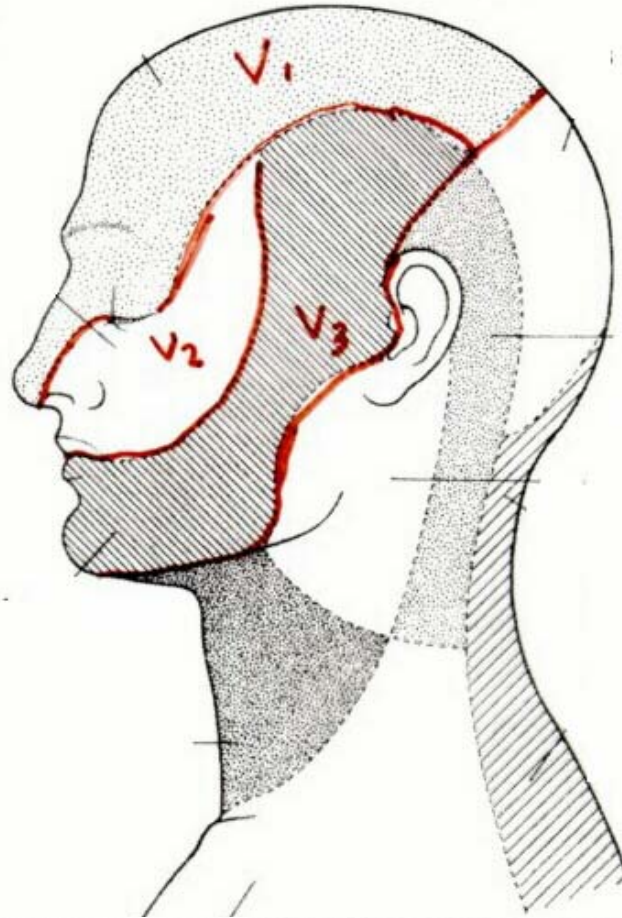


TRIGEMINAL NERVE – GSA and SVE

Borders:
V1- V2 –
angle of eye
V2 - V3 –
angle of
mouth



Trigeminal nerve V -
straightforward

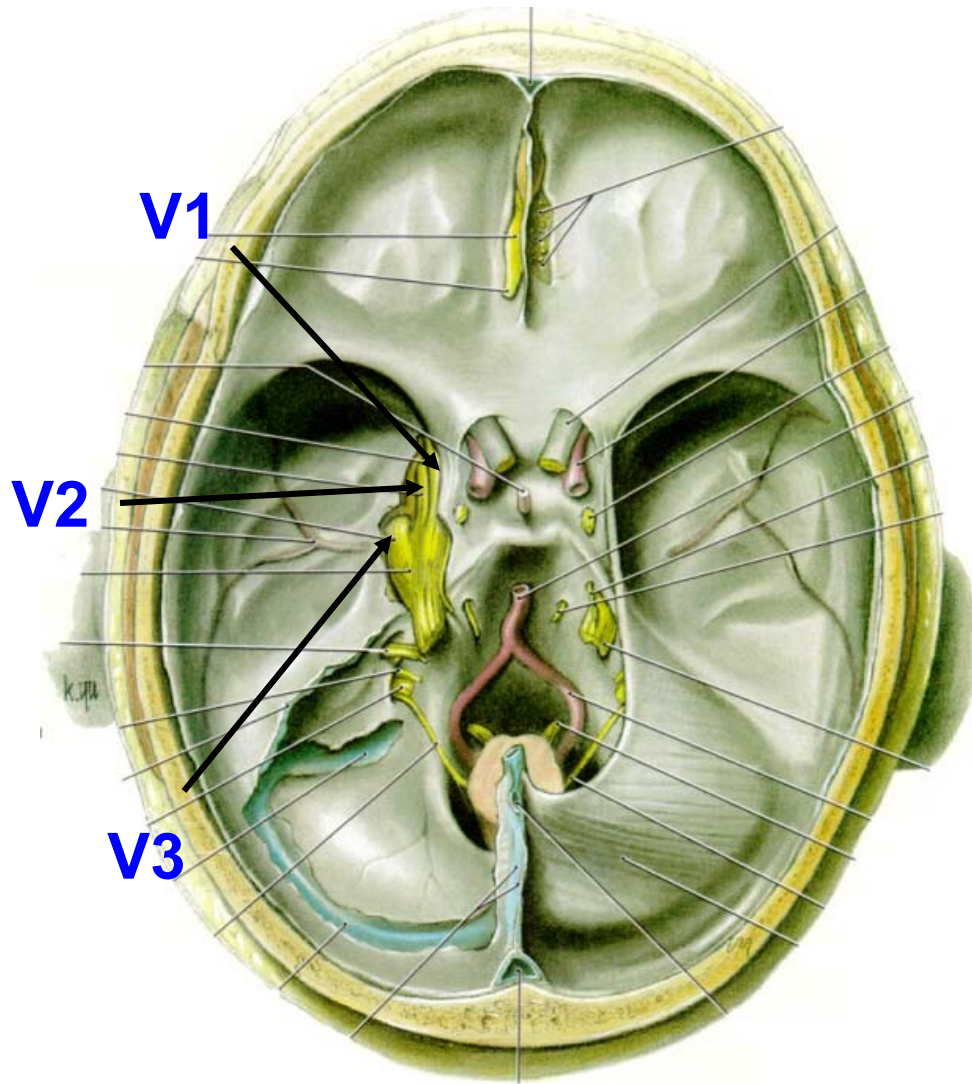
V1 – All Sensory GSA

V2 – All Sensory GSA

**V3 – Sensory GSA/
 Motor SVE**

	SVE	GVE	GSA	GVA	SVA
V	+		+		
VII, IX	+	+	+	+	+

TRIGEMINAL NERVE - V

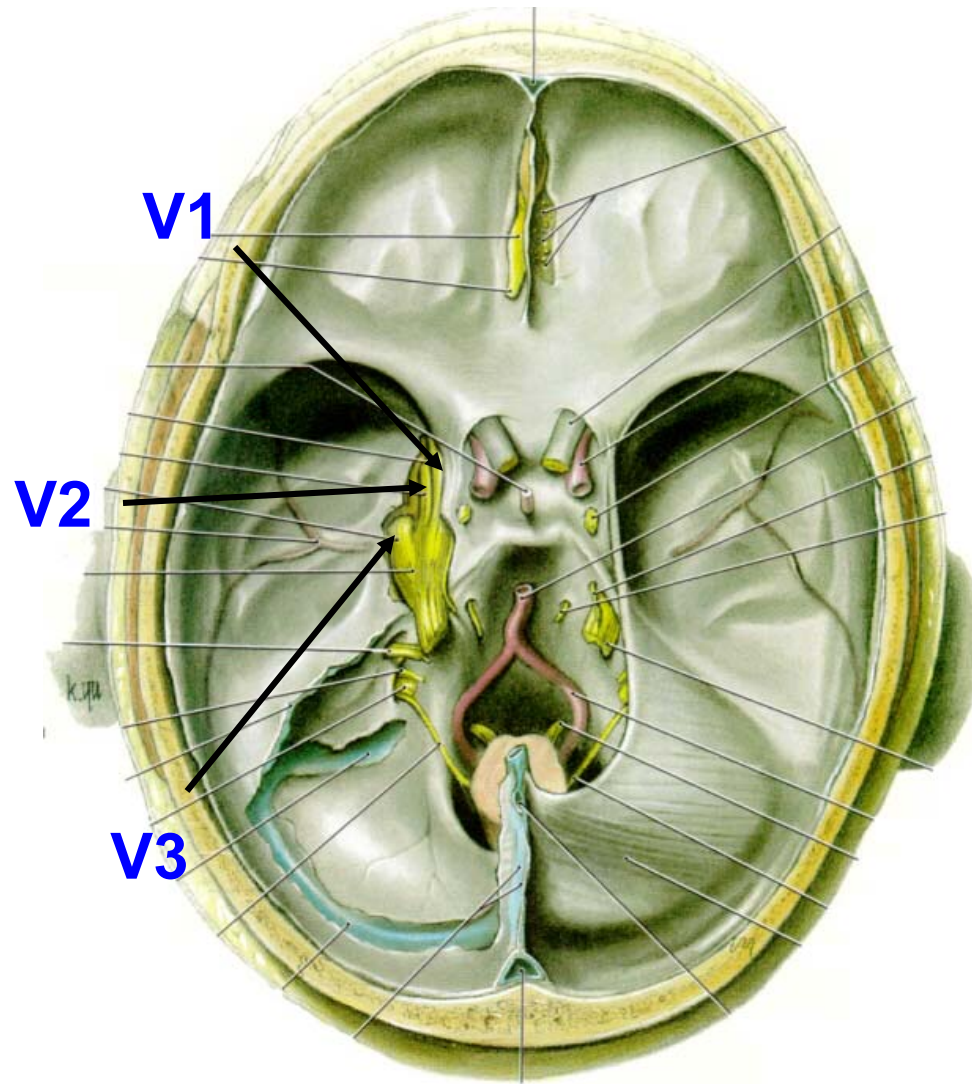


**V1 – OPHTHALMIC -
Sup. Orbital fissure –
GSA**

**V2 - MAXILLARY -
Foramen rotundum –
GSA**

**V3 – MANDIBULAR - -
Foramen ovale – GSA
& SVE**

V1 – OPHTHALMIC DIVISION

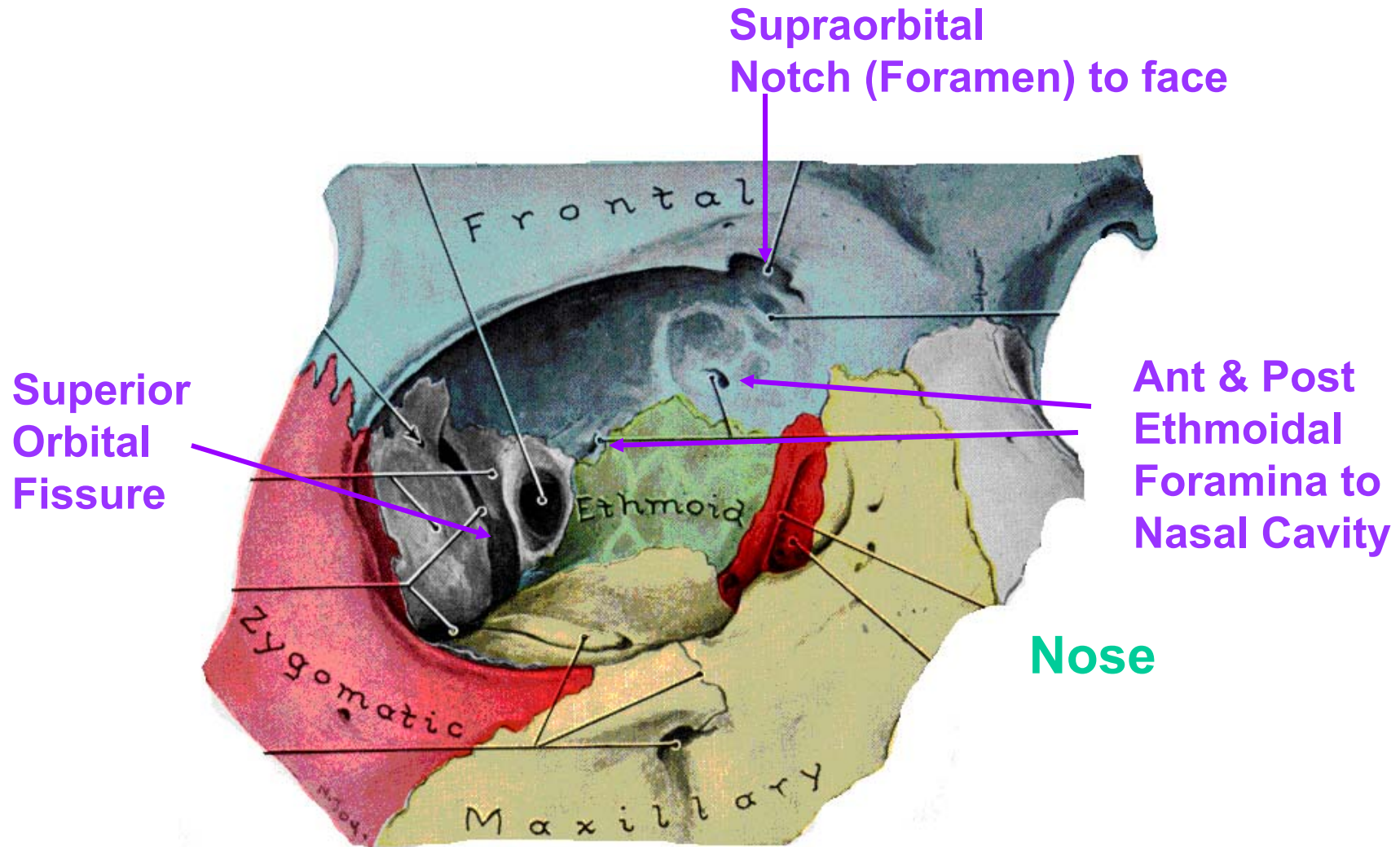


**V1 – OPHTHALMIC -
Sup. Orbital fissure –
GSA**

**V2 - MAXILLARY -
Foramen rotundum –
GSA**

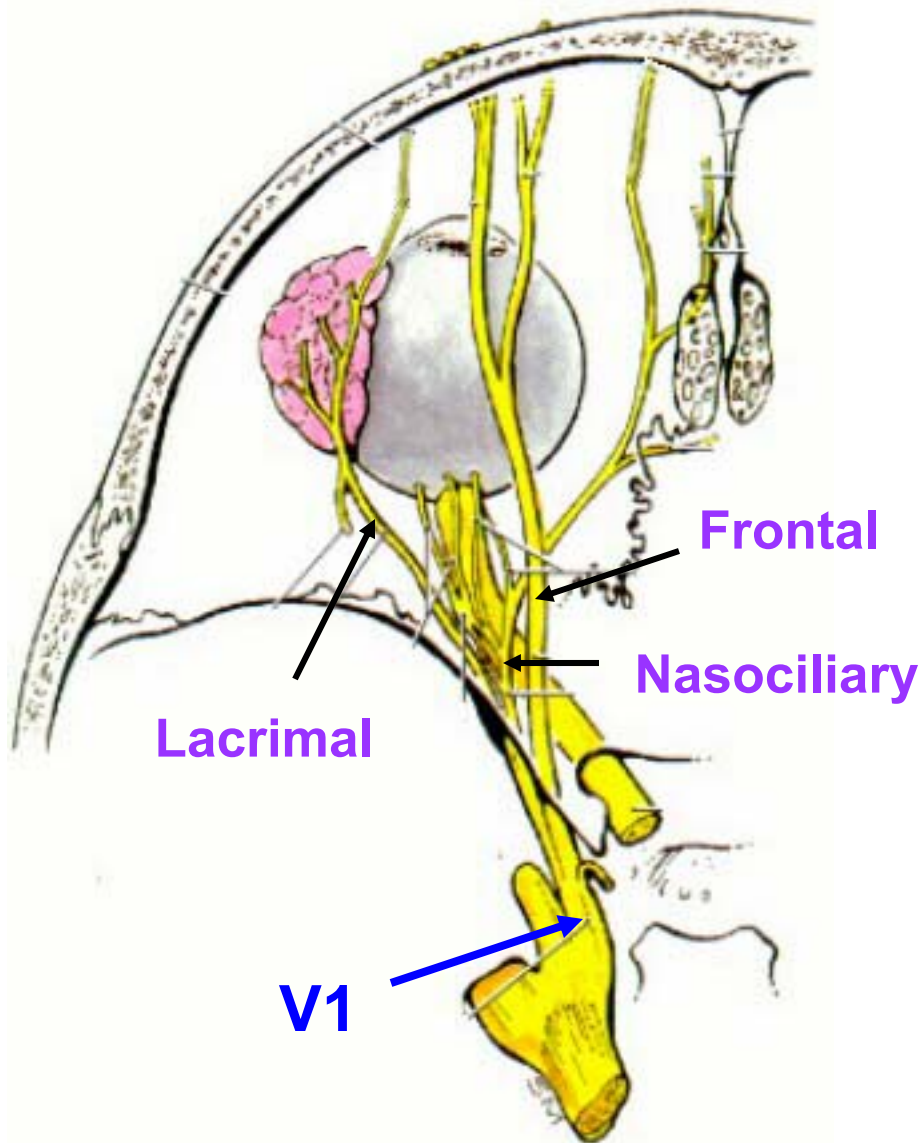
**V3 – MANDIBULAR - -
Foramen ovale – GSA
& SVE**

V1 - OPHTHALMIC - GSA



Recall : Orbit is used as way to reach face, nasal cavity

V1 - OPHTHALMIC - GSA



1. Frontal N.

a) Supraorbital N.

b) Supratrochlear N.

Forehead, Upper Eyelid

2. Lacrimal N.

Upper eyelid

3. Nasociliary N.

a) Ant. and Post. Ethmoidal N.

Nasal Cavity

Ethmoid Sinus , Tip of Nose

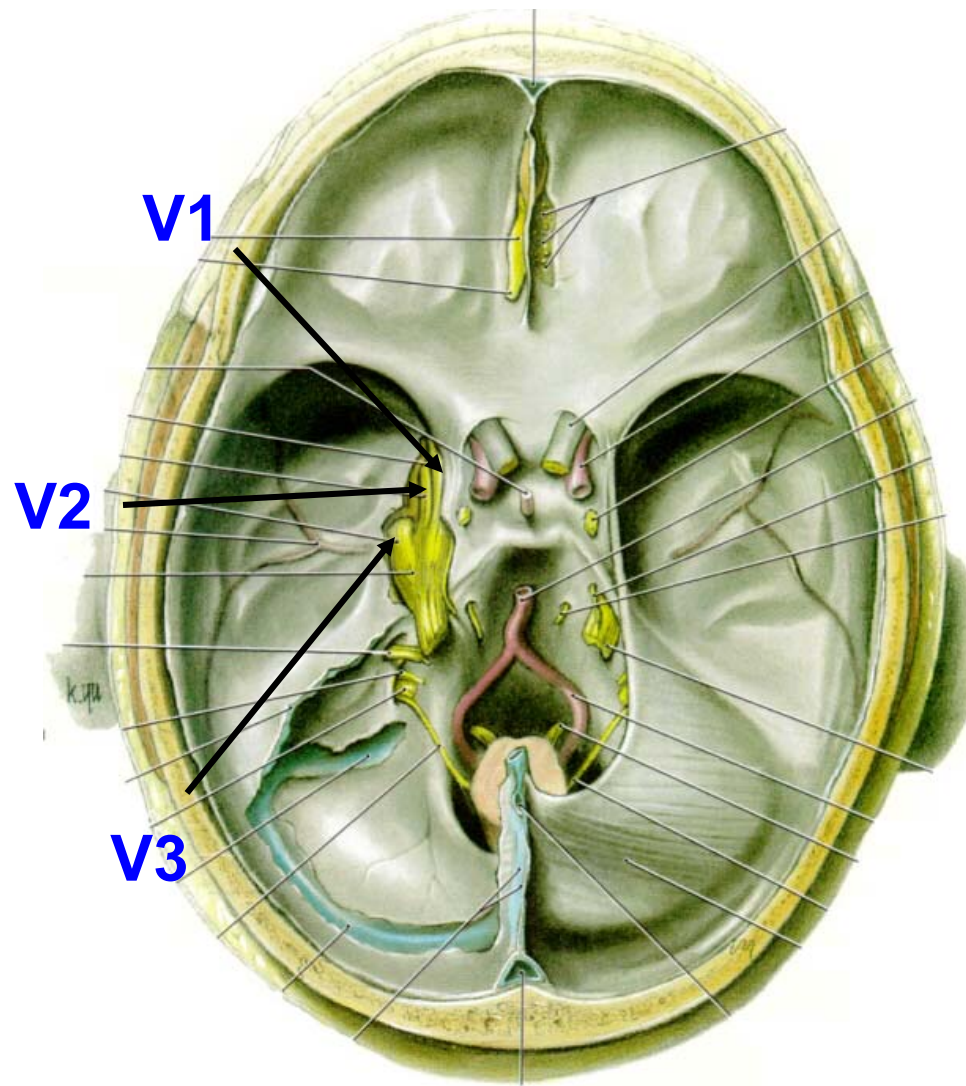
b) Long Ciliary N.

Sensory to Cornea

c) Infratrochlear N.

Upper eyelid, Nose

V2 – MAXILLARY DIVISION

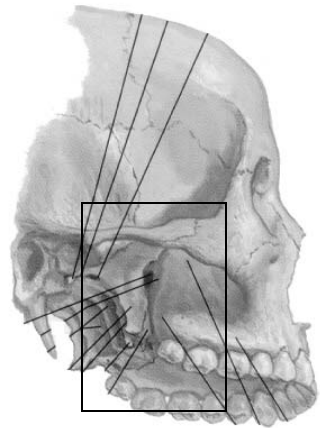


V1 – OPHTHALMIC -
Sup. Orbital fissure –
GSA

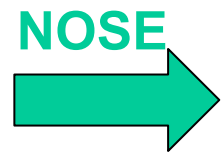
V2 - MAXILLARY -
Foramen rotundum –
GSA

V3 – MANDIBULAR - -
Foramen ovale – GSA
& SVE

V2 - MAXILLARY - GSA



V2 - Maxillary enters
Pterygopalatine Fossa

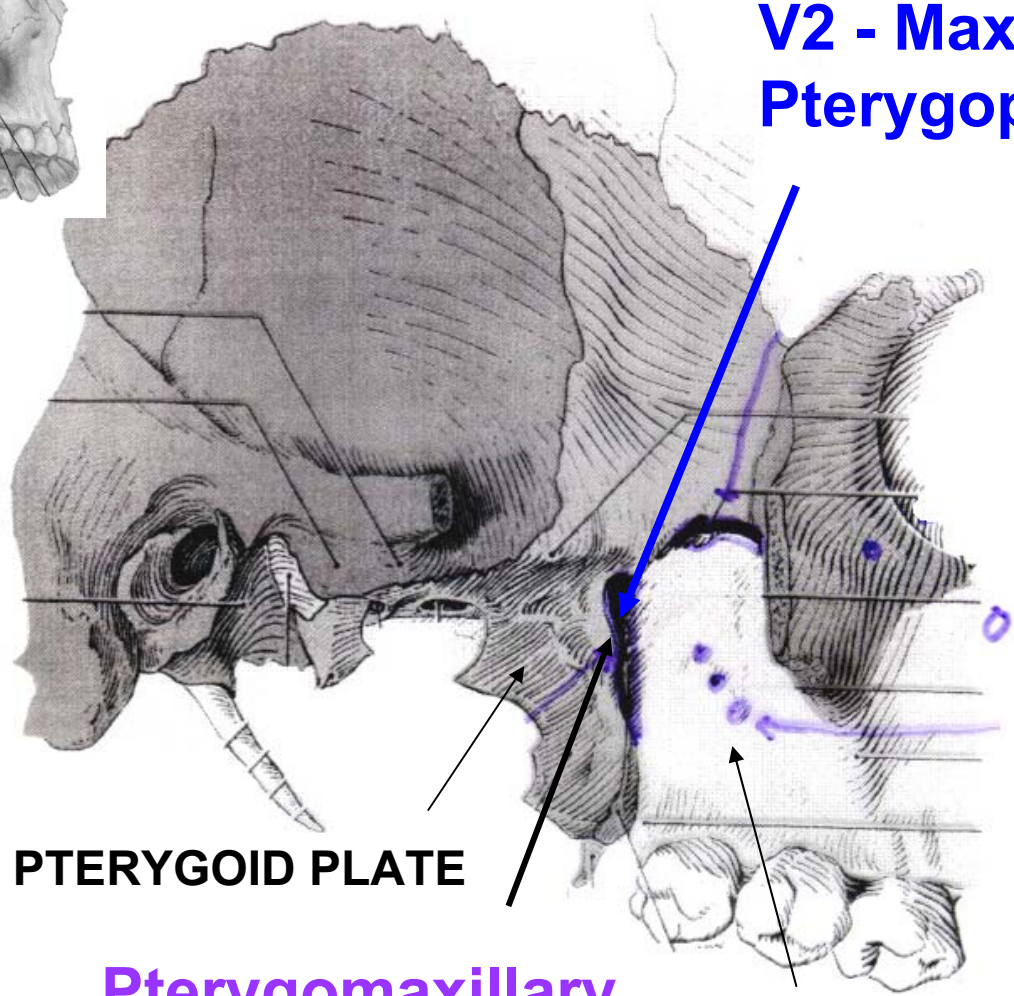


note:
Pterygomaxillary
fissure is slit
between lateral
pterygoid plate
and maxillary bone;
Pterygopalatine
fossa is space
medial to slit

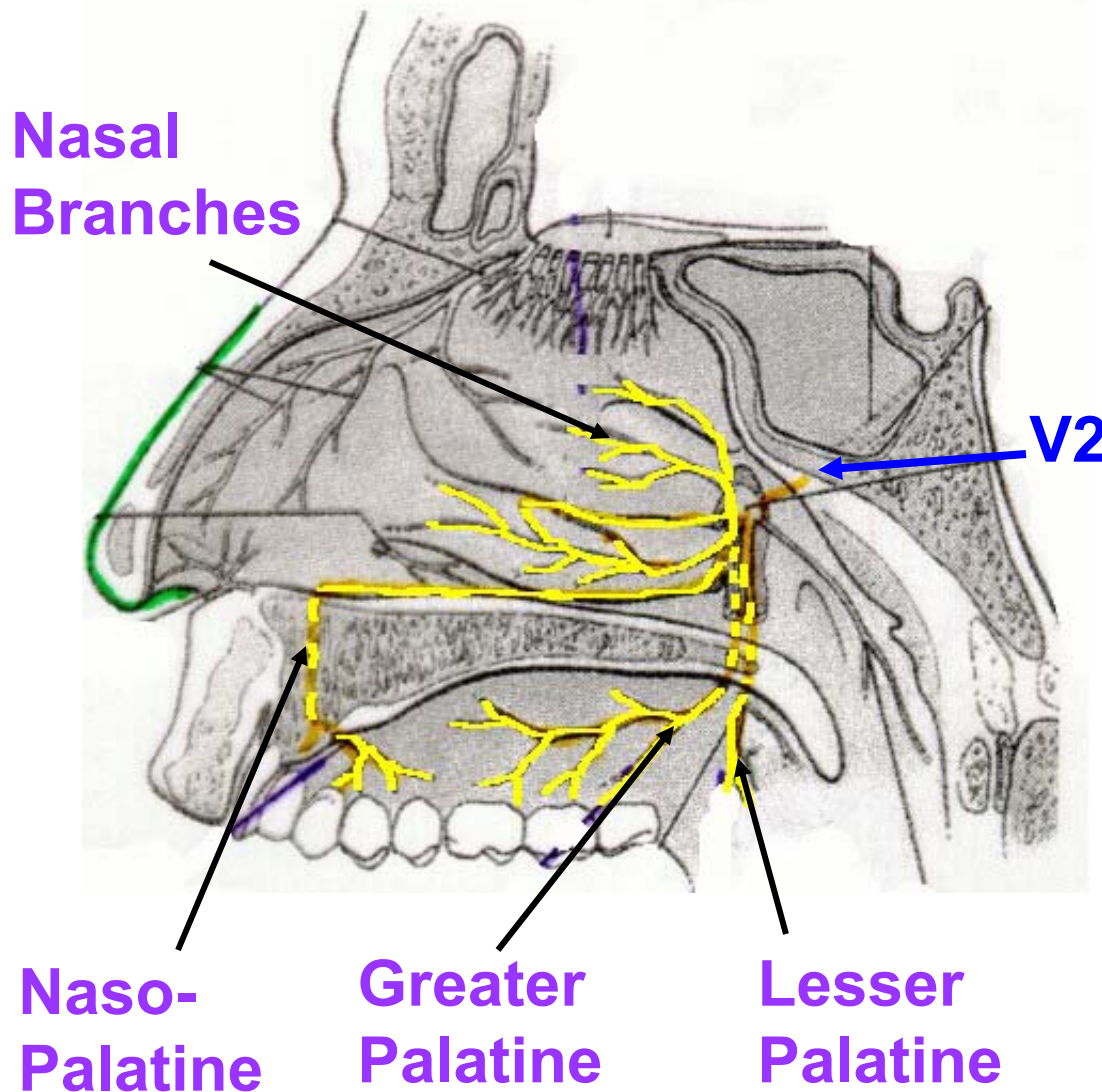
LATERAL PTERYGOID PLATE

Pterygomaxillary
Fissure

MAXILLARY BONE



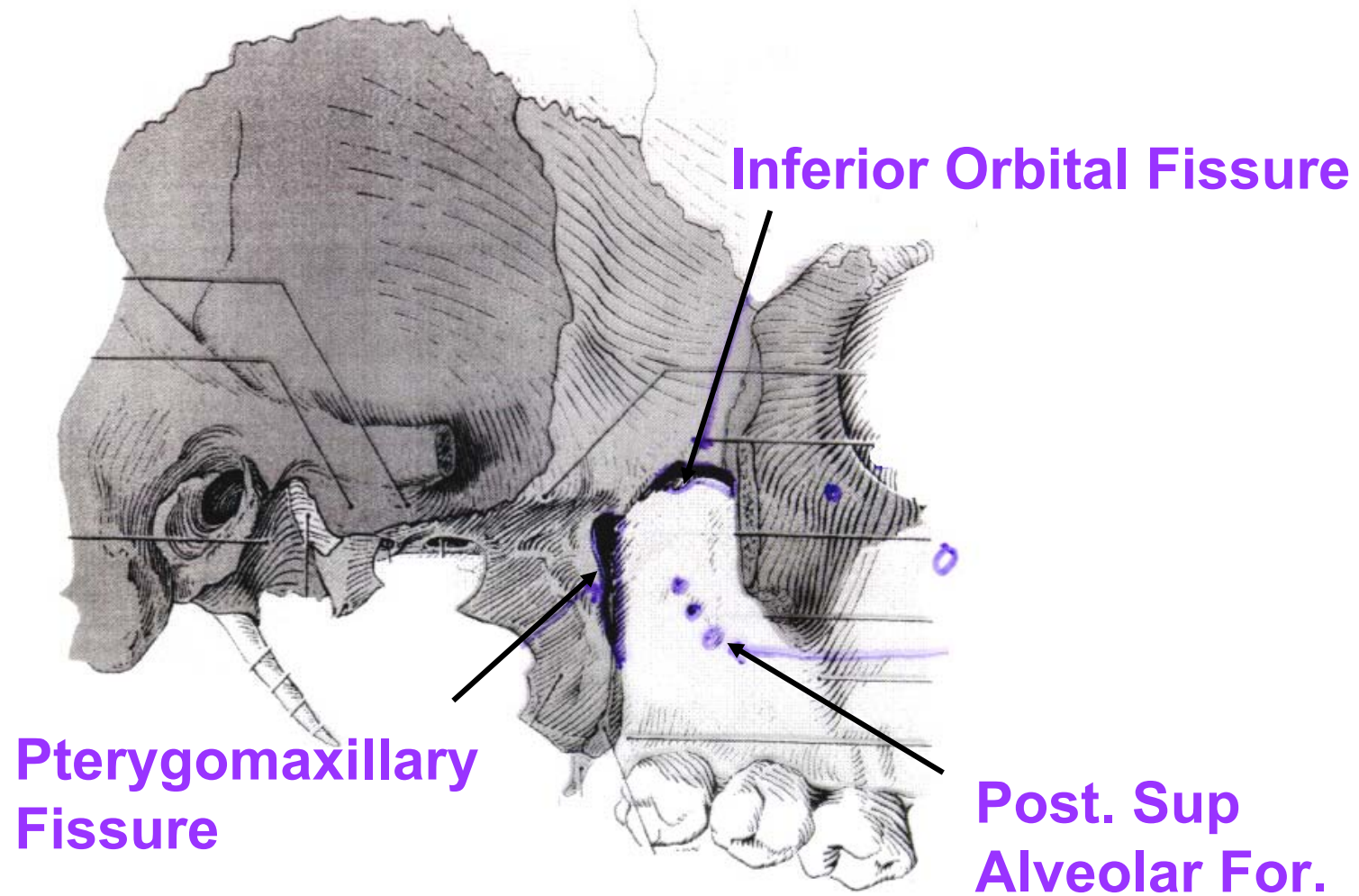
V2 - MAXILLARY - GSA



1. Meningeal Branch
Dura of Middle
Cranial Fossa

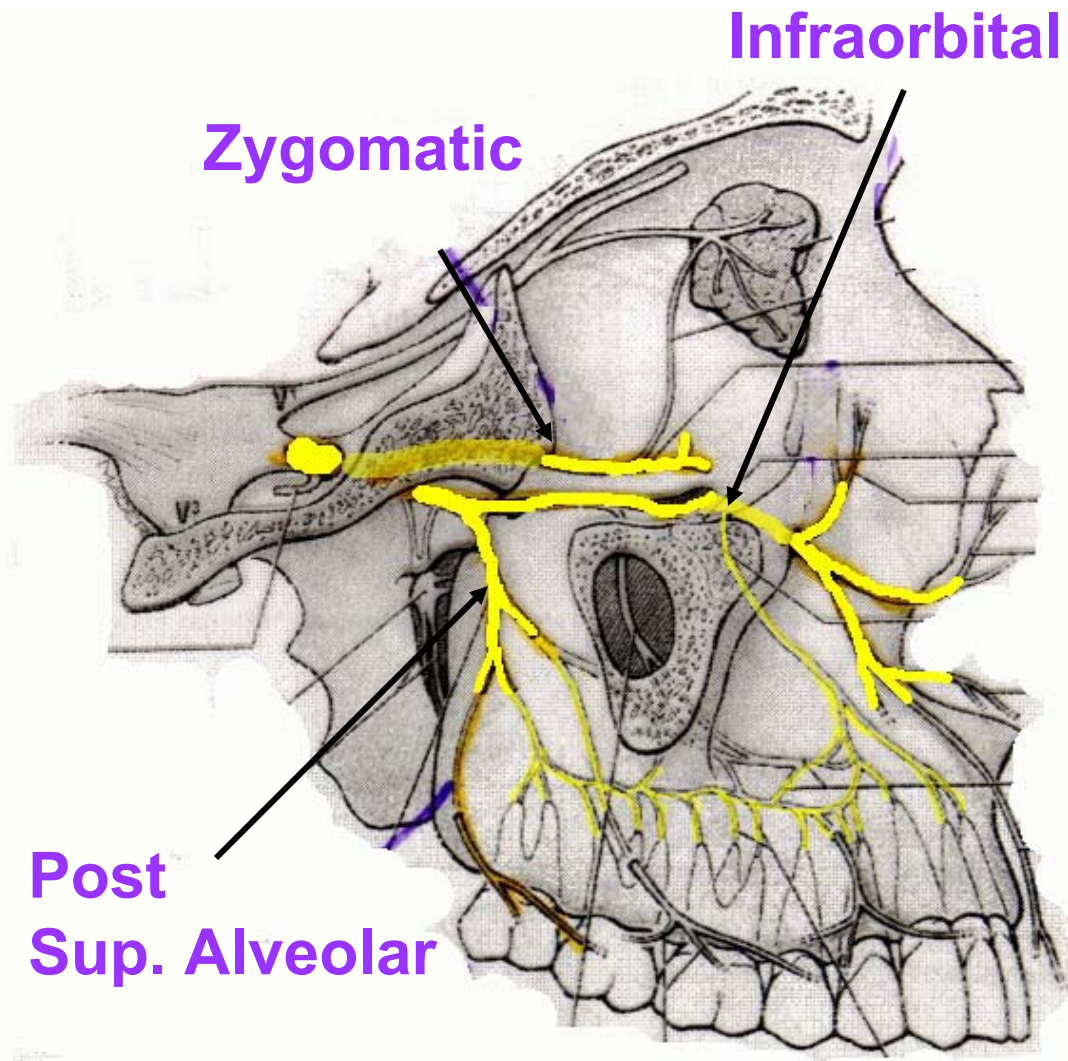
2. Ganglionic branches
a) Greater Palatine N.
Hard Palate
b) Lesser Palatine N.
Soft Palate
c) Nasopalatine
Nasal Cavity
Ant. part of hard Palate
d) Nasal Branches
Nasal Cavity

V2 - MAXILLARY - GSA



V2 - MAXILLARY - GSA

Nose →

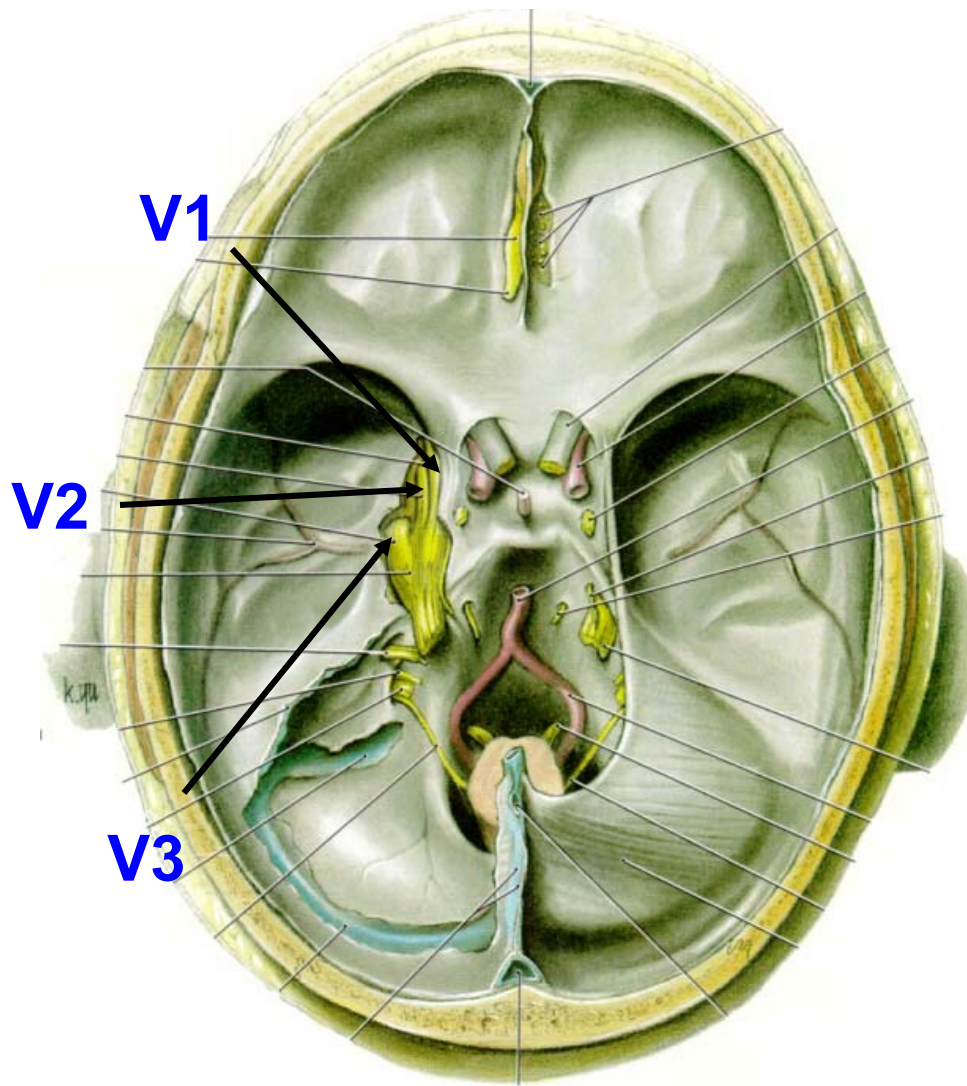


3. Posterior Superior Alveolar
Maxillary molar teeth

4. Zygomatic
Skin of cheek, temporal region

5. Infraorbital
Lower eyelid, nose, upper lip
a) Ant. & Mid Sup Alveolar
Other Maxillary teeth

V3 – MANDIBULAR DIVISION



**V1 – OPHTHALMIC -
Sup. Orbital fissure –
GSA**

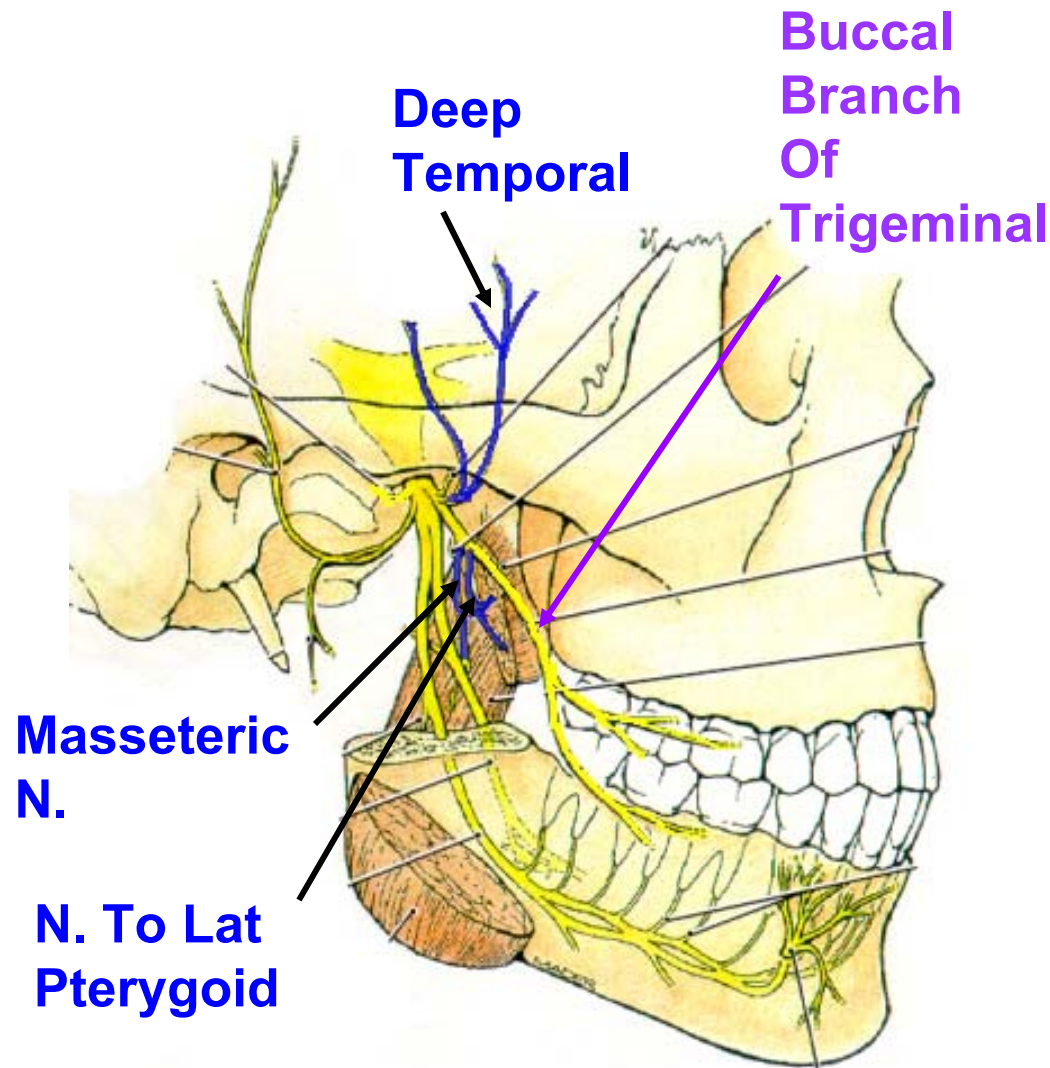
**V2 - MAXILLARY -
Foramen rotundum –
GSA**

**V3 – MANDIBULAR - -
Foramen ovale – GSA
& SVE**

C. SVE (Special Visceral Efferents) - motor to muscles of face, ear, pharynx and neck that are derived from branchial arches.

<u>Nerve</u>	<u>Innervates</u>	
V (Trigeminal) (all in V3)	muscles of mastication mylohyoid tensor tympani tensor palati anterior belly of digastric	V ₃ SVE
VII (Facial)	muscles of facial expression stylohyoid posterior belly of digastric stapedius	
IX (Glossopharyngeal)	stylopharyngeus	
X (Vagus)	all muscles of pharynx (except stylopharyngeus) muscles of larynx all muscles of palate (except tensor palati)	
XI (Accessory)	sternocleidomastoid trapezius	

V3 - MANDIBULAR - GSA + SVE



1. Nervus Spinosus

Dura of Middle Cranial Fossa (not shown)

2. Motor to

Medial Pterygoid

Tensor Tympani

Tensor Palati (not shown)

3. Ant Division

a. Nerve to Lat. Pterygoids

b. Masseteric N. to Masseter

c. Deep Temporal Nerve

To Temporalis

d. Buccal Branch

Of Trigeminal Nerve

Sensory to Cheek

V3 - MANDIBULAR - GSA + SVE

Post Division

a. Auriculotemporal

External auditory meatus, tympanic membrane, TMJ, lateral scalp

b. Lingual

Touch to Ant 2/3 Tongue

c. Inf. Alveolar N.

Sens to Lower Teeth

i) Mental N.

Skin Lower Jaw

ii) Nerve to Mylohyoid

Motor to Mylohyoid

& Ant. Belly of Digastric

