



มหาวิทยาลัยราชภัฏนครปฐม



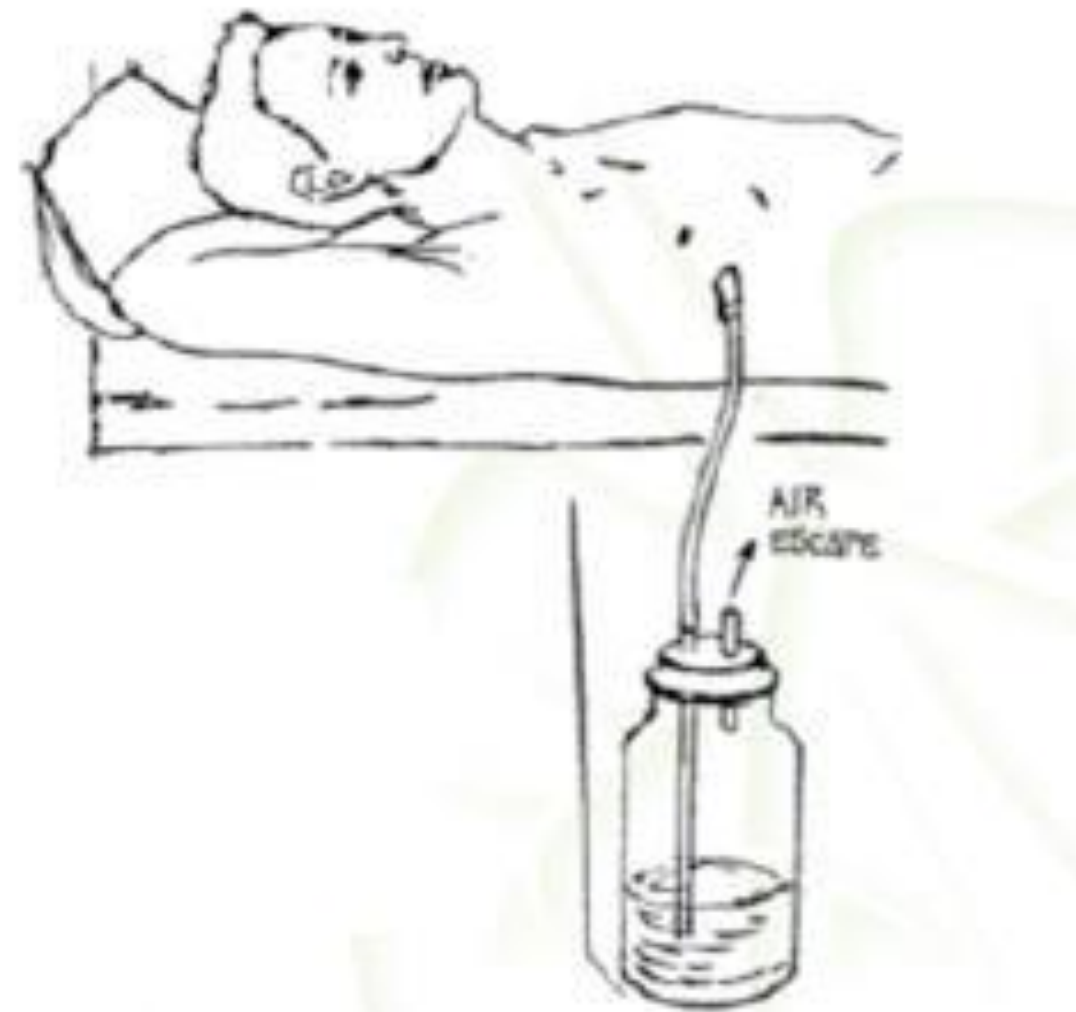
Adult and Geriatric Nursing Practicum 2

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Faculty of Nursing, Nakhon Pathom Rajabhat University

Intercostal chest drain (ICD) Care

A chest tube is a catheter inserted through the thorax to remove air and fluids from the pleural space, to prevent air or fluid from re-entering the pleural space, or to Re-establish normal intrapleural and intra pulmonic pressures

- 1. Remove fluid & air** as promptly as possible
- 2. Prevent drained air & fluid** from returning to the pleural space
- 3. Restore negative pressure** in the pleural space to re-expand the lung



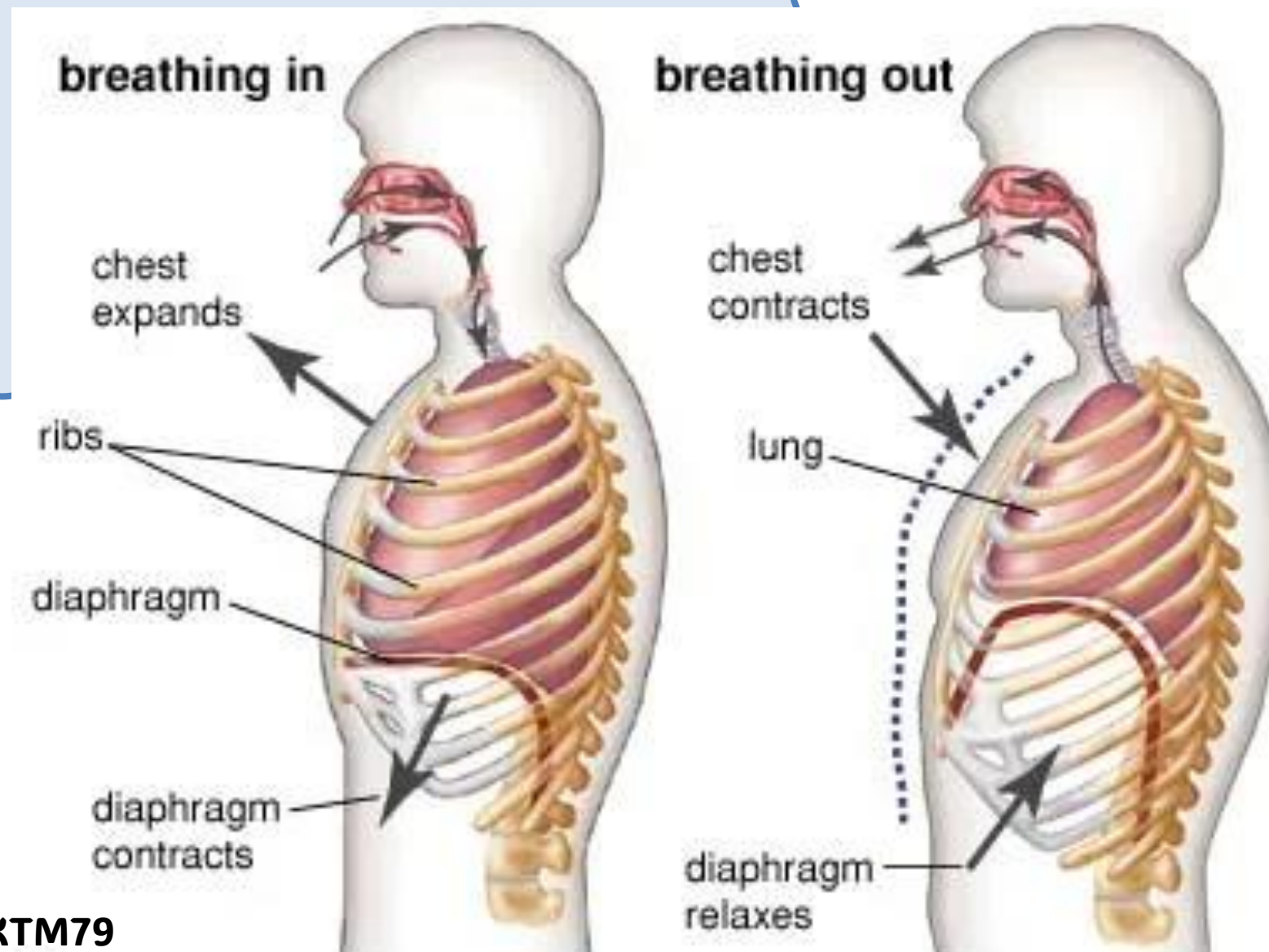
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Intercostal chest drain (ICD) Care

HOW CHEST DRAINAGE SYSTEM WORKS:

WORKS:

1. Expiratory pressure
2. Gravity
3. Suction



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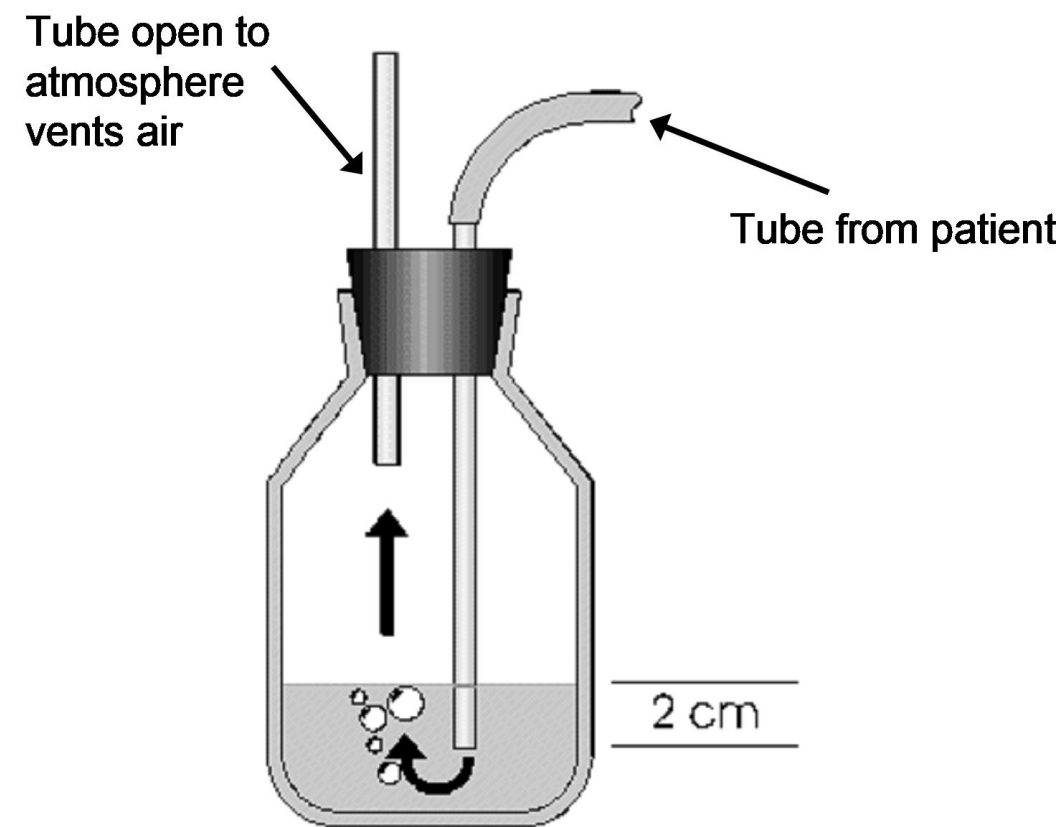


Intercostal chest drain (ICD) Care

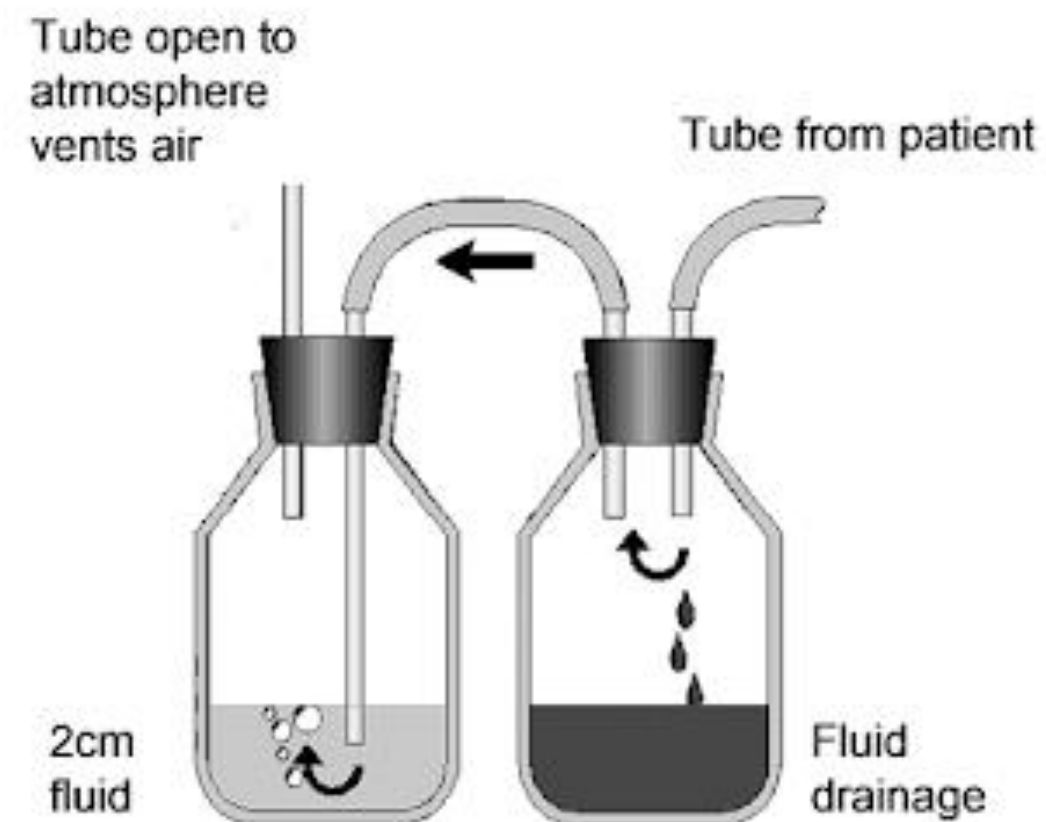
Indications

- Pneumothorax
- Hemothorax
- Pneumohemothorax
- Empyema
- pleural effusion
- Chylothorax
- For inserting medication into a chest tube
- On Ventilator Complication subcutaneous emphysema

Intercostal chest drain (ICD) Care

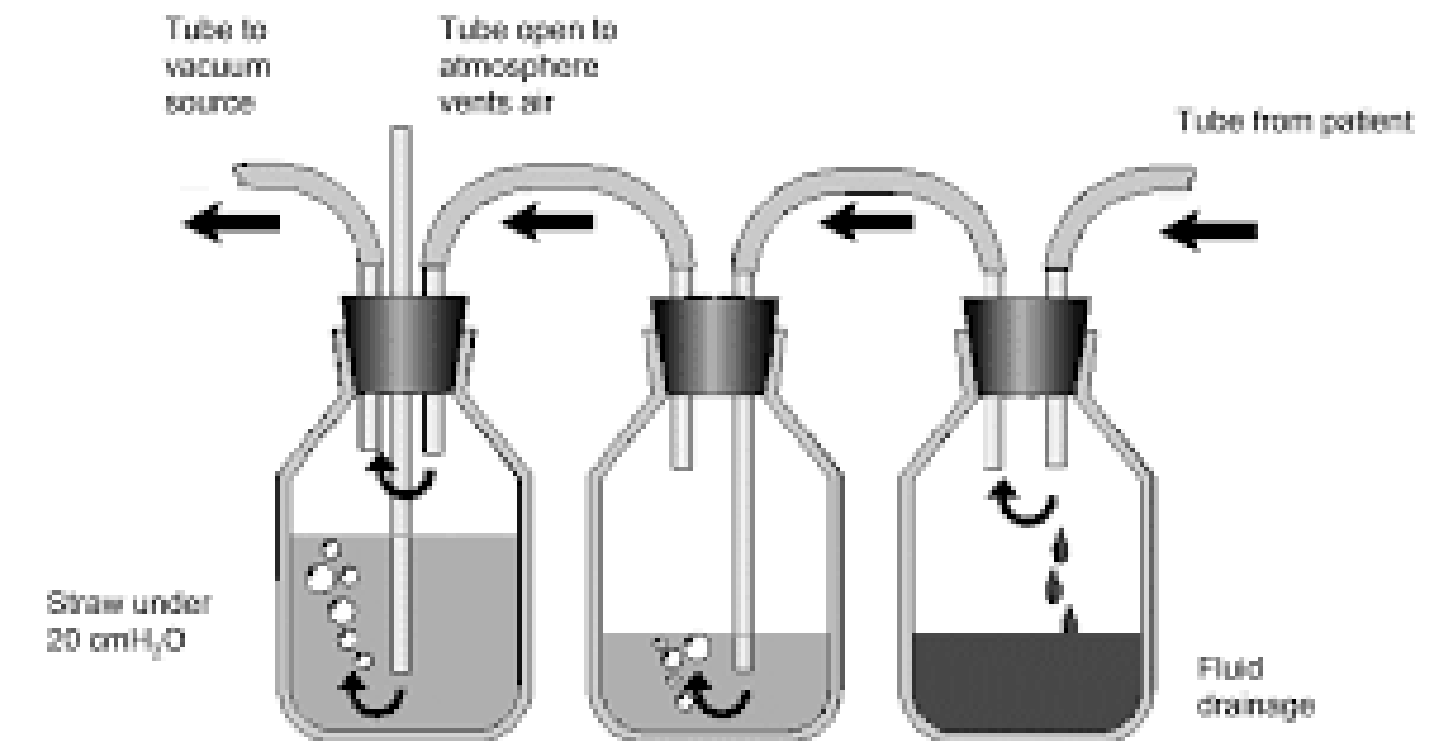


One **bottle** system



two **bottle** system

three **bottle** system

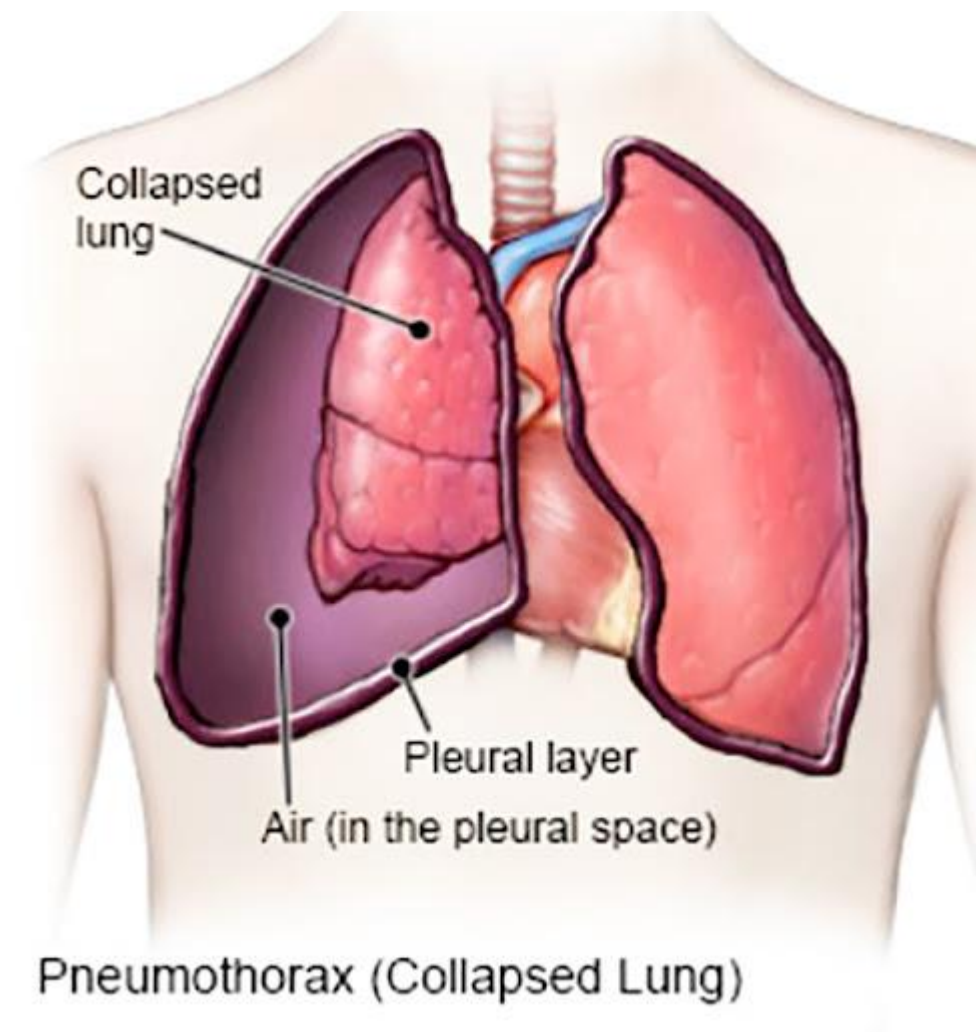


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Intercostal chest drain (ICD) Care

Pleural drain complications

- Tension pneumothorax.
- Trauma to intrathoracic structures, intra-abdominal structures and intercostal muscles.
- Re-expansion pulmonary oedema.
- Hemorrhage.
- Incorrect tube position.
- Blocked tube.
- Pleural drain falls out.
- Subcutaneous emphysema.
- Infection.



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Nursing care post procedure

1. Keep a chest tube **system closed and below the chest**
2. The tube should be **secured** to the chestwall.
3. Watch for slow, steady bubbling in the suction-control chamber and keep it filled with sterile water at the prescribed level.

(Anderson et al., 2022)



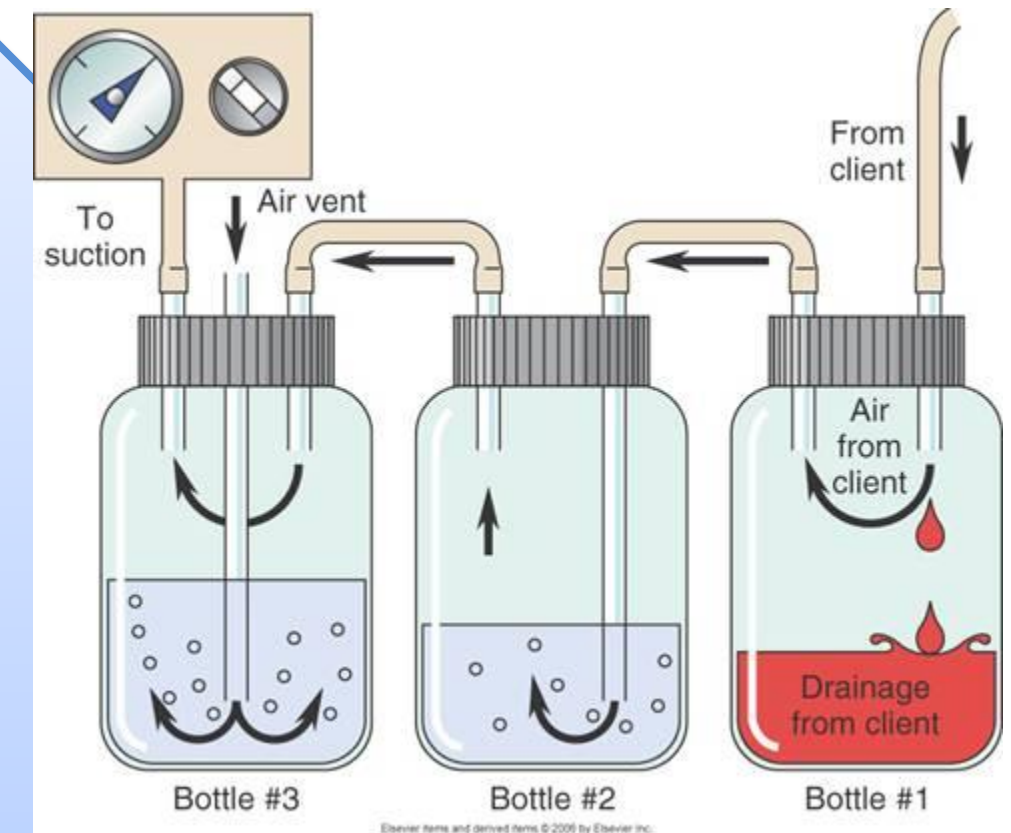
Nursing care post procedure

- **Monitor patient vitals and comfort**
- **Replace the articles and recording & reporting (Documentation)**
- **Assess the pain by pain scale and management**

(Anderson et al., 2022)

Nursing care post procedure

- Check for bubbling
- Mark the level on the outside of the collection chambers every shift.
- Do not let the tubing kink or loop
- Drainage bag should be below the chest level



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Nursing care post procedure

- **watch for fluctuation** (tidaling) of the fluid level to ensure that the chest tube is in place
- If fluctuation is less than 2 cm look for blockage
- If blockage is present milking is done
- Make sure connections are tight and taped
- Report any unexpected cloudy or bloody drainage.
- Assist the dressing and if any exudates is present send for culture

(Anderson et al., 2022)

Nursing care post procedure

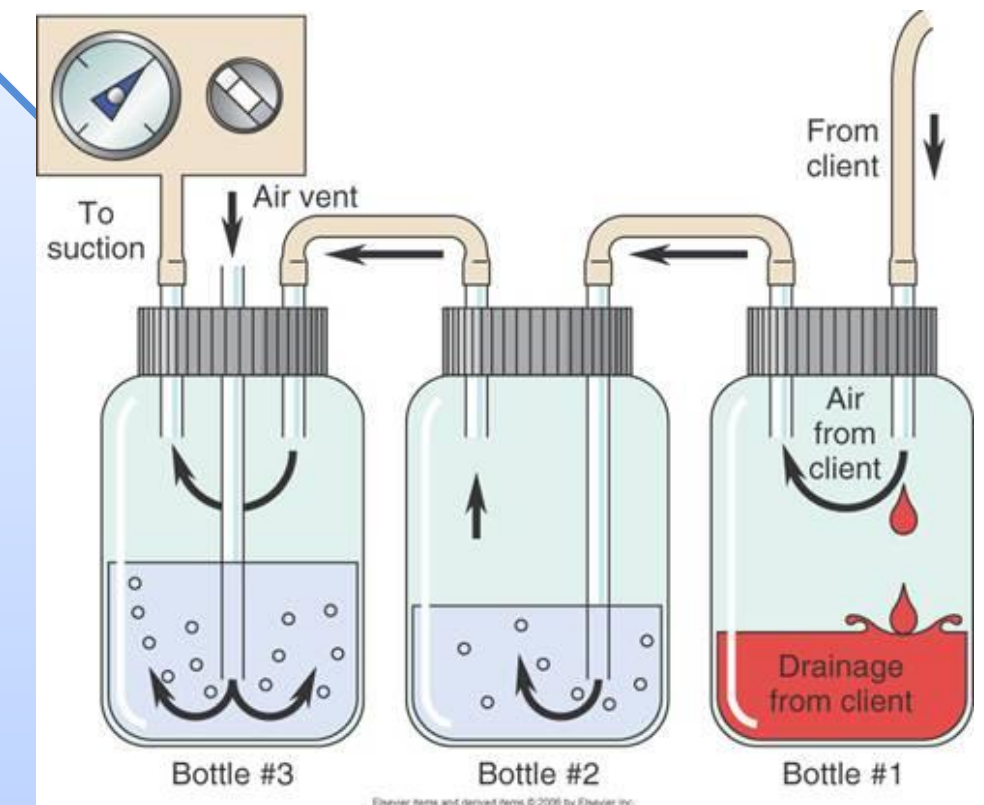
- **Encourage your patient to cough, deepbreath, and use the incentive spirometer.**
- **Advice for ROM if not contra-indicated**
- **Routinely assess respiratory rate, breath sounds, Sp O2 levels.**
- **Check for insertion site & skin inspection**



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Nursing care post procedure

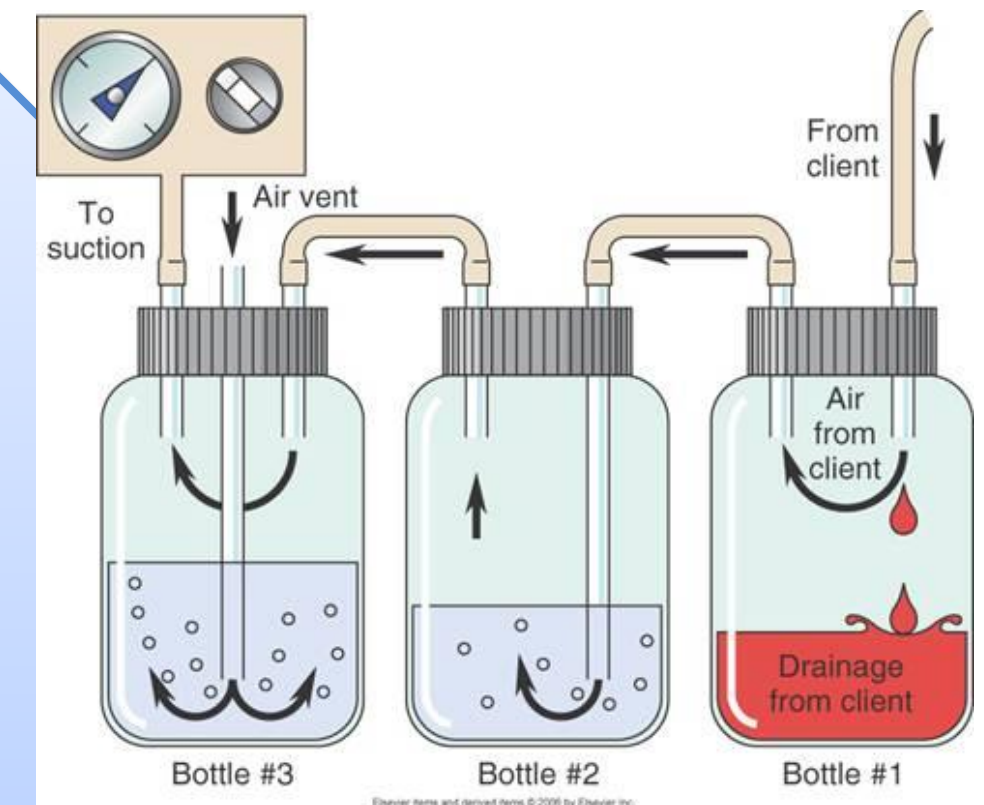
Clamping a chest tube is contraindicated when ambulating or transporting a patient. Clamping can result in a **Tension Pneumothorax**



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Nursing care post procedure

Clamping a chest tube is contraindicated when ambulating or transporting a patient. Clamping can result in a **Tension Pneumothorax**



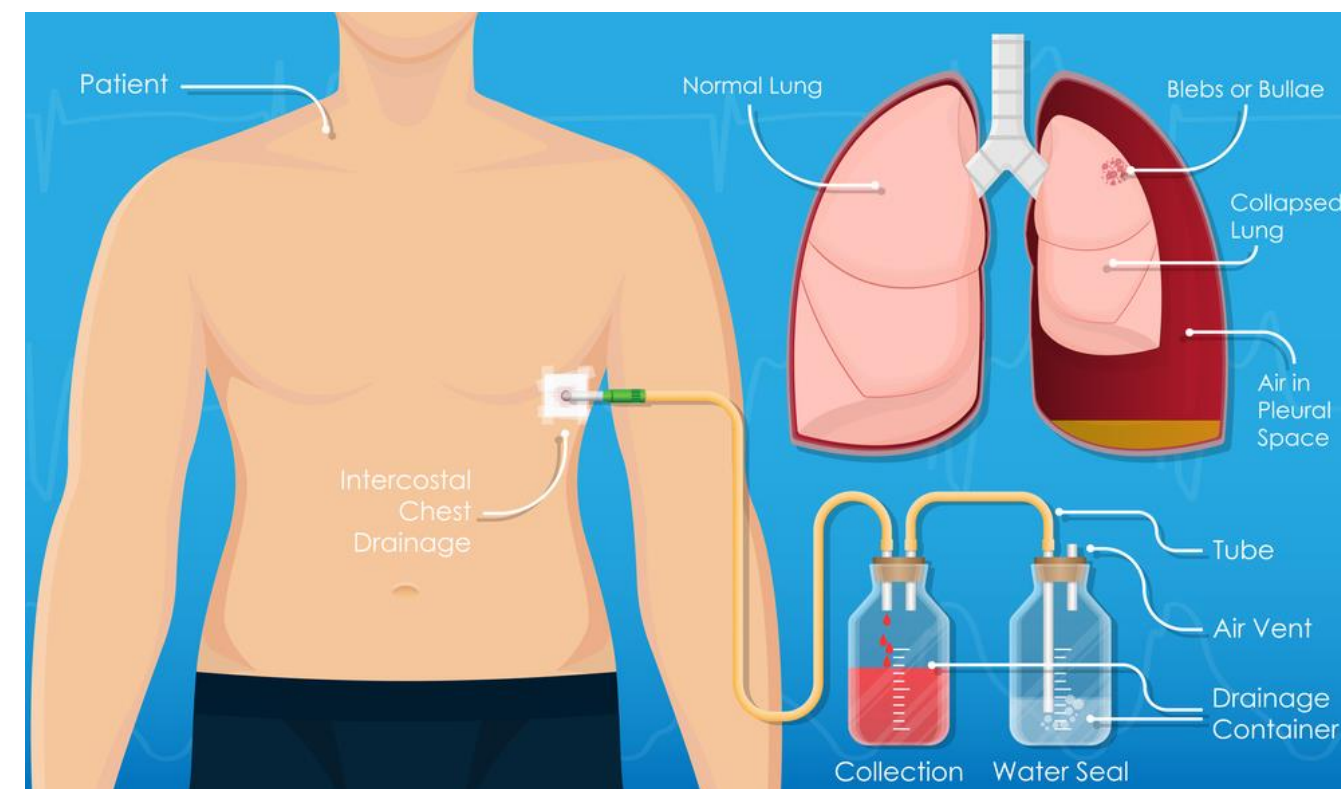
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Nursing care post procedure

INDICATION FOR REMOVING ICD

1. Drainage less than 50-100ml of fluid per day.
2. 1-3 days post cardiac surgery.
3. 2-6 days post thoracic surgery.

(Anderson et al., 2022)



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