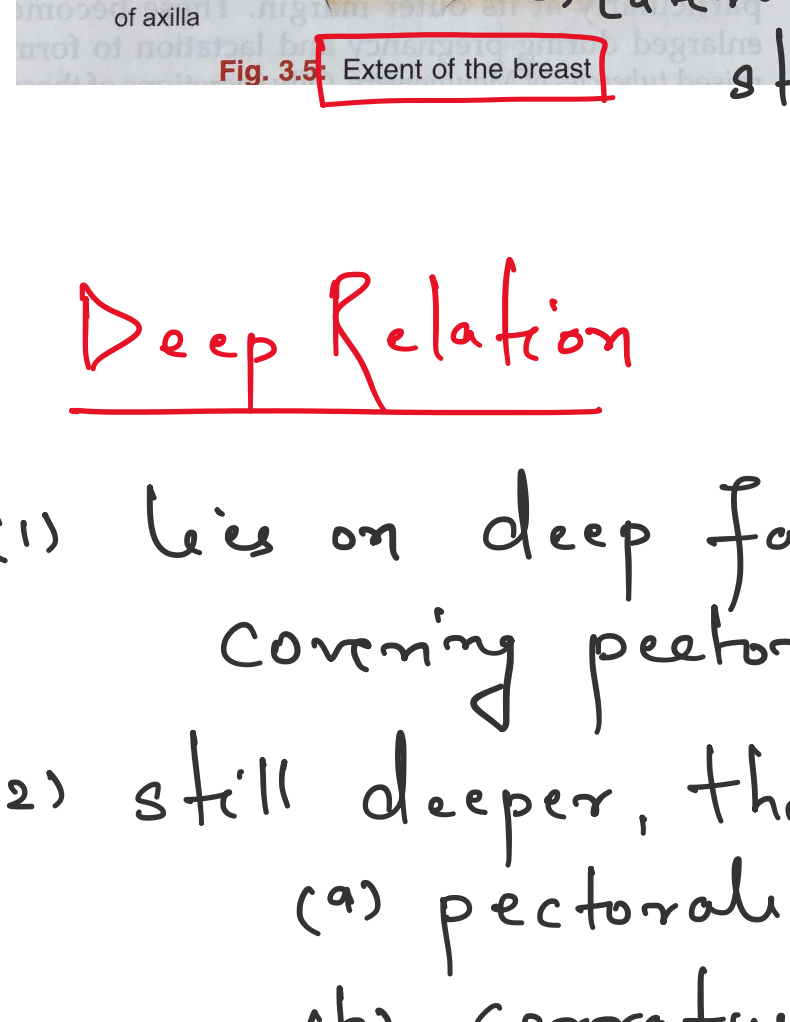


Breast

- found in both sexes, rudimentary in the male.
 - Shape may be hemispherical, conical, pyriform, pendulous or flat.
- ### Situation
- The breast lies in the superficial fascia of pectoral region.
 - 4 quadrants; (a) upper medial (b) upper lateral (c) lower medial (d) lower lateral.
 - Small extension of upper lateral called **axillary tail of Spence**, passes through an opening in deep fascia and lies in axilla.

Foramen of Langer.

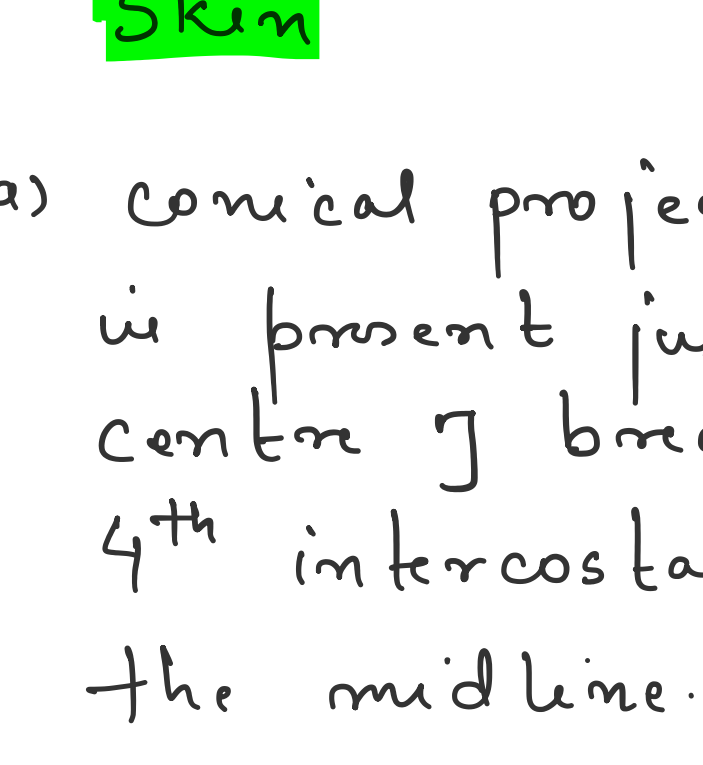


vertically 2nd to 6th.
lateral border of sternum

Deep Relation

- (1) lies on deep fascia (pectoral fascia) covering pectoralis major.
- (2) still deeper, three muscles:-
(a) pectoralis major
(b) serratus anterior
(c) external oblique muscle of abdomen.
- (3) Breast is separated from pectoral fascia by loose areolar tissue, called **Retromammary space**.

Because of this, breast can move freely over p. major.



Structure of Breast:-

- (1) Skin
- (2) Parenchyma (Mammary gland)
- (3) Stroma

Skin

- conical projection called Nipple is present just below the centre of breast at the level of 4th intercostal space 10cm from the midline.
- Nipple has 15-20 lactiferous ducts. It has modified sweat and sebaceous glands. Rich in nerve supply.
- Skin surrounding the base of nipple is pigmented and forms a circular area called **Arcola**.
rich in modified sebaceous gland.
* Arcola becomes enlarged during pregnancy and lactation to form raised tubercles of Montgomery.
- Below the areola lie lactiferous sinus where stored milk is seen.

Parenchyma (Mammary gland)

- Mammary gland - Compound tubuloalveolar gland.
- It is modified sweat gland.

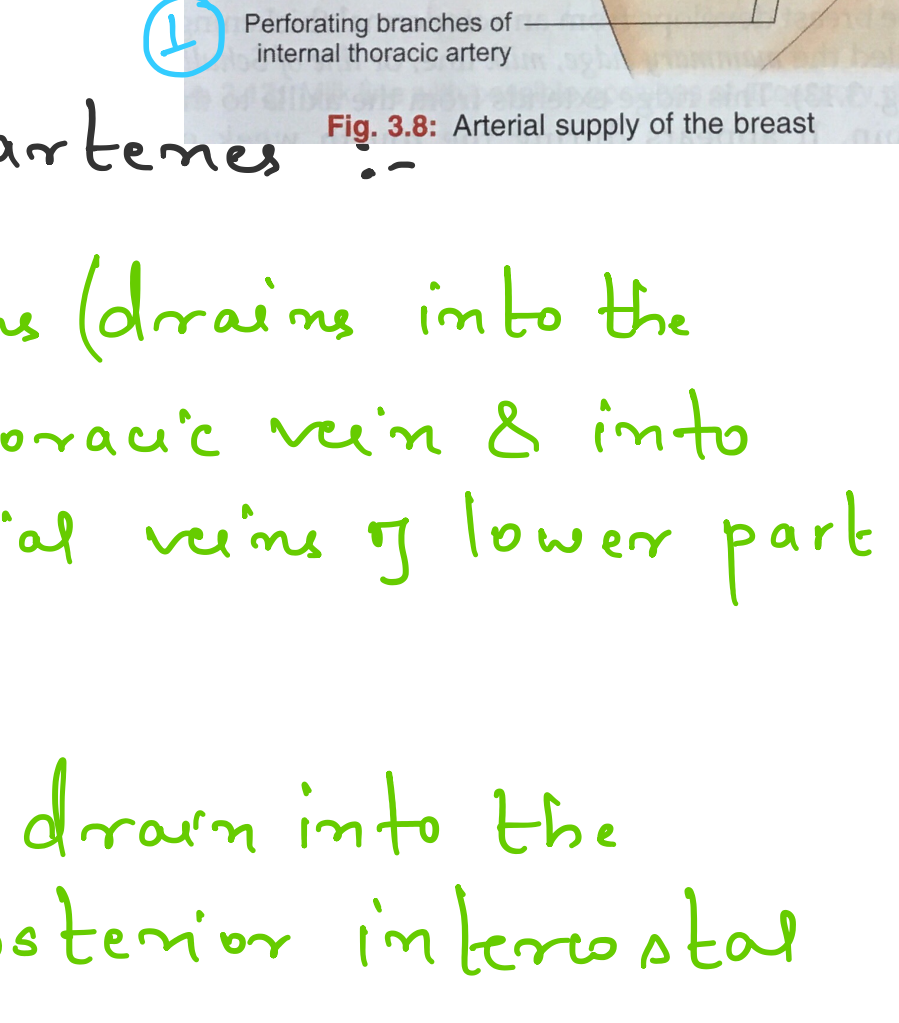
15-20 lobes (clusters of alveoli)
↓
Mammary duct
↓
Ampulla (Lactiferous sinus - 15 to 20)
↓
Lactiferous ducts.

Stroma

- Forms supporting framework.
- partly fibrous & partly fatty.
- fibrous stroma forms septa, known as **suspensory ligaments of Cooper**, which anchor the skin and gland to pectoral fascia.
- fatty stroma forms the main bulk of gland, it is distributed all over the breast, except beneath the areola & nipple.

Blood Supply :-

- mammary gland is extremely vascular.
- Supplied by following arteries:-
(1) Internal thoracic (branch of subclavian)
(2) Lateral thoracic, superior thoracic, and axillary branches of axillary artery.
(3) Lateral branches of the posterior intercostal arteries.



- Veins follow the arteries :-

- (1) Superficial veins (drains into the internal thoracic vein & into the superficial veins of lower part of neck)
- (2) The deep veins drain into the axillary and posterior intercostal veins.

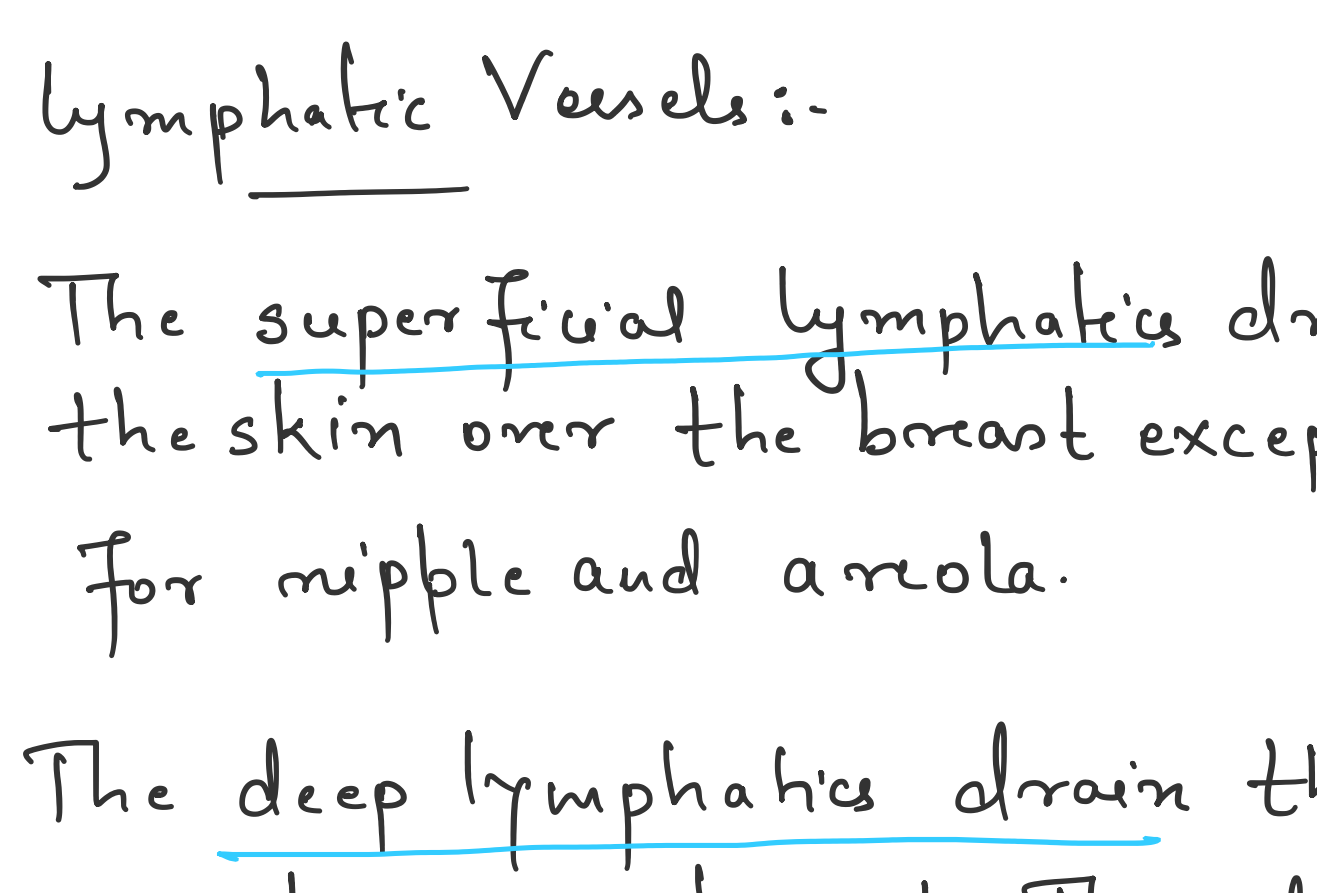
Nerve Supply :-

- Supplied by anterior and lateral cutaneous branches of 4th to 6th intercostal nerves.
- Nerves do not control secretion of milk.
- Secretion is controlled by **prolactin** secreted by **pars anterior of hypophysis cerebri**.

Lymphatic Drainage:-

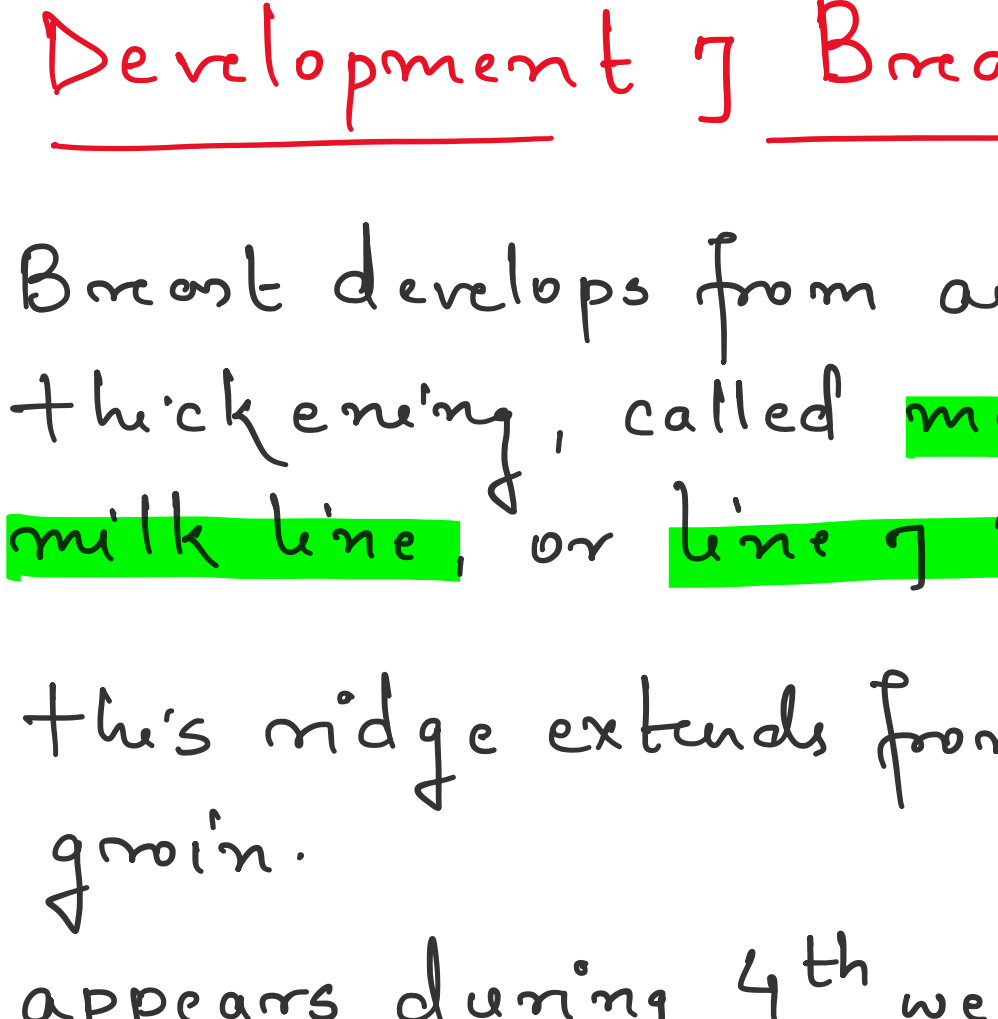
- carcinoma of breasts spreads mostly along lymphatics to the regional lymph nodes.

Lymph Nodes:-



Lymphatic Vessels:-

- The superficial lymphatics drain the skin over the breast except for nipple and areola.
- The deep lymphatics drain the parenchyma of breast. They also drain nipple & areola.
- * 75% of lymph drains into Axillary nodes.
20% into Anterior Thoracic nodes.
5% into Posterior Intercostal nodes.



Development of Breast :

- Breast develops from an ectodermal thickening, called **mammary ridge**, **milk line** or **line of Schewitz**.
- this ridge extends from axilla to groin.
- appears during 4th week of intrauterine life.
- **gland → Ectodermal**
stroma → Mesodermal
- * Growth of mammary gland at puberty is caused by **Oestrogens**.
Development of secretory alveoli is stimulated by **Progesterone & Prolactin**.
- * **Amastia** - Absence of breast
Athelia - Absence of Nipple
Polymastia - Supernumerary Breasts
Polythelia - " nipples
Gynaecomastia - Development of breasts in male (Klinefelter's syndrome)

