

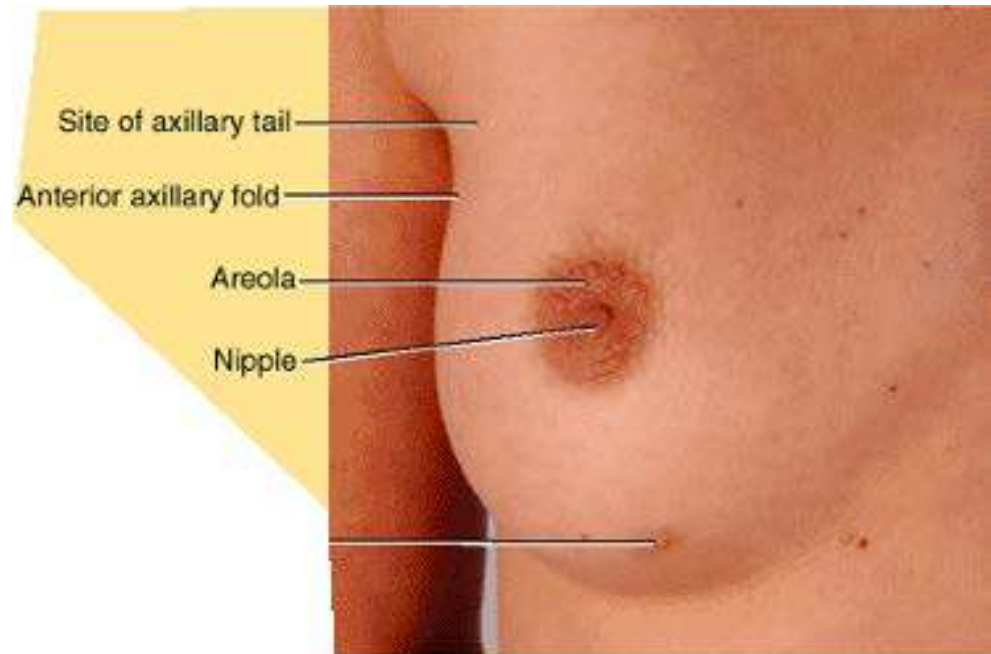
Prof Oluwadiya KS  
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# The Breast

# Introduction

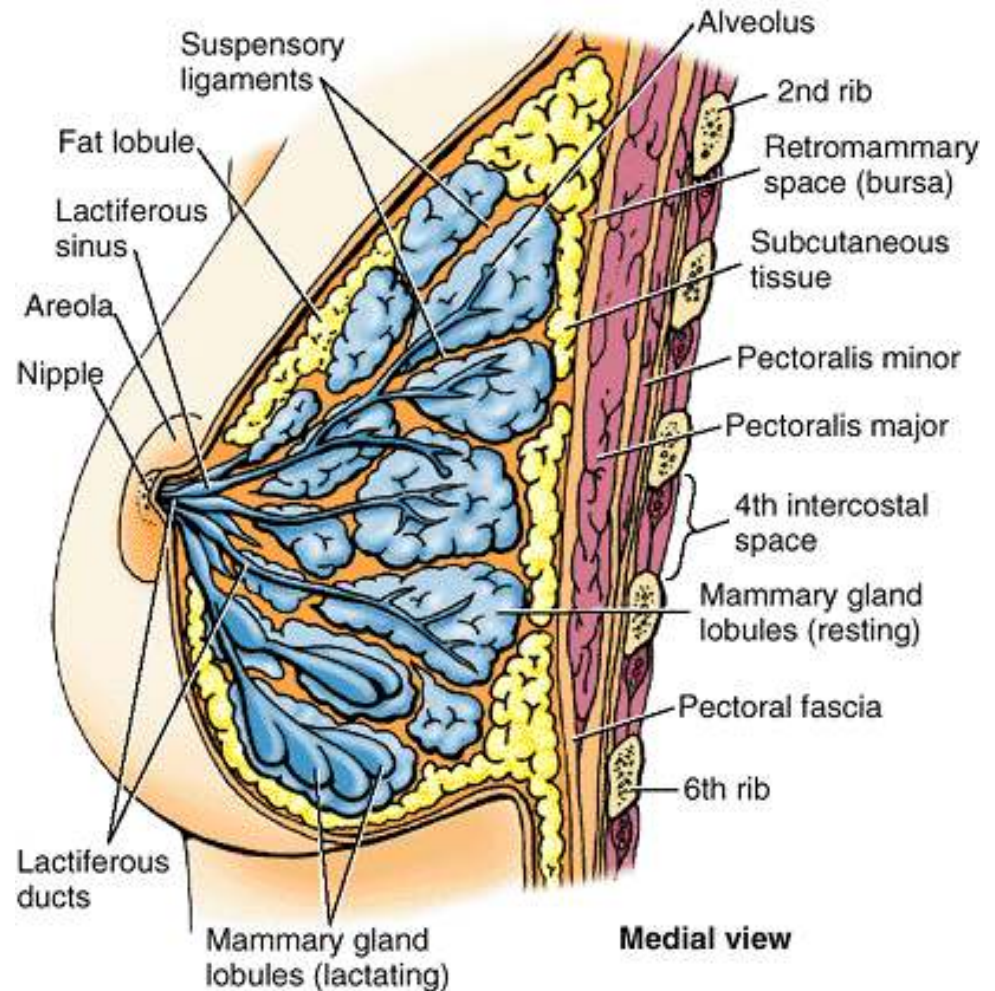
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- ▶ The breasts consist of mammary glands and associated skin and connective tissues
- ▶ These are accessory organs of production
- ▶ Present in both males and females
- ▶ They are modified sweat glands in the superficial fascia of the chest wall.



# The Female Breast: Position

- ▶ It extends from the 2<sup>nd</sup> to the 6<sup>th</sup> rib



# The Female Breast: Position

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- ▶ Two-thirds lies on the pectoralis major muscle, one-third on the serratus anterior muscle while the media lowermost part lies on the uppermost end of the rectus sheath
- ▶ From the sternal border medially to the mid-axillary line laterally

Pectoralis major muscle

Mammary Gland  
Anterolateral Dissection



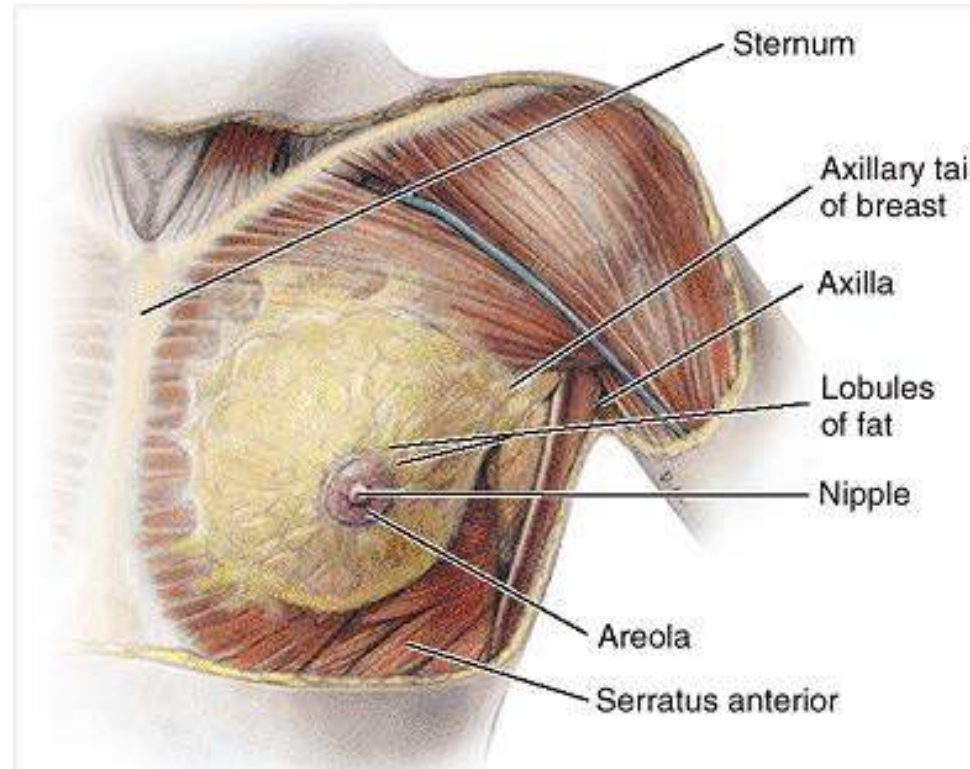
Serratus anterior muscle



# The Female Breast: Axillary tail

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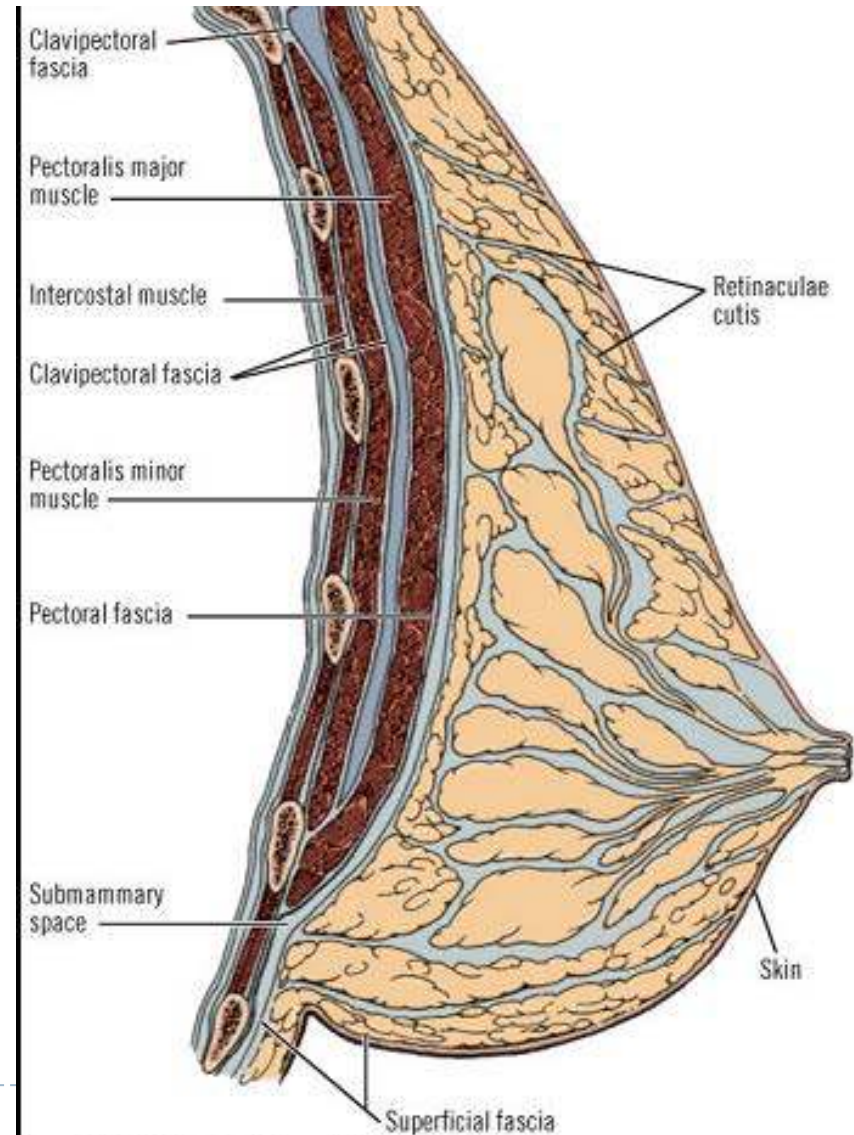
- ▶ This is the part of the breast which extends into the axilla.
- ▶ Found in about 95% of females
- ▶ It pierces the deep fascia before extending into the axilla
- ▶ It is therefore the only part of the breast deep to the deep fascia
- ▶ When enlarged, may be mistaken for a tumour or lymph node





# The Female Breast: Position

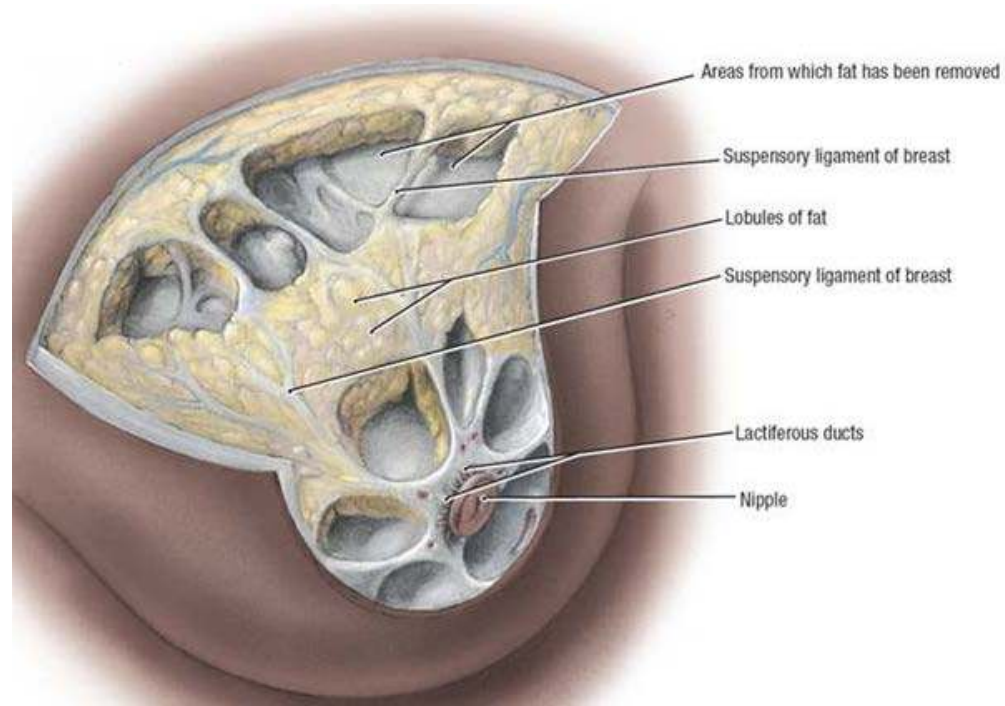
- ▶ The breast is located in the superficial fascia
- ▶ It is separated from the deep fascia on the pectoralis major & the serratus anterior muscles by a layer of loose connective tissue called the retromammary (submammary) space.
- ▶ The retromammary space provides some degree of movement over the underlying structures.



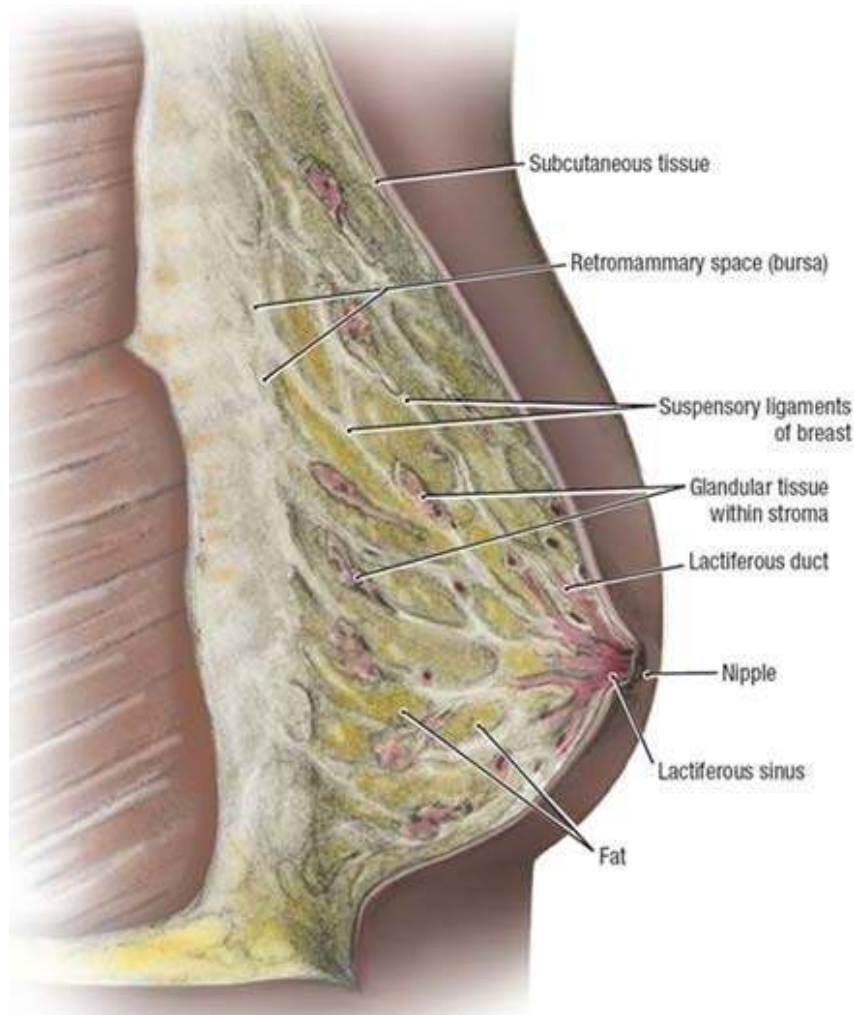
# Suspensory ligament of Cooper

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- ▶ These are connective tissue septa located between lobes of the breast and are firmly attached to the overlying dermis.
- ▶ They help in supporting the breast



# Suspensory ligament of Cooper



- ▶ Dimpling of the skin of the breast may occur in carcinomas when the ligaments are infiltrated by malignant cells and they become fibrosed and shortened.
- ▶ Because of their attachment to the dermis of the skin, the skin becomes tethered.

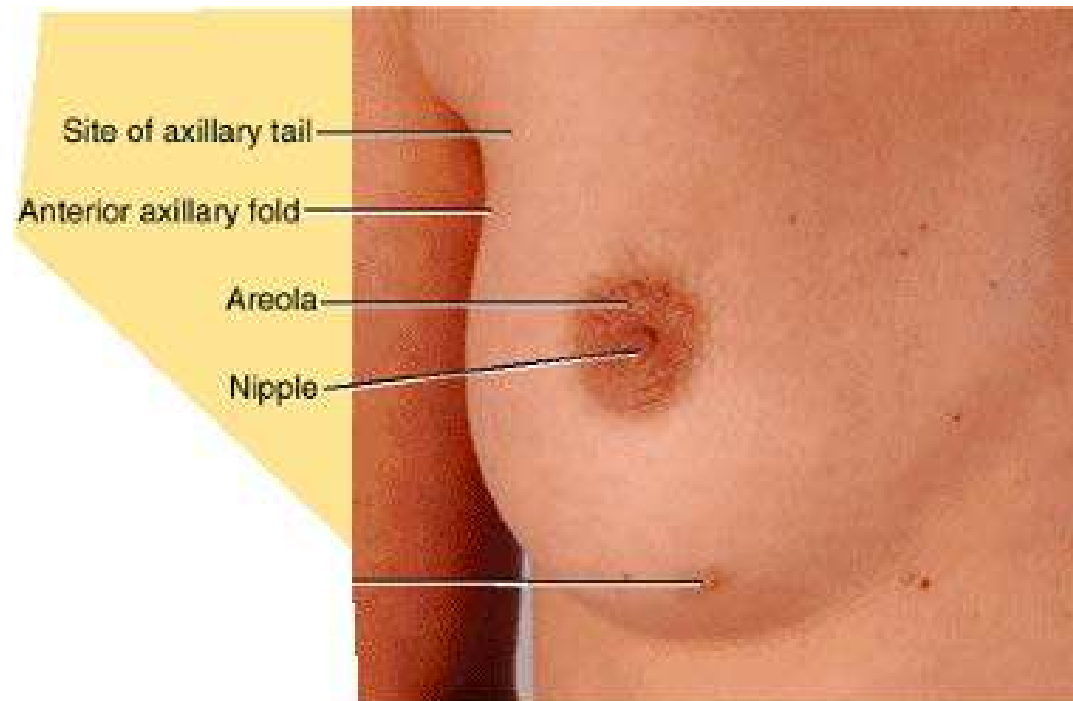


# The Breast: Components

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▶ The breast is composed of:

- i. The mammary glands.
- ii. The nipple.
- iii. The areola.

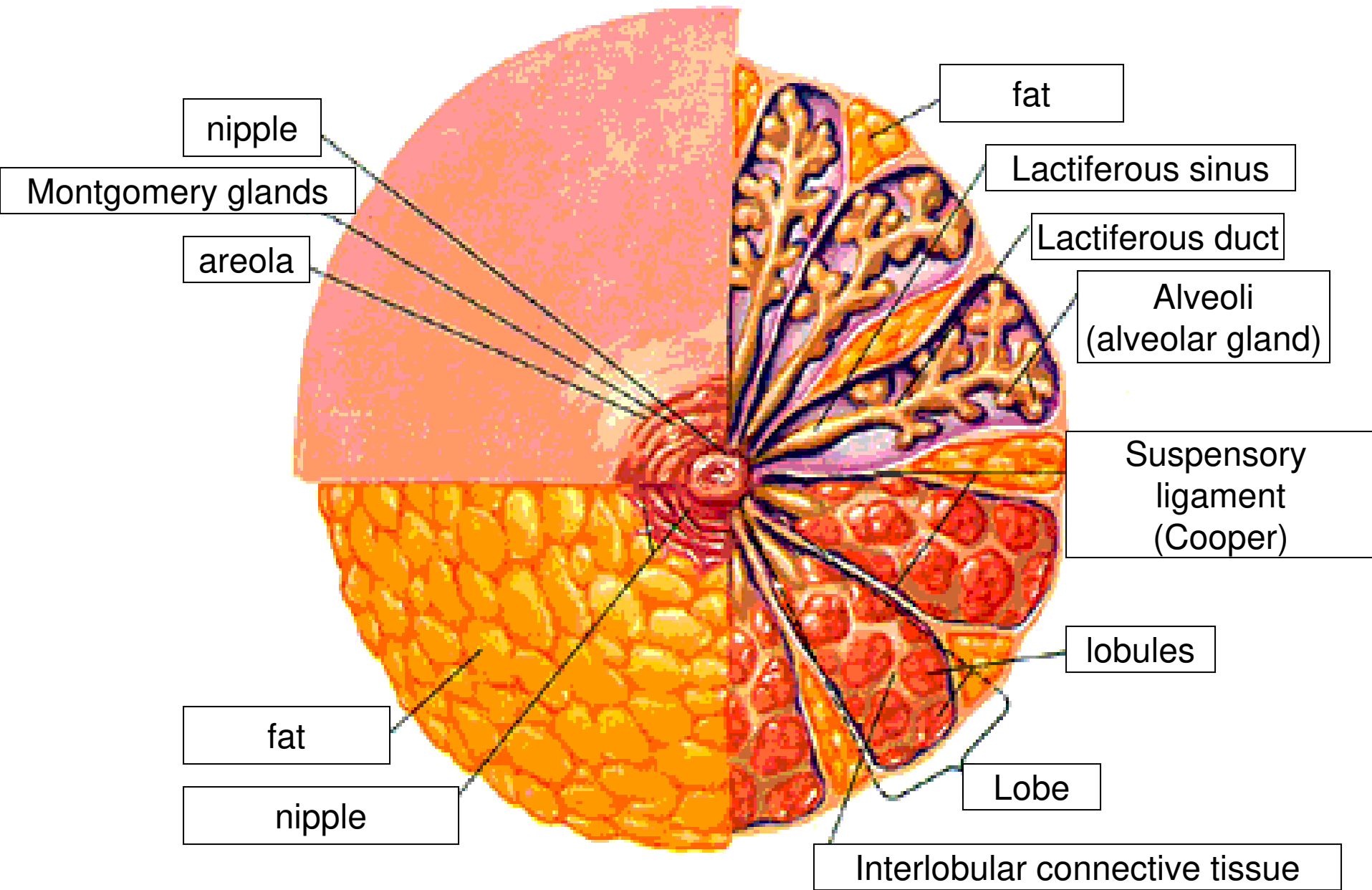


# The Breast: Mammary glands

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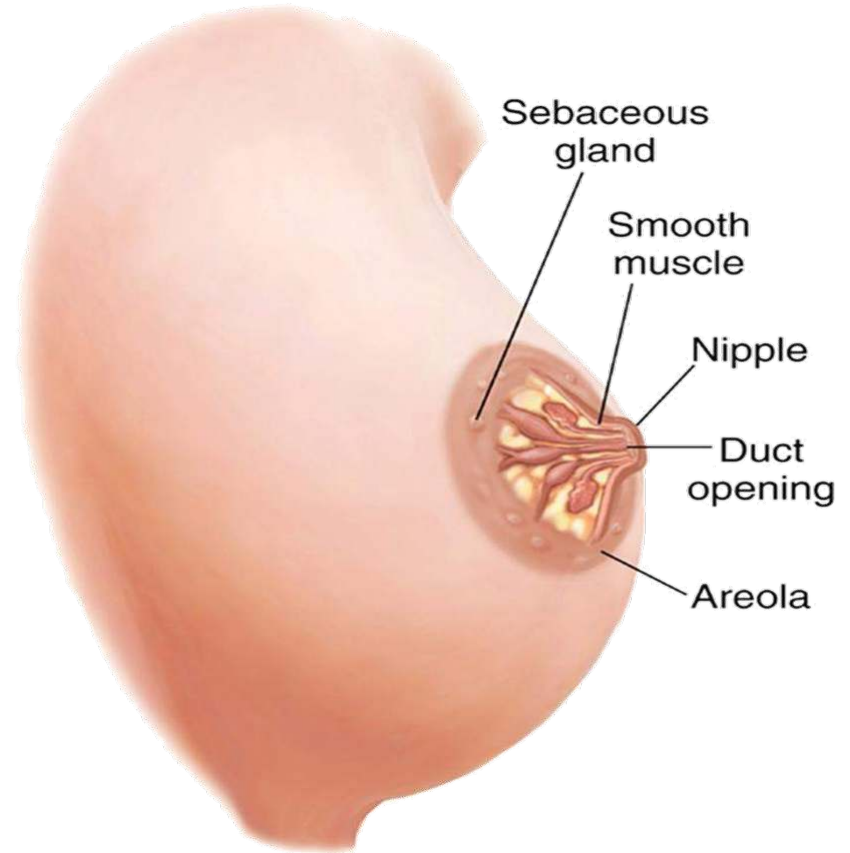
- ▶ The breast consists of 15-20 lobes of glandular tissue embedded in fat.
- ▶ The fat is responsible for the smooth outline of the breast
- ▶ The lobes are separated by the suspensory ligaments of Cooper
- ▶ Each lobe contains several lobules
- ▶ Each lobe is drained by its own lactiferous duct onto the nipple





# The Nipple

- This is a cylindrical projection at the level of the 4th intercostal space in the male and more inferiorly in the female
- It is surrounded by the areola
- Lactiferous ducts open separately into the nipples
- Small smooth muscle fibers at the base of nipple may cause erection of the nipple
- The nipples have no fat, hair, or sweat glands



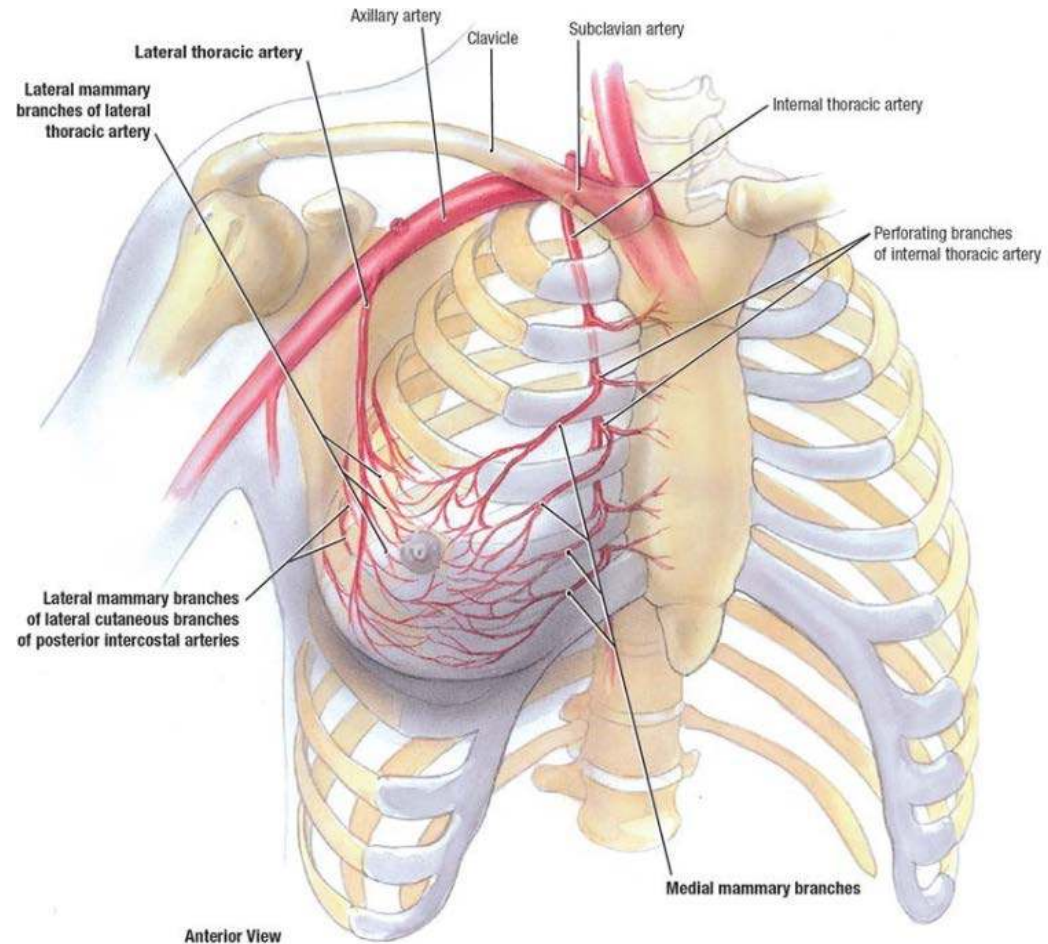
# The Areolar

- This is the circular hyperpigmented region around nipple.
- This area is lubricated by the *areolar glands of Montgomery*. These are large, modified sebaceous glands which provide lubrication for the nipple during lactation.

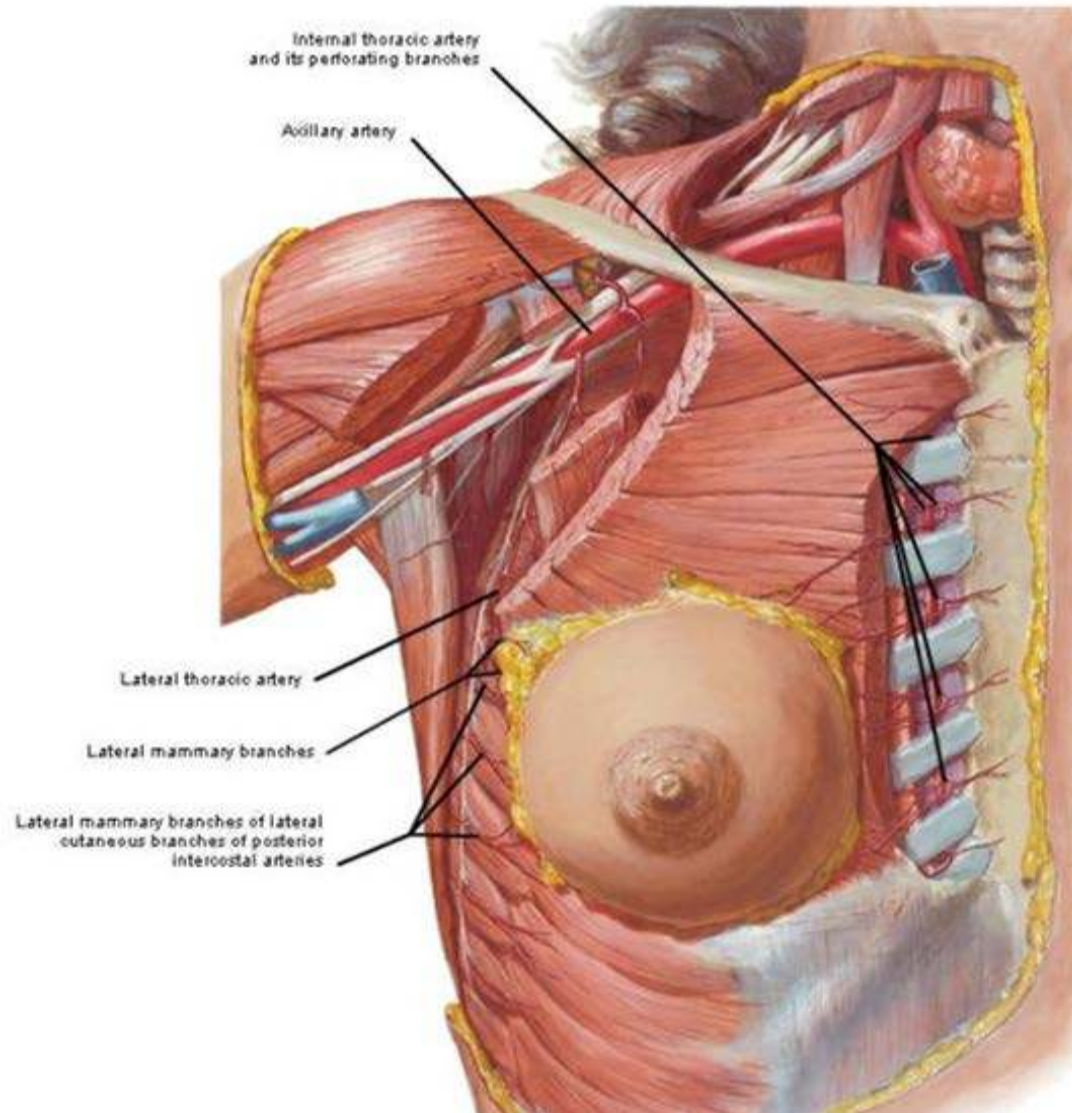


# Blood supply

- The first four anterior perforating branches of the internal thoracic artery (branch of subclavian)
- Lateral thoracic artery (branch of the axillary), crossing around the margin of the pectoralis major muscle
- Posterior intercostal artery (from thoracic aorta)
- The Veins corresponds to the arteries



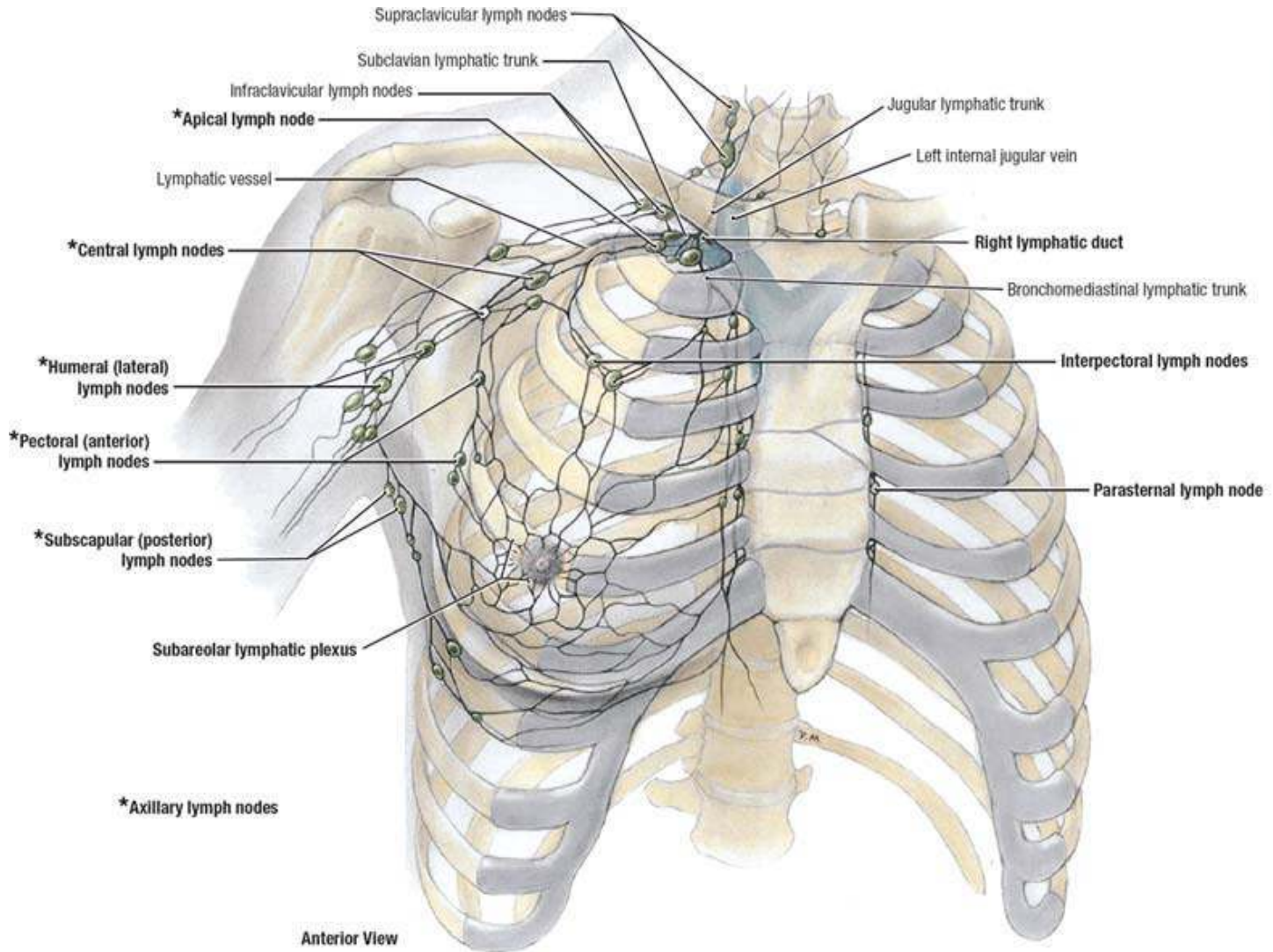
# Blood supply



# Lymphatic drainage

- This is of considerable importance in the spread of tumours
- Lymph drainage tends to follow vascular channels
- Lymph channels within the breast freely communicates
- 75% of the breast drain superiolaterally into the axillary group
- Most of the medial part of the breast drains mainly into the internal thoracic (parasternal) group of lymph nodes
- Some drainage may occur via lymphatic vessels that follow the lateral branches of posterior intercostal arteries into intercostal nodes near the heads and necks of ribs

# Lymphatic drainage



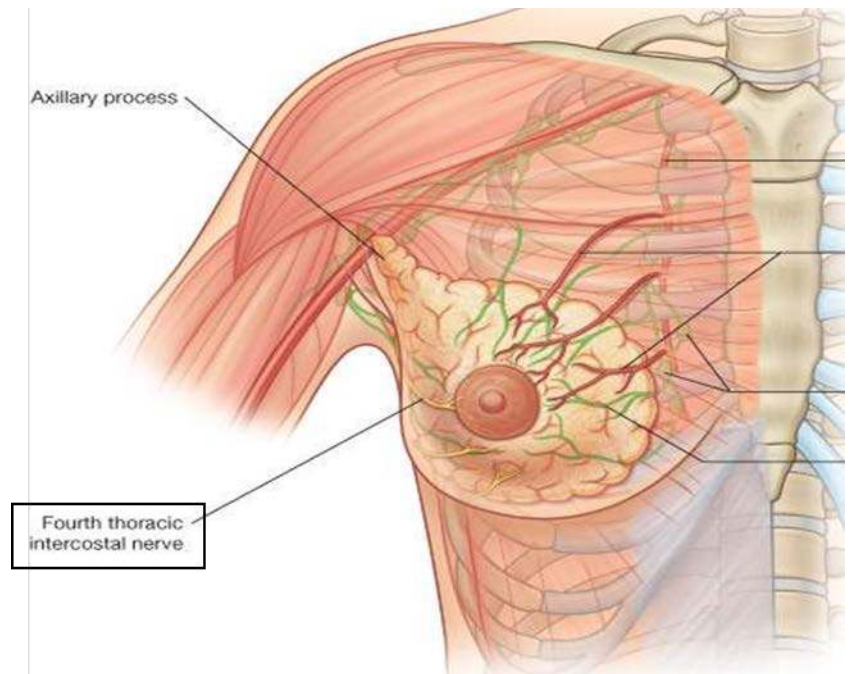
# Lymphatic drainage

- i. anterior—lying deep to pectoralis major along the lower border of pectoralis minor
- ii. posterior—along the subscapular vessels
- iii. lateral—along the axillary vein
- iv. central—in the axillary fat
- v. apical —immediately behind the clavicle at the apex of the axilla above pectoralis minor and along the medial side of the axillary vein. All the other groups drain to the subclavian lymph trunk through this group



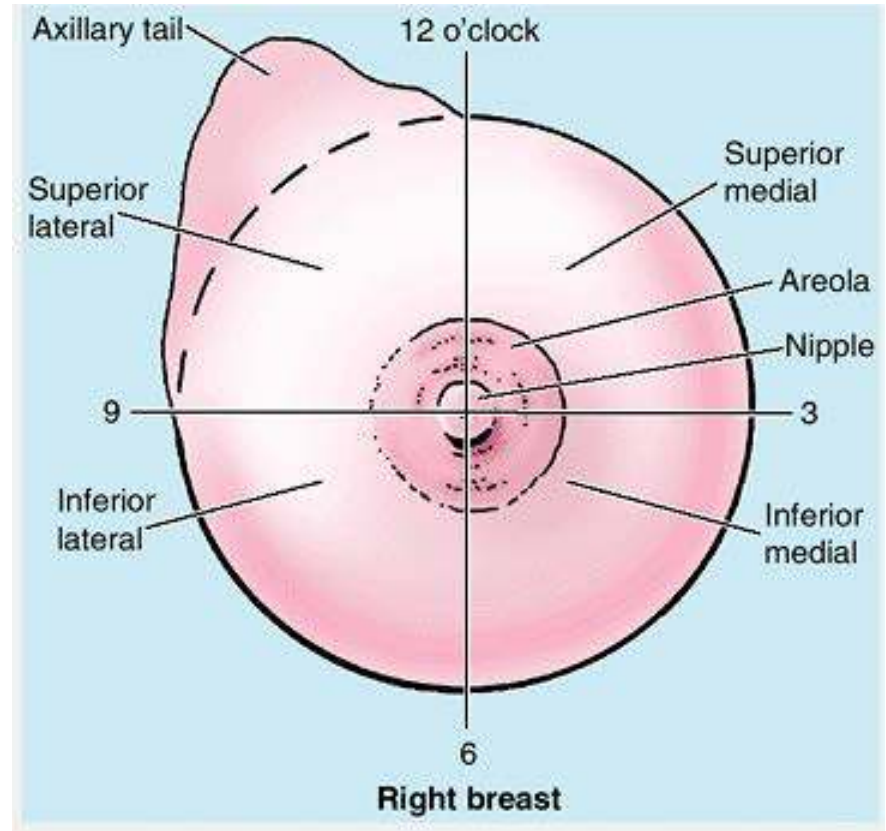
# The Breast: Innervation

- The breast is supplied by the lateral and anterior cutaneous branches of the 2<sup>nd</sup> - 6<sup>th</sup> intercostal nerves.



# Breast quadrants

- For clinical examinations and description, the breast may be divided into four quadrants



# The Male Breast

- Rudimentary
- Consists only of small ducts and cords of cells,
- Does not normally extend beyond the areola
- Can also develop cancer



# THE END

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QUESTIONS

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