

**LEVEL: PONS—MOTOR
NUCLEUS OF NERVE V**
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The most conspicuous structures in this level are the superior cerebellar peduncles forming the walls of the fourth ventricle and the massive middle cerebellar peduncle, forming the bulk of the pontine basis.

Cranial Nerves

Motor. The motor nucleus of nerve V is seen bilaterally medial to the rootlets of nerve V; it innervates the muscles of mastication.

Sensory. The mesencephalic nucleus and root of nerve V is visible at the lateral most margin of the fourth ventricle. It provides proprioceptive information on the muscles of mastication and all other muscles in the

head. The chief sensory nucleus of nerve V is present lateral to the entrance of the root of nerve V; it carries fine touch for the face.

Tracts. The corticospinal tracts are covered by pontine white. In the inferior surface of the tegmentum, the secondary cochlear fibers are seen crossing the midline, then forming the trapezoid body, and entering the superior olivary nucleus where some axons synapse. The medial lemniscus is shifting laterally and now consists of trigeminothalamic fibers, secondary gustatory and visceral axons and spinothalamic fibers in addition to the dorsal columns. The medial longitudinal fasciculus (MLF) and the tectospinal, rubrospinal, and reticulothalamic fibers (central tegmental tract) still maintain the same position they have throughout the medulla.

