

Anatomy

Lec. 13

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The trigeminal nerve:

The trigeminal nerve is the 5th cranial nerve which is a mixed nerve both sensory and motor fibers but the sensory nerve more important than the motor nerve.

The trigeminal nerve divided into three main divisions called ophthalmic nerve, maxillary nerve and mandibular nerve:

The ophthalmic nerve:

It is the first branch of the trigeminal and it is purely sensory that divided into three branches pass through the superior orbital fissure to enter the orbital cavity which are:

1. The frontal nerve:

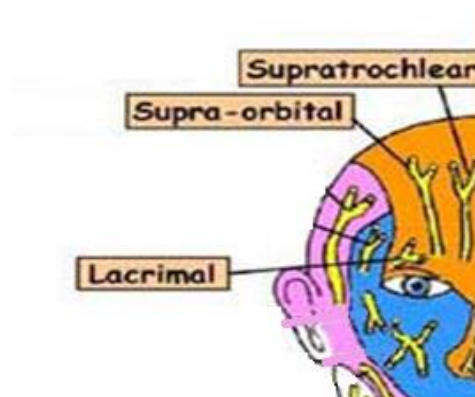
It extends superiorly and gives two terminal branches supply the skin of the forehead which are:

- a Supra trochlear nerve.
- b Supra orbital nerve. pass through the supra orbital foramen



2. The lacrimal nerve:

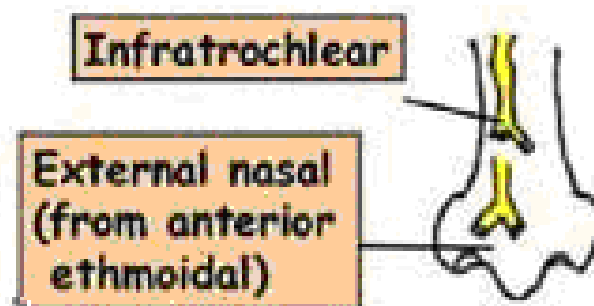
It extends in the lateral wall of the orbital cavity and gives branch called the **palpebral branch** supplies the skin of the lateral part of the upper eyelid.



3. The nasociliary nerves:

It extends in the medial wall of the orbital cavity it divided into:

- a. **The external nasal nerve:** it supplies the skin over the lower half of the dorsum of the nose.
- b. **The infratrochlear nerve:** it supplies the skin of the medial part of the upper eyelid and adjacent part of the nose.



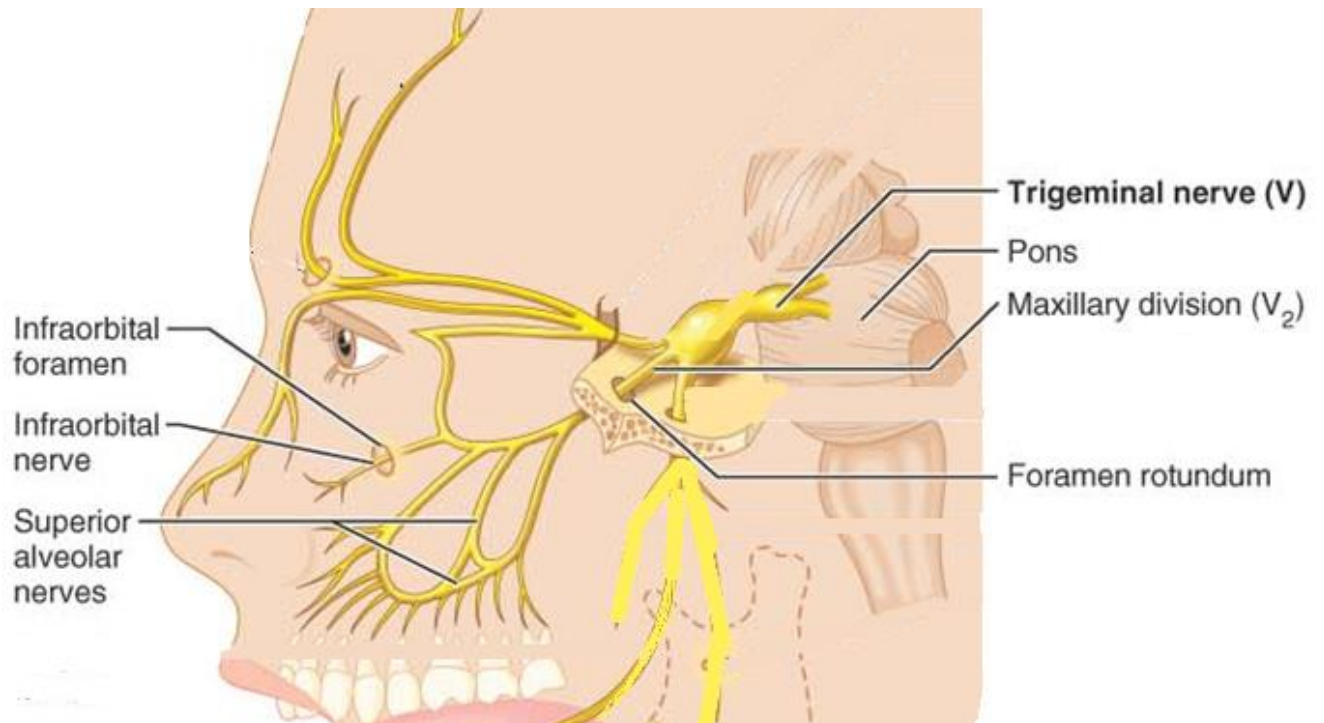
The maxillary nerve:

It is the **second** division of the trigeminal nerve it is purely **sensory** and leaves the cranial cavity through foramen **rotundum**. There are three branches from the maxillary nerve that supply the skin of the face:

1. The infra orbital nerve:

It is very large nerve and it is the continuation of the maxillary nerve and coming out to the face through the infraorbital foramen and end by dividing into 3 terminal branches:

- a. Palpebral branch:** it supplies the lower eyelid.
- b Nasal branch:** it supplies the posterior side of the nose.
- c. Labial branch:** it supplies the upper lip.

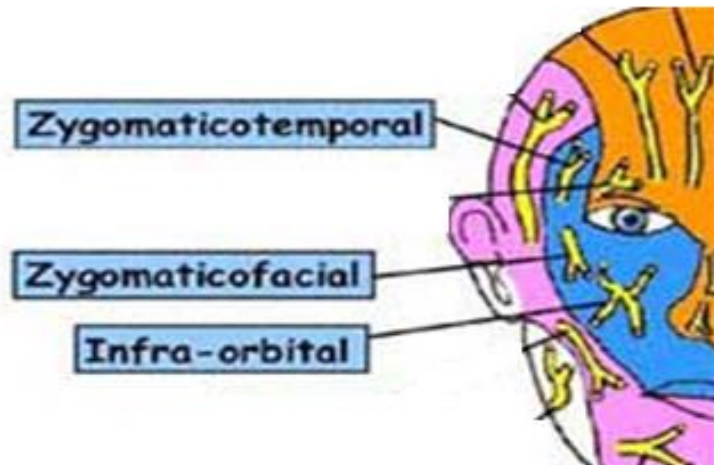


2. The zygomaticofacial nerve:

It supplies the skin over prominence of the cheek.

3. The zygomaticotemporal nerve:

It supplies the skin over the temporal fossa.



Other branches of the maxillary nerve:

1. Posterior superior alveolar nerve:

It supplies the maxillary sinus, the upper molar teeth, and adjoining part of the gum and cheek.

2. Middle superior alveolar nerve:

It supplies the upper premolar and adjoining part of the gum and cheek.

3. Anterior superior alveolar nerve:

It supplies the upper canine and incisor teeth.

