

Anatomy & Physiology: Muscles—Diaphragm.

STRUCTURE.

- Origin: costal region-- inner surfaces of cartilages and adjacent bony regions of ribs 6-12; sternal region--posterior side of xiphoid; crural (lumbar region)--2 aponeurotic arches covering external surfaces of the quadratus lumborum and psoas major; right & left crus-- from bodies of L1-L3 and their intervertebral discs.
- Insertion: central tendon.

FUNCTION.

- Concentric action: pull central tendon inferiorly, increase thoracic cavity volume vertically (resulting in inhalation).
- Reverse mover action: increase thoracic cavity volume.
- Eccentric action: controls/restrains/slows thoracic cavity compression.
- Isometric action: stabilization of trunk.
- Innervation: phrenic nerve, C3-C5.
- Arterial supply: branches of aorta and internal thoracic artery; superior and inferior phrenic arteries, musculophrenic and pericardiacophrenic arteries.

CLINICAL SIGNIFICANCE.

References

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