

The first cervical dorsal nerve roots contain afferent somatic and visceral nerve fibers corresponding to the first cervical spinal cord segment. They are short and smaller than the first ventral nerve roots and emerge from the postero-lateral sulci of the spinal cord. Rootlets of adjacent dorsal roots may communicate via thin branches.

The dorsal roots pass almost horizontally to their exit through the intervertebral foramina. They pass over the superior surface of the transverse processes of C1 (atlas), posterior to the foramen transversarium, to join with the first cervical ventral roots to form the first cervical spinal nerves. Each of the first cervical dorsal roots possesses a small ovoid spinal ganglion (dorsal root ganglion) proximal to joining the first cervical ventral roots; however, the ganglia are often absent at this level.

The dorsal roots are covered by a sleeve of pia mater, which is continuous with that of the spinal cord, and loosely invested by a prolongation of dura and arachnoid mater (the dural sleeve) almost as far as the spinal nerves.