

Thoracic aorta

The **Thoracic aorta** is the thoracic part of the descending aorta. It follows *arcus aortae* at the level of vertebra Th3–Th4 and then runs first at the left side of the vertebrae, gradually gets in front of them and continues caudally. After passing through the *hiatus aorticus* of the diaphragm at the Th12 level continues as the abdominal aorta. In front of the aorta is together with the esophagus, which is slightly to the right of aorta, located cranially *radix pulmonis sinistri* and caudally heart. The thoracic ductus runs between the aorta and the esophagus. From the sides, the aorta is surrounded by the mediastinal pleura, through which the aorta is imprinted into the left lung. The posterior mediastinal pleura passes through the *arteriae intercostales dorsales dextrae et sinistrae*. It supplies the muscles of the posterior three quarters of 3. – 11. of intercostal area, the front section of the abdominal muscles, part of the diaphragm, skin on the sides and back of the chest, lungs, organs of the mediastinum, spinal canal, spinal cord and its meninges

The **Thoracic aorta**, like the abdominal aorta, has branches for the surrounding walls and organs.

Accordingly, the following are recognized:

- parietal (wall) branches;
- visceral (organ) branches.

The **Parietal** branches of the thoracic aorta are paired. Parietal branches include:

- **arteria phrenica superior**;
 - superior phrenic artery protrudes above the *hiatus aorticus* of the diaphragm and supplies its adjacent section;
- **arteriae intercostales posteriores**.
 - Nine pairs of posterior intercostal arteries for 3rd – 11th intercostal space gradually emerge from the aorta from behind and pass through the posterior mediastinal pleura. They follow the veins and nerves along the spine to the intercostal space and then further between *musculi intercostales interni et intimi*, in *sulcus costae* they go along with the veins (cranially from the artery) and nerves (caudally from the artery). In the anterior section of the intercostal space, they create anastomosis with *rami intercostales anteriores* of the internal thoracic artery. During its course *aa. intercostales posteriores* branch as follows:
 - *r. dorsalis*;
 - *r. collateralis*;
 - *r. cutaneus lateralis*;
 - *rr. mammarii laterales*.

The **Visceral** branches are unpaired and protrude from the front side of the aorta. They are:

- **rr. bronchiales** – they are 2-3 arteries branching from the aorta at the level of the bifurcation of the trachea (Th4–5). Commonly, two go to the left and one to the right, joining the bronchi and branching into the lungs;
- **rr. oesophagei**;
- **rr. pericardiaci**;
- **rr. mediastinales**.

References

Related articles

- Abdominal Aorta
- Elastic Artery (histology)
- Aortal Regurgitation
- Aortal Stenosis
- Abdominal Aortic Aneurysm

Literature

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