

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.

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.

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.

Additional Clinicoanatomical Problems – Pectoral Region

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).