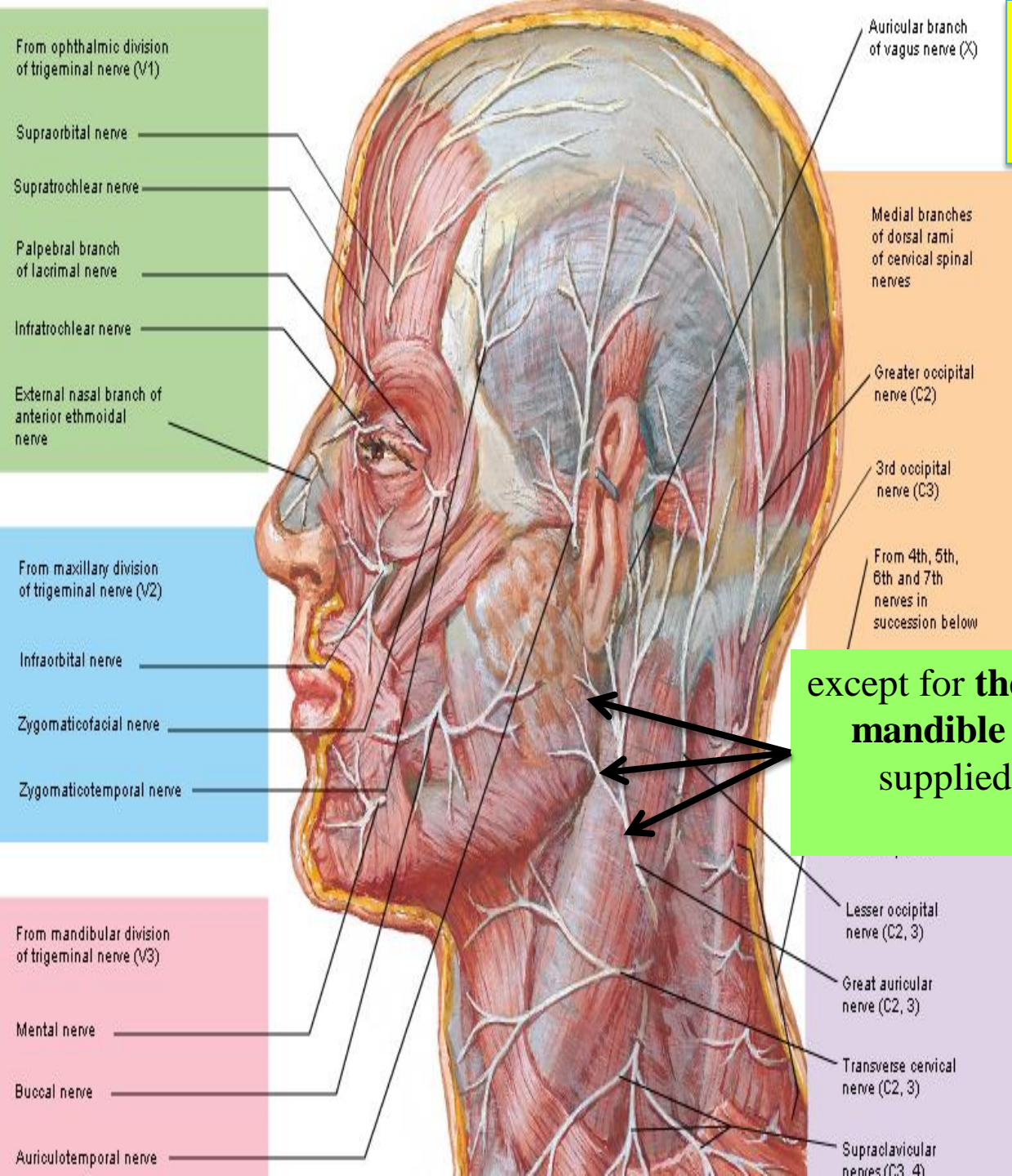


Sensory Nerves of the Face

The skin of the face is supplied by branches of:

the three divisions of the trigeminal nerve

except for the small area over the angle of the mandible and the parotid gland which is supplied by ***the great auricular nerve (C2 and 3)***.



Ophthalmic Nerve

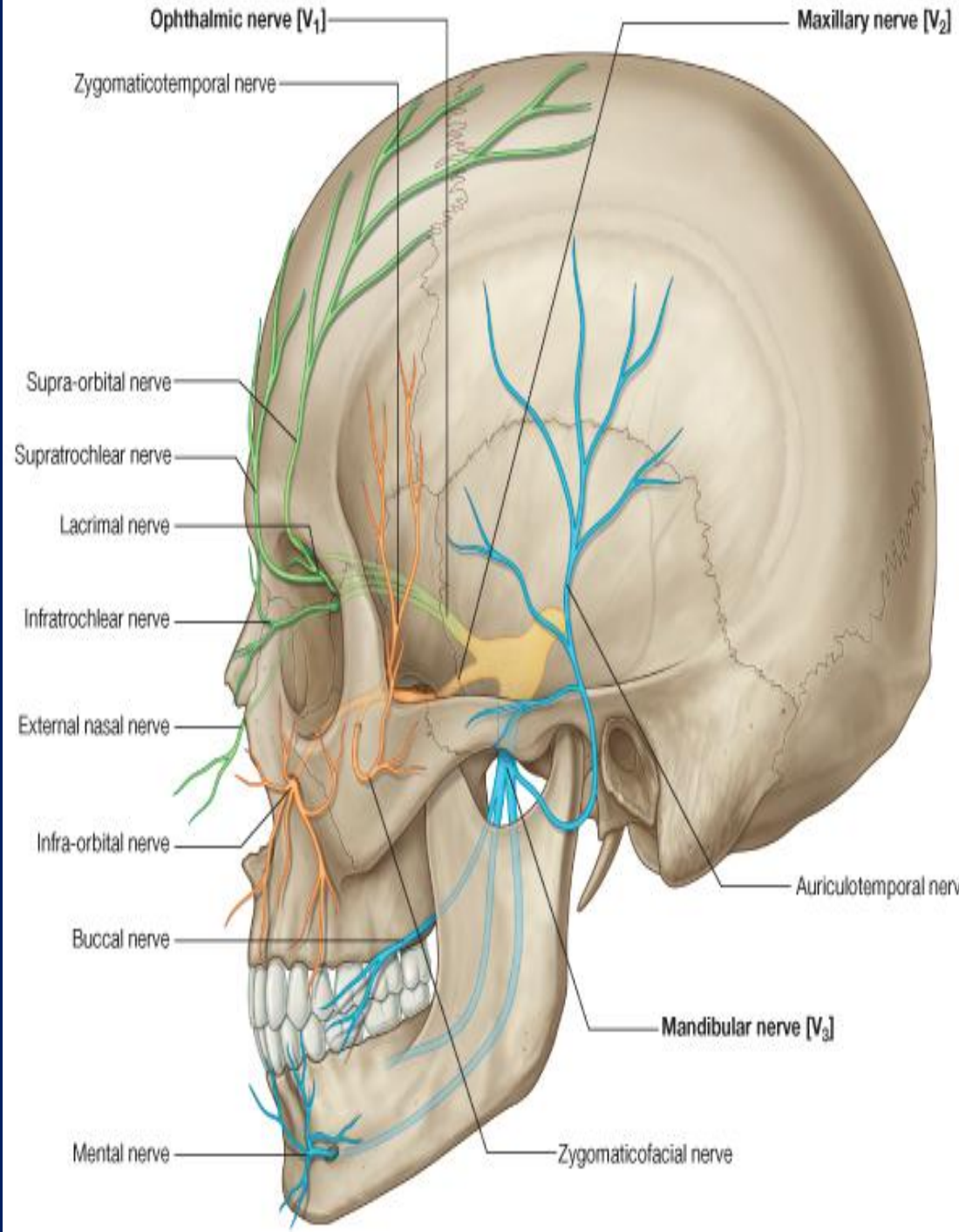
A-Frontal nerve:

1-The supratrochlear nerve

supplies the skin and conjunctiva on the medial part of the upper eyelid and the skin over the lower part of the forehead, close to the median plane.

2-The supraorbital nerve

supplies the skin and conjunctiva on the central part of the upper eyelid; it also supplies the skin of the forehead



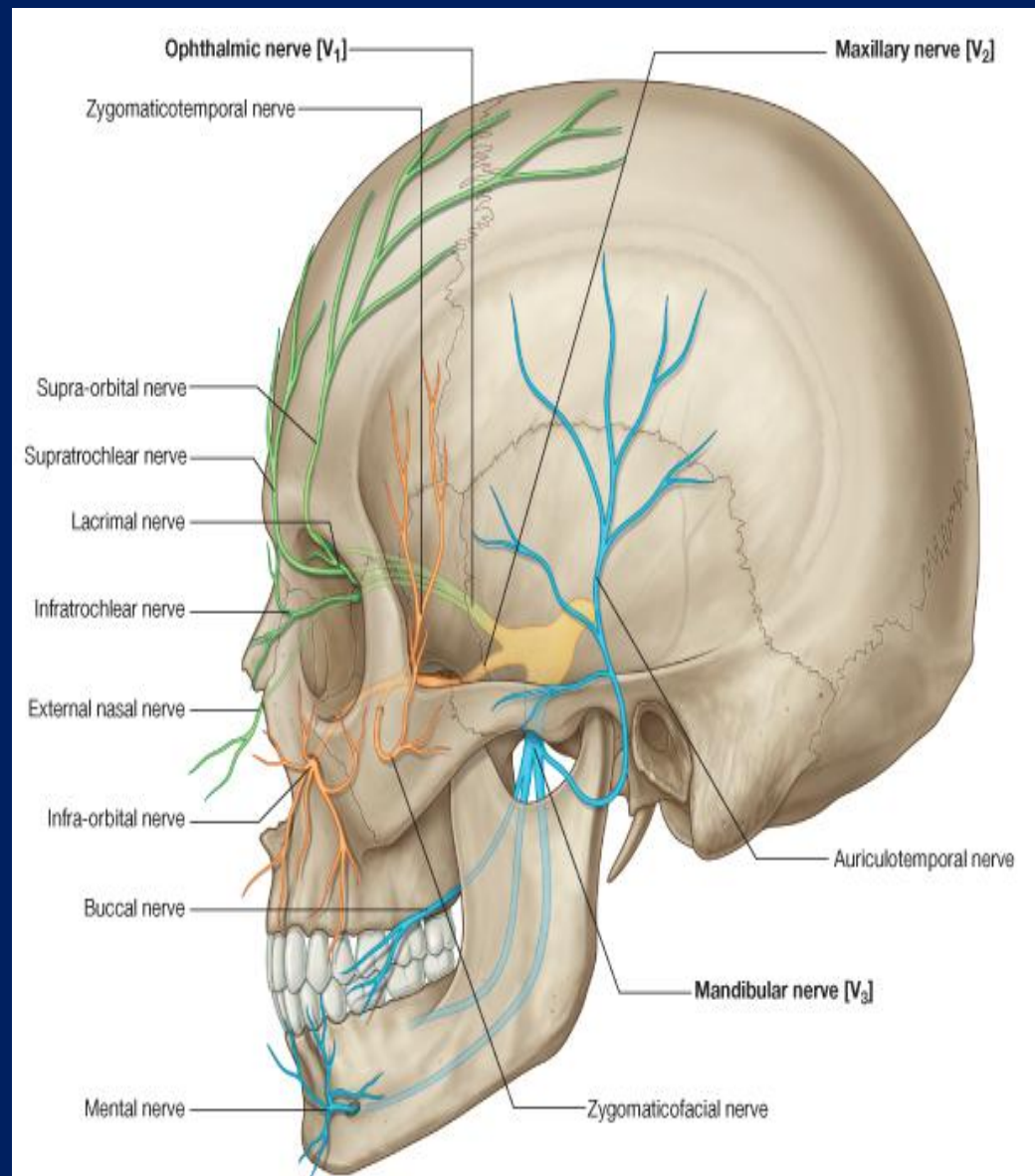
B-The lacrimal nerve supplies the skin and conjunctiva of the lateral part of the upper eyelid

C- Nasociliary nerve

1-The infratrochlear nerve

It supplies the skin and conjunctiva on the medial part of the upper eyelid and the adjoining part of the side of the nose

2-The external nasal nerve It supplies the skin on the side of the nose down as far as the tip



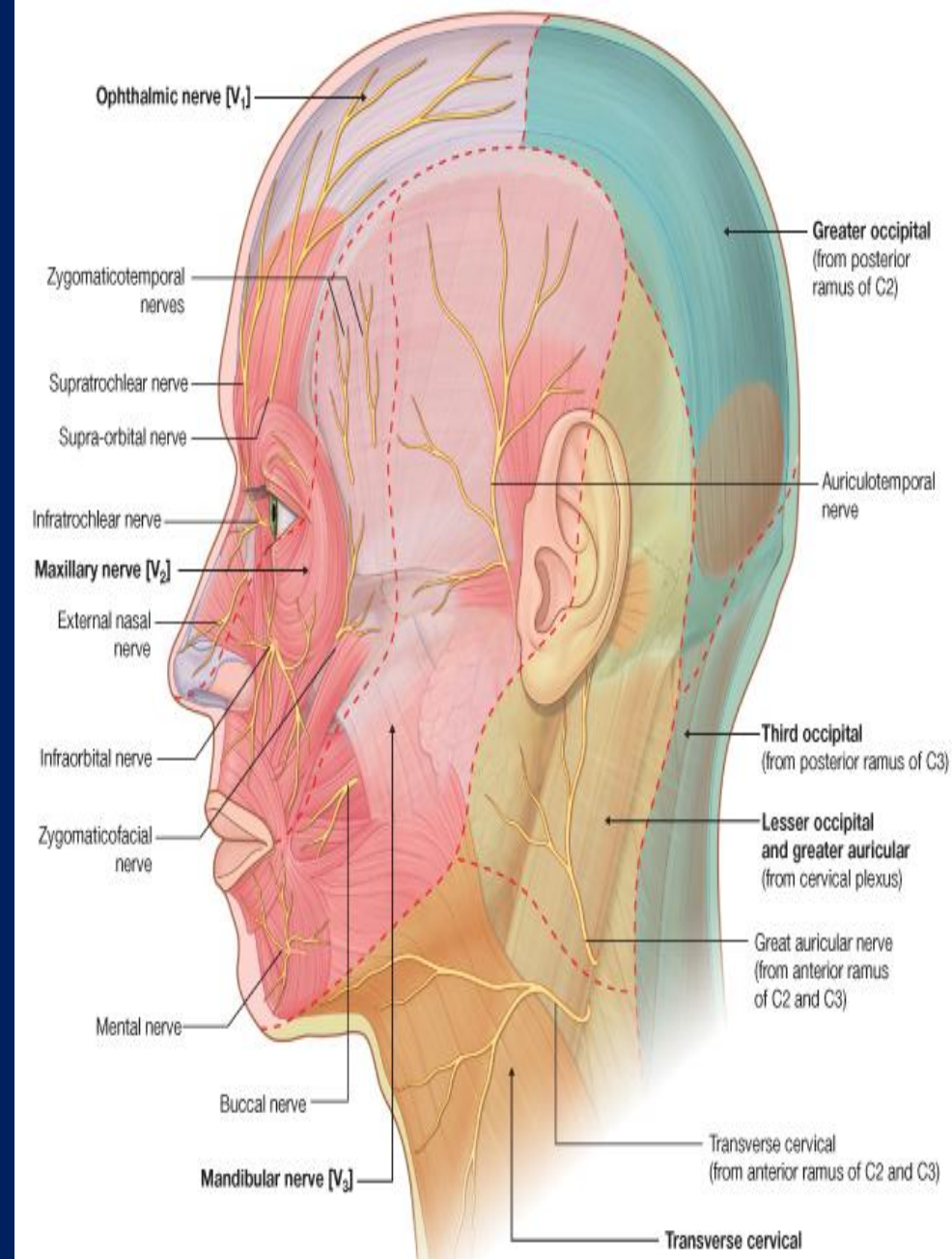
Maxillary Nerve

Three branches of the nerve pass to the skin.

1-The infraorbital nerve

is a direct continuation of the maxillary nerve. It enters the orbit and appears on the face through the infraorbital foramen.

It immediately divides into numerous small branches, which radiate out from the foramen and supply the skin of the lower eyelid and cheek, the side of the nose, and the upper lip

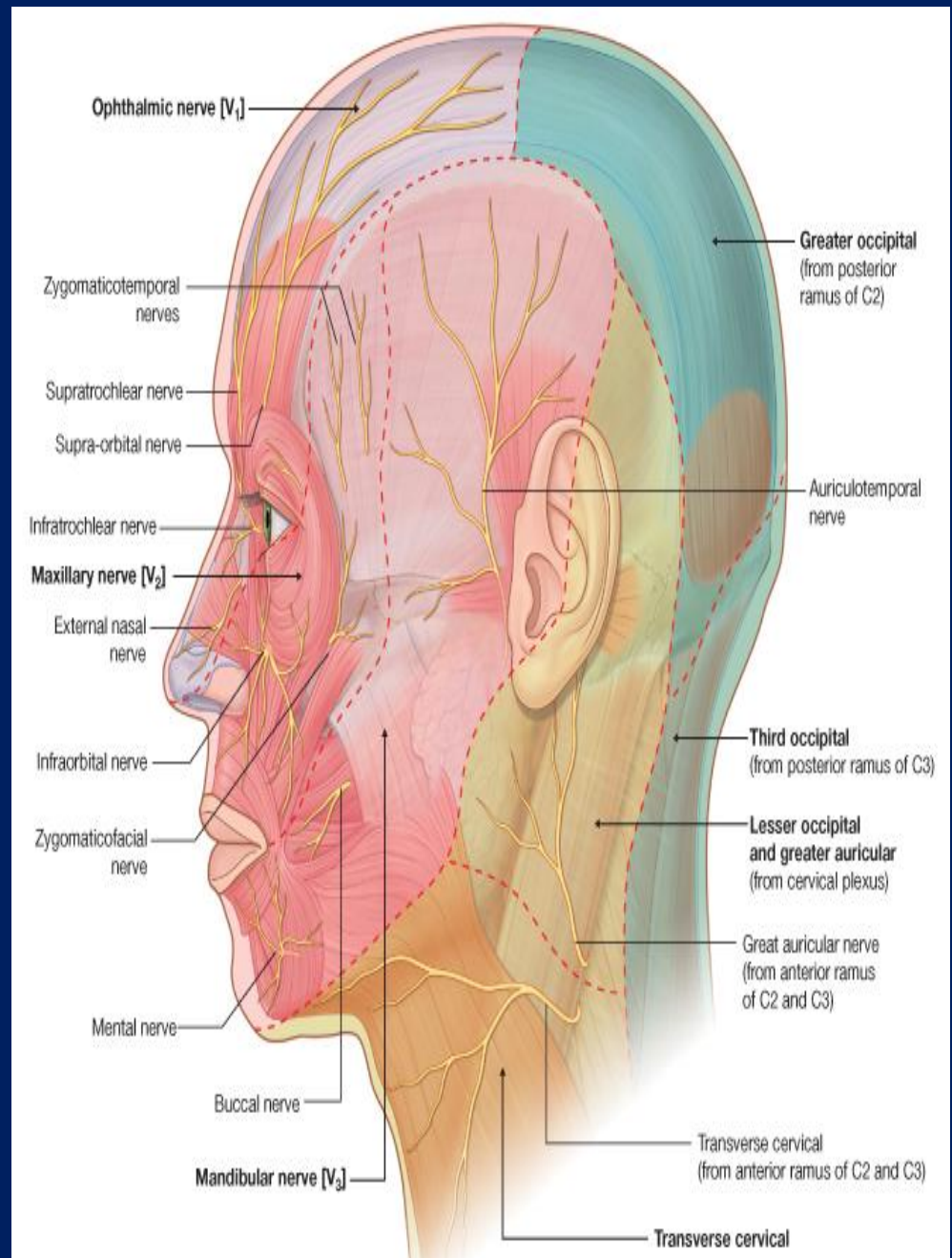


2-The zygomaticofacial nerve

passes onto the face through a small foramen on the lateral side of the zygomatic bone. It supplies the skin over the prominence of the cheek

3-The zygomaticotemporal nerve

emerges in the temporal fossa through a small foramen on the posterior surface of the zygomatic bone. It supplies the skin over the temple

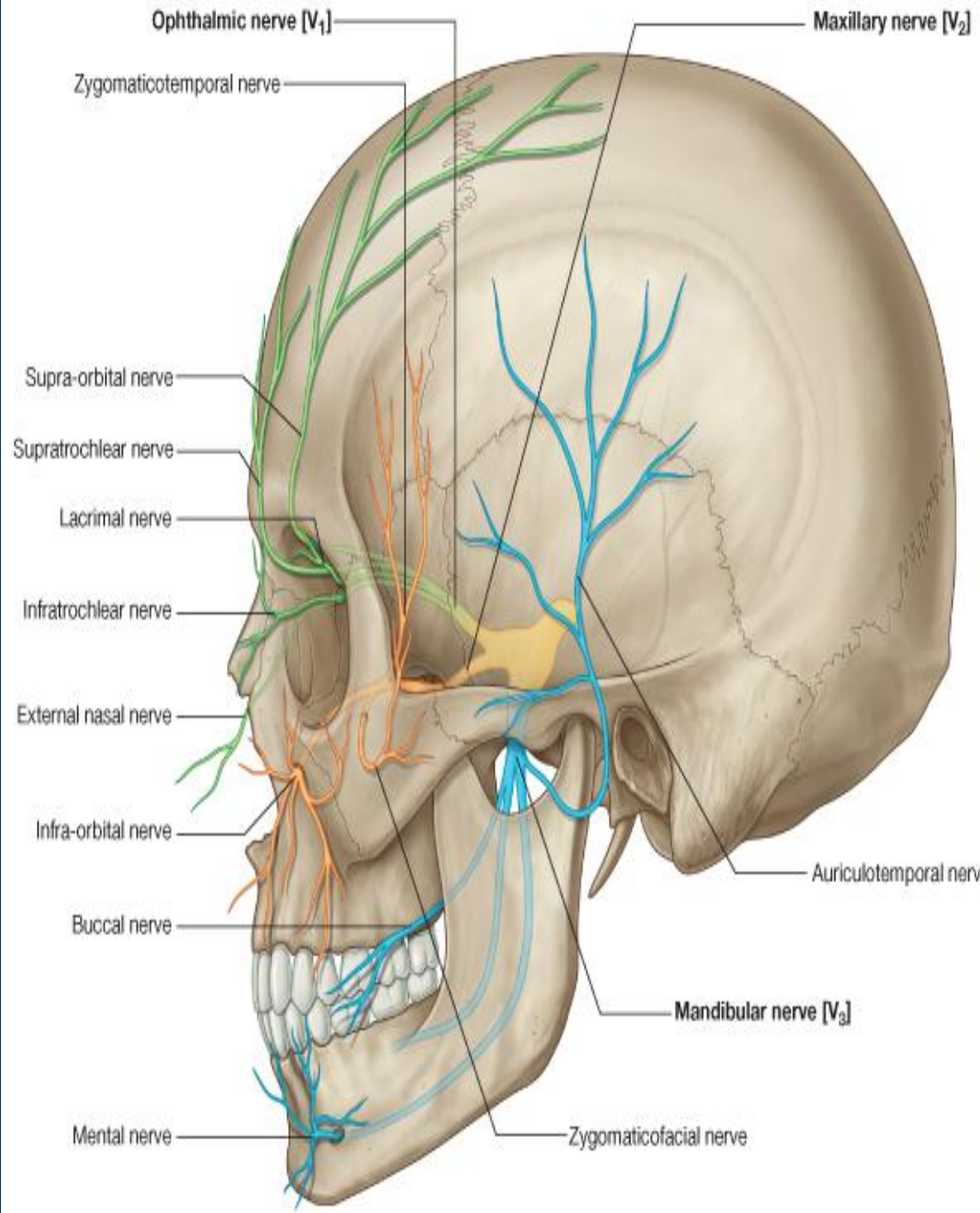


Mandibular Nerve

The mandibular nerve supplies the skin of the lower lip, the lower part of the face, the temporal region, and part of the auricle

- 1-The mental nerve** emerges from the mental foramen of the mandible
- 2-The buccal nerve**
- 3-The auriculotemporal nerve**

It supplies the skin of the auricle, the external auditory meatus, the outer surface of the tympanic membrane, and the skin of the scalp above the auricle

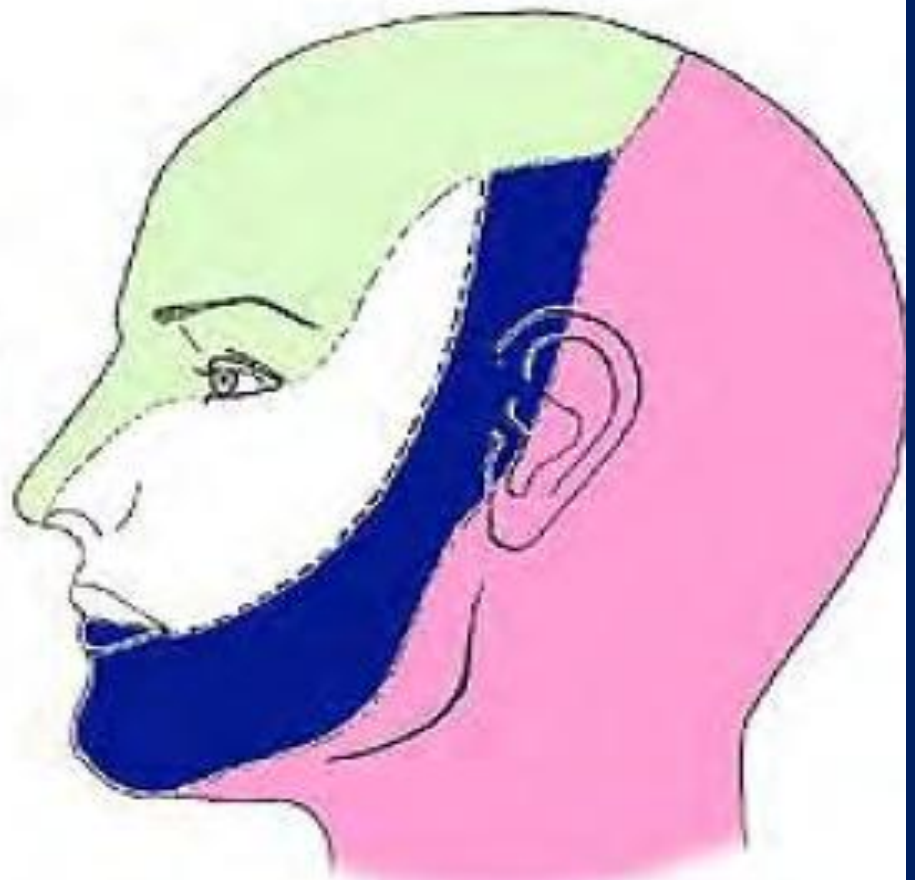


V₁

V₂

V₃

C2,3



V₂

V₁

Zygomaticotemporal n.

Zygomatofacial n.

Infraorbital n.

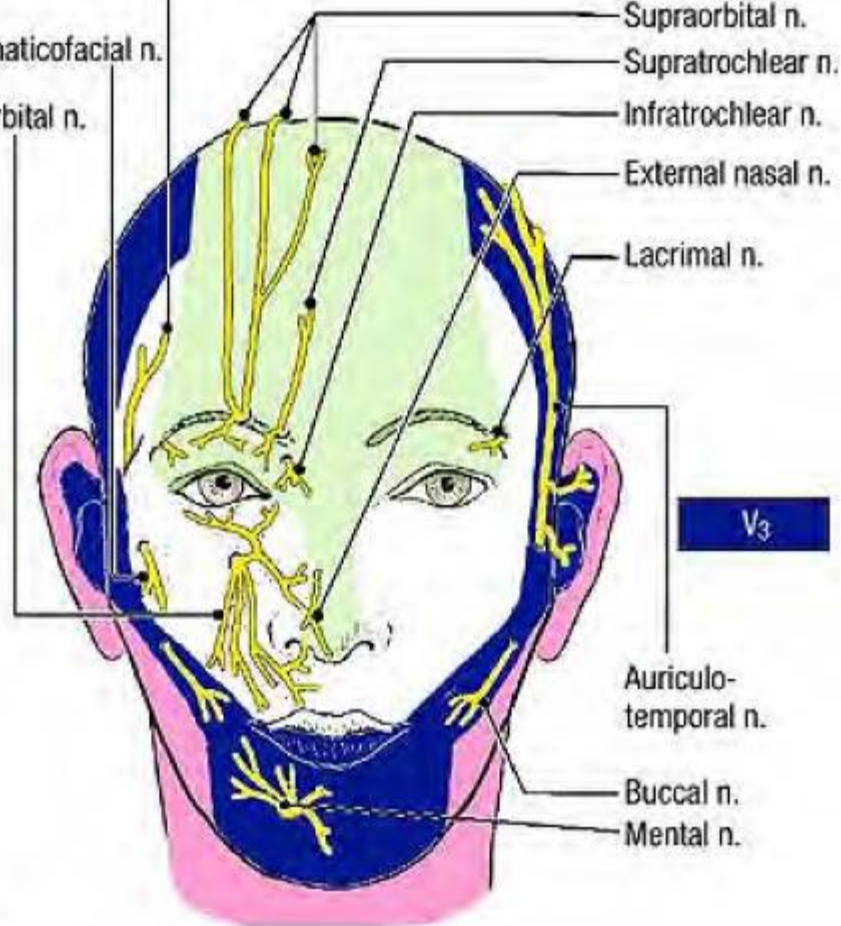
Supraorbital n.

Supratrochlear n.

Infratrochlear n.

External nasal n.

Lacrimal n.



V₃

Auriculo-temporal n.

Buccal n.

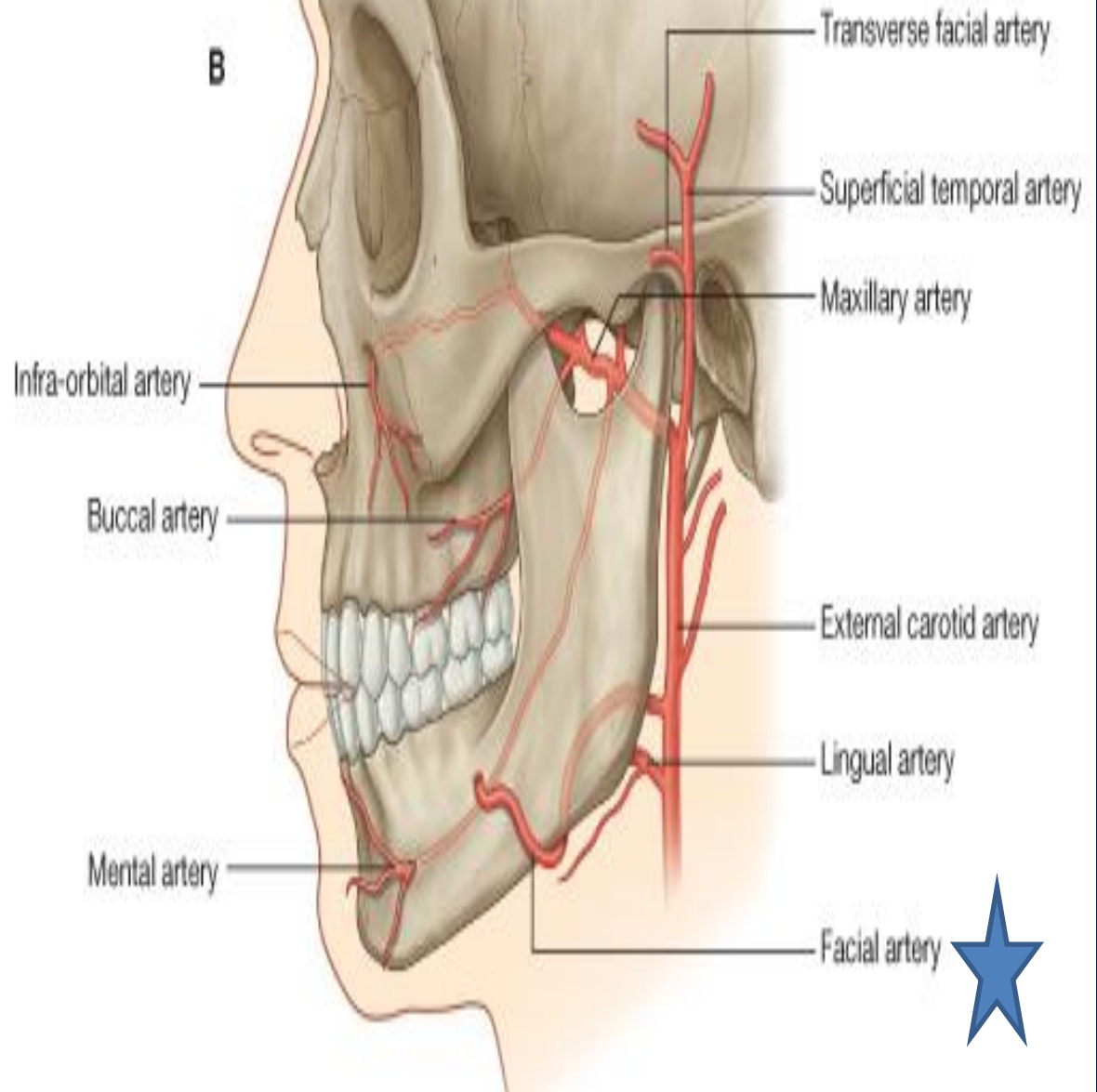
Mental n.

C2-3

Arterial Supply of the Face

The face receives a rich blood supply from two main vessels:

- 1-The facial artery
- 2-Superficial temporal artery



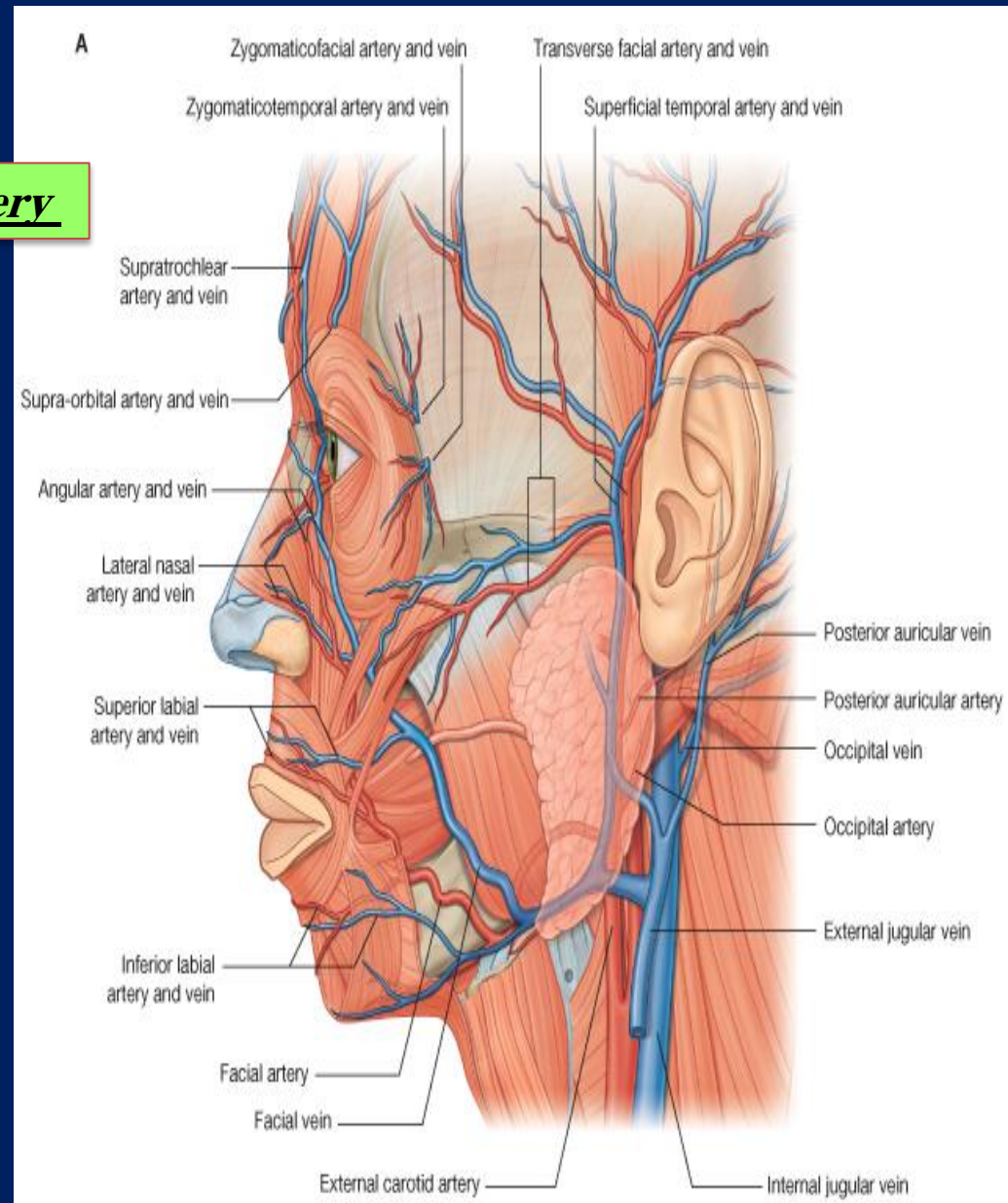
The facial artery

➤ Arises from the external carotid artery

Ascends over the submandibular salivary gland

➤ It curves around the inferior margin of the body of **the mandible**

➤ Passes on and in front of the anterior border of the masseter muscle (pulse)



➤ It runs upward **in a tortuous** course toward the angle of the mouth

➤ It then ascends deep to the zygomaticus muscles and runs along ***the side of the nose to the medial angle of the eye***, where it anastomoses with the terminal branches of ***the ophthalmic artery***

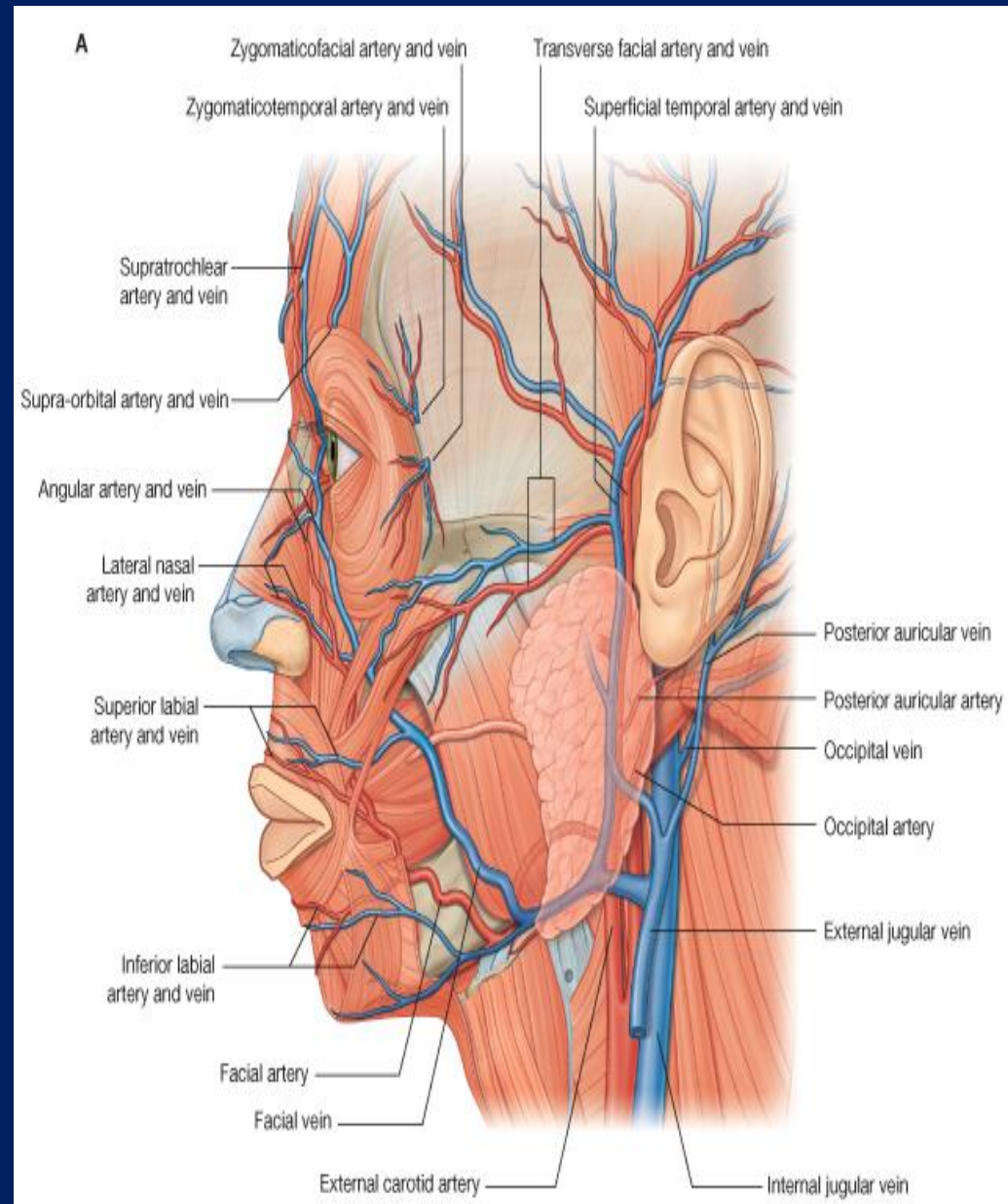
Branches

Anterior branches which are large and named while the posterior are small and unnamed

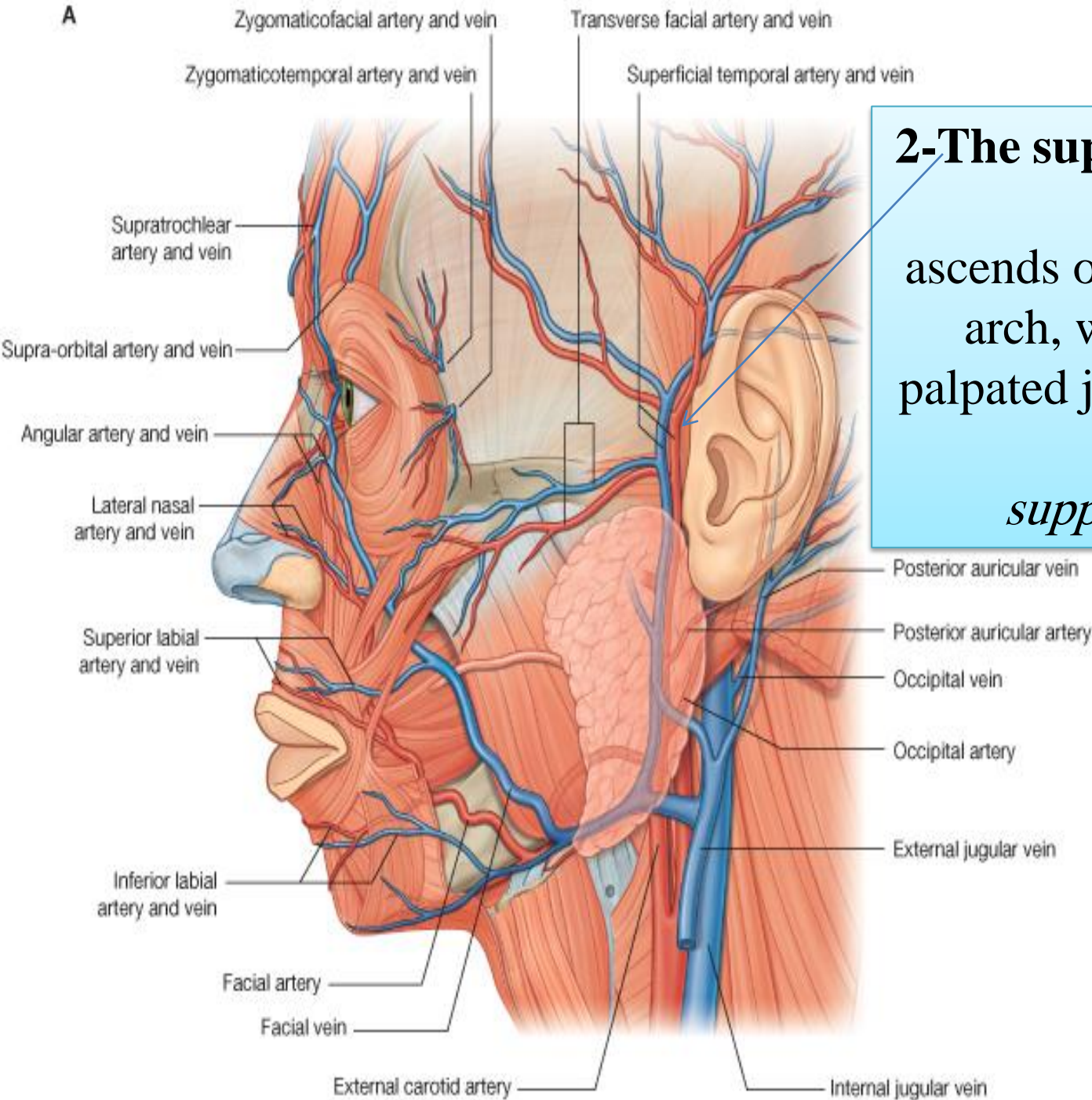
The inferior labial artery supplies ***the lower lip***.

The superior labial artery supplies ***the upper lip***

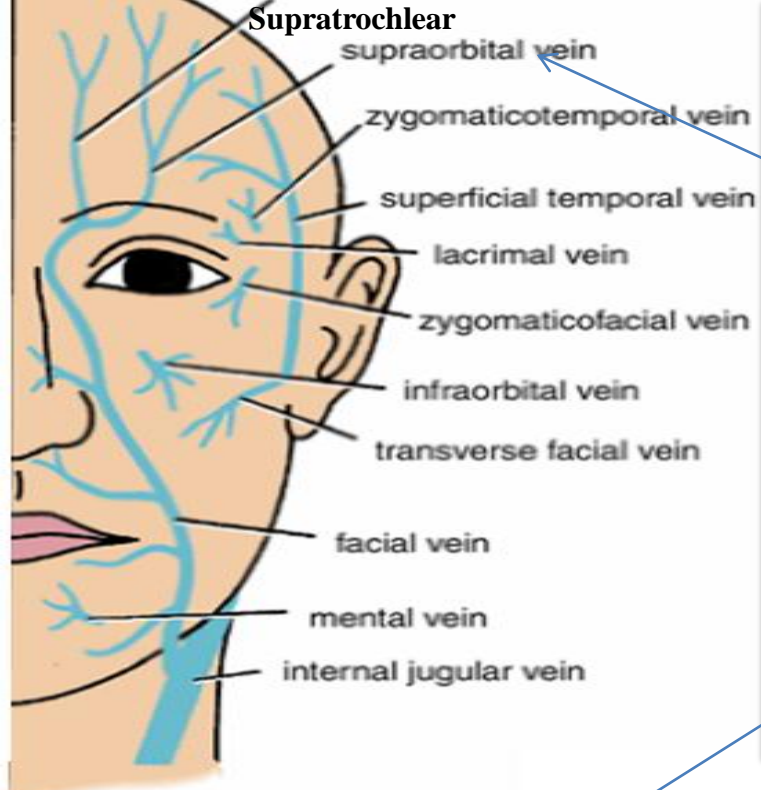
The lateral nasal artery supplies the skin ***on the side and dorsum of the nose***.



A



2-The superficial temporal artery ascends over the zygomatic arch, where it may be palpated just in front of the auricle, supplies the scalp



Venous Drainage of the Face

The facial vein is formed at the medial angle of the eye by the union of

The Supraorbital and Supratrochlear veins

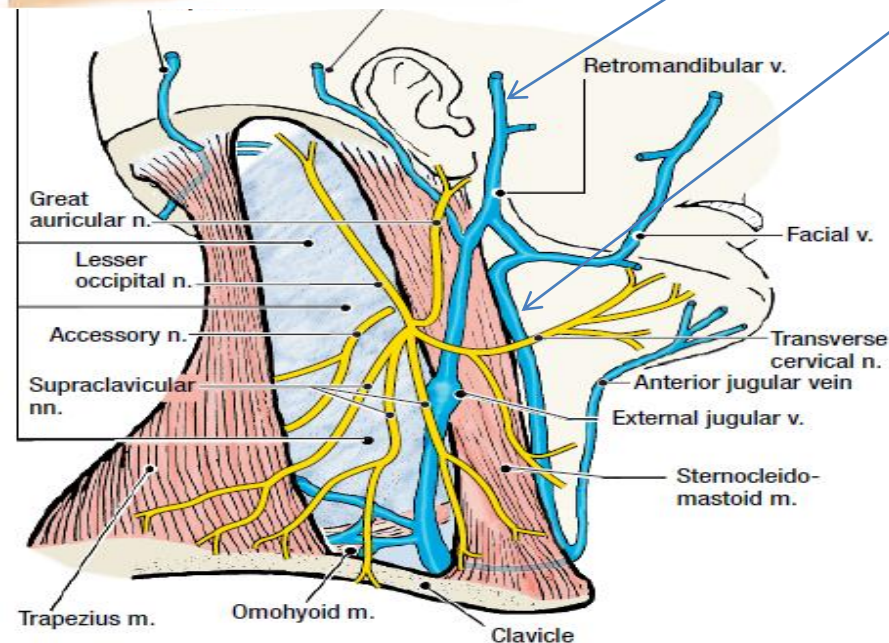
The facial vein descends behind the facial artery to the **lower margin of the body of the mandible**

It crosses superficial to the submandibular gland and is joined by the *anterior division of*

The retromandibular vein.

The facial vein ends by draining into

The internal jugular vein.



Important communications

It communicates with the pterygoid venous plexus **by the deep facial vein**

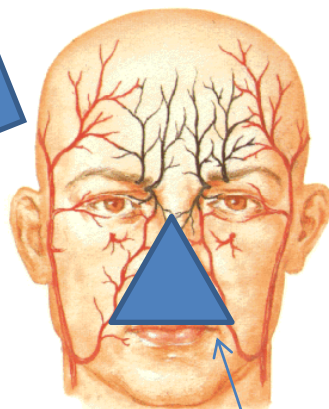
It communicates with the cavernous sinus by the **superior ophthalmic vein**

It is connected to the superior ophthalmic vein directly through the supraorbital vein.

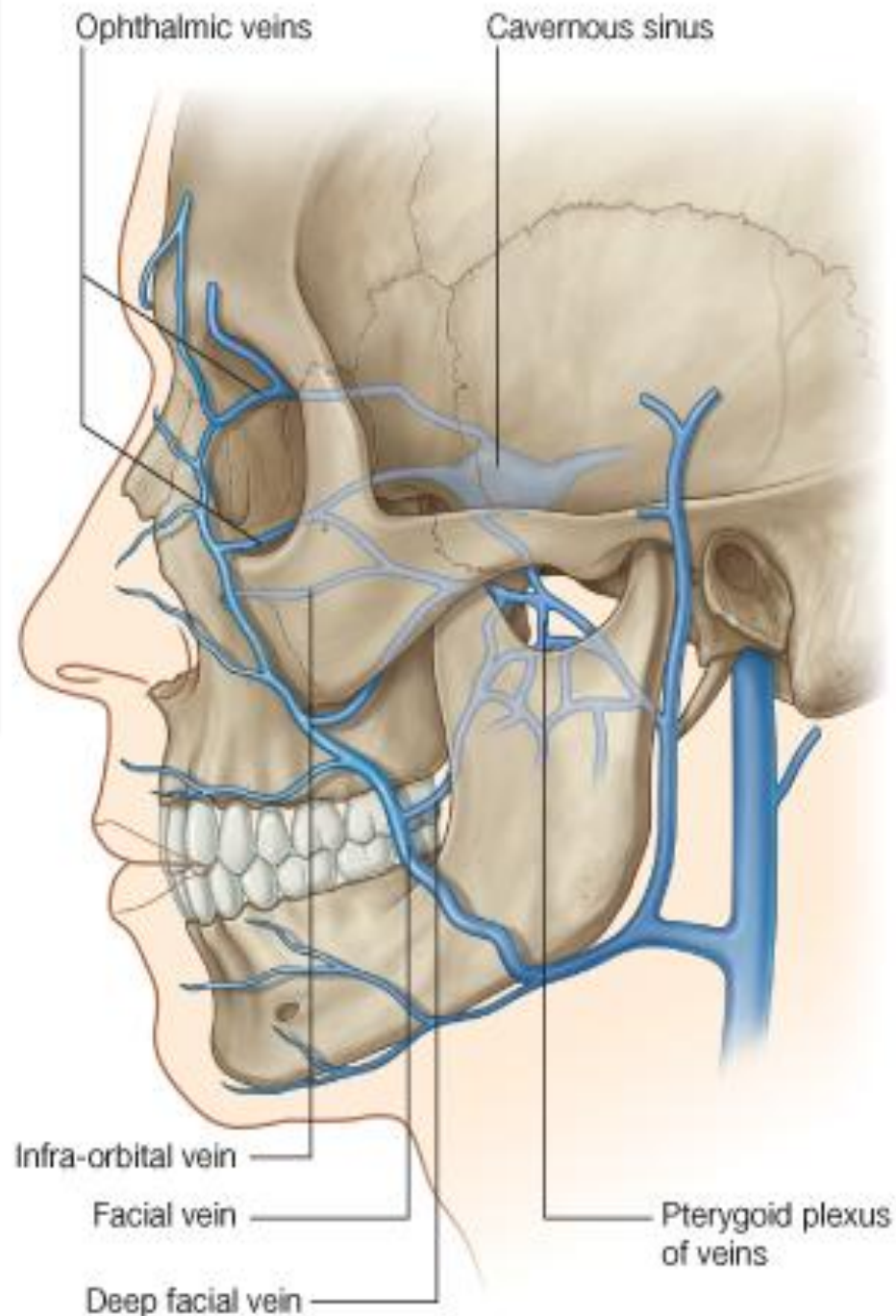
By means of the superior ophthalmic vein, the facial vein is connected to

The cavernous sinus

this connection is of great clinical importance because it provides a pathway for the spread of infection from **DANGEROUS AREA OF THE FACE** (THE LOWER PART OF THE NOSE AND THE UPPER LIP) to the cavernous sinus



Infection from the triangular area can cause **Thrombosis of the cavernous sinus**



Arterial Supply of the Scalp

The arteries lie in the superficial fascia.

A-Branches of the ophthalmic artery

1-The supratrochlear

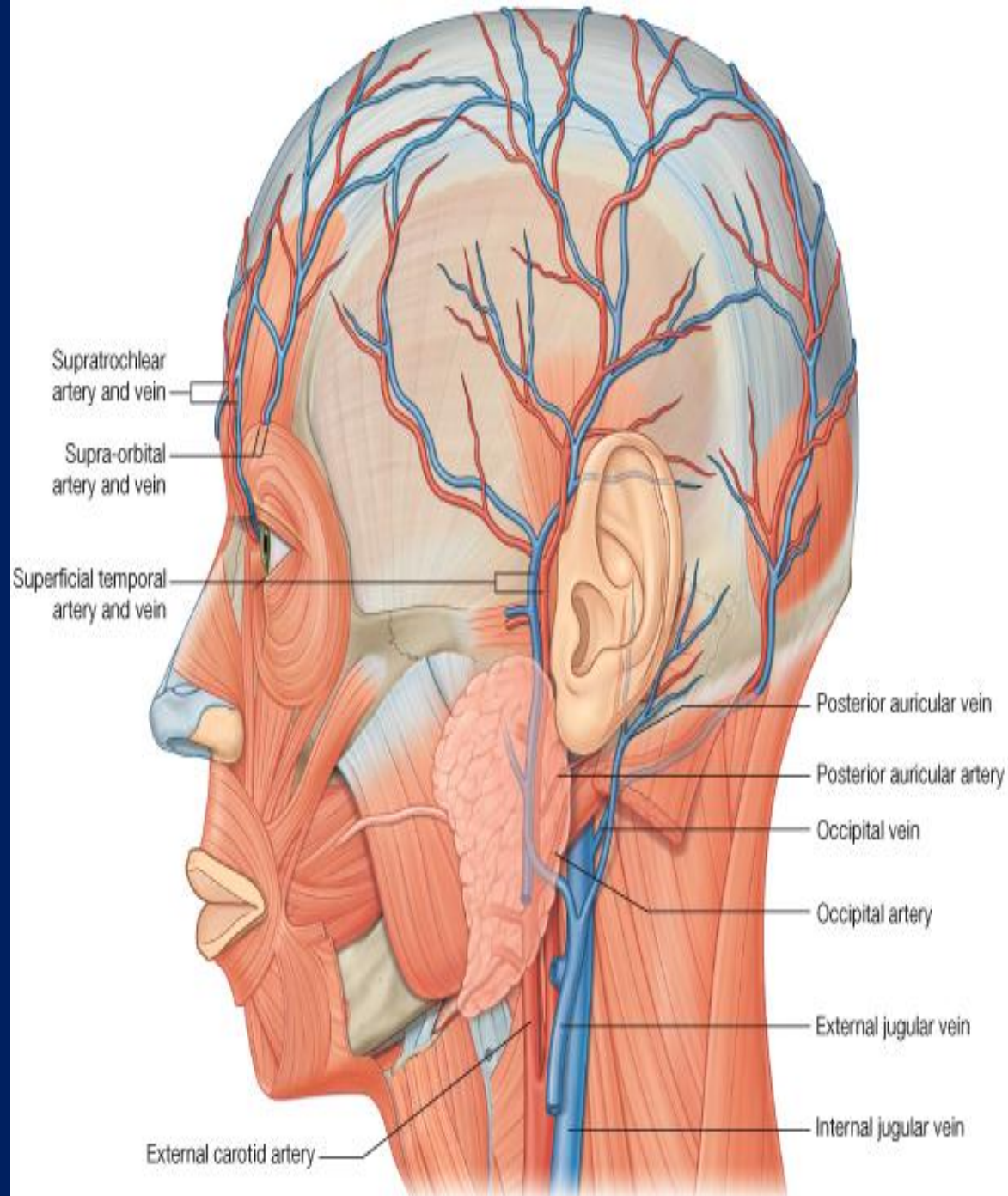
2-The supraorbital

B-Branch of the external carotid artery

The superficial temporal artery

The posterior auricular artery

The occipital artery



Anatomically, it is useful to remember in an emergency that all the superficial arteries supplying the scalp ascend from the face and the neck.

Thus, in an emergency situation, encircle the head just above the ears and eyebrows with a tie, shoelaces, or even a piece of string and tie it tight. Then insert a pen, pencil, or stick into the loop and rotate it so that the tourniquet exerts pressure on the arteries

