees: makes the breast fall sideways.

2- Upright settings: makes the breast pendulous.

Exposure:

- The patient must be fully undressed to **the waist.** (upper half of the body)

Inspection

Size	- Compare
Symmetry and contour	- Any **marked** size in difference onset is likely to be caused by significant pathology.
Skin changes	- **The skin may have pulled by the underlying cancer.** **Mechanism**: may be oedema caused by obstruction of skin lymphatics by cancer cells, which is commonly referred to as peau d'orange. - **Nodules of tumour or a malignant ulcer.** **Mechanism:** due to direct invasion of the skin by a cancer.
The nipple and areolae	- Presence or absence - Color - Asymmetry - Discharge (Change with age, there is darkening during pregnancy)
Duplication	- May be accessory nipples along the mammary line from axilla to groin - OR, visible ectopic breast tissue in the anterior axillary fold.

Maneuvers:

1- Ask the patient to slowly raise her arms above her head.	Skin changes may then become more apparent particularly tethering to carcinoma.
Note: Exposure of the underside of the breasts in an obese patient with large breasts may reveal intertrigo (inflammation of the skin fold)	
2- Ask the patient to press her hands against her hips.	To tense pectoralis muscles. This may reveal previously invisible swelling.
Axillae, arms, and supraclavicular fossa.	Grossly enlarged lymph glands may be visible, and distended veins or arm lymphedema may be obvious.

Palpation	
The breast should be palpated with the flat of the fingers.	
- Begins with the normal side or face the patient and feel both breasts	Always compare!! It may quite soft and apparently featureless, or it may firm and fibrous, with easily palpable nodules, which are in fact normal lobules
Palpation is performed gently with the pulps of the middle three fingers parallel to the contour of the breast.	-Feel the four quadrants of each breast systematically
- **Feel the axillary tail**	Which lies over the anterior axillary fold.
If you find a lump:	- Site - Shape - Size - Surface - Edge - Tenderness - Temperature - Consistency
Relation to Skin:	- If a lump is pulled outside the arc the skin indents, it is tethered. - It a lump cannot be moved without moving the skin, it is fixed.
Relation to the structures beneath the breast:	- The difference between fixation and tethering to deep structures is less obvious because the muscles beneath the breast are invisible, soft and mobile. If there is a deep-seated lump, ask the patient to press her hand against her hip, therapy tensing the pectoral muscles. If the lesion becomes less mobile, it is either fixed or tethered. The less the movement, the more likely the lump is fixed.

<table>
<tr><td rowspan="3">The nipple</td><td>-Feel behind the nipple for lumps</td></tr>
<tr><td>-If there is nipple inversion, it may be possible to evert it by gentle squeezing its base or by asking the patient to do it

-If the nipple did not evert, there is likely to be underling disease. Unilateral inversion is more significant than bilateral inversion.</td></tr>
<tr><td>-Nipple discharges find which segment and duct, and nature of discharges (blood, milk or serous)</td></tr>
<tr><td>Palpate the axilla:</td><td>Record the:
- Number of lymph nodes
- Size
- Consistency and fixity

Palpate the walls of the axilla (medial, anterior, lateral, posterior, and apical)

*Small, firm, “shotty” glands can often felt in thin patients, but this finding is usually symmetrical.</td></tr>
<tr><td colspan="2">Maneuver:</td></tr>
<tr><td rowspan="2">- Stand on the patient’s right side. Take hold of her right elbow with your right hand and let her forearm rest on your forearm.
- Place your left hand flat against the chest wall and feel for any glands that may lie in the central of medial aspects.</td><td>- To reduce the tense of the muscles.</td></tr>
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-To reach the apex of the axilla you will have to push the tips of your fingers upwards and inwards.

-Next move your left hand anteriorly over the edge of the pectoralis minor muscles and downwards into the axillary tail and behind the edge of the pectoralis major. Turn your hand (or changes hand) to feel the subscapular glands on the posterior wall of the axilla, and finally feel the lateral aspect of the axilla in case of there are any brachial glands level with the neck of the humerus.

-You may be able to obtain good access to the axilla by asking her to place her hands on her iliac crests and slacken her muscles, and then approach from in front. This position is particularly useful for comparing the two sides when glands are palpated but may not be pathological.

- **Palpate the supraclavicular fossa.**	Record the: - Number of lymph nodes - Size - Consistency and fixity
- Palpate the neck	
- **Examine the arms**	Swelling or any neurological or vascular abnormalities.

General examination

Do complete general examination and look for any evidence for distant metastasis

Chest	Percuss the base of the lungs for any evidence of pleural effusion (Lung metastasis)
- Palpate the abdomen	Hepatomegaly, or ascites
- Lumbar spine	Percuss over the spine look for tenderness and limitation of movement (suggestive of bone metastasis)