

ANATOMY OF

Temporal & Infra-temporal fossae

By

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MAXILLARY NERVE

**traverse the region *horizontally* from
posterior to anterior**

1 **ORIGIN:** 2nd branch of trigeminal nerve.

2 **TYPE:** Sensory only.

3 **Exit From Skull:** foramen **ROTUNDUM**.

=ENTER pterygo-palatine fossa

4- **COURSE & RELATIONS:-**

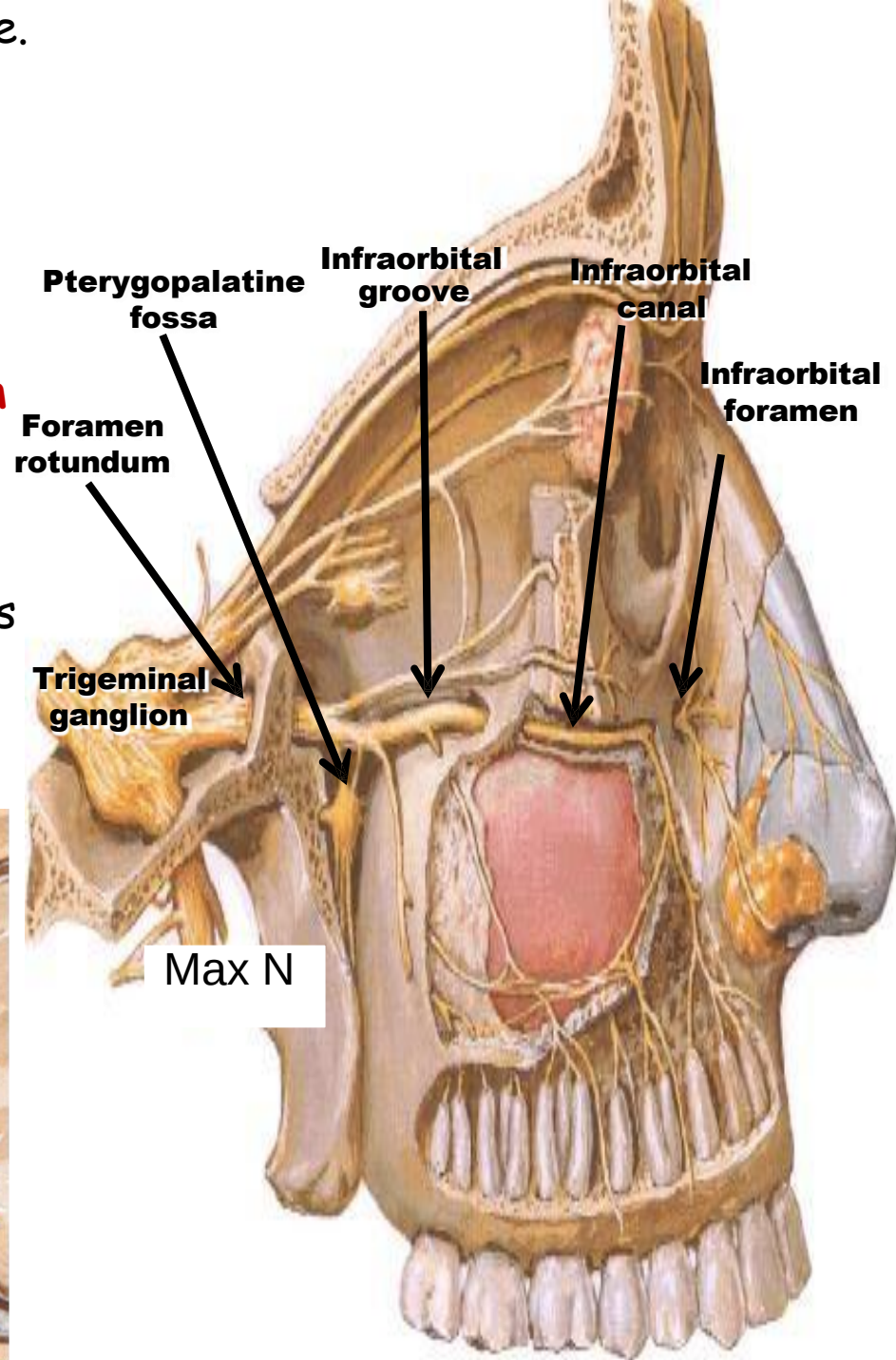
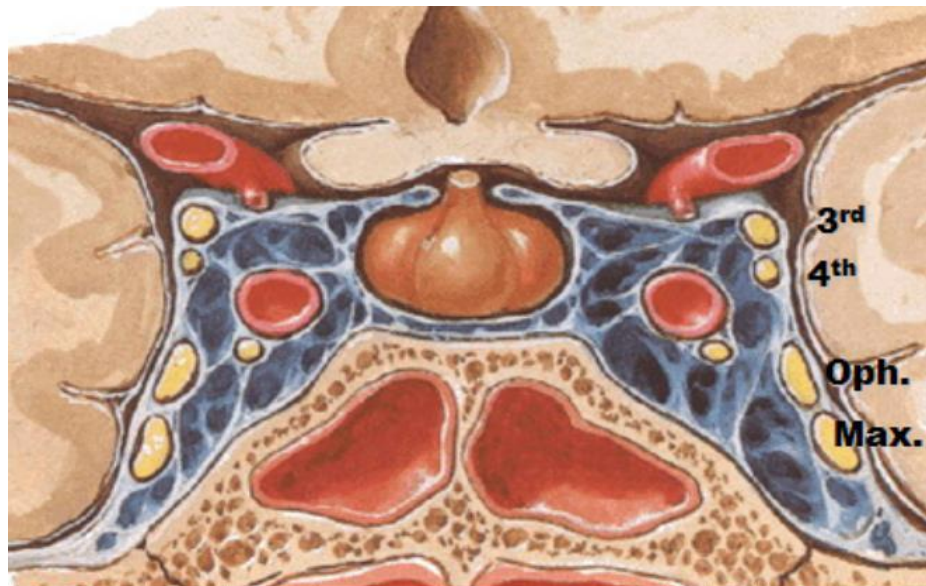
=runs in lateral wall of **cavernous sinus**.

=leaves cranial cavity via **foramen rotundum**

=passes laterally to reach **infra-temporal fossa**.

=it continues across the fossa to leave it anteriorly via **inferior orbital fissure** as infra-orbital nerve.

5- **TERMINATION:** CONTUNES AS **infraorbital nerve**.



BRANCHES

1 inside Cranial Cavity:-

→ Small Meningeal Nerve.

2 in Pterygo-palatine Fossa:-

→ Two Sensory Ganglionic Branches

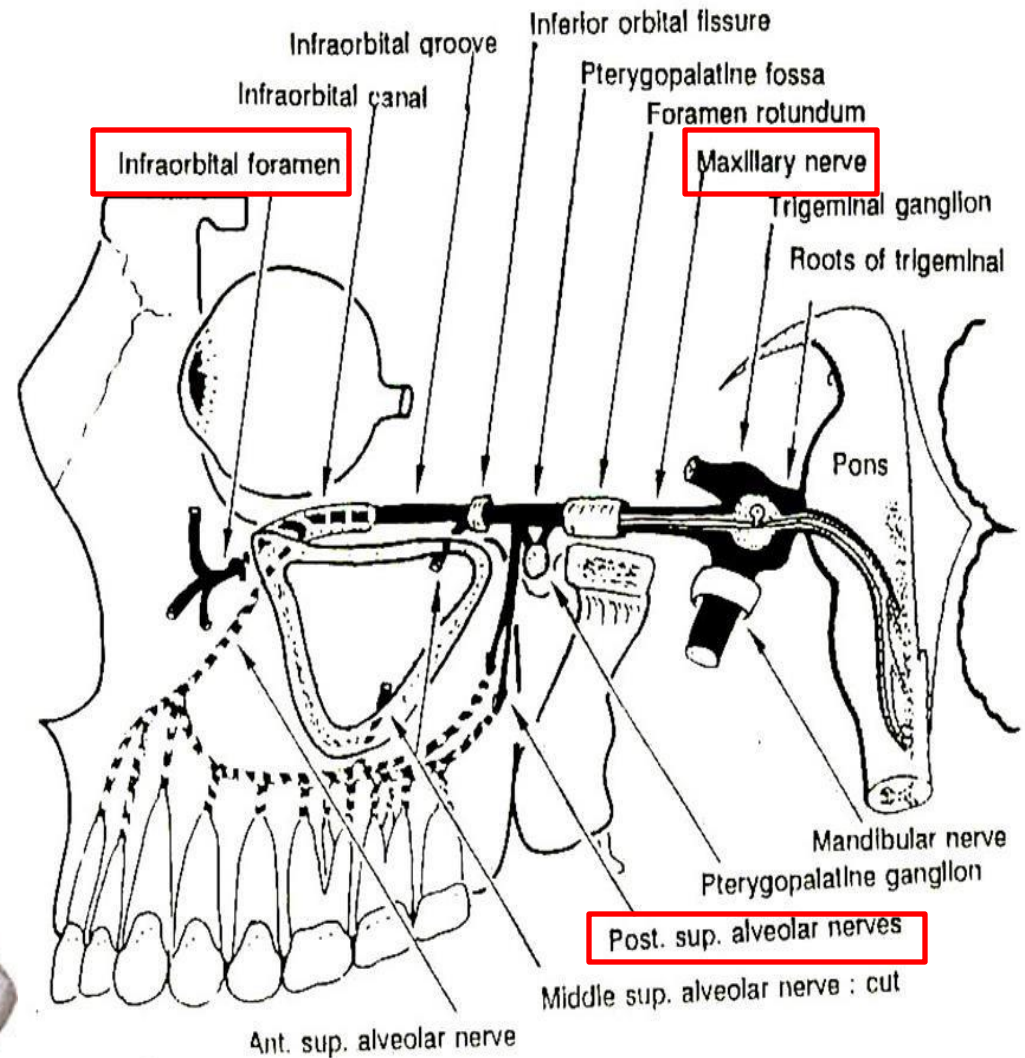
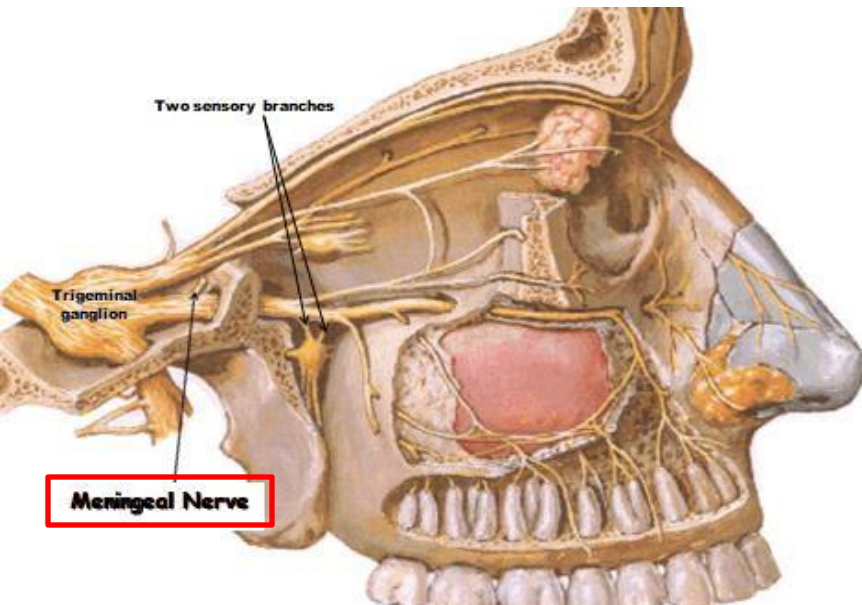
* Gives Attachment To
sphenopalatine ganglion.

3 in Infra-temporal Fossa:-

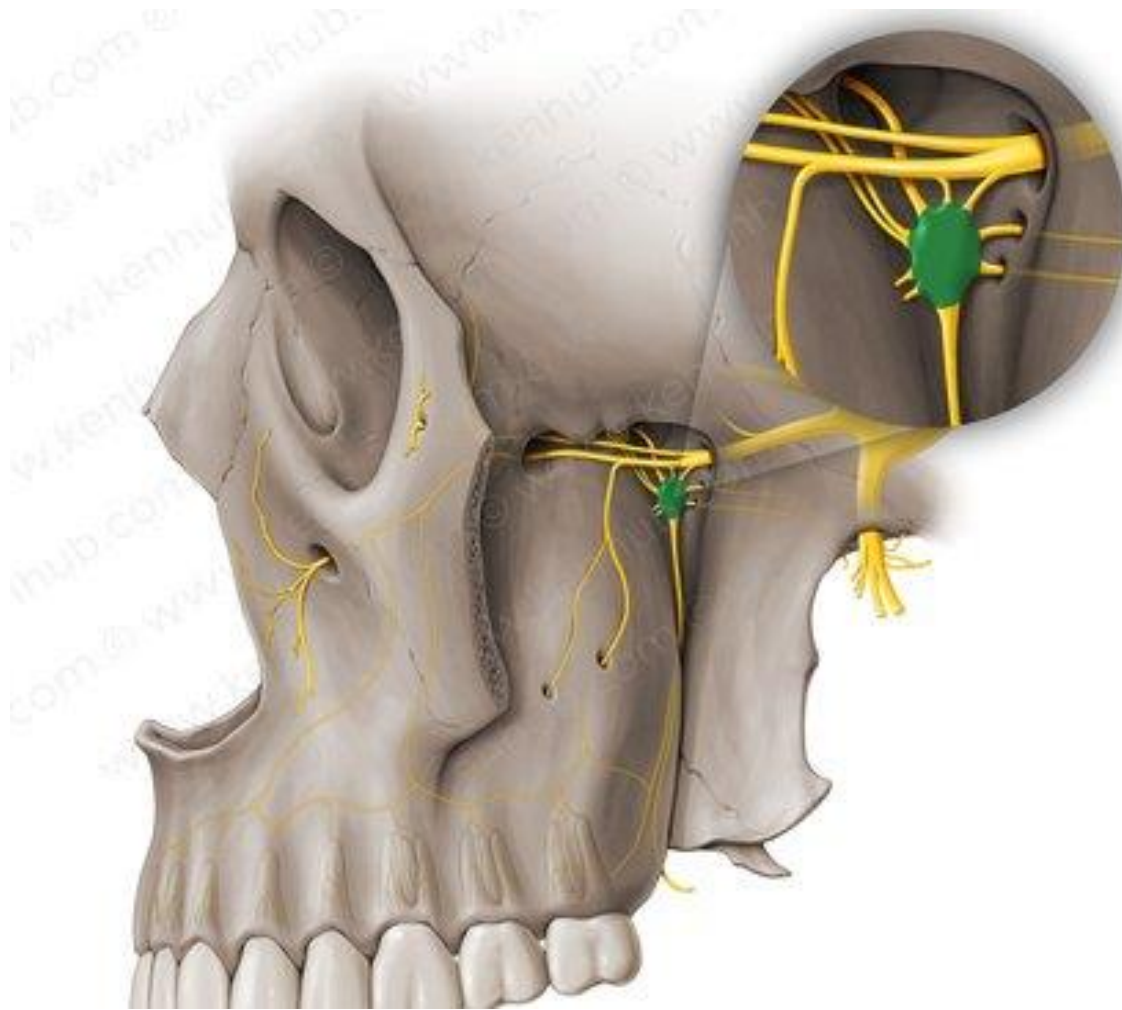
1 → posterior Superior Alveolar N.

2 → zygomatic Nerve. ****

3 → infra-orbital N.



Maxillary nerve



SphenoPalatine Ganglion is
parasympathetic ganglia

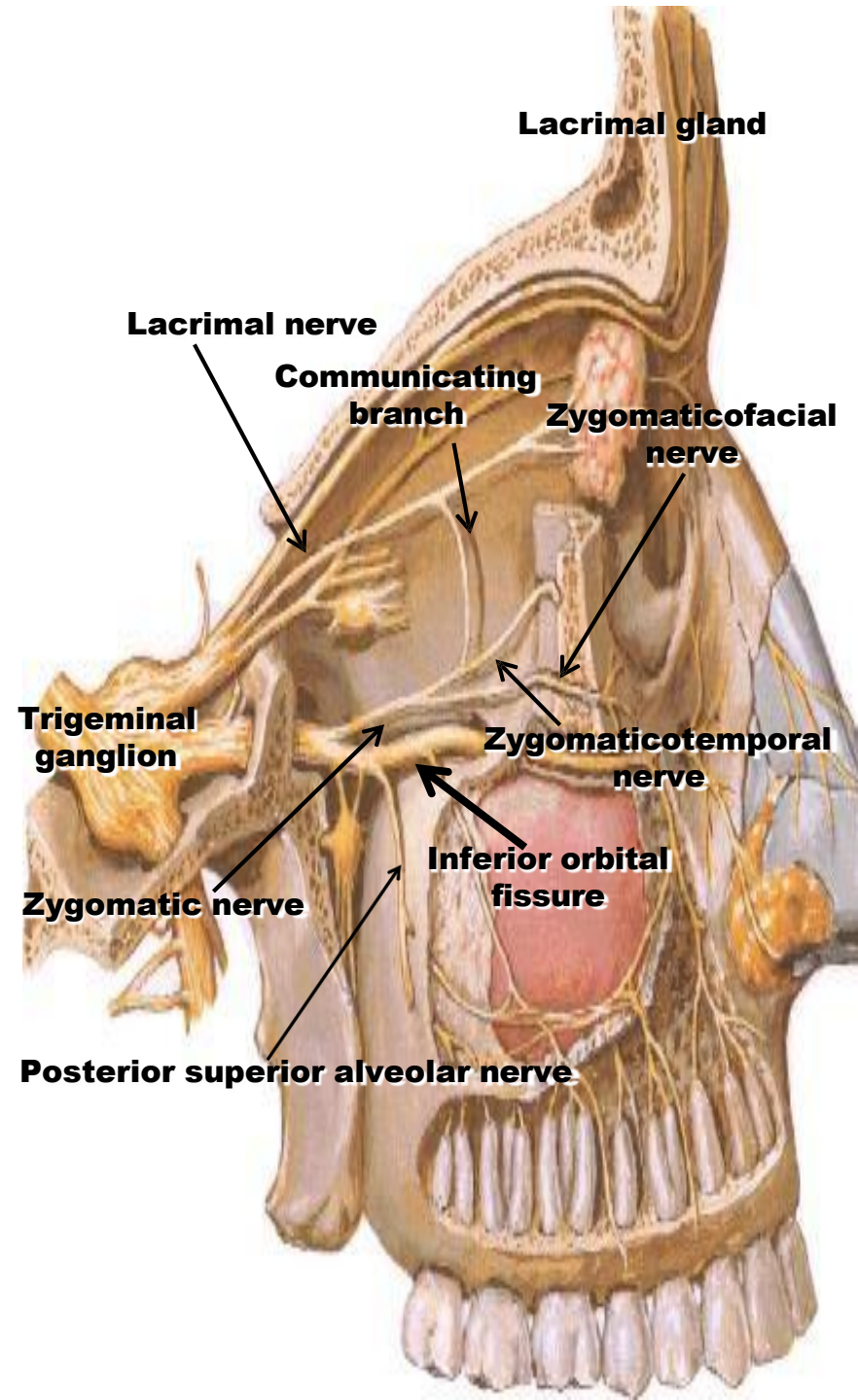
zygomatic nerve

- runs parallel to lateral wall of orbit.
- it divides into two branches:-
 - 1]=**ZYGOMATICO-TEMPORAL NERVE**:=
=enters temporal fossa via **zygomatico-temporal foramen**.
 - =supplies lateral part of **anterior part of scalp**.
- 2]=**ZYGOMATICO-FACIAL NERVE**:=
=enters face via **zygomatico-facial foramen**.
- =supplies skin over **zygomatic prominence**.
- 3]=**Parasympathetic Fibers Derived From Pterygopalatine Ganglion**:-
=runs with zygomatic nerve to lacrimal nerve via communicating branch () them
- =these fibers are **secreto-motor** to lacrimal gland.

Posterior superior alveolar nerve

- Supplies the upper 3 molar teeth.

We will block this N in our future clinics ([click here](#))



Infra-orbital nerve

- terminal branch of maxillary nerve.
- leaves infra-temporal fossa via **Infra-orbital Groove**. then in **Infra-orbital Canal** to reach facial surface of maxilla via **Infra-orbital Foramina..**

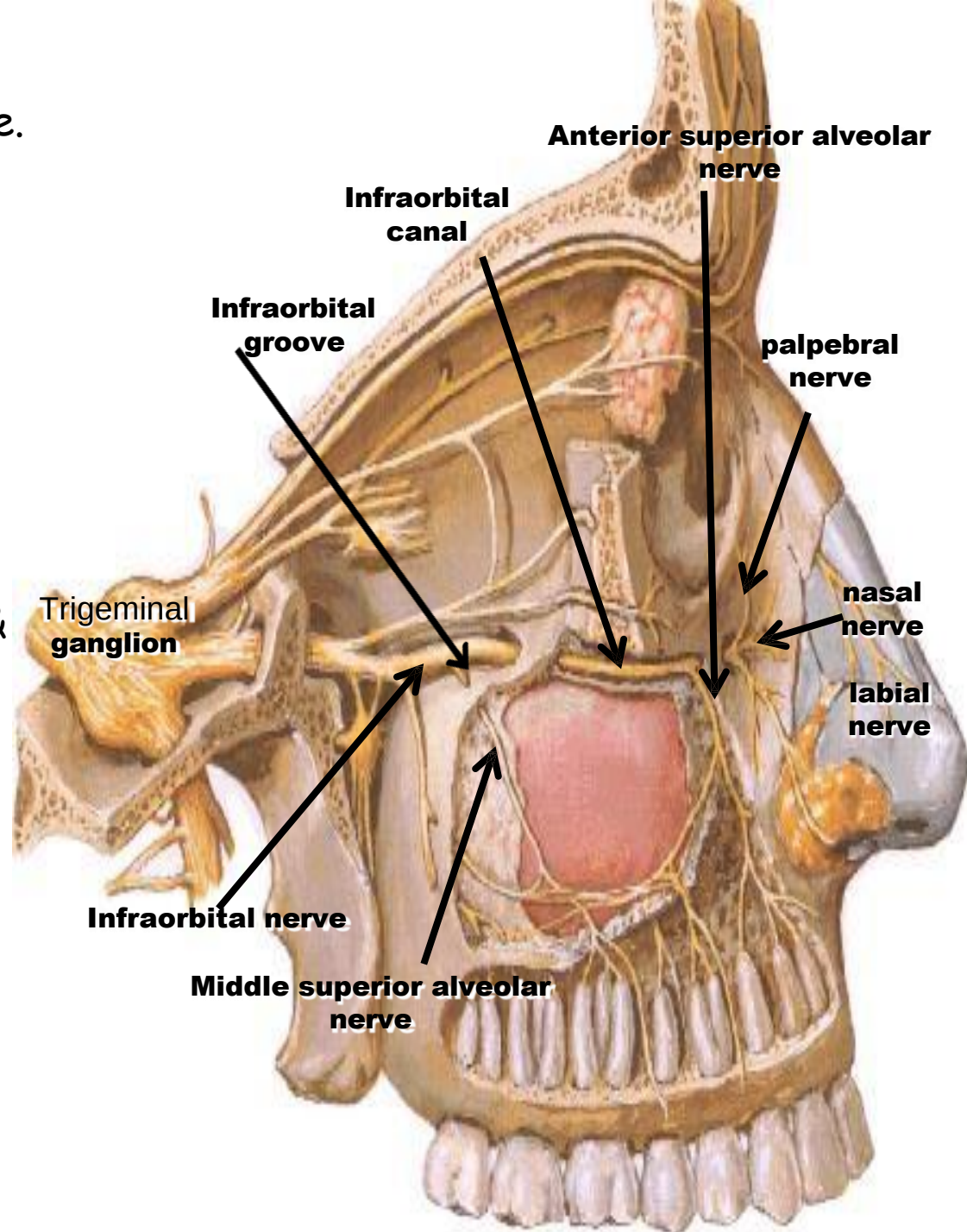
-BRANCHES:-

1=MIDDLE & ANTERIOR SUPERIOR ALVEOLAR N.

- arises in infra-orbital canal
- supplies upper premolars , canine & incisors

2=IN FACE GIVES TERMINAL BRANCHES:-

- PALPEBRAL:-** to lower eyelids
- NASAL:-** side of nose.
- LABIAL:-** upper lip.



MAXILLARY ARTERY

**traverse the region *horizontally* from
lateral to medial.**

1-ORIGIN

- larger of two terminal branches of **Ex.C.A.behind neck of mandible**.
- within substance of **parotid gland**

2- COURSE & RELATIONS:

divided into **3** parts by

LATERAL PTERYGOID MUSCLE

1=first part: [mandibular part]

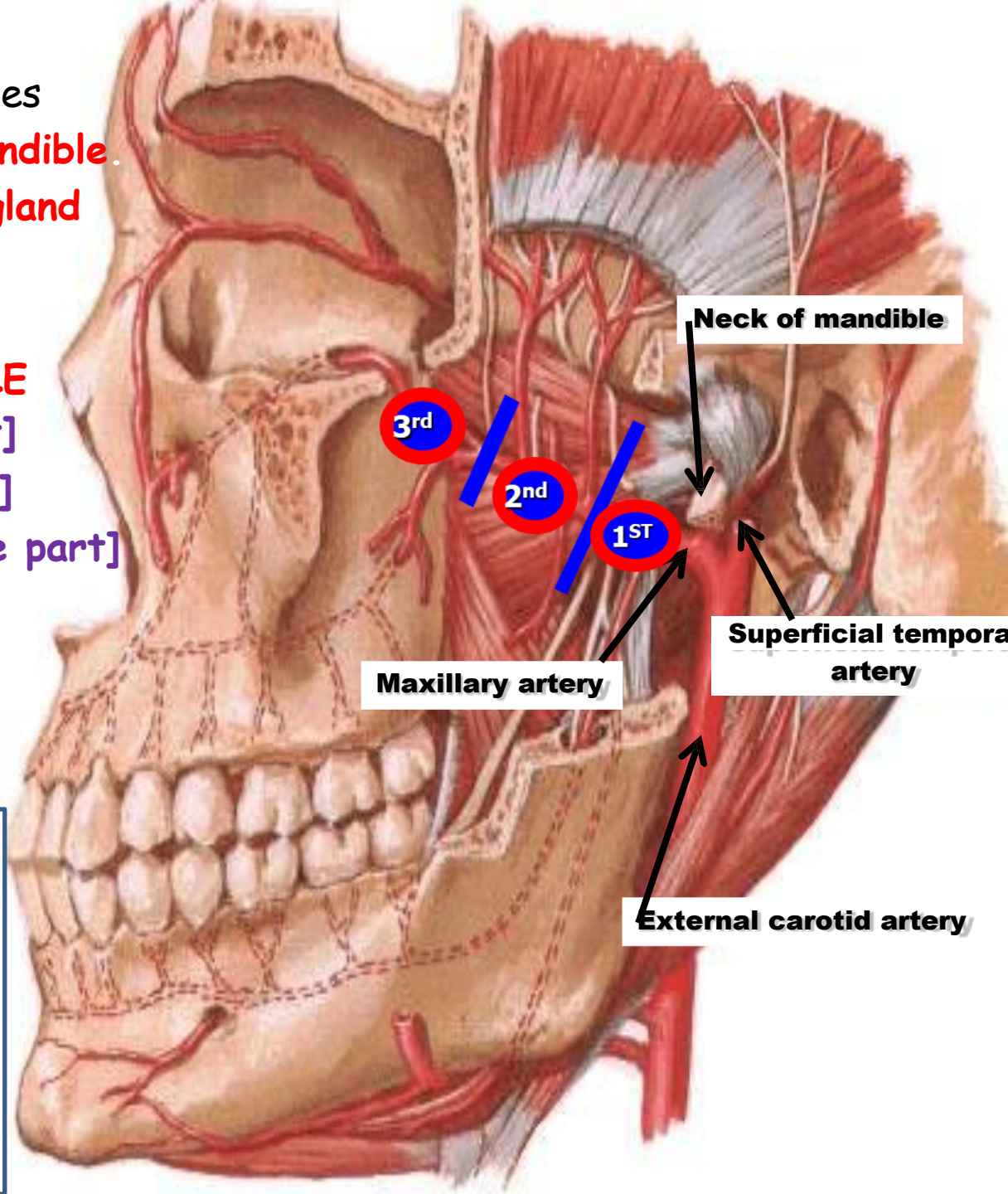
2=second part:[pterygoid part]

3=third part:[pterygo-palatine part]

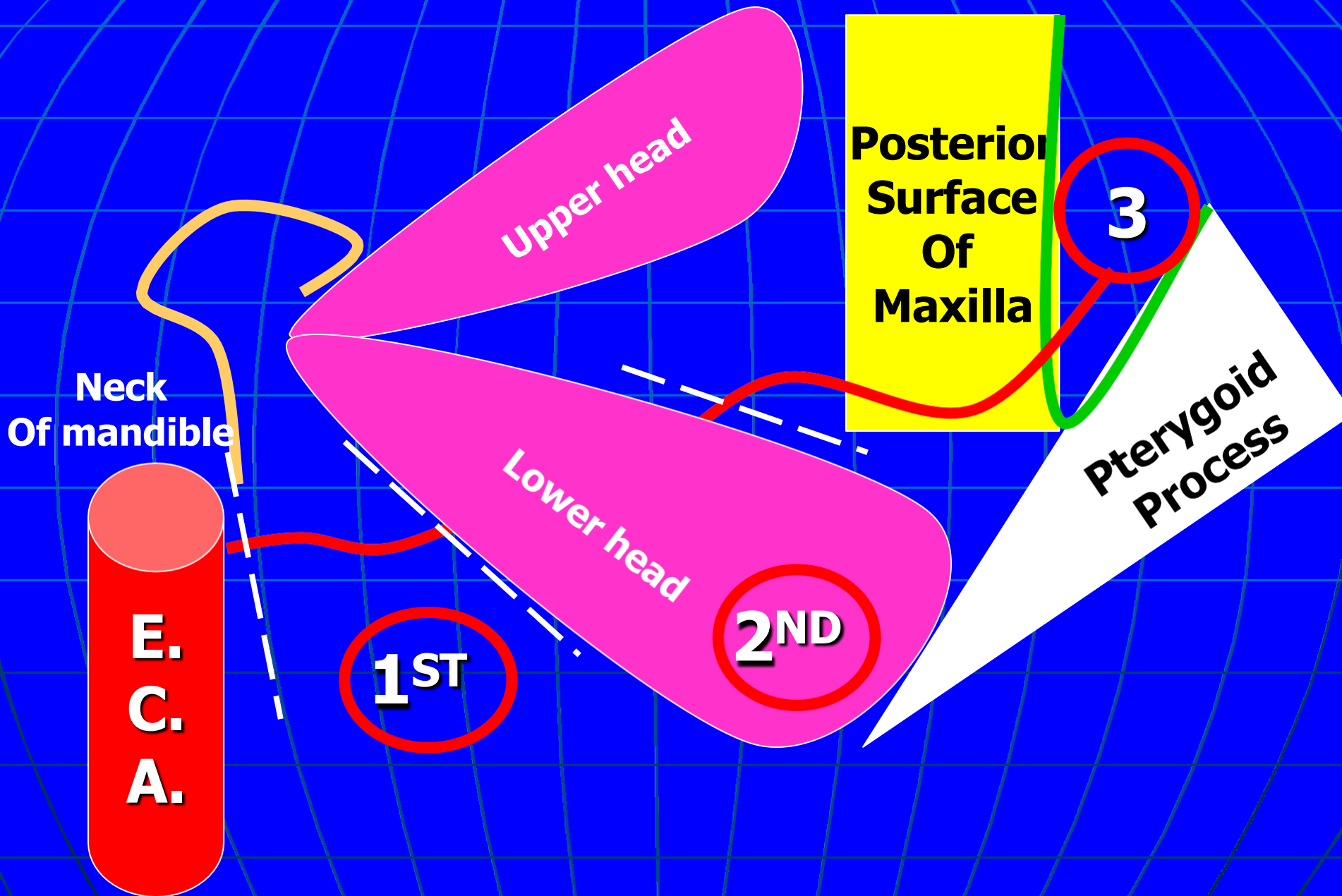
3- TERMINATION:-

CONTINUES AS

sphenopalatine artery



- What is the terminal branch of maxillary nerve ?
Infraorbital N
- What is the terminal branch of maxillary artery ?
SphenoPalatine artery.



1-first part [mandibular part]:miada

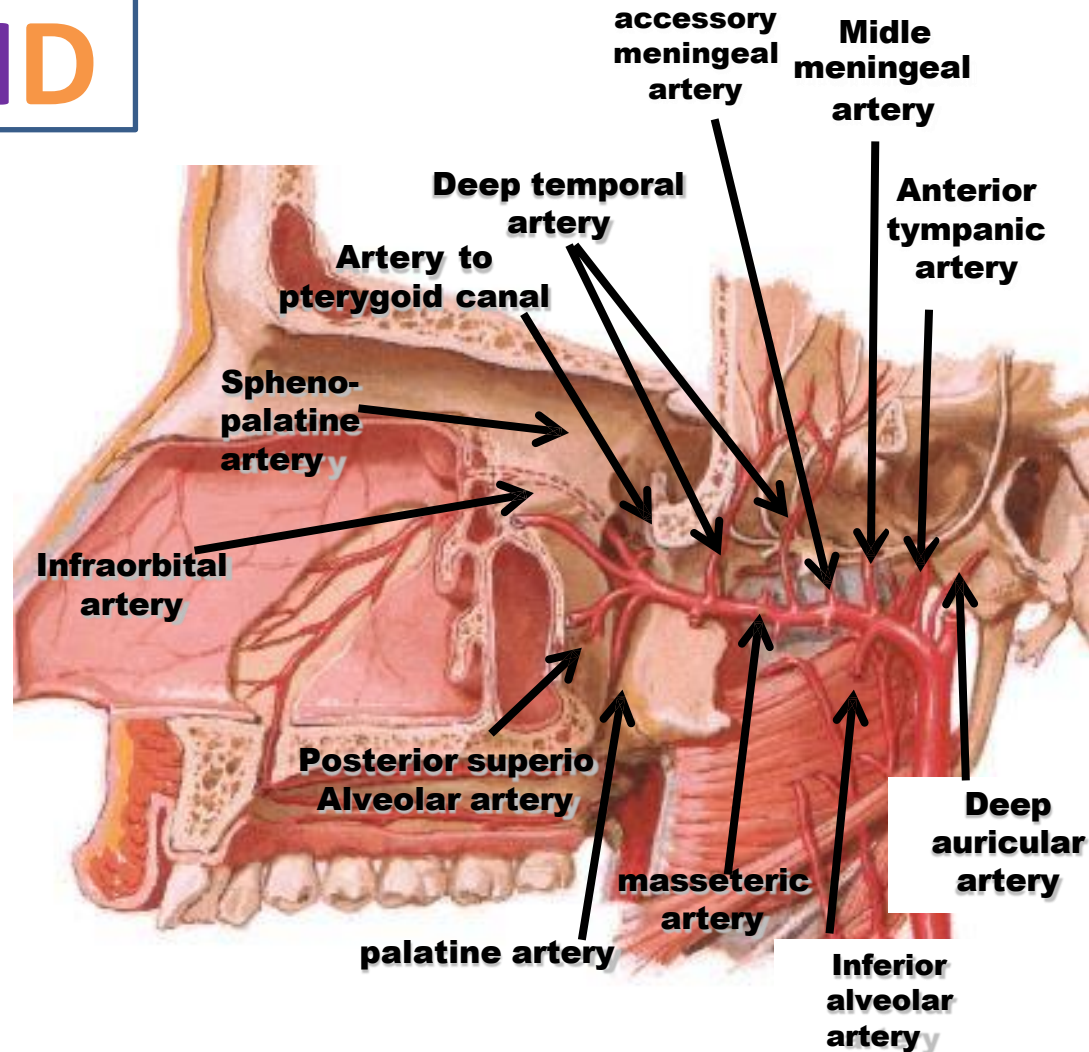
- 1→ **D**eep auricular:
- 2→ **A**nterior tympanic:.
- 3→ **M**iddle meningeal:
- 4→ **A**ccessory meningeal:
- 5→ **I**nferior alveolar: Branches
 - a. Myloheid artery
 - b. Dental arteries
 - c. Mental artery

MAID

2 second part [pterygoid part]:-

- 1→ **P**terygoid:
- 2→ **M**asseteric:
- 3→ **B**uccal:
- 4→ **D**eep temporal:

**Make Dinner
Before Party**



3 third part [pterygo-palatine

1→ **Posterior superior alveolar**: supplies the upper molar and premolar teeth.

2→ **Infra-orbital artery**

- **Orbital branches**: extraocular muscles.
- **Anterior superior alveolar**: upper incisors and canine teeth.
- **Terminal branches**: in the face.

3→ **Palatine**. [**Greater pal.**]: supply the nose.

4→ **Pterygoid canal Artery** : Supplies the nasopharynx

5→ **Pharyngeal artery**: Supplies the nasopharynx

6→ **Spheno-palatine artery**: supply the nose.



PeppA PIGS

**Meninges in middle
cranial fossa**

F. O.

**1*Accessory
meningeal**

F.S.

**2*Middle
meningeal**

**inner surface
of Tympanic
membrane**

S.T.F.

**3*Anterior
tympanic**

**1.skin of E.A.M..
2.outer surface.
tympanic mem.**

External auditory meatus

E.A.M.

**4*Deep
auricular**

1st part of maxillary artery

Man. F.

**5*Inferior
alveolar**

**1.Mylohyoid artery.
2.Lower teeth.
3.Mental artery**

Men.F.

**pterygoid
branch**

**2*Masseteric
branch**

**3*Buccal
branch**

**4*Deep temporal
branches**

2nd part of maxillary artery

Anterior division of mandibular nerve