The thoracolumbar fascia covers the deep muscles of the back and trunk, and is continuous with the superficial lamina of the deep cervical fascia at the back of the neck.

In the thoracic region it is thin providing a fibrous covering for the extensor muscles of the vertebral column separating them from the muscles connecting the upper limb to the trunk. Medially it is attached to the spinous processes of all twelve thoracic vertebrae and laterally to the angles of the ribs.

In the lumbar region the fascia consists of three layers; posterior, middle and anterior. The posterior layer lies superficial to erector spinae arising from the spinous processes of L1 to S5 and the intervening supraspinous ligaments, the angles of the ribs lateral to iliocostalis. Latissimus dorsi and serratus posterior inferior partly arise from the strong membranous part of this layer in the lower back. The middle layer attaches to the tips of the transverse processes of L1 to L5 and the intervening intertransverse ligaments, the iliac crest, lumbosacral ligament and inferior border of the twelfth rib; it separates quadratus lumborum from the postvertebral muscles. The anterior layer arises medially from the lateral part of the anterior surface of the transverse processes of L1 to L5, the iliolumbar ligament and adjacent part of the iliac crest and inferior border of the twelfth rib. Between the twelfth rib and the tip of the transverse process of L1 it is thickened forming the lateral arcuate ligament, which gives attachment to parts of the posterior diaphragm muscles. The anterior layer is the thinnest and covers quadratus lumborum.

At the lateral margin of erector spinae the posterior and middle layers fuse. At the lateral border of the quadratus lumborum they fuse with the anterior layer, to form the aponeurotic origin of the transversus abdominis and internal oblique muscles.