The third lumbar ventral nerve roots contain efferent somatic nerve fibers corresponding to the third lumbar spinal cord segment and may contain preganglionic sympathetic fibers from the lateral horn of the third lumbar spinal cord segment. They emerge as two or three rows of rootlets from the antero-lateral sulci of the spinal cord. Between adjacent rootlets are inter-radicular spaces, which contain small blood vessels.

The roots pass obliquely infero-laterally as part of the cauda equina to their exit through the intervertebral foramina between the pedicles of L3 and L4. They are larger in diameter, obliquity and length than the ventral roots above. They pass over the superior surfaces of the transverse processes of L4 to join with the third lumbar dorsal roots to form the third lumbar spinal nerves. They 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.

Cauda Equina

The cauda equina is formed from the most caudal spinal roots. As the spinal cord terminates before the vertebral column, the lower spinal roots descend inferior to the cord, as a divergent sheath, to reach their corresponding foramina.