

The **dura mater** is the outermost layer of the spinal meninges. It is a thick, dense, tough, inelastic membrane, which is continuous with the cranial dura mater at the foramen magnum. It forms a long tube (dural sac), the upper end being attached to the edge of the foramen magnum, to the posterior surfaces of the bodies of C2 and C3 and by fibrous bands to the anterior longitudinal ligament, especially inferiorly. The dural sac ends at the lower border of S2, where it narrows investing the **filum terminale** and descends to the back of the coccyx to blend with the periosteum. Tubular prolongations of the dura and arachnoid (dural sleeves) surround the spinal nerve roots as they pass through the intervertebral foramina; the prolongations are short in the cervical region becoming longer with increasing obliquity of the lower spinal nerve roots. The dural sleeves of the spinal nerves fuse with the epineurium, either within or just beyond the intervertebral foramina. In the cervical region the dural sleeves are strongly adherent to the periosteum of adjacent transverse processes, while in the lumbosacral region they are not.

The **denticulate ligament** is a continuous flat sheet of triangular tooth-like lateral extensions situated on each side of the spinal cord between the ventral and dorsal roots. Medially it is continuous with subpial connective tissue covering the spinal cord. Laterally the apices are attached to the dural sac. There are usually 21 projections on each side, the **first** of which crosses behind the vertebral artery and separates it from the C1 ventral root. Its apex attaches to the dura mater above the rim of the foramen magnum behind the hypoglossal nerve. In the upper cervical region the spinal accessory nerve passes on its posterior aspect. The lower lateral projection of the ligament is between the exits of the T12 and L1 spinal nerves, being a narrow oblique band descending laterally from the conus medullaris. The ligament anchors the spinal cord, protecting it from injury due to violent contact with the walls of the vertebral foramen during movement, although it does change its form and position during movement.