The **aorta** is the main trunk of a series of vessels that convey the oxygenated blood to the tissues of the body for their nutrition. The aorta commences at the upper part of the left ventricle, and after ascending for a short distance, arches backward and to the left side, over the root of the left lung; the aorta then descends within the thorax on the left side of the vertebral column, passes into the abdominal cavity through the aortic opening of the diaphragm in front of the **twelfth thoracic vertebra(T12)**. The aorta descends behind the peritoneum on the anterior surface of the bodies of the lumbar vertebrae. At the level of the **fourth lumbar vertebra (L4)**, the aorta divides into the **two common iliac** arteries. Just proximal to this terminal bifurcation is the median sacral artery, an unpaired parietal branch. **Note:** The **characteristic feature** of the aorta is that it contains **a lot of elastic fibers in its tunica media** (middle layer of blood vessel wall).

Anatomically, the aorta is traditionally divided into the ascending aorta, the aortic arch, and the descending aorta. The descending aorta is, in turn, subdivided into the thoracic aorta (that descends within the chest) and the abdominal aorta (that descends within the abdomen).

- **Ascending aorta:** a short vessel that starts at the aortic opening of the left ventricle. The only branches of the ascending aorta are the **right** and **left coronary arteries,** which supply the heart muscle.
- **Aortic arch:** gives rise to three arterial branches: the **brachiocephalic, the left common carotid,** and the **left subclavian.** These arteries furnish all of the blood to the head, neck, and upper limbs.
- **Descending aorta:**
  - **Thoracic portion (above the diaphragm):** extends from T4 to T12 (lies in the posterior mediastinum). All of the **arterial branches** (posterior intercostal, subcostal arteries) from this part are small. They supply the thorax and the diaphragm. **Note:** The bronchi receive blood from branches of the thoracic aorta, termed bronchial arteries that are often found to show considerable variations. Normally, there is **one bronchial artery on the right side** of the body and **two bronchial arteries on the left**. The right bronchial artery usually branches from the **third posterior intercostal artery**, while the left bronchial arteries (superior & inferior) split directly from the **thoracic aorta.**
  - **Abdominal portion(below the diaphragm):** begins at the aortic hiatus in the diaphragm and extends from T12 -L4. Arteries from this area supply the abdomen and pelvic region as well as the lower limbs. ~~Arteries from this area supply the abdomen and pelvic region as well as the lower limbs.~~