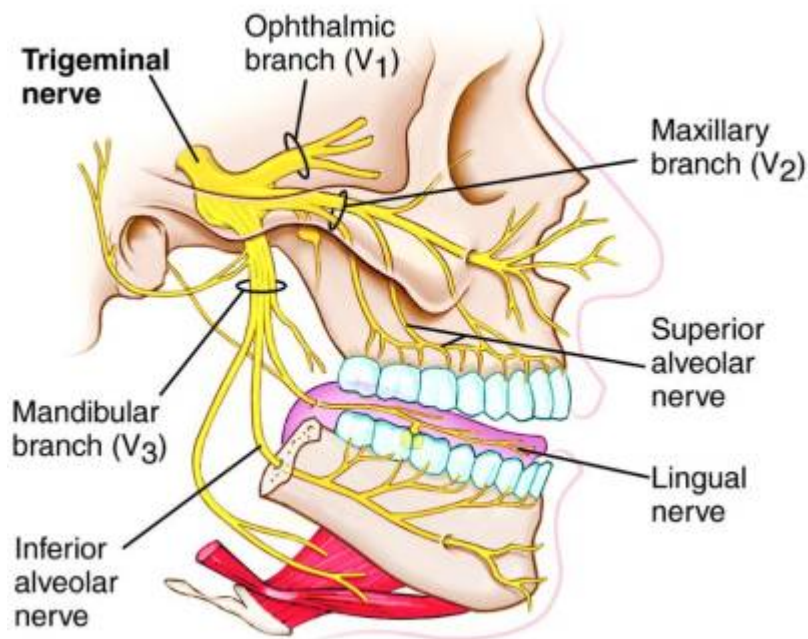


Mandibular nerve (V3)

Largest of the three branches or divisions of the [trigeminal nerve](#).



Roots

It is made up of two roots:

A large sensory root proceeding from the inferior angle of the trigeminal ganglion.

A small motor root (the motor part of the trigeminal), which passes beneath the ganglion, and unites with the sensory root, just after its exit through the foramen ovale.

The two roots (sensory and motor) exit the middle cranial fossa through the foramen ovale. The two roots then combine.

Immediately in the infratemporal fossa beneath the base of the skull, the nerve gives off two branches from its medial side: a recurrent branch (nervus spinosus) and the nerve to the medial pterygoid muscle. The mandibular nerve then divides into two trunks, an anterior and a posterior.

Branches

Branches from the main trunk (except nervus spinosus) and the posterior division. The mandibular nerve gives off the following branches:

From the main trunk of the nerve (before the division) muscular branches, which are efferent nerves for the medial pterygoid, tensor tympani, and tensor veli palatini muscles (motor)

meningeal branch (a sensory nerve)

From the anterior division masseteric nerve(motor) deep temporal nerves, anterior and posterior (motor) buccal nerve (a sensory nerve) lateral pterygoid nerve (motor)

Branches from the posterior and anterior divisions (except lateral pterygoid nerve) From the posterior division

[auriculotemporal nerve](#) (a sensory nerve)

[lingual nerve](#) (a sensory nerve)

inferior alveolar nerve (a motor nerve and a sensory nerve) To remember the sensory branches of V3

B - Buccal n. (or long buccal n.; not to be confused with the buccal branch of CN VII) A - Auriculotemporal n. I - Inferior Alveolar n. L - Lingual n.

Supplies

Mandibular nerve The mandibular nerve innervates:

Anterior Division:

(Motor Innervation - Muscles of mastication)

Masseteric nerve Masseter Medial pterygoid nerve Medial Pterygoid Tensor Tympani Tensor Veli Palatini Nerve Tensor Veli Palatini Lateral pterygoid nerve Lateral pterygoid Deep temporal nerve Temporalis (Sensory Innervation)

Buccal nerve Inside of the Cheek (buccal mucosa)

Posterior Division

Lingual Split (Sensory Innervation - NOT Taste)

Anterior 2/3 of Tongue (mucous membrane) Inferior Alveolar Split (Motor Innervation)

Mylohyoid Digastric (Anterior Belly) (Sensory Innervation)

Teeth and Mucoperiosteum of mandibular teeth Chin and Lower Lip Auriculotemporal Split

Scalp (auricula / temporal region)

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