

CHEST TUBE

(1 of 2)

PREPARATION

- CONSENT
- POSITION PATIENT
- MONITORING
- TIME OUT 
- REVIEW LABS
- REVIEW MEDS
- REVIEW CXR
Side _____

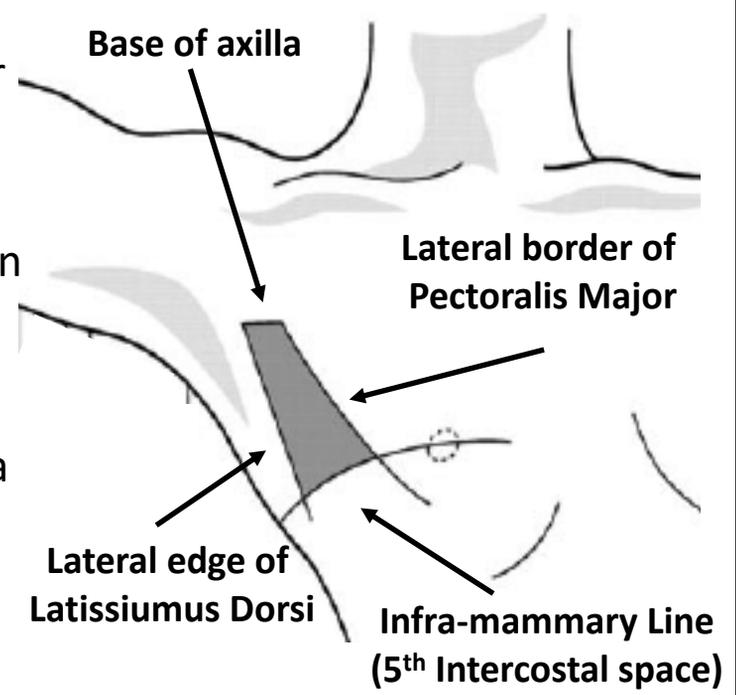
EQUIPMENT

- Chest Tube Tray
- Chest tube
- Atrium
- Lidocaine
- Sterile gloves
- Caps, masks, gowns

INSERTION TECHNIQUE

- Scrub, drape, scrub
- Anesthetize skin and deeper tissue
- Make 1.5 to 2 cm incision through soft tissue and down to rib
- Dissect above one rib
- Penetrate muscle and pleura using blunt dissection
- Feel inside the chest to ensure that the lung is not adherent
- Direct the tube and unclamp the tube as it passes
 - direct anterior for air
 - direct inferior for fluid

The TRIANGLE OF SAFETY



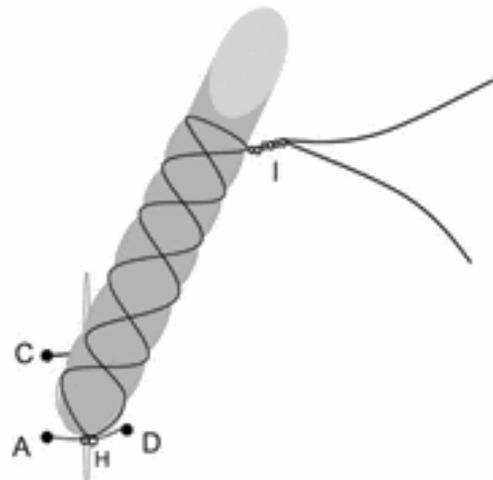
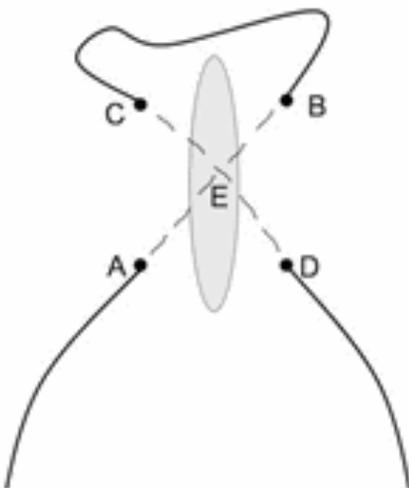
CHEST TUBE SIZING

- 16-22 Fr – stable pneumothorax
- 24-28 Fr – tension pneumothorax
- 28-32 Fr – empyema/hemothorax

CHEST TUBE (2 of 2)

SECUREMENT TECHNIQUE

- Connect to pleural drainage system and unclamp the tube
 - Do not drain more than 1.5 liters if a chronic effusion
 - Keep drainage system 40 inches below patient
 - Look for “cycling” with respiration
- Secure tube using the Roman Sandal Technique



EMERGENCY PROCEDURES

Misplaced tube → radiograph, STAT surgical consult

No cycling → consider misplaced tube, radiograph, withdraw

Significant blood return → STAT surgical consult, massive transfusion protocol

Bleeding at insertion site → consider tightening sutures, apply pressure dressing. If continuing surgical consult.