FAQs,MCQs and Viva Voce

Frequently Asked Questions — Mediastinum

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1. What is the mediastinum?

? The **mediastinum** is the **central compartment** of the thoracic cavity lying between the **right and left pleural sacs**. It contains all thoracic organs except the lungs and pleura.

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2. What are the boundaries of the mediastinum?

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- **Anterior:** Sternum
- **Posterior:** Thoracic vertebrae (T1–T12)
- **Superior:** Thoracic inlet
- **Inferior:** Diaphragm
- **Lateral:** Mediastinal pleura of lungs

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3. How is the mediastinum divided?

? By a **transverse plane** from the **sternal angle** to the **lower border of T4 vertebra** into:

- **Superior mediastinum** (above)
- **Inferior mediastinum** (below) — which is subdivided into **anterior**, **middle**, and **posterior** parts.

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4. What are the main contents of the superior mediastinum?

? Thymus, brachiocephalic veins, SVC, arch of aorta with branches, trachea, esophagus, thoracic duct, vagus and phrenic nerves, and cardiac plexus.

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5. What lies at the level of the sternal angle (Angle of Louis)?

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- Division of **trachea into bronchi (carina)**
- Beginning and end of **arch of aorta**
- Division of **mediastinum into superior and inferior**
- Crossing of **azygos vein over right lung root**

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6. What are the parts of the inferior mediastinum?

? **Anterior** (in front of pericardium), **Middle** (with pericardium and heart), **Posterior** (behind pericardium).

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7. What are the contents of the anterior mediastinum?

? Loose areolar tissue, **remnants of thymus**, **lymph nodes**, **small vessels**, and **sternopericardial ligaments**.

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8. What is found in the middle mediastinum?

? **Heart and pericardium**, **roots of great vessels**, **phrenic nerves**, **pericardiacophrenic vessels**, **main bronchi**, and **tracheobronchial lymph nodes**.

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9. What are the structures in the posterior mediastinum?

? **Descending thoracic aorta**, **azygos and hemiazygos veins**, **thoracic duct**, **esophagus**, **vagus nerves**, **sympathetic trunks**, and **splanchnic nerves**.

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10. What is the function of the mediastinum?

? It forms a **mobile partition** between the two pleural cavities, allowing movement during

respiration and transmitting vital structures between neck, thorax, and abdomen.

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11. What is the thymus and where is it located?

? The **thymus** is a lymphoid organ located in the **superior and anterior mediastinum**; it's large in infants and atrophies after puberty.

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12. What are the main branches of the arch of aorta?

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1. **Brachiocephalic trunk**
2. **Left common carotid artery**
3. **Left subclavian artery**

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13. What is the thoracic duct?

? The **main lymphatic channel** of the body that begins at the **cisterna chyli (L1–L2)** and ends at the **junction of left subclavian and internal jugular veins**.

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14. What are the levels of diaphragm openings related to mediastinum?

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- **T8** ? Inferior vena cava
- **T10** ? Esophagus
- **T12** ? Aorta
  (Mnemonic: "I Ate 10 Eggs At 12")

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15. What is the position of the vagus and phrenic nerves relative to the lung roots?

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- **Phrenic nerves** pass **anterior** to lung roots.
- **Vagus nerves** pass **posterior** to lung roots.

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16. What is the clinical importance of the phrenic nerve in the mediastinum?

? Supplies **motor fibers to the diaphragm**; injury causes **diaphragmatic paralysis**. Also carries **sensory fibers from pericardium**, causing **referred pain to shoulder tip (C4)**.

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17. What is the function of the pericardium?

? The **fibroserous sac** enclosing the heart; fixes it in position, prevents over-distension, and allows frictionless movements during contraction.

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18. What is cardiac tamponade?

? Compression of the heart due to **fluid accumulation in pericardial cavity**, impairing filling and causing **hypotension and venous congestion**.

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19. How is pericardiocentesis performed?

? Needle inserted through the **left 5th intercostal space near sternum** to aspirate pericardial fluid, avoiding injury to coronary arteries.

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20. What are the major branches of the descending thoracic aorta?

? Posterior intercostal, subcostal, bronchial, esophageal, pericardial, and mediastinal branches.

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21. What is the azygos system of veins?

? A network that drains thoracic walls and forms **a collateral pathway between SVC and IVC**, especially during SVC obstruction.

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22. What are the hemiazygos and accessory hemiazygos veins?

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- **Hemiazygos vein:** drains lower left thoracic wall.

- **Accessory hemiazygos vein:** drains upper left thoracic wall.
  Both cross to join the **azygos vein** on the right.

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23. What are the splanchnic nerves?

? Preganglionic sympathetic nerves from thoracic sympathetic ganglia that supply abdominal viscera.

- **Greater (T5–T9)** ? Celiac ganglion
- **Lesser (T10–T11)** ? Aorticorenal ganglion
- **Least (T12)** ? Renal plexus

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24. What is the importance of the ligamentum arteriosum?

? Remnant of **ductus arteriosus**, connecting the **arch of aorta** to the **left pulmonary artery**; the **left recurrent laryngeal nerve** hooks around it.

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25. What is mediastinal widening?

? An abnormal broadening seen on chest X-ray, caused by **aortic aneurysm, lymphadenopathy, or tumors**.

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26. What is mediastinal emphysema?

? Entry of **air into the mediastinum** following trauma or alveolar rupture, producing **crepitus (crackling)** under skin.

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27. What is mediastinitis?

? **Infection and inflammation** of the mediastinum, often following **esophageal perforation or surgery**, leading to chest pain and fever.

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28. What is chylothorax?

? Leakage of **chyle** into pleural cavity due to **injury of thoracic duct**, producing **milky pleural effusion**.

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29. What is SVC syndrome?

? Obstruction of the **superior vena cava** causing **facial swelling, cyanosis, and dilated chest veins**, usually from carcinoma or lymph node enlargement.

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30. What is an aortic aneurysm?

? **Dilation of aortic wall** that may compress trachea, esophagus, or recurrent laryngeal nerve; can rupture and cause fatal hemorrhage.

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31. What is the importance of the azygos vein in collateral circulation?

? It provides an **alternate route for venous return** from lower to upper body when **SVC or IVC** is blocked.

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32. What is a thymoma and where does it occur?

? Tumor of the **thymus gland** located in the **anterior mediastinum**; often associated with **myasthenia gravis**.

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33. What is a retrosternal goitre?

? Enlargement of thyroid tissue extending into the **superior or anterior mediastinum**, compressing trachea and great veins.

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34. What is the common cause of hoarseness in aortic aneurysm?

? **Compression of the left recurrent laryngeal nerve** under the arch of aorta.

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35. What are the common tumors of the anterior mediastinum?

? Remember the "**4 Ts**": **Thymoma, Teratoma, Thyroid mass, Terrible lymphoma**.

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36. What is the significance of the thoracic duct in surgery?

? Damage to the duct during thoracic or neck surgery causes **chyle leakage**, leading to **nutrient loss and immune compromise**.

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37. What is the function of sympathetic trunks in the posterior mediastinum?

? Carry **preganglionic sympathetic fibers** that regulate heart rate, bronchial tone, and blood vessel diameter.

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38. What is Horner’s syndrome and how can it relate to the mediastinum?

? Due to **compression of sympathetic chain** (posterior mediastinum), leading to **ptosis, miosis, and anhidrosis**.

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39. What is the carina and what is its significance?

? A **cartilaginous ridge** at tracheal bifurcation (T4); its deviation or widening suggests **subcarinal lymph node enlargement**.

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40. What is the clinical use of mediastinoscopy?

? **Endoscopic examination of mediastinum** through a small incision above sternum for **biopsy of lymph nodes or masses**.

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41. How can infections from the neck spread to mediastinum?

? Through **loose connective tissue** that is continuous from cervical fascia into the mediastinum — may cause **descending mediastinitis**.

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42. What is a hiatal hernia?

? Protrusion of stomach through **esophageal hiatus (T10)** into posterior mediastinum, causing **reflux and retrosternal pain**.

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43. What structures are related anteriorly to esophagus in mediastinum?

? Trachea (above), pericardium (middle), left atrium (below).

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44. What passes posterior to the root of the right lung?

? **Right vagus nerve, azygos vein, and esophagus.**

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45. What passes posterior to the root of the left lung?

? **Left vagus nerve, descending thoracic aorta, and esophagus.**

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46. What is the significance of pericardial sinuses?

? The **transverse and oblique pericardial sinuses** are spaces in pericardial cavity important in cardiac surgery for isolating great vessels.

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47. Why is the mediastinum considered mobile?

? Because it moves with **respiration, cardiac contractions, and positional changes**, allowing expansion of lungs and heart.

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48. What are the causes of mediastinal pain?

? Inflammation of **pericardium**, **esophagus**, or **diaphragmatic pleura**, often radiating to **neck and shoulder**.

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49. Which nerve carries referred pain from pericardium?

? **Phrenic nerve (C3–C5)** — pain felt over **shoulder tip**.

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50. What is the importance of mediastinal anatomy in radiology?

? Helps **localize pathology** (tumors, lymph nodes, vascular enlargements) into specific compartments — essential for **CT and MRI diagnosis**.

Multiple Choice Questions — Mediastinum (With Answers)

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1. The mediastinum lies between:

A. Two lungs

B. Two pleural sacs

C. Two pericardia

D. Two lobes of lung

? **Answer:** B. Two pleural sacs

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2. The upper limit of the mediastinum is:

A. Diaphragm

B. Thoracic inlet

C. Sternal angle

D. Apex of lung

? **Answer:** B. Thoracic inlet

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3. The lower limit of the mediastinum is:

A. Thoracic inlet

B. Diaphragm

C. T4 vertebra

D. Costal margin

? **Answer:** B. Diaphragm

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4. The plane of sternal angle passes through:

A. Upper border of T2

B. Lower border of T4

C. T5 vertebra

D. T6 vertebra

? **Answer:** B. Lower border of T4

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5. The mediastinum is divided into superior and inferior parts by:

A. Thoracic inlet

B. Transverse thoracic plane at sternal angle

C. Diaphragm

D. T8 vertebra

? **Answer:** B. Transverse thoracic plane at sternal angle

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6. The inferior mediastinum is subdivided into:

A. Two parts

B. Three parts

C. Four parts

D. Five parts

? **Answer:** B. Three parts

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7. The anterior mediastinum lies:

A. Behind the vertebral column

B. In front of the pericardium

C. Behind the pericardium

D. Between the lungs

? **Answer:** B. In front of the pericardium

8. The middle mediastinum contains:

A. Heart

B. Descending aorta

C. Thymus

D. Esophagus

? **Answer:** A. Heart

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9. The posterior mediastinum lies:

A. Behind the pericardium

B. In front of the sternum

C. Between lungs

D. Between pleural cavities

? **Answer:** A. Behind the pericardium

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10. The superior mediastinum extends up to:

A. T2 vertebra

B. T4 vertebra

C. T6 vertebra

D. T8 vertebra

? **Answer:** B. T4 vertebra

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11. The thymus is located in:

A. Posterior mediastinum

B. Superior and anterior mediastinum

C. Middle mediastinum

D. Lateral thoracic wall

? **Answer:** B. Superior and anterior mediastinum

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12. The arch of aorta lies at the level of:

A. Sternal angle (T4)

B. Xiphisternal joint

C. Suprasternal notch

D. T8 vertebra

? **Answer:** A. Sternal angle

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13. The main veins of superior mediastinum are:

A. Brachiocephalic veins and SVC

B. Azygos and hemiazygos

C. Pulmonary veins

D. Jugular veins

? **Answer:** A. Brachiocephalic veins and SVC

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14. The trachea bifurcates into bronchi at:

A. C6

B. T2

C. Sternal angle (T4)

D. Xiphisternal joint

? **Answer:** C. Sternal angle (T4)

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15. The esophagus lies in which mediastinum?

A. Superior only

B. Posterior only

C. Superior and posterior

D. Middle only

? **Answer:** C. Superior and posterior

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16. The thoracic duct ascends between:

A. Esophagus and vertebral column

B. Aorta and azygos vein

C. Trachea and esophagus

D. Phrenic and vagus nerves

? **Answer:** B. Aorta and azygos vein

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17. The phrenic nerve passes:

A. Anterior to lung root

B. Posterior to lung root

C. Through lung hilum

D. Behind trachea

? **Answer:** A. Anterior to lung root

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18. The vagus nerve passes:

A. Anterior to lung root

B. Posterior to lung root

C. Along pericardium

D. In front of heart

? **Answer:** B. Posterior to lung root

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19. The left recurrent laryngeal nerve hooks around:

A. Right subclavian artery

B. Left pulmonary artery

C. Arch of aorta

D. Ascending aorta

? **Answer:** C. Arch of aorta

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20. The right recurrent laryngeal nerve hooks around:

A. Aorta

B. Right subclavian artery

C. Pulmonary artery

D. Esophagus

? **Answer:** B. Right subclavian artery

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21. The descending thoracic aorta lies:

A. Right of midline

B. Left of midline

C. In front of esophagus

D. Behind azygos vein

? **Answer:** B. Left of midline

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22. The azygos vein arches over the root of:

A. Left lung

B. Right lung

C. Both lungs

D. None

? **Answer:** B. Right lung

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23. The thoracic duct opens into:

A. Right subclavian vein

B. Left subclavian vein

C. Junction of left internal jugular and subclavian veins

D. SVC

? **Answer:** C. Junction of left internal jugular and subclavian veins

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24. The sympathetic trunk lies in:

A. Anterior mediastinum

B. Middle mediastinum

C. Posterior mediastinum

D. Superior mediastinum

? **Answer:** C. Posterior mediastinum

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25. The greater splanchnic nerve arises from:

A. T1–T4

B. T5–T9

C. T10–T11

D. T12

? **Answer:** B. T5–T9

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26. The lesser splanchnic nerve arises from:

A. T5–T9

B. T10–T11

C. T12

D. T1–T4

? **Answer:** B. T10–T11

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27. The least splanchnic nerve arises from:

A. T12

B. T11

C. T10

D. T9

? **Answer:** A. T12

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28. The ligamentum arteriosum connects:

A. Pulmonary trunk to aorta

B. Aorta to SVC

C. Aorta to pulmonary veins

D. Pericardium to diaphragm

? **Answer:** A. Pulmonary trunk to aorta

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29. The pericardium is supplied by:

A. Phrenic nerve

B. Vagus nerve

C. Intercostal nerve

D. Both A and B

? **Answer:** A. Phrenic nerve

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30. Pericardiocentesis is done through:

A. Left 5th intercostal space close to sternum

B. Right 3rd intercostal space

C. Midclavicular line

D. Suprasternal notch

? **Answer:** A. Left 5th intercostal space close to sternum

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31. The pericardial cavity contains:

A. Air

B. Blood

C. Lubricating fluid

D. Lymph

? **Answer:** C. Lubricating fluid

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32. The fibrous pericardium is attached to:

A. Central tendon of diaphragm

B. Sternum

C. Great vessels

D. All of the above

? **Answer:** D. All of the above

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33. The main nerve supply to diaphragm is:

A. Vagus

B. Phrenic

C. Intercostal

D. Splanchnic

? **Answer:** B. Phrenic

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34. Pain from pericardium is referred to:

A. Neck

B. Shoulder tip

C. Abdomen

D. Back

? **Answer:** B. Shoulder tip

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35. The mediastinum contains all except:

A. Heart

B. Esophagus

C. Lungs

D. Trachea

? **Answer:** C. Lungs

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36. The thymus is derived from:

A. First pharyngeal pouch

B. Second pharyngeal pouch

C. Third pharyngeal pouch

D. Fourth pharyngeal pouch

? **Answer:** C. Third pharyngeal pouch

37. The thoracic duct begins from:

A. Cistern chyli

B. Left subclavian vein

C. Esophagus

D. Aorta

? **Answer:** A. Cistern chyli

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38. The posterior intercostal arteries arise from:

A. Ascending aorta

B. Descending thoracic aorta

C. Internal thoracic artery

D. Axillary artery

? **Answer:** B. Descending thoracic aorta

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39. The trachea is related posteriorly to:

A. Esophagus

B. Aorta

C. Pericardium

D. Vertebral column

? **Answer:** A. Esophagus

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40. The azygos vein drains into:

A. Right atrium

B. SVC

C. IVC

D. Pulmonary vein

? **Answer:** B. SVC

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41. The recurrent laryngeal nerves are branches of:

A. Phrenic

B. Vagus

C. Sympathetic trunk

D. Hypoglossal

? **Answer:** B.

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42. The pericardium surrounds:

A. Trachea

B. Heart

C. Esophagus

D. Aorta only

? **Answer:** B. Heart

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43. The descending aorta passes through diaphragm at:

A. T8

B. T10

C. T12

D. L1

? **Answer:** C. T12

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44. The esophagus passes through diaphragm at:

A. T8

B. T10

C. T12

D. L1

? **Answer:** B. T10

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45. The inferior vena cava passes through diaphragm at:

A. T8

B. T10

C. T12

D. L1

? **Answer:** A. T8

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46. The azygos vein serves as:

A. Arterial collateral

B. Venous collateral between SVC and IVC

C. Lymphatic drainage

D. None

? **Answer:** B. Venous collateral between SVC and IVC

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47. The carina is located at:

A. T3

B. T4

C. T5

D. T6

? **Answer:** B. T4

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48. The nerve that supplies parasympathetic fibers to thoracic viscera is:

A. Vagus

B. Sympathetic trunk

C. Phrenic

D. Intercostal

? **Answer:** A. Vagus

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49. Which of the following is *not* in the posterior mediastinum?

A. Esophagus

B. Descending aorta

C. Thymus

D. Thoracic duct

? **Answer:** C. Thymus

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50. Which of the following is a common tumor of the anterior mediastinum?

A. Thymoma

B. Neurofibroma

C. Schwannoma

D. Lipoma

? **Answer:** A. Thymoma

Viva Voce — Mediastinum

Q1. What is the mediastinum?

? It is the **central compartment** of the thoracic cavity lying between the **two pleural sacs**, containing all thoracic viscera except the lungs.

Q2. What are the boundaries of the mediastinum?

? **Anterior:** Sternum
Posterior: Thoracic vertebrae
Superior: Thoracic inlet
Inferior: Diaphragm
Lateral: Mediastinal pleura of both lungs

Q3. How is the mediastinum divided anatomically?

? By a **plane from the sternal angle to the lower border of T4 vertebra** into:

- **Superior mediastinum** (above)
- **Inferior mediastinum** (below), which has three parts — **anterior**, **middle**, and **posterior** .

Q4. What are the contents of the superior mediastinum?

? Thymus, great veins (brachiocephalic, SVC), arch of aorta and its branches, trachea, esophagus, thoracic duct, vagus and phrenic nerves.

Q5. What are the contents of the anterior mediastinum?

? Remnants of thymus, loose areolar tissue, lymph nodes, sternopericardial ligaments, and small branches of internal thoracic vessels.

Q6. What is found in the middle mediastinum?

? Pericardium, heart, ascending aorta, pulmonary trunk, SVC, phrenic nerves, pericardiacophrenic vessels, main bronchi.

Q7. What are the contents of the posterior mediastinum?

? Descending thoracic aorta, azygos and hemiazygos veins, thoracic duct, esophagus, vagus

nerves, sympathetic trunks, and splanchnic nerves.

Q8. What is the function of the mediastinum?

? It serves as a **mobile partition** between the lungs, housing vital organs and providing a **passage for structures** between the neck, thorax, and abdomen.

Q9. What are the levels of diaphragm openings and what pass through them?

?

- **T8:** Inferior vena cava
- **T10:** Esophagus
- **T12:** Aorta
  (Mnemonic: “I ate 10 eggs at 12”)

Q10. What structures lie at the level of the sternal angle?

?

- Division of trachea into bronchi (carina)
- Beginning and end of arch of aorta
- Entry of azygos vein into SVC
- Division of mediastinum into superior and inferior parts

Q11. What is the relation of phrenic and vagus nerves to the lung root?

?

- **Phrenic nerve:** Anterior to lung root

- **Vagus nerve:** Posterior to lung root

Q12. What is the nerve supply of pericardium?
? **Phrenic nerve** (sensory) and sympathetic branches (vasomotor).

Q13. What is the function of the pericardium?
? It encloses and fixes the heart, prevents over-distension, and allows frictionless cardiac movements.

Q14. What is the most common tumor of the anterior mediastinum?
? **Thymoma** — a tumor of the thymus gland.

Q15. What are the "4 Ts" of anterior mediastinal tumors?
? **Thymoma, Teratoma, Thyroid mass, Terrible lymphoma.**

Q16. What is mediastinal widening and what causes it?
? Abnormal broadening of the mediastinal shadow on X-ray, caused by **aortic aneurysm, tumors, lymphadenopathy, or hemorrhage**.

Q17. What is mediastinal shift?
? Displacement of mediastinal structures due to unequal lung pressures:

- **Toward lesion** ? in lung collapse.
- **Away from lesion** ? in pneumothorax or pleural effusion.

Q18. What is superior vena cava (SVC) syndrome?
? Obstruction of SVC causes **facial and neck swelling**, **cyanosis**, and **dilated chest veins**, commonly due to **bronchogenic carcinoma**.

Q19. What is aortic aneurysm?
? Dilation of aortic wall that may compress **trachea (dyspnea)**, **esophagus (dysphagia)**, and

left recurrent laryngeal nerve (hoarseness).

Q20. What is pericardial effusion?

? Collection of fluid in pericardial cavity, which may compress the heart causing **cardiac tamponade**.

Q21. How is pericardiocentesis performed?

? Needle is inserted in **left 5th intercostal space near sternum** to drain fluid without injuring coronary vessels.

Q22. What is mediastinal emphysema?

? Entry of air into the mediastinum due to alveolar or tracheal rupture, causing **subcutaneous crepitus** in neck and chest.

Q23. What is mediastinitis?

? Inflammation or infection of mediastinal tissues, often secondary to **esophageal perforation or surgery**, producing chest pain and fever.

Q24. What is chylothorax?

? Leakage of lymph (chyle) into pleural cavity following injury to **thoracic duct**, producing **milky pleural effusion**.

Q25. What is the thoracic duct and where does it end?

? The **main lymphatic duct** of the body; it ends at the **junction of left internal jugular and subclavian veins**.

Q26. What is the azygos vein and its significance?

? A vein in the **posterior mediastinum** forming a **collateral pathway between SVC and IVC**, especially important during venous obstruction.

Q27. What are the hemiazygos and accessory hemiazygos veins?

? They are left-sided counterparts of azygos vein draining thoracic wall and crossing to join it at T9 and T8 levels, respectively.

Q28. What is the course of esophagus in the mediastinum?

? Passes posterior to trachea and heart, pierces diaphragm at **T10**, and continues as stomach.

Q29. What are the compressions on esophagus in thorax?

?

1. Arch of aorta
2. Left main bronchus
3. Left atrium (posterior surface)
4. Diaphragm (at T10 opening)

Q30. What is the nerve supply of esophagus?

? Parasympathetic fibers from **vagus nerve**, sympathetic fibers from **thoracic sympathetic chain**.

Q31. What is Horner's syndrome?

? Caused by compression of **sympathetic chain** in posterior mediastinum; presents with **ptosis, miosis, and anhidrosis** on the affected side.

Q32. What is the importance of the phrenic nerve in referred pain?

? Pain from pericardium or diaphragmatic pleura is referred to **shoulder tip (C4 dermatome)** via the **phrenic nerve**.

Q33. What is the "Angle of Louis" and its importance?

? The **sternal angle** (between manubrium and body of sternum) marks:

- Division of mediastinum
- Level of tracheal bifurcation

- Start/end of aortic arch

Q34. What are the relations of heart in mediastinum?
?

- **Anteriorly:** Sternum and anterior mediastinum
- **Posteriorly:** Esophagus and descending aorta
- **Laterally:** Lungs
- **Inferiorly:** Diaphragm

Q35. What is the function of splanchnic nerves?
? Carry **preganglionic sympathetic fibers** to abdominal ganglia — celiac, aorticorenal, and renal plexuses.

Q36. What is the origin of the thymus?
? From the **third pharyngeal pouch**, descends into the superior and anterior mediastinum.

Q37. What happens to the thymus after puberty?
? It **atrophies and is replaced by fat**, though remnants persist in the anterior mediastinum.

Q38. What are the structures forming the cardiac silhouette on X-ray?
? Mainly the **heart and great vessels** in the **middle mediastinum**.

Q39. What is the relation between trachea and esophagus in mediastinum?
? **Esophagus lies posterior to trachea.**

Q40. Why is the mediastinum called a mobile partition?
? Because it moves with **respiration and cardiac activity**, allowing expansion of lungs and heart without friction.

Q41. What are the dangers of posterior mediastinal tumors?

? They may compress **aorta, esophagus, or sympathetic chain**, causing dysphagia, pain, or Horner's syndrome.

Q42. What is the carina and what does its displacement indicate?

? The **ridge at tracheal bifurcation (T4)** — its displacement indicates **subcarinal lymph node enlargement**.

Q43. What structures can cause dysphagia due to compression?

? **Arch of aorta**, **left bronchus**, **left atrium**, **posterior mediastinal tumors**.

Q44. How can infection from neck spread to mediastinum?

? Through **loose connective tissue** continuous from the neck's deep fascia into mediastinal areolar tissue.

Q45. What is the clinical importance of knowing mediastinal compartments?

? Helps localize **tumors, lymph nodes, and vascular pathologies** on imaging and during surgery.

Q46. What is the pericardial cavity?

? The **potential space** between parietal and visceral layers of serous pericardium, containing a thin film of lubricating fluid.

Q47. What is cardiac tamponade?

? **Compression of heart** due to accumulation of fluid in pericardial cavity, leading to **impaired ventricular filling** and circulatory collapse.

Q48. What is mediastinoscopy and its use?

? A **diagnostic endoscopic procedure** to visualize and biopsy **mediastinal lymph nodes or masses**, especially in suspected malignancies.

Q49. What are the three major structures passing through the diaphragm from mediastinum to abdomen?

? **IVC (T8)**, **Esophagus (T10)**, **Aorta (T12)**.

Q50. What is the most important clinical landmark of mediastinum?
? The **sternal angle (Angle of Louis)** — used to identify levels of **tracheal bifurcation, aortic arch, and mediastinal divisions.**

These viva questions summarize the **key anatomical, functional, and clinical aspects** of the **mediastinum**, making them highly useful for **practical exams and oral assessments** in anatomy and clinical discussions.