

## Unit 29:

# Thorax – thoracic walls and respiration

### GENERAL OBJECTIVES:

- general considerations of the organization of thoracic walls
- position of various thoracic organs and their projection to the thoracic walls
- thoracic inlet and outlet and structures passing through these
- functional organization of the diaphragm
- principles of respiration

### SPECIFIC OBJECTIVES:

#### **Bones, joints and muscles of thoracic walls**

Connecting Adjoining Ribs:

Intercostals (External, Internal & Innermost)

Spanning Several Ribs:

Subcostals

Connecting Ribs to Sternum:

Transversus Thoracis

Connecting Ribs to Vertebrae:

#### **The Diaphragm**

*Form & Position, Parts & Attachments*

*Major Openings*

*Minor Openings*

*Vessels*

*Nerves (Motor, Sensory)*

*Actions*

Movements of Respiration (Quiet, Deep and Forced)

Inspiration/Expiration

Skin & Subcutaneous Tissue

#### **Breast**

*Parts, Axillary Tail, Suspensory Ligaments*

*Nerve Supply*

*Arterial Supply & Venous Drainage*

*Lymph Drainage*

Intercostal Spaces

*Layers of Thoracic Wall (Skin --> Parietal Pleura)*

Nerves

Intercostal Nerves:     *Typical*  
                                  *Atypical*

**Vessels**

Intercostal Vessels (Posterior & Anterior)

Internal Thoracic Vessels

Parasternal Lymph Nodes

**Nerves of Thorax (& distribution, sensory/motor)**

Thoracic Nerves (Ventral Rami -> Typical & Atypical Intercostal Nerves)

*Phrenic Nerves (Right & Left)*

*Vagus Nerves (Right & Left)*

*Left Recurrent Laryngeal Nerve*

Sympathetic Trunks & Ganglia

Splanchnic Nerves (Greater, Lesser & Lowest)

Autonomic Plexuses: (Cardiac, Pulmonary, Esophageal)