

# **Breast and Axillae Examination**

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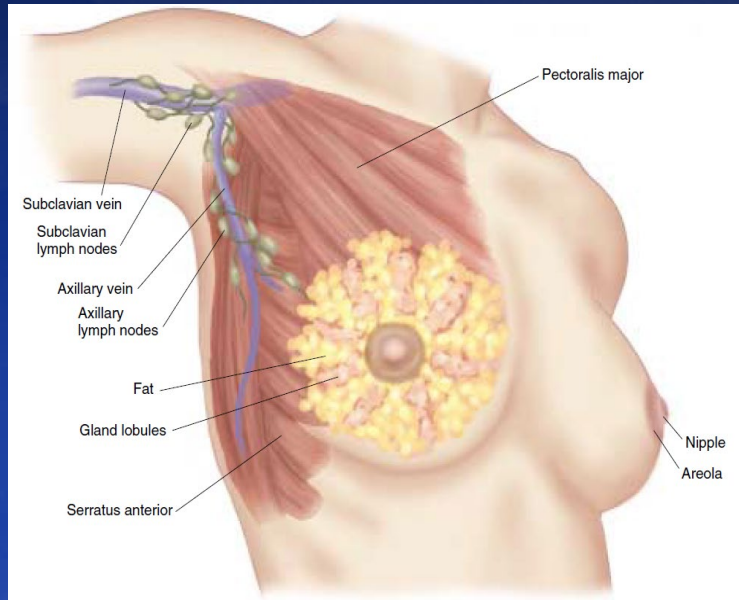
# Objective

- Identify lymph nodes which drain the breast.
- Obtain history related to breast examination.
- Perform a breast and axillae examination in sitting and supine position.
- Teach breast self-examination.

# Breast: Anatomy and Physiology

- The breasts lie anterior to the pectoralis major and serratus muscles.
- The breasts are located between the 2<sup>nd</sup> and 6<sup>th</sup> ribs, extending from the side of the sternum to the mid axillary line.
- The superior lateral corner of the breast tissue called the axillary tail of Spence.

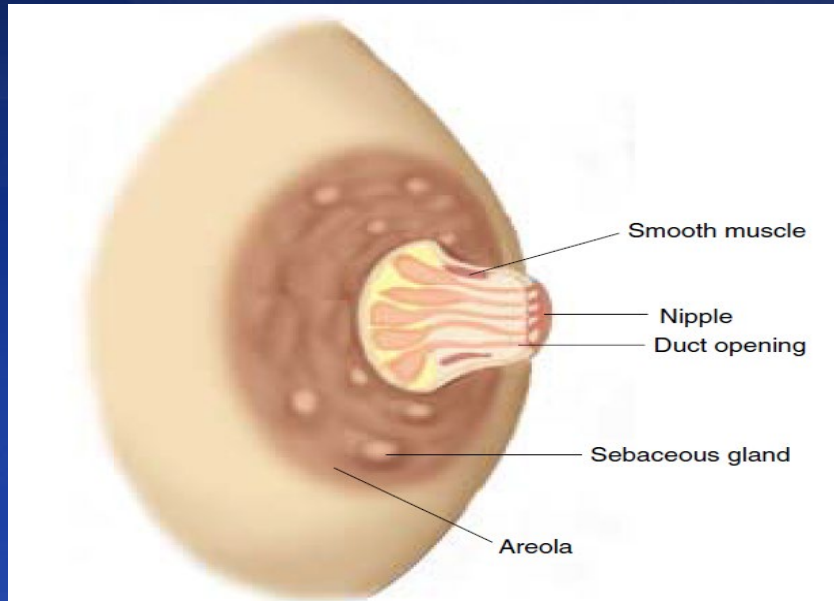
# Cont...d



# Cont...d

- The areola surrounds the nipple and have small-elevated sebaceous glands called montgomery's glands.
- Both the nipple and areola are more darkly pigmented.
- The proportions of breast is vary with age, nutrition, pregnancy and other factor.

# Cont...d



# Cont...d

Internally the breast is composed of;

- (a) Glandular tissue containing 15-20 lobes radiating from the nipples, lobules and alveoli that produce milk.
- (b) The suspensory ligaments fibrous bands to attach breasts on chest wall muscles.

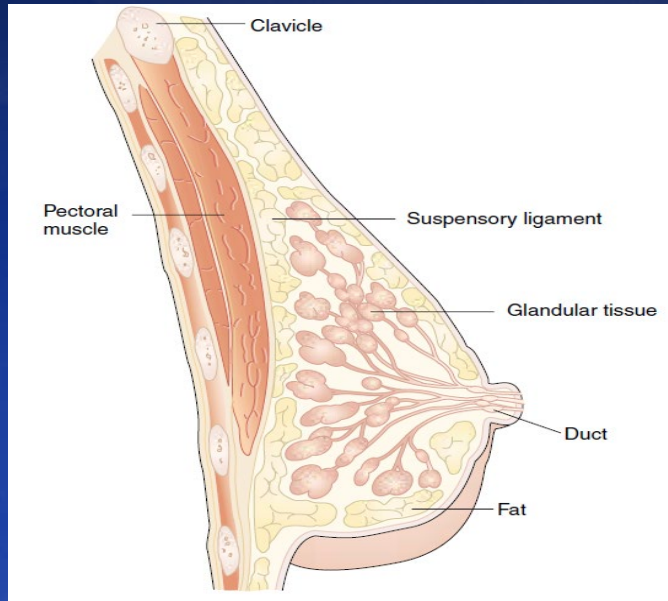


# Cont...d

- They become contracted in cancer of the breast, producing pits or dimples in the overlying skin.
- (c) Fatty tissue that surrounds the breast and predominates both superficially and peripherally.



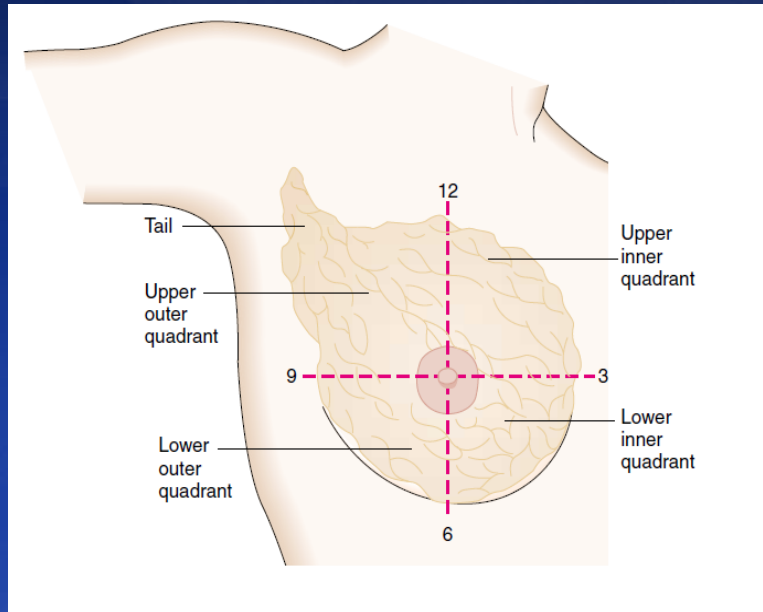
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# Cont...d

- ❖ The breasts may be divided into four quadrants by imaginary horizontal and vertical lines intersecting at the nipple, which is helpful in describing clinical findings.
- ❖ The outer quadrant is the site of most breast tumors (axillary tail of Spence).

# Cont...d



# Cont...d

- The breast has extensive lymphatic drainage.
- Most of the lymph drains in to the ipsilateral axillary nodes.
- There are four groups of the axillary nodes.
- These are the nodes that you palpate during assessment they include:

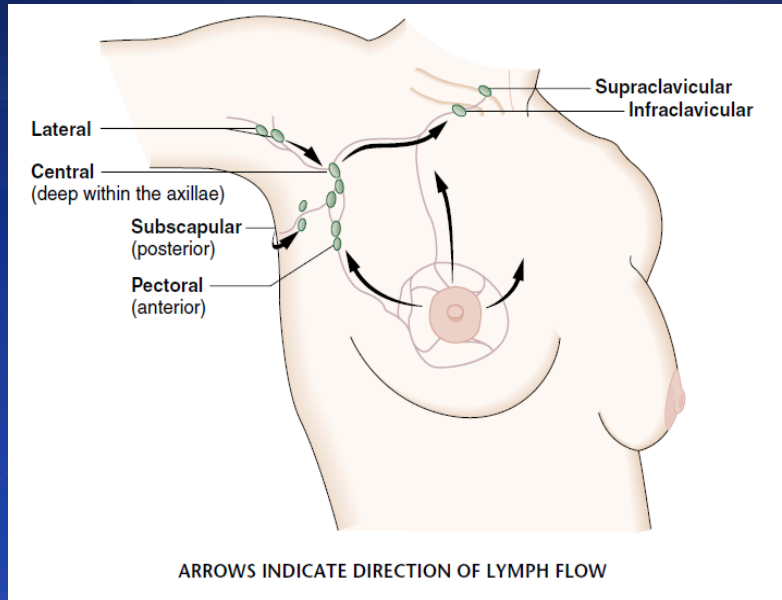
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1. Central axillary nodes- high up in the middle of the axillae. Over the ribs and serratus anterior muscle.
2. Pectoral (anterior)- along the lateral edge of the pectorals major muscle, just inside the anterior axillary fold.

# Cont...d

3. Scapular (posterior) – along the lateral edge of the scapula deep in the posterior axillary fold.
4. Lateral – along the humerus inside the upper arm.

# Cont...d





# Cont...d

- From the central axillary nodes, drainage flows up to the infra clavicular and supra clavicular nodes.
- A smaller amount of lymphatic drainage does not take these channels but flows directly up to the infra clavicular group , deep in to the chest, in to the abdomen, or directly across the opposite breast.

# Subjective Data

- Ask for any breast pain, lump , discharge , rash, swelling, history of breast disease, any surgery or any axillary tenderness, lump, self care of behaviors , and, breast self –examination.

# Objective Data

- Equipments- small pillow , ruler in cm and teaching aid for B.S.E.
- The best time to examine the breast is one or two weeks after menstruation. The techniques used are inspection and palpation (the most important).

# Cont...d

## Inspect the breasts;

- General appearance –Note symmetry of size and shape. It is common to have a slight asymmetry in size ; often the left breast is slightly larger than the right.
- Abnormal- a sudden increase in the size of one breast signifies inflammation or new growth.

# Cont...d



ARMS AT SIDES



ARMS OVER HEAD

# Cont...d



HANDS PRESSED AGAINST HIPS



LEANING FORWARD

# Cont...d

- Skin:
  - The skin normally is smooth and have even color.
  - Note any localized areas of redness, bulging, or dimpling.
  - Also , note any skin lesions.



# Cont...d

- A fine blue vascular network is visible normally during pregnancy.
- A pale linear striae, or stretch marks, often , follows pregnancy.
- Lymphatic drainage areas:
  - Observe the axillary and supra clavicular regions.
  - Note any bulging, discoloration or edema.

# Cont...d

- Nipple:
  - Should be symmetrically placed on the same plane on the two breasts.
  - Nipples usually protrude , but some are flat and some inverted.
  - Distinguish a recently retracted nipple from one that has been inverted for many years or since puberty.

# Cont...d

- Normal nipple inversion may be unilateral or bilateral and usually can be pulled out ( i.e. it is not fixed).
- Note any dry scaling , any fissure or ulceration, and bleeding or other discharge.

# Cont...d

- ▣ Maneuvers to screen for retraction;
  1. First ask her to lift the arms slowly over the head. Both breasts should move up symmetrically.
  2. Next ask her to push her hands on to her hips and to push her two palms together.

# Cont...d

- These maneuvers contract the pectoralis major muscle. There will be a slight lifting of both breasts.
3. Ask the woman with large pendulous breast to lean forward while you support her forearms. Note the symmetric free forward movement of both breasts.

# Cont...d

- Remember:
  - Retraction signs are due to fibrosis in the breast caused by neoplasm.
  - The fibrosis shortens and there will be a lag in movement of one breast.
  - Note a dimpling or skin retraction.

# Cont...d

## Palpation of the breast;

- Ask the patient to lie on supine with a small pillow under her shoulder on the side when you are examining and her arm rested over her head.
- This helps to spread the breast more evenly across the chest wall and to make nodules easy to palpate.



# Cont...d



# Cont...d

- Tuck a small pad under the side to be palpated and raise her arm over her head.
- Use the pads of your three fingers and make a gentle rotary motion on the breast.
- Choose one of the two patterns palpation:

# Cont...d

- You may start at the nipple and palpate out to the periphery. Or
- Start at the nipple and palpate in concentric circles moving to the periphery.
- With either pattern, move in a clockwise direction taking care to examine every square inch of the breast (3 minute for each). Also, palpate the tail of spence in the upper quadrant.

# Cont...d

- In the nulliparous woman the tissue feels firm, smooth and elastic.
- After pregnancy, the tissue feels softer and looser.
- Premenstrual enlargement is normal owing to increasing progesterone. This consists of a slight enlargement, tenderness to palpation and a generalized nodularity.

# Cont...d

- After palpating over the four breast quadrants, palpate the nipple.
- Note any indurations or sub areolar mass using your thumb and fore flinger.
- If any discharge appears note its color and consistency.
- Except in pregnancy and lactation discharge is abnormal.

# Cont...d



# Cont...d

- For the woman with large pendulous breasts. You may palpate using a bimanual technique.
- Use sitting position leaning forward and support the inferior part of the breast with one hand and use other hand to palpate the breast tissue against your supporting hand.



# Cont...d

If you do feel a lump or mass note these characteristics:-

- Location:- use clock wise from the nipple.
- Size:- judge in cm. Width and length, thickness.
- Shape:- oval, round or indistinct.
- Consistency:- soft, firm or hard.

# Cont...d

- ▣ Mobility:- movable or fixed.
- ▣ Distinctness:– solitary or multiple.
- ▣ Nipple:- displaced or retracted.
- ▣ Note skin over the lump.
- ▣ Tenderness.
- ▣ Lymphadenopathy.

# Differentiating Breast Lumps

Characteristics	Fibroadenoma	Benign breast ds Fibrocystic	Cancer
Age	15-30 (up to 55)	30-55 (decrease after menopause)	30-80 (increase after 50)
Shape	Round, lobular	Round, lobular	Irregular, star shaped
Consistency	Usually firm, rubbery	Firm to soft, rubbery	Firm to stony hard

# Cont...d

Demarcation	Well demarcated, clear margins	Well demarcated	Poorly defined
Number	Usually single	Usually multiple, may be single	single
Mobility	Very mobile, slippery	Mobile	Fixed
Tenderness	Usually non-tender	Tender, may be noncyclic, usually increase before menses	Usually none, may be tender

# Cont...d

Skin retraction	None	None	Usually
Pattern of growth	Grows quickly and constantly	Size may increase or decrease rapidly	Grows constantly
Risk to health	None, they are benign-must diagnosed by biopsy	Benign, although general lumpiness may mask other cancerous lump	Serious, needs early treatment

# Cont...d

- Cysts Usually soft to firm, round, mobile; often tender.
- Pregnancy/lactation Lactating adenomas, cysts, mastitis, and cancer; characteristics as above.

# Breast Self Examination

- Finish your own assessment and then teach self examination.
- The best time to conduct B.S.E. is right after the menstrual period, or the fourth through the seventh day of the menstrual cycle, when the breasts are smallest and least congested.



# Cont...d

- Teach the woman to do B.S.E. in front of a mirror, in the shower where soap (slippery nature of the soap increases detection of any nodule) and water assists palpation.
- Use demonstration and return demonstration.

# Axillae

## Inspect and palpate the axillae.

- ❑ Examine the axillae while the woman is in sitting position.
- ❑ Inspect the skin, noting any rash or infection.
- ❑ Lift the woman's arm and support it yourself, so that her muscles are loose and relaxed.

# Cont...d

- Use your right hand to palpate the left axillae.
- Reach your fingers high into the axilla and move them in four directions: down the chest wall in a line from the midaxillary, the anterior border of the axilla, the posterior border and the inner aspect of the upper arm.

# Cont...d

- Usually nodes are not palpable, although you may feel a small, soft non-tender node in the central group.
- Note any enlarged and tender lymph nodes.
- Nodes enlarge with any local infection of the breast, arm, or hand and with breast cancer or metastases.

# Nursing Diagnosis

- Knowledge deficit to breast self-examination related to cognitive limitation as manifested by inadequate performance.
- In effective breast feeding related to poor infant sucking as manifested by inadequate milk supply.

**Thank you for your attention!!!**