

Aorta thoracica

The **thoracic aorta** is the thoracic part of the descending aorta. It connects to the **arcus aortae** at the level of Th3–Th4 and then runs first at the left side of the vertebrae, gradually reaching in front of them and continuing caudally. After passing through the hiatus aorticus, the diaphragm at the level of Th12 continues as the [aorta abdominalis](#). In front of the aorta lies the esophagus, which is slightly to the right of it, then cranially the radix pulmonis sinistri and caudally the [heart](#). Ductus thoracicus runs between the aorta and the esophagus. The mediastinal pleura surrounds the aorta from the sides, through which the aorta is imprinted into the left [lung](#). Arteriae intercostales dorsales dextrae et sinistrae pass through the posterior mediastinal pleura. It supplies the muscles of the back three quarters 3.–11. intercostals, anterior part 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 spinal sheaths.

Aorta thoracica like the [aorta abdominalis](#), it has branches for the surrounding walls and organs.

Accordingly, It is divided to:

- **parietal** (wall mounted) **branch**;
- **visceral** (organ) **branch**.

The **parietal branches** of the thoracic aorta are paired and they include:

- **arteria phrenica superior**;
 - arteria phrenica superior it rises above the hiatus aorticus of the diaphragm and supplies its adjacent section;
- **arteriae intercostales posteriores**.
 - Nine pairs of arteriae intercostales posteriores for 3.–11. the intercostal gradually emerges from the aorta posteriorly and passes through the posterior mediastinal pleura. They go behind the veins and nerves along the spine to the intercostal space and then further between the muscoli intercostales interni et intimi, in the sulcus costae they go together with the veins (cranial to the artery) and nerves (caudal to the artery). In the front section, the intercostals then anastomose with the rami intercostales anteriores of the internal thoracic artery. During its course, it omits aa. intercostales posteriores these branches:
 - *r. dorsalis*;
 - *r. collateralis*;
 - *r. cutaneus lateralis*;
 - *rr. mammarii laterales*.

The **visceral branches** are unpaired and depart from the front of the aorta. They include:

- **rr. bronchiales** - they are 2–3 arteries emerging above each other from the aorta at the level of the bifurcation of the trachea (Th4–5). As a rule, two go to the left and one to the right, join the bronchi and branch into the lungs;
- **rr. oesophagei**;
- **rr. pericardiaci**;
- **rr. mediastinales**.

Links

Related articles

- [Aorta abdominalis](#)
- Elastic artery (histological preparation)
- [Aortic regurgitation](#)
- [Aortic stenosis](#)
- Bulging of the abdominal aorta

Used literature

- ČIHÁK, Radomír. *Anatomie III*. 1. edition. Grada, 1997. 672 pp. ISBN 80-7169-140-2.
- ČIHÁK, Radomír. *Anatomie II*. 2. edition. Grada, 2001. 488 pp. ISBN 80-247-0143-X.
- ČIHÁK, Radomír. *Anatomie I*. 2. edition. Grada, 2001. 516 pp. ISBN 978-80-7169-970-5.

