

# THORAX

## Session I - Walls of Thorax- 1

### THORACIC CAGE

#### Bones

- Thoracic vertebrae, ribs & costal cartilages, sternum
- Superior & Inferior thoracic apertures
- Shape and framework of thorax
- Movements of thorax

#### Self-study

- General features & attachments on thoracic vertebrae, ribs, sternum
- Respiratory movements
- Type, articular facets, ligaments and movements of costovertebral & costotransverse joints
- Joints and ligaments of vertebral column
- Intervertebral discs
- Movements of vertebral column

## Session II - Walls of Thorax- 2

### Dissection

#### Muscles and Pleura

- External intercostal muscle
- Internal intercostal muscle
- Innermost intercostal muscle
- Transversus thoracis muscle
- Parietal pleura
- Attachments of diaphragm

#### Vessels & Nerves

- Intercostal nerve
- Intercostal vessels
- Internal thoracic artery and veins

#### Joints

- Sternal, interchondral and costochondral joints
- Costovertebral Joints
- Costotransverse Joints
- Spinal medulla

#### Self-study

- Attachments, nerve supply and actions of external & internal intercostal muscles
- Origin, course and distribution of a typical intercostal nerve & other intercostal nerves
- Structure and contents of a typical intercostal space
- Origin, course and branches of intercostal arteries
- Origin, course, branches and termination of internal thoracic artery & veins
- Attachments, nerve supply and action of transversus thoracis muscle

## THORAX

# Session III - Cavity of Thorax - Superior Mediastinum

### Dissection

- Mediastinum
- Pleura - Parietal & visceral layers
- Pleural cavity and thoracic cavity
- Pleural recesses
- Root of lung
- Pulmonary ligament
- General structure and position of heart
- Phrenic nerves
- Right and left brachiocephalic veins
- Superior vena cava
- Brachiocephalic trunk
- Left common carotid artery
- Left subclavian artery
- Ligamentum arteriosum
- Sympathetic trunk and rami communicantes
- Posterior intercostal vessels
- Azygos vein

### Self-study

- Definition and divisions of mediastinum
- Extent & boundaries of various divisions of mediastinum
- Boundaries and contents of superior mediastinum; applied anatomy - superior mediastinal syndrome
- Origin, course, relations, branches and termination of arch of aorta
- Origin, course, tributaries, and termination of superior vena cava
- Collateral circulation in superior vena caval block
- Parts of pleura and their extent
- Pleural recesses, their location and clinical importance
- Autonomic nervous system - parts and distribution
- Origin, root value, parts and distribution of phrenic nerve
- Surface anatomy of pleural reflection and borders of lungs

### Removal of lungs

# Session IV – Cavity of Thorax – Pleura and Lungs

### Dissection

- Borders, surfaces, fissures and lobes of right and left lungs
- Structures at the hilum of the right and left lungs
- Impressions on right & left lungs
- Pulmonary lymph nodes
- Right and left vagus nerves
- Left recurrent laryngeal nerve
- Ligamentum arteriosum

### Self-study

- Surfaces of and impressions on right and left lungs
- Roots of right & left lungs and their contents
- Lobes of lungs and differences between right and left lungs
- Definition, numbering, nomenclature and applied anatomy of bronchopulmonary segments
- Pulmonary artery and veins
- Lymph vessels and lymph nodes of lungs
- Pulmonary plexuses
- Superficial and deep cardiac plexuses

# THORAX

## Session V - Cavity of Thorax - Heart - Exterior

### Dissection

#### Anterior mediastinum

- Thymus - remnants

#### Middle mediastinum

- Layers of pericardium
- Pericardial cavity
- Transverse sinus
- Oblique sinus

#### Heart- Exterior

- Borders and surfaces of heart
- Sulci and structures present in the sulci

#### Vessels

- Superior vena cava
- Aorta
- Pulmonary trunk
- Anterior interventricular branch of left coronary artery
- Great cardiac vein
- Right and left coronary arteries and their branches

### Self-study

- Boundaries and contents of anterior mediastinum
- Boundaries and contents of middle mediastinum
- Layers of pericardium and their attachments
- Pericardial cavity, transverse and oblique pericardial sinuses
- Borders & surfaces of heart and various chambers seen on each surface
- Coronary and interventricular sulci and vessels lying in them
- Surface anatomy of the heart
- Origin, course and branches of right and left coronary arteries; anastomosis between right and left coronary arteries and applied anatomy
- Nerve supply of the heart

### Removal of heart

- Tracing origin, course & branches of right and left coronary arteries
- Coronary Sinus
- Pulmonary veins

# THORAX

## Session VI - Cavity of Thorax - Heart - Interior

### Dissection

#### Right atrium

- Sulcus terminalis
- Crista terminalis
- Musculi pectinati
- Fossa ovalis, limbus fossa ovalis and interatrial septum
- Orifices of superior vena cava, inferior vena cava, coronary sinus
- Right atrio-ventricular orifice
- Right auricle

#### Right ventricle

- Trabeculae carneae (rough inflowing part)
- Infundibulum (smooth outflowing part)
- Papillary muscles
- Chordae tendineae
- Cusps of tricuspid valve
- Septo-marginal trabecula (moderator band)
- Pulmonary trunk and semilunar pulmonary valves
- Interventricular septum & its parts

#### Left ventricle

- Trabeculae carneae - rough inflowing part
- Aortic vestibule - smooth outflowing part
- Papillary muscles & chordae tendineae
- Cusps of mitral valve
- Interventricular septum
- Aorta and semilunar aortic valve
- Aortic sinuses
- Orifices of coronary arteries

#### Left atrium

- Inter - atrial septum
- Fossa lunata
- Orifices of pulmonary veins
- Left auricle
- Left atrioventricular orifice

#### Location of conducting tissues

- SANode
- AV node
- AV bundle
- Right & left bundle branches

### Self-study

- To describe the features seen in the interior of
  - Right atrium
  - Right ventricle
  - Left atrium
  - Left ventricle
- Differences between right ventricle and left ventricle
- Conducting system of the heart
- Function of papillary muscles
- Origin, course and branches of coronary arteries
- Origin, course & tributaries of coronary sinus

# THORAX

## Session VII - Posterior Mediastinum

### Dissection

#### Vessels

- Azygos, hemiazygos and accessory hemiazygos veins
- Thoracic duct

#### Nerves

- Right and left vagus nerves
- Sympathetic chain
- Greater, lesser and least splanchnic nerves

#### Viscera

- Oesophagus

### Self-study

- Boundaries and contents of posterior mediastinum
- Origin, course, relations, branches, termination and applied anatomy of descending thoracic aorta
- Origin, course, tributaries, termination and applied anatomy of azygos vein
- Origin, course, relations, blood supply, lymphatic drainage, termination and applied anatomy of oesophagus
- Origin, course, relations, termination, areas of drainage and applied anatomy of thoracic duct