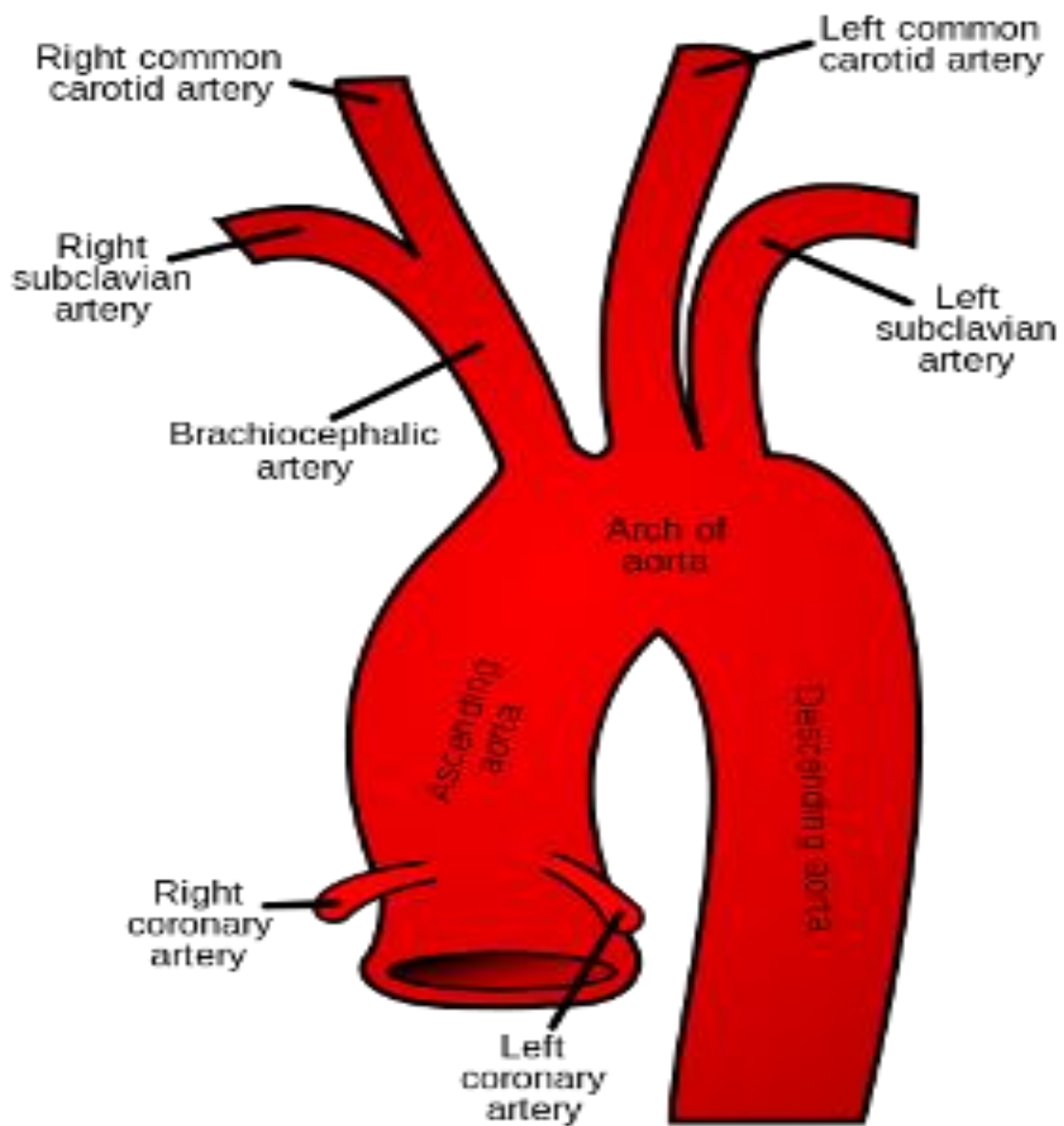


# **Maxillary artery**

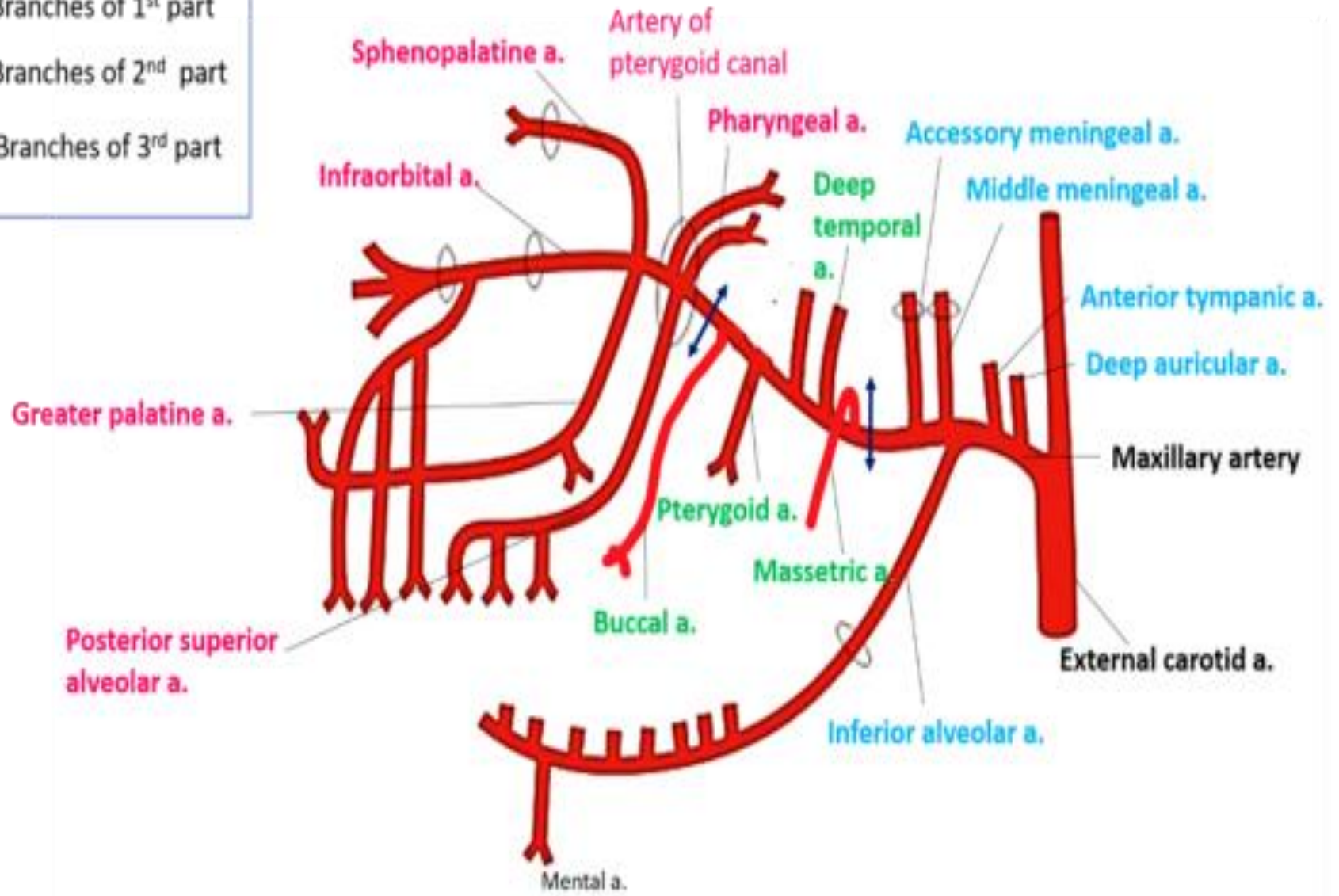
**L10**



- The maxillary artery is the larger of the two terminal branches of the external carotid artery; arises posterior to the neck of the mandible.
- Then it runs forward medial to the neck of the mandible and enters the pterygopalatine fossa of the skull. It is divided into three parts based on its relation to the lateral pterygoid muscle:

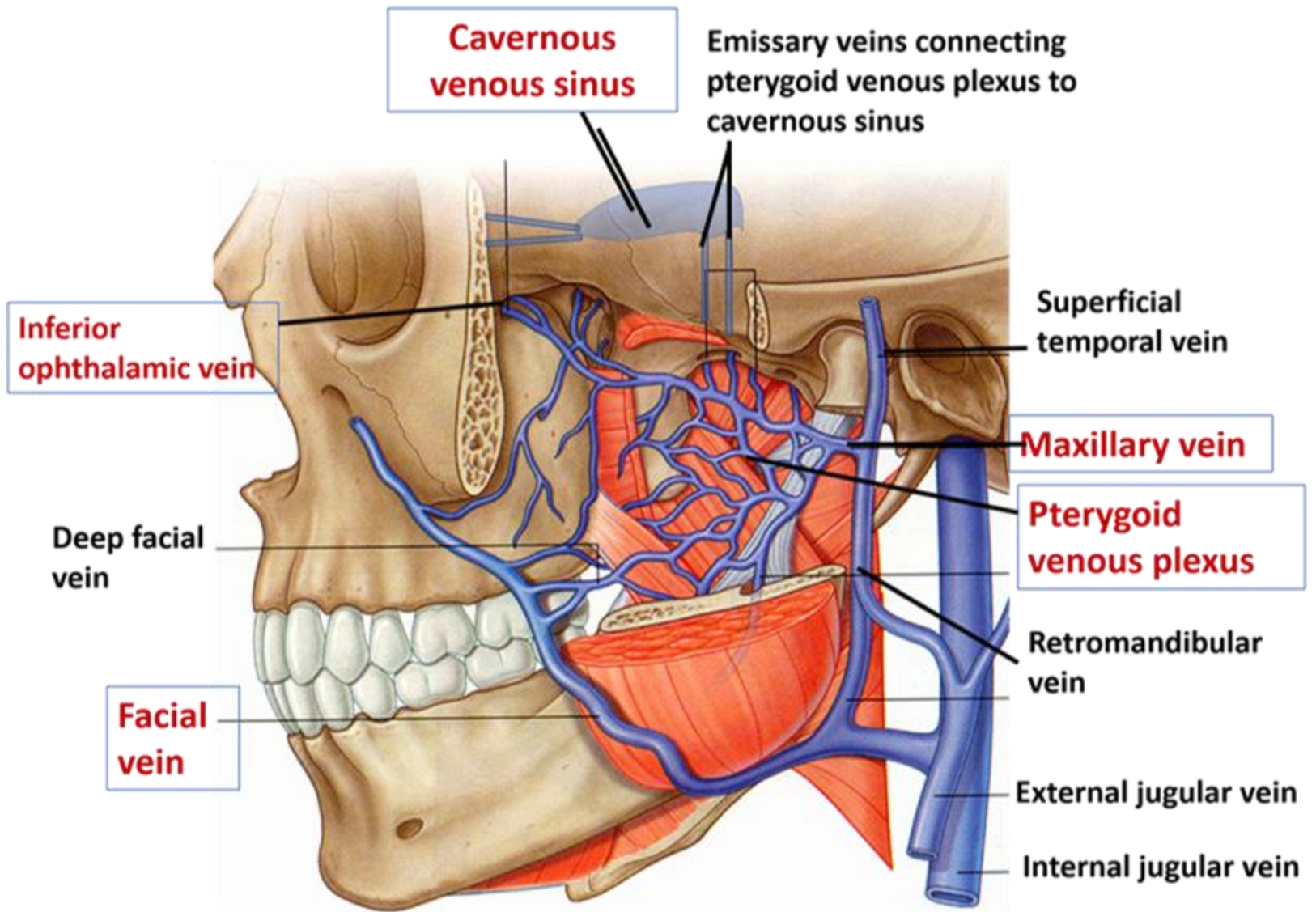
- **(Retro)mandibular**: arteries enter foramina and supply dura, mandibular teeth and gums, ear, and chin.
- **Pterygoid**: branches supply muscles of mastication and buccinator.
- **Pterygopalatine**: branches enter foramina and supply maxillary teeth and gums, orbital floor, nose, paranasal sinuses, palate, auditory tube, and superior pharynx.

- Branches of 1<sup>st</sup> part
- Branches of 2<sup>nd</sup> part
- Branches of 3<sup>rd</sup> part

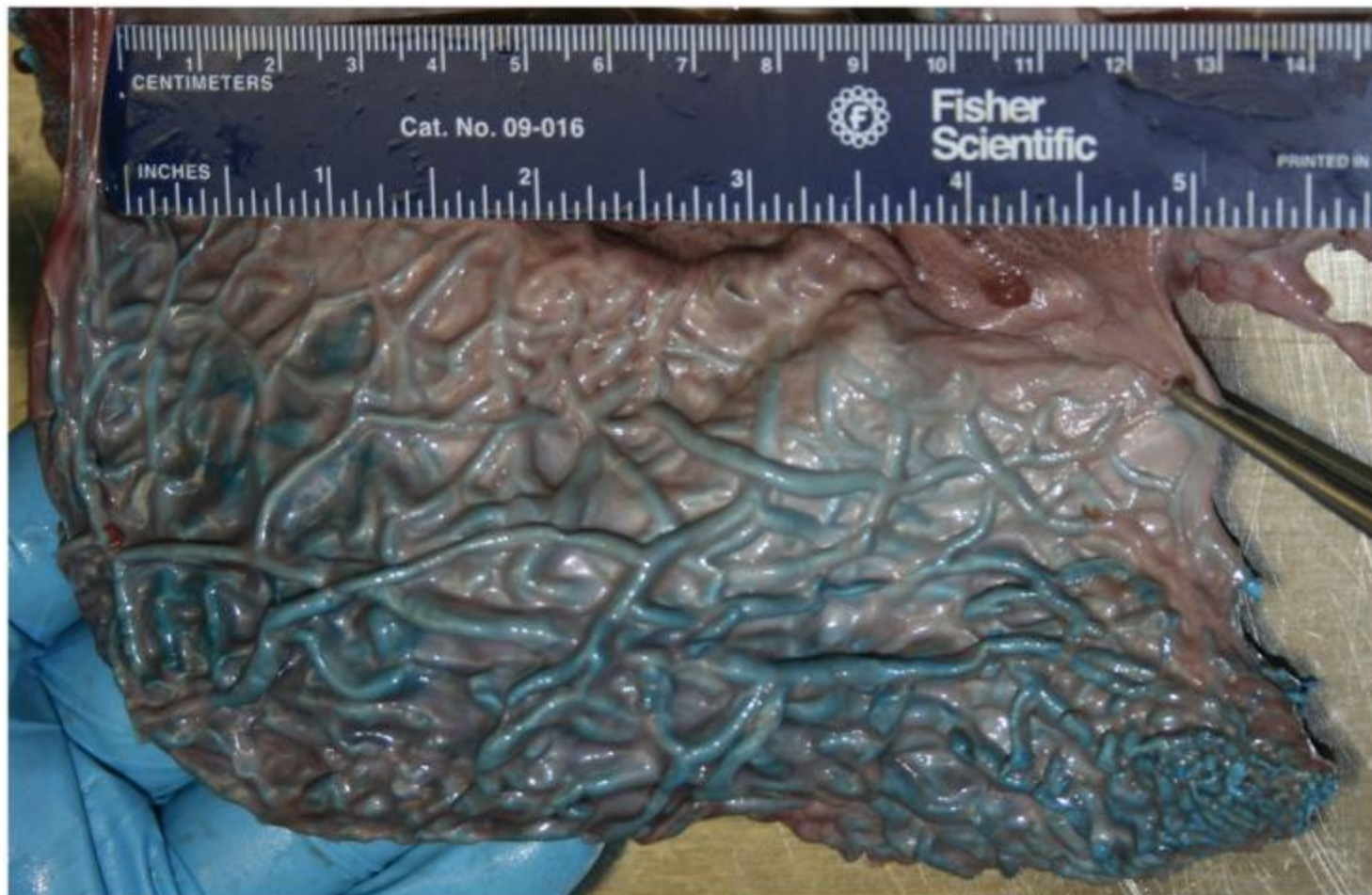


# Pterygoid Venous Plexus

- The pterygoid venous plexus is located partly between the temporalis and pterygoid muscles.
- It is the venous equivalent of most of the maxillary artery, that is, tributaries from each of the areas supplied by the branches of the maxillary artery ultimately drain into the pterygoid venous plexus and/or its principal anastomotic veins.
- These veins are valve-less, so flow can go in either direction based on gravity and pressure









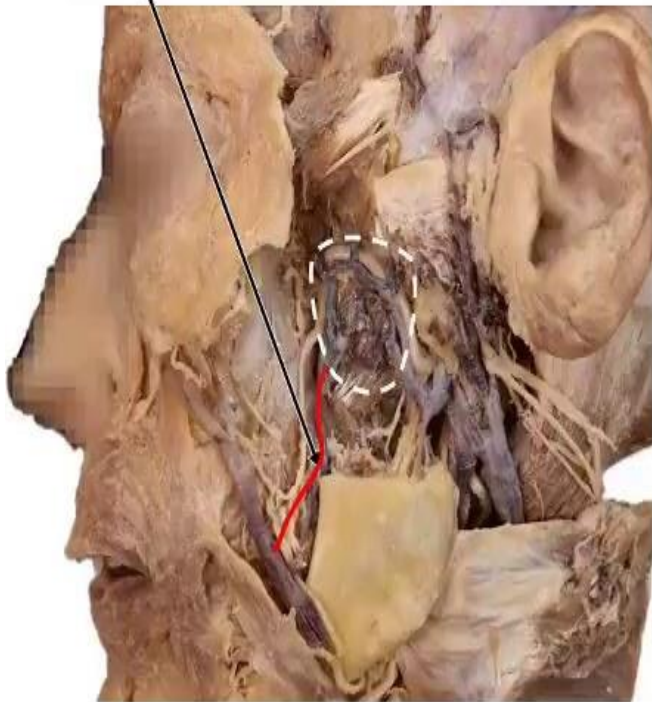
# Pterygoid Venous Plexus

- The plexus communicates with the cavernous sinus, the facial vein, the inferior ophthalmic vein and the pharyngeal plexus .
- The connections with the cavernous sinus are via **emissary veins**. The communication with the facial vein is via the **deep facial vein**.
- The inferior ophthalmic vein communicates with the pterygoid
- plexus through a **branch passing through the inferior orbital fissure**.
- The pterygoid venous plexus chiefly drains posteriorly into the **maxillary vein**.
- The maxillary vein runs with the first part of the maxillary artery, passing deep to the neck of the condyle of the mandible to enter the parotid gland.
- Here, it joins the superficial temporal vein to form the retromandibular vein.

# Pterygoid Venous Plexus

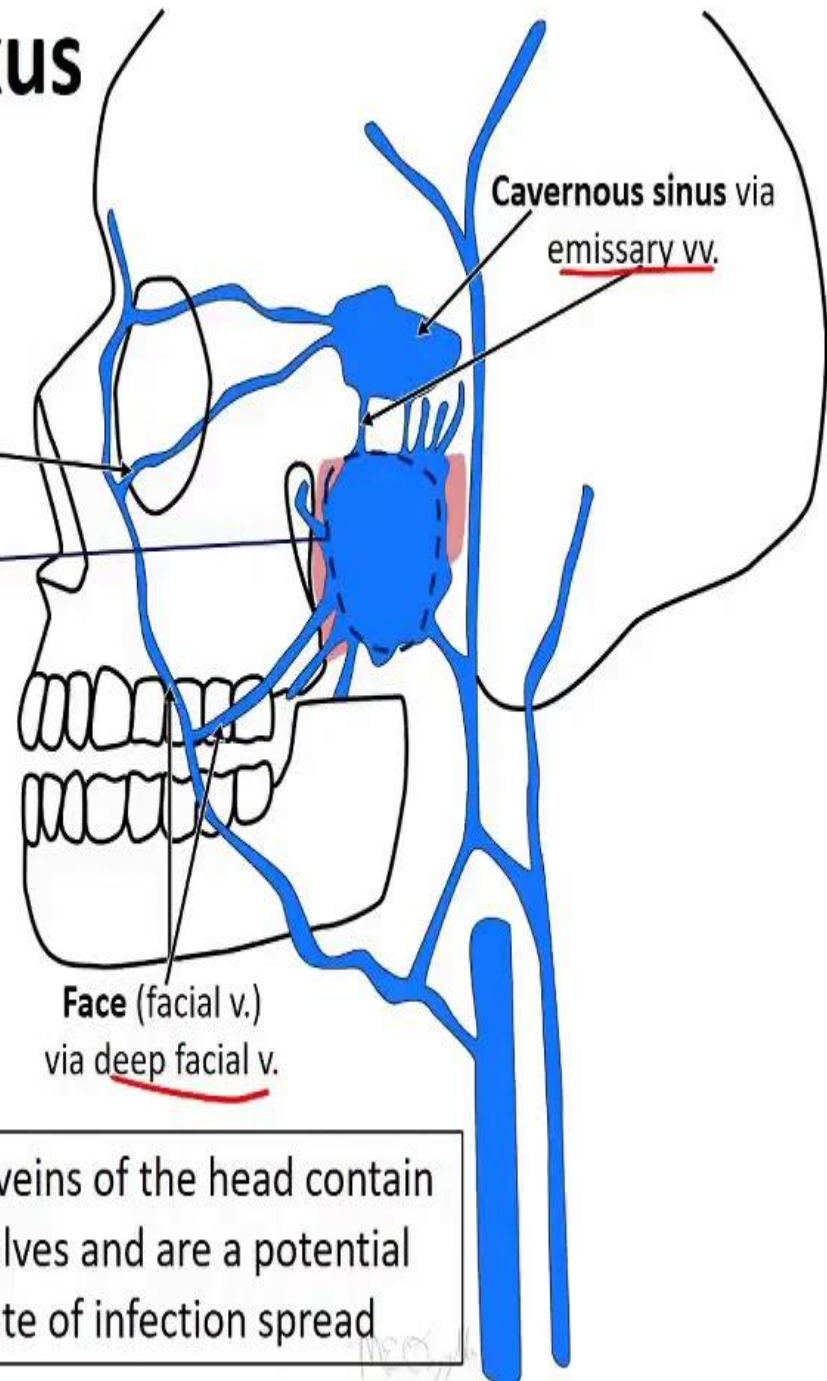
Communications with the orbit,  
cavernous sinus, & face

Deep facial v.



Orbit via  
inferior ophthalmic v.

Pterygoid venous plexus



Many veins of the head contain  
no valves and are a potential  
route of infection spread

