The body of the fifth lumbar vertebra is the largest of all lumbar vertebral bodies. It is kidney-shaped, deeper anteriorly than posteriorly, concave posteriorly and wider transversely than antero-posteriorly. Attached to the superior and inferior surfaces, are adjacent intervertebral discs.

The posterior surface has vascular foramina for the exit of the basivertebral veins. The anterior and posterior longitudinal ligaments attach to the discal margins anteriorly and posteriorly respectively. Psoas major attaches postero-laterally to the upper margin.