Interior Intercostal Muscles
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Muscles that reside inside of the ribs are internal (inside) intercostals (between ribs) muscles, and contribute to respiratory function. Interior intercostals at the front of the rib cage appear to have a different function than those at the back of the rib cage. Frontal interior intercostals go from the front of the ribs, around the bend of the rib, to the back of the rib between the rib’s cartilage. Due to this location they are referred to as intercartilaginous muscles. They are situated perpendicularly to the external intercostal muscles.¹

Frontal Interior intercostals contract to raise the ribs and allow for expansion of the lungs, bringing air into the lungs. In this way they contribute to “inspiration,” or inhalation. At least one study indicates that the dorsal interior intercostals act in reverse, extending and lengthening to contribute to the process of exhalation.²

The interior intercostals muscles are among the shortest in the body, actual length relative to the size of the animal in question.

Origin, inferior border of rib and costal cartilage; insertion site, superior border of rib and costal cartilage below; innervations, intercostals.³

Blood supply to the interior intercostals muscles flows from the subclavian artery to the internal thoracic artery and into the intercostal artery.⁴

¹ The Intercostal Muscles, Eric Armstrong, Eric Armstrong’s Voice and Speech Source, York University, Toronto, Canada. www.yorku.ca/earmstro/journey/intercostals.html
³ http://medical-dictionary.thefreedictionary.com
⁴ University College of Dublin online data, Nerve and Blood Supply to the Intercostals: http://www.ucd.ie/vetanat/ga-subject/thorax/th5.html