

# Clinicoanatomical Problems – Pectoral Region

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### 1. Breast carcinoma with axillary node enlargement

- **Case:** A 45-year-old woman presents with a lump in the upper outer quadrant of her breast and palpable axillary lymph nodes.
- **Q:** Why are axillary nodes commonly involved?
- **A:** Because **75% of lymph from the breast drains to axillary nodes**, especially anterior (pectoral) group.

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### 2. Long thoracic nerve injury during mastectomy

- **Case:** After axillary lymph node clearance, patient develops winging of scapula.
- **Q:** Which muscle is paralyzed?
- **A:** **Serratus anterior** (nerve supply: long thoracic nerve).

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### 3. Injury to medial pectoral nerve

- **Case:** Patient after chest wall surgery shows weakness of pulling shoulder forward.
- **Q:** Which muscle is affected?
- **A:** **Pectoralis minor** (draws scapula forward and downward).

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#### 4. Subclavian vessel injury

- **Case:** Following clavicle fracture, bleeding noted from beneath clavicle.
- **Q:** Which muscle protects subclavian vessels?
- **A: Subclavius muscle.**

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#### 5. Cephalic vein cutdown

- **Case:** Central venous access is taken via cephalic vein in deltopectoral groove.
- **Q:** Which fascia must be pierced?
- **A: Clavipectoral fascia.**

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#### 6. Pectoralis major rupture (athlete)

- **Case:** Weightlifter develops chest pain and swelling at anterior axillary fold after heavy lifting.
- **Q:** Which movement is lost?
- **A: Adduction and medial rotation of arm** (pectoralis major action).

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#### 7. Pectoralis minor as surgical landmark

- **Case:** In axillary surgery, artery is divided into 3 parts by a muscle.
- **Q:** Which muscle is this?
- **A: Pectoralis minor.**

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## 8. Subpectoral abscess spread

- **Case:** Tuberculous abscess in chest wall extends into axilla beneath pectoralis major.
- **Q:** Through which fascial plane does it spread?
- **A:** Pectoral fascia ? clavipectoral fascia ? axilla.

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## 9. Poland's syndrome

- **Case:** Newborn with absence of sternocostal part of pectoralis major, ipsilateral limb smaller.
- **Q:** Which congenital anomaly is this?
- **A:** Poland's syndrome.

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## 10. Carcinoma of breast with peau d'orange

- **Case:** Breast skin thickened and pitted like orange peel.
- **Q:** What causes this?
- **A:** Obstruction of cutaneous lymphatics in breast carcinoma.

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## Additional Clinicoanatomical Problems – Pectoral Region

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## 11. Nipple retraction

- **Case:** A 42-year-old woman has a breast lump with retracted nipple.

- **Q:** What is the anatomical cause?
- **A:** Fibrosis around **lactiferous ducts** pulls the nipple inward.

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## 12. Infraclavicular fossa swelling

- **Case:** A patient presents with a pulsatile swelling below clavicle.
- **Q:** Which artery is likely involved?
- **A:** **Thoracoacromial artery** (pierces clavipectoral fascia).

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## 13. Injury to lateral pectoral nerve

- **Case:** During surgery, nerve piercing clavipectoral fascia is cut.
- **Q:** Which muscle is primarily affected?
- **A:** **Pectoralis major.**

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## 14. Axillary tail of breast lump

- **Case:** A woman presents with a lump in the axilla continuous with breast tissue.
- **Q:** What is this extension called?
- **A:** **Axillary tail of Spence.**

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## 15. Accessory breast tissue

- **Case:** A young female has an extra swelling in the axilla that enlarges during lactation.

- **Q:** What is the condition?
- **A:** **Polymastia** (accessory breast tissue along milk line).

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## 16. Subpectoral abscess drainage

- **Case:** A tuberculous abscess from chest wall spreads into axilla beneath pectoralis minor.
- **Q:** Which fascia directs its spread?
- **A:** **Clavipectoral fascia.**

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## 17. Clavipectoral fascia surgical importance

- **Case:** Surgeon exposes axilla and identifies fascia pierced by cephalic vein.
- **Q:** Name the fascia.
- **A:** **Clavipectoral fascia.**

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## 18. Retromammary abscess

- **Case:** A woman develops abscess behind breast, breast becomes immobile on chest wall.
- **Q:** Which space is involved?
- **A:** **Retromammary space.**

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## 19. Suspensory ligament of axilla

- **Case:** In axillary surgery, a ligament is seen maintaining hollow of axilla.
- **Q:** What is this structure?
- **A: Suspensory ligament of axilla** (extension of clavipectoral fascia).

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## 20. Pectoralis minor syndrome

- **Case:** Patient has pain and vascular compression signs when arm is elevated.
- **Q:** Which muscle causes thoracic outlet compression?
- **A: Pectoralis minor** (compresses neurovascular bundle).