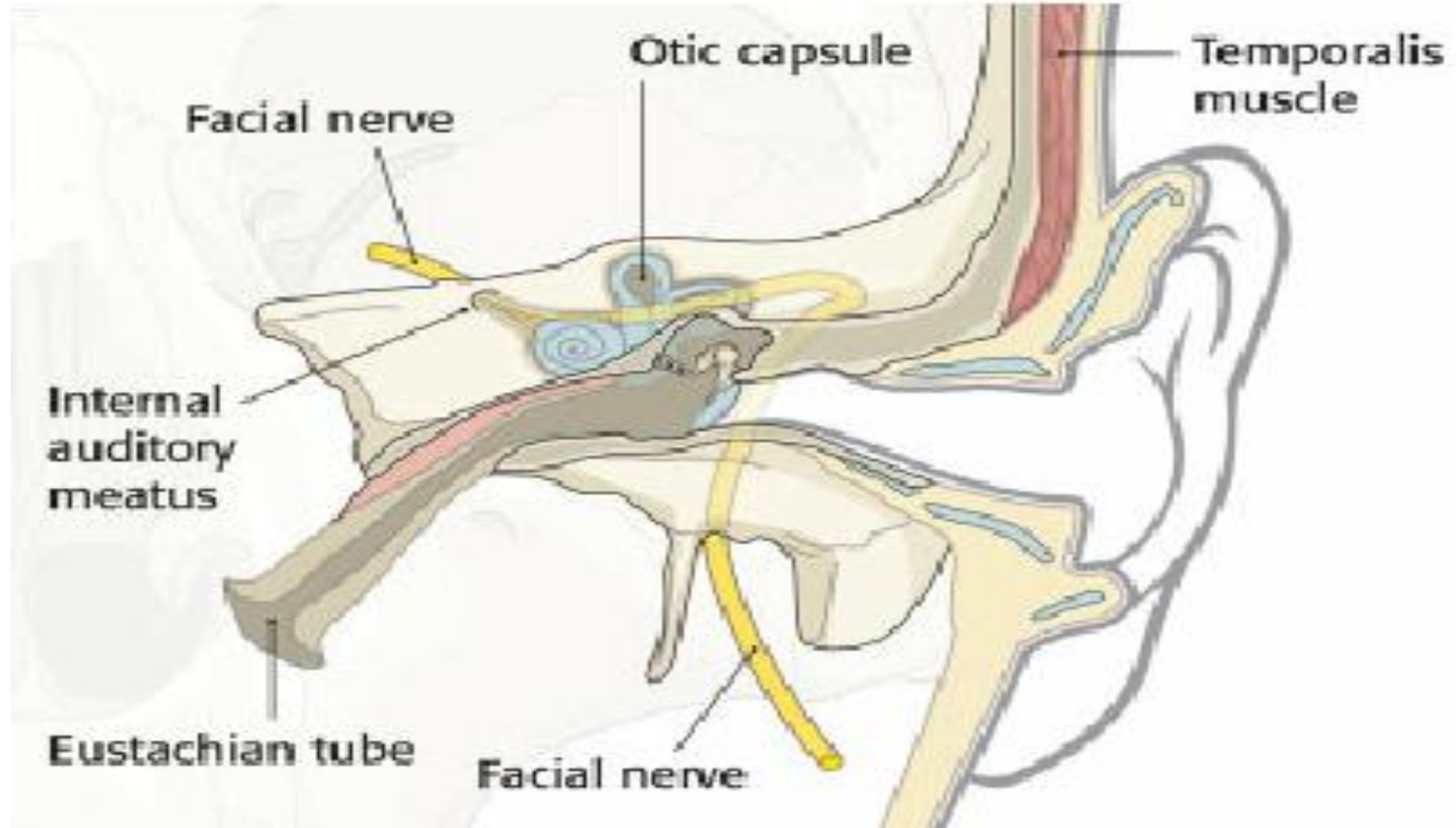


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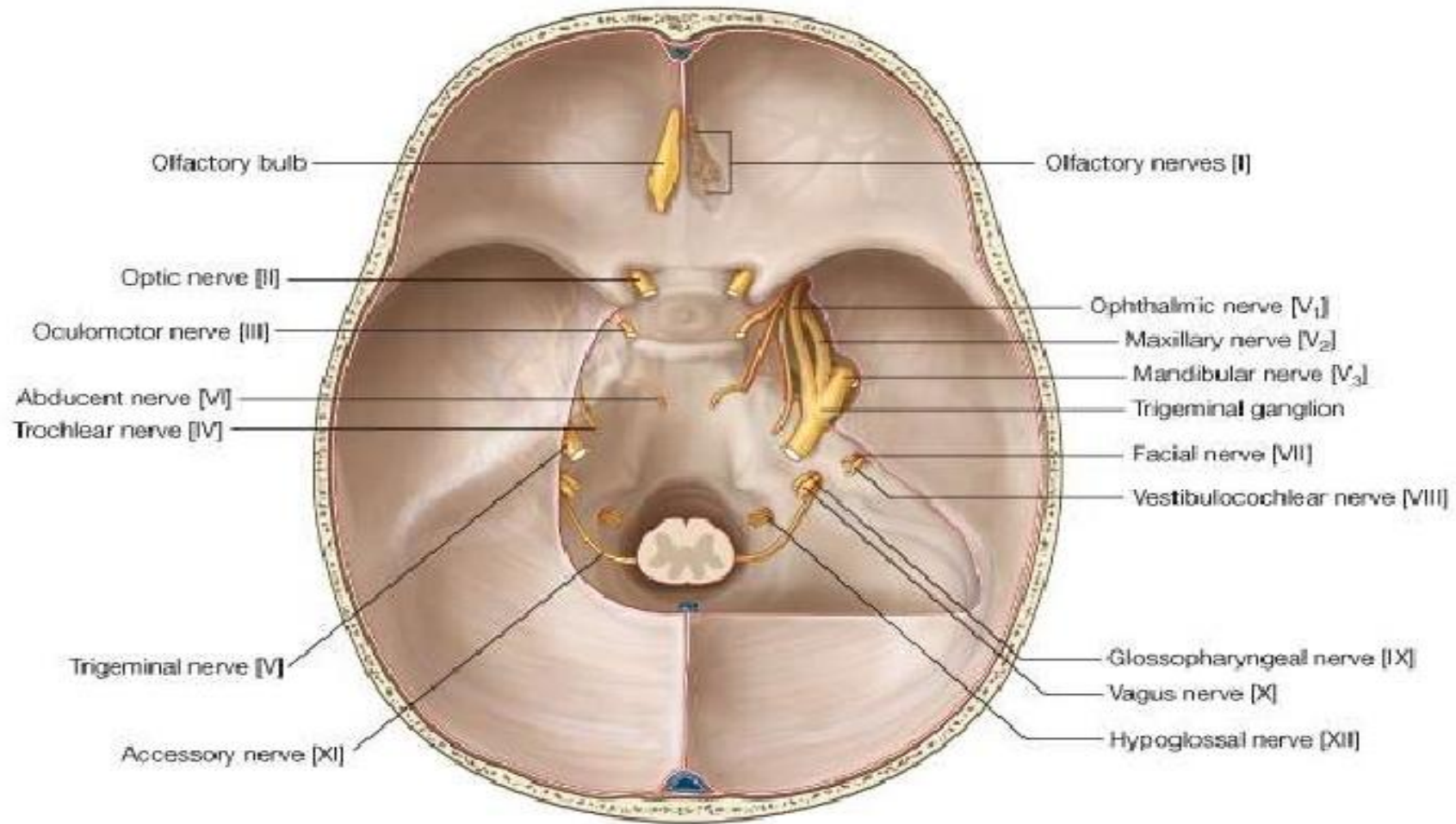


Temporal bone (petrous part)

# Temporal bone anatomy



## Cranial nerves exiting the cranial cavity





## FACIAL NERVE EXAMINATION

### HOW TO EXAMINE THE FACIAL NERVE ?

3. Ask the patient to close his eyes tightly & try to open them by applying gentle upwards pressure (orbicularis oculi).
4. Ask the patient to show his teeth & look for any deviation of the angle of the mouth (orbicularis oris).
5. Ask the patient to puff out his cheeks & tap your finger on his inflated cheek (buccinator).
6. Ask the patient to whistle.
7. Check the (platysma) by asking the patient to clench teeth.



Fig. 11.33 Testing the facial nerve; (a) screwing the eyes upright, (b) blowing the cheeks out, and (c) showing the teeth.



# Facial arterial blood supply

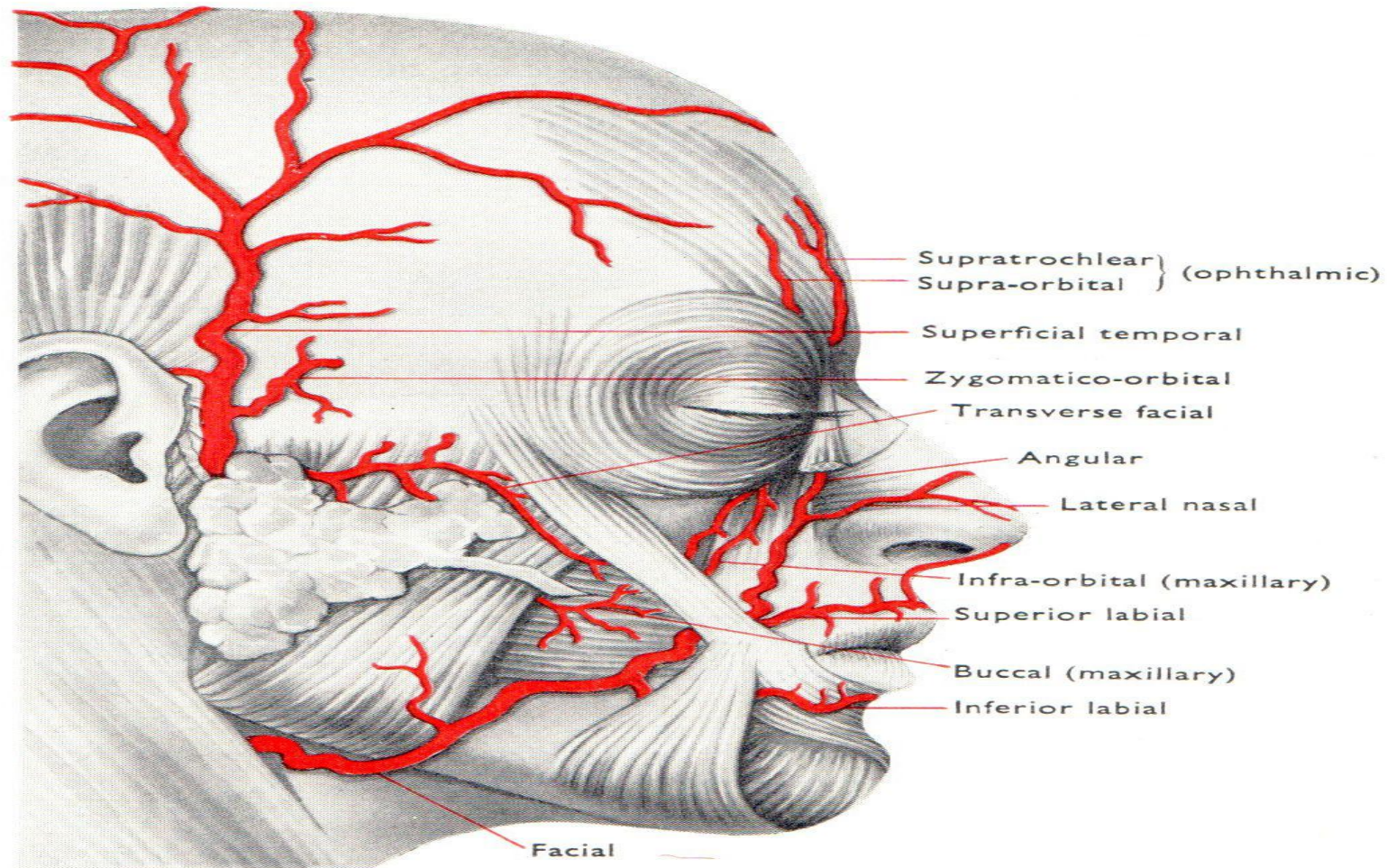
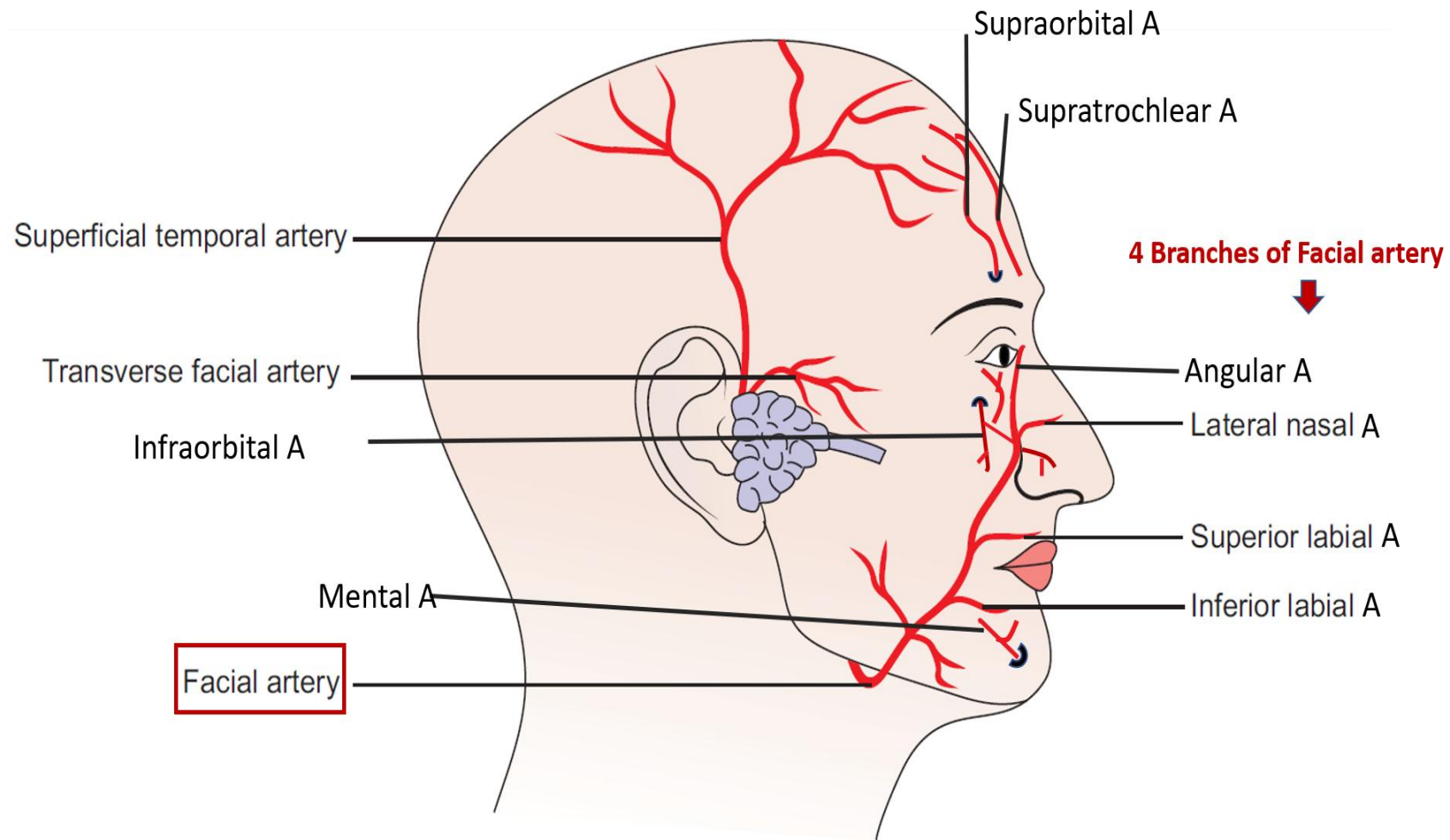


FIG. 26 The arteries of the face.



- **Facial artery:** This artery stems from the external carotid artery, follows the inferior border of the mandible, and enters the face. It provides blood to the muscles of the face.
- **Submental artery:** This artery starts from the facial artery and supplies blood to the tissues under the chin.

- **Inferior labial artery:** Starting from the facial artery at the angle of the mouth, this artery runs medially to the lower lip, where it provides blood flow.
- **Superior labial artery:** This artery starts with the inferior labial artery, but it runs medially to the upper lip and provides blood flow there.

- **Lateral nasal artery:** Starting at the facial artery alongside the nose and running out to the ala of the nose (part of the nose that flares out around the nostril), this artery provides blood to the skin of the nose.
- **Angular artery:** This last branch of the facial artery passes to the medial angle of the eye. It provides blood to the inferior eyelid and the cheek just below.

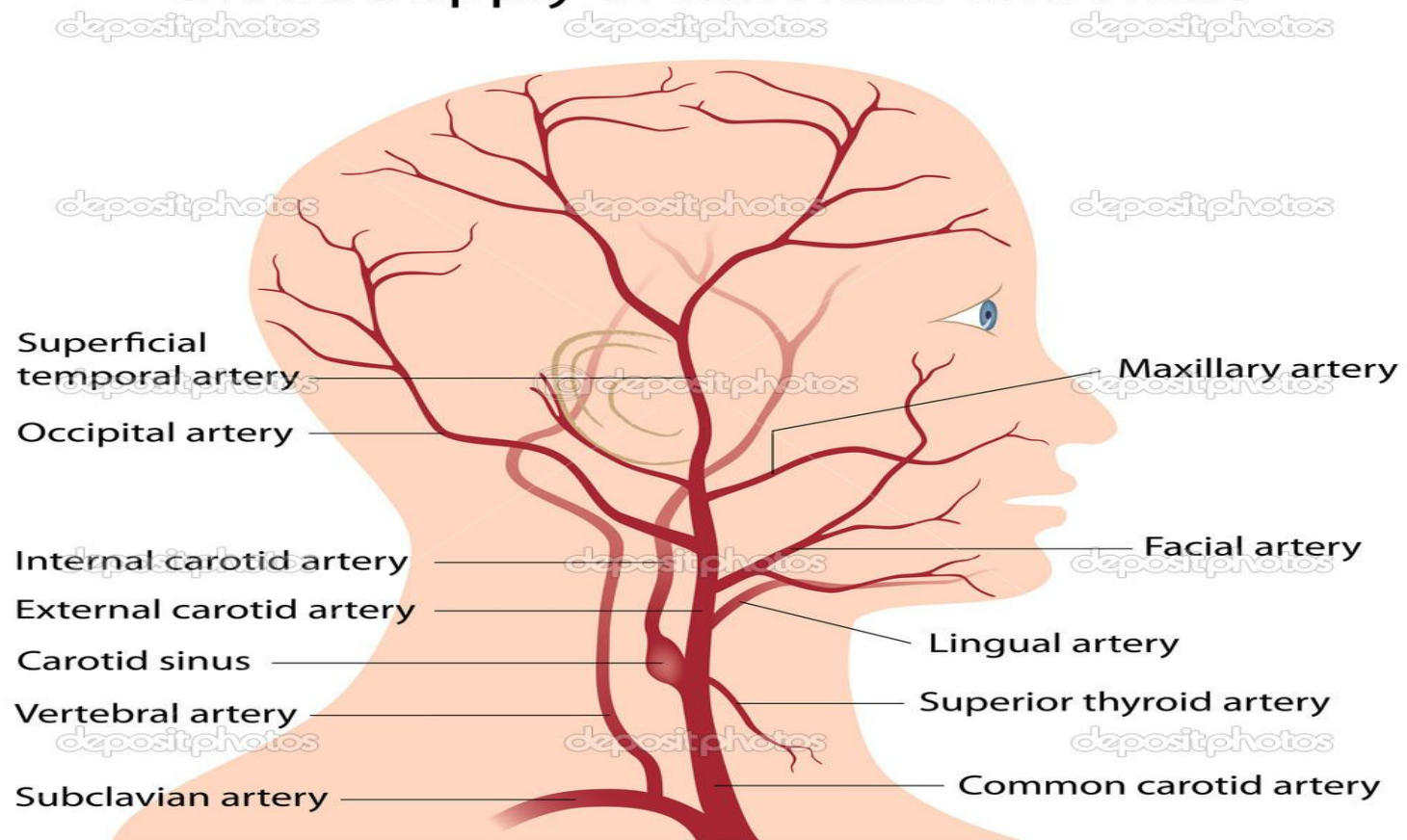
- **Occipital artery:** This artery branches from the external carotid artery and passes to the occipital region. It provides blood flow to the scalp on the
- back of the head.
  
- **Posterior auricular artery:** This artery also branches from the external carotid artery and runs to the areas around the mastoid process and the ear. It provides blood to the ear and scalp behind the ear.

- **Maxillary artery:** This artery also starts from the external carotid artery. It runs deep to the neck of the mandible to supply blood to deeper structures of the face and meninges.
- **Inferior alveolar artery:** This artery branches off the maxillary artery and enters the mandible to supply the teeth.
- **Infraorbital artery:** This artery branches from the maxillary artery and supplies blood to the maxilla, teeth, lower eyelid, cheek, and nose.

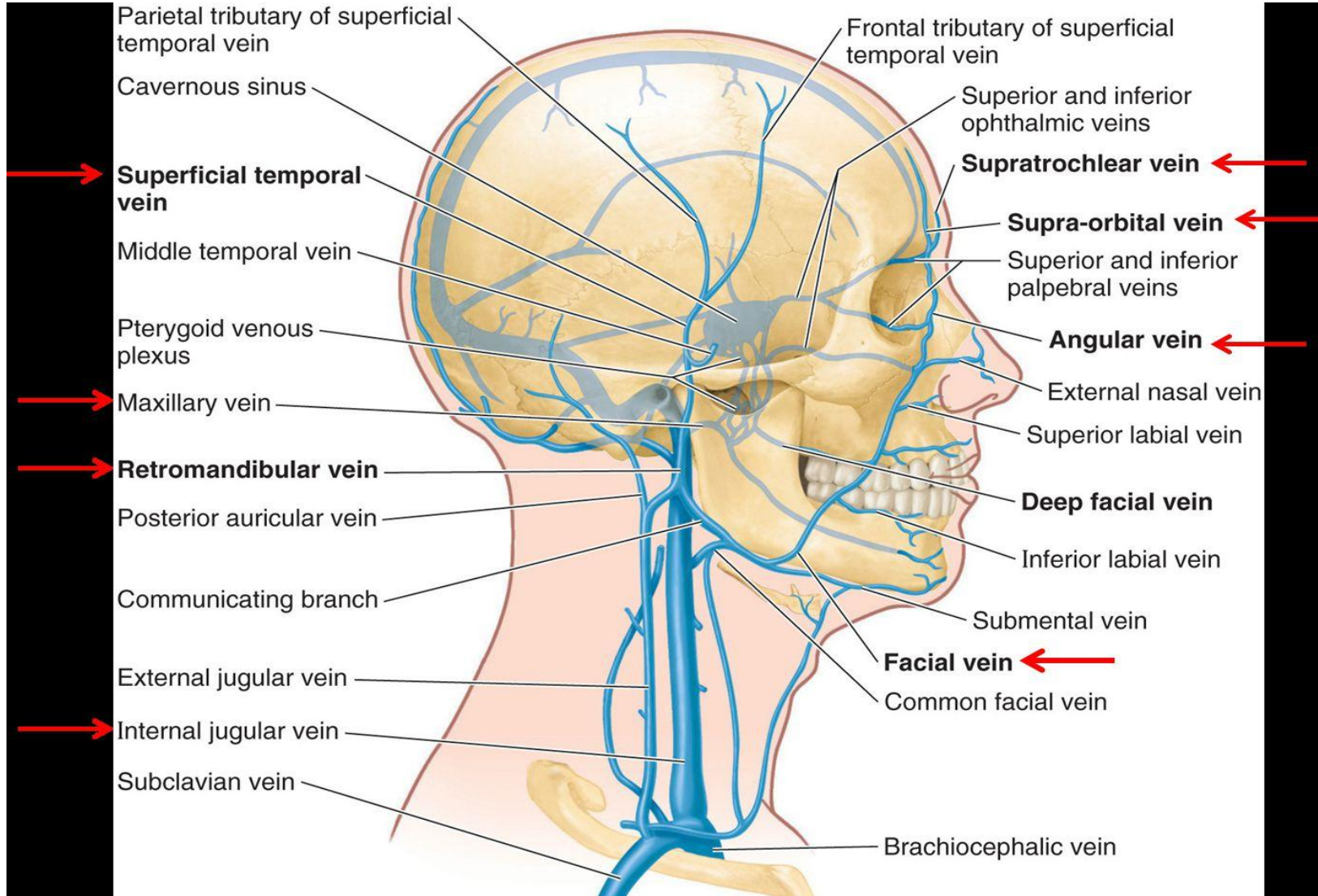
- **Superficial temporal artery:** Starting at the termination of the external carotid artery and ascending in front of the ear to the temporal region, this artery supplies blood to the facial muscles and skin in the frontal and temporal areas.
- **Zygomaticoorbital artery:** This artery branches off the superficial temporal artery and runs to the orbit (eye socket).
- **Transverse facial artery:** This artery stems from the superficial temporal artery and crosses the face to just below the zygomatic arch. It supplies blood to the parotid gland and muscles and skin of the face.

- **Mental artery:** The terminal branch of the inferior alveolar artery, this artery emerges from the mental foramen, where it supplies blood to the facial muscles and skin of the chin.
- **Supraorbital artery:** This artery branches from the ophthalmic artery and runs upwards to supply blood to the muscles and skin of the forehead and scalp.
- **Supratrochlear artery:** Also a branch of the ophthalmic artery, this artery passes from the supratrochlear notch to supply blood to the muscles and skin of the scalp.

# Blood Supply of the Head and Neck



# Veins in the face



## Important veins in the face include the following:

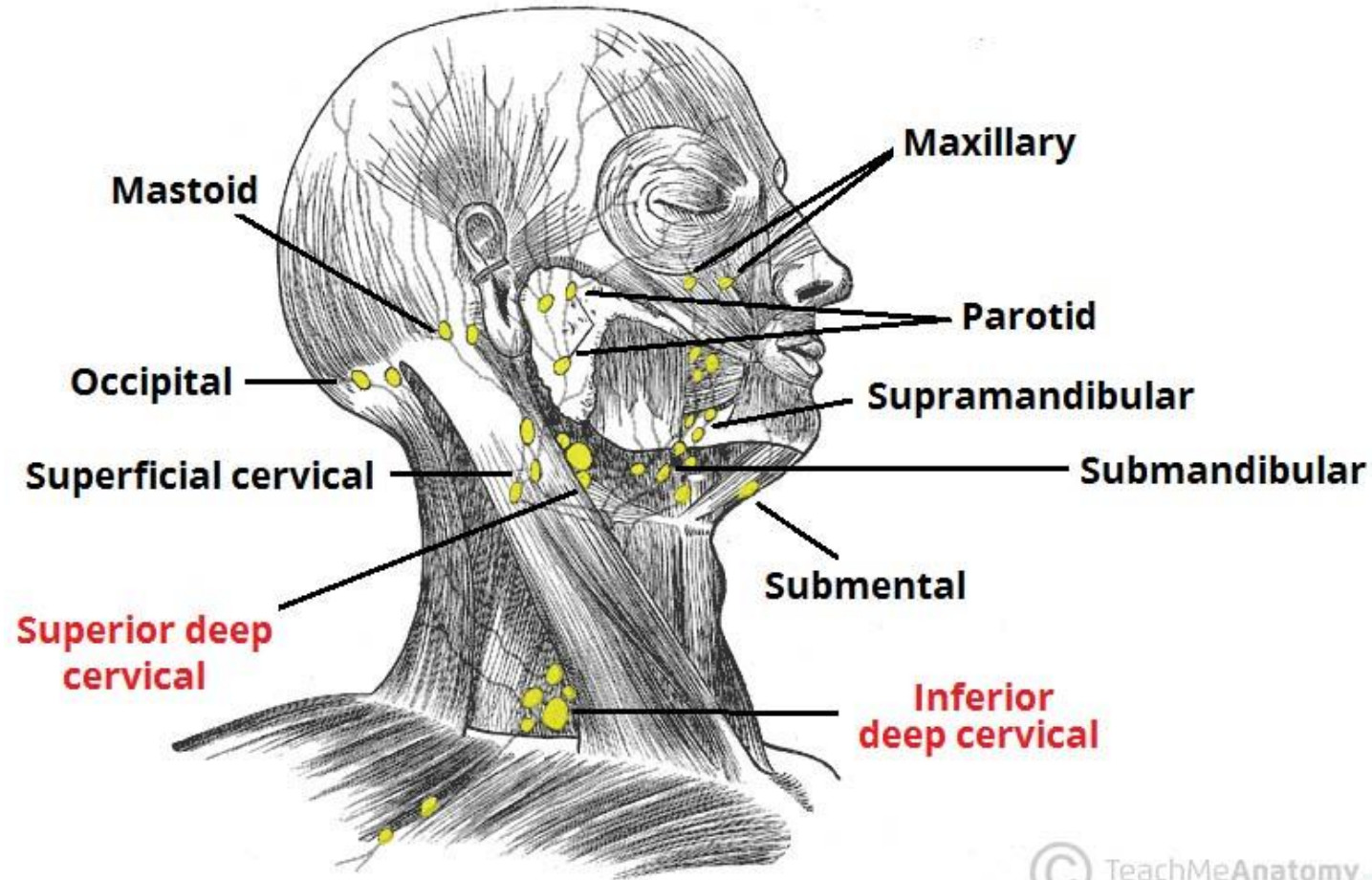
- **Angular vein:** This vein runs obliquely down the side of the nose.
- **Facial vein:** The facial vein drains most of the blood from the face. It begins at the angular vein in the medial angle of the eye. The deep facial vein joins the facial vein, which goes on to drain into the internal jugular vein.
- **Maxillary vein:** This vein accompanies the maxillary artery and drains blood from the face.
- **Superficial temporal vein:** This vein drains the forehead and scalp.
- **Retromandibular vein:** This vein is formed by the superficial temporal vein and the maxillary vein. It receives blood from the region of the temple and the face.
- **Posterior auricular vein:** This vein is joined by a branch of the retromandibular vein to form the external jugular vein.
- **Supraorbital and supratrochlear veins:** These veins descend from the scalp to form the angular vein.

## Lymphatic nodes are categorized into several groups

- **Parotid lymph nodes:** Receive lymph from the side of the face and scalp
- **Submandibular lymph nodes:** Get lymph from the upper lip and part of the lower lip as well as most of the oral cavity
- **Submental lymph nodes:** Get lymph from the chin and center of the lower lip
- Lymph from these nodes eventually drains into the deep cervical lymph nodes. The deep cervical lymph nodes drain into the jugular lymphatic trunk, which joins the internal jugular vein or brachiocephalic vein on the right side and thoracic duct on the left side.

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# Lymphatic Drainage of the Head and Neck



**Thank**

Dr/ Hanaa

