18.10E: Abdominal Aorta

The abdominal aorta is the largest artery in the abdominal cavity and supplies blood to most of the abdominal organs.

Learning Objectives

• Describe the abdominal aorta

Key Points

• The abdominal aorta lies slightly to the left of the midline of the body.
• The abdominal aorta has a venous counterpart called the inferior vena cava that travels parallel to it on its right side.
• The abdominal aorta branches into many arteries that supply blood to the abdominal organs.

Key Terms

• abdominal aorta: The largest artery in the abdominal cavity. As part of the aorta, it is a direct continuation of the descending aorta (of the thorax).
• omentum: Either of two folds of the peritoneum that support the viscera.
• inferior vena cava: The large vein which returns blood from the lower extremities and the pelvic and abdominal organs to the right atrium of the heart.
Abdominal Aorta: The aorta, highlighted in red, includes the abdominal aorta which begins at the diaphragm and ends as it branches into the common iliac arteries.

The abdominal aorta is the largest artery in the abdominal cavity. As part of the descending aorta, it is a direct continuation of the thoracic aorta.

It begins at the level of the diaphragm, crossing it via the aortic hiatus. This hole in the diaphragm that allows the passage of the great vessels at the vertebral level of T12. The abdominal aorta travels down the posterior wall of the abdomen, anterior to the vertebral column, following the curvature of the lumbar vertebrae. The abdominal aorta runs parallel to the inferior vena cava, located just to the right of the abdominal aorta.

The abdominal aorta lies slightly to the left of the midline of the body. It is covered anteriorly by the lesser omentum and stomach. Posteriorly, it is separated from the lumbar vertebrae by the anterior longitudinal ligament and left lumbar veins.

The abdominal aorta supplies blood to much of the abdominal cavity through numerous branches that become smaller in diameter as it descends. Terminally it branches into the paired common iliac arteries, which supply the pelvis and lower limbs.