



Al-Mustaqbal University

College of Engineering & Technology

Biomedical Engineering Department

Subject Name: Anatomy II

2nd Class, Second Semester

Subject Code: [UOMU011045]

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Lecture No.: -3

Lecture Title: [Blood Supply]



ANATOMY / 2nd Stage

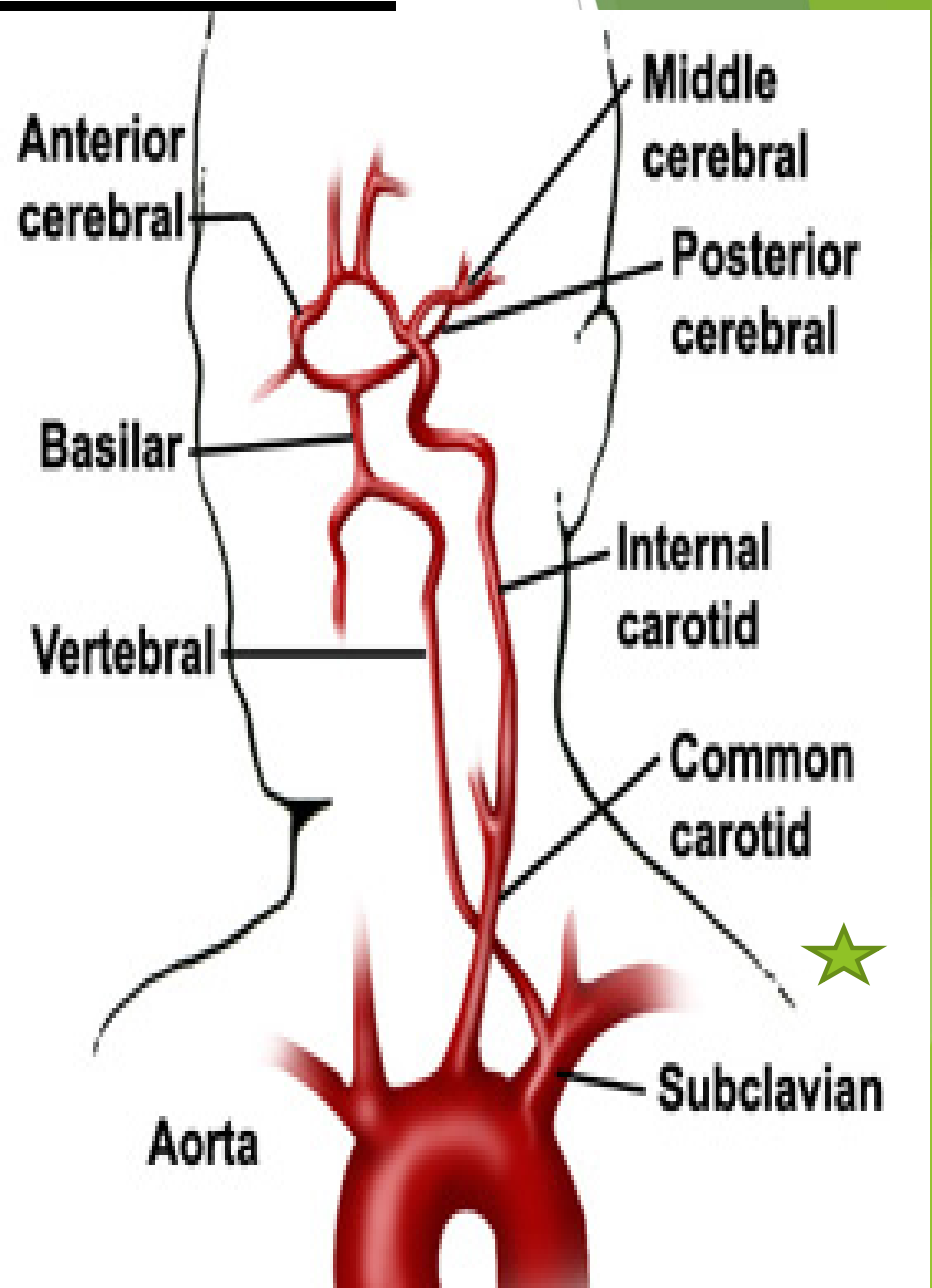
Head and Neck

Lec.3 Blood Supply

Arteries of the Head and Neck

The arterial supply of the head and neck is derived from:

- Common Carotid Artery.
- Subclavian Artery.



Common Carotid Artery

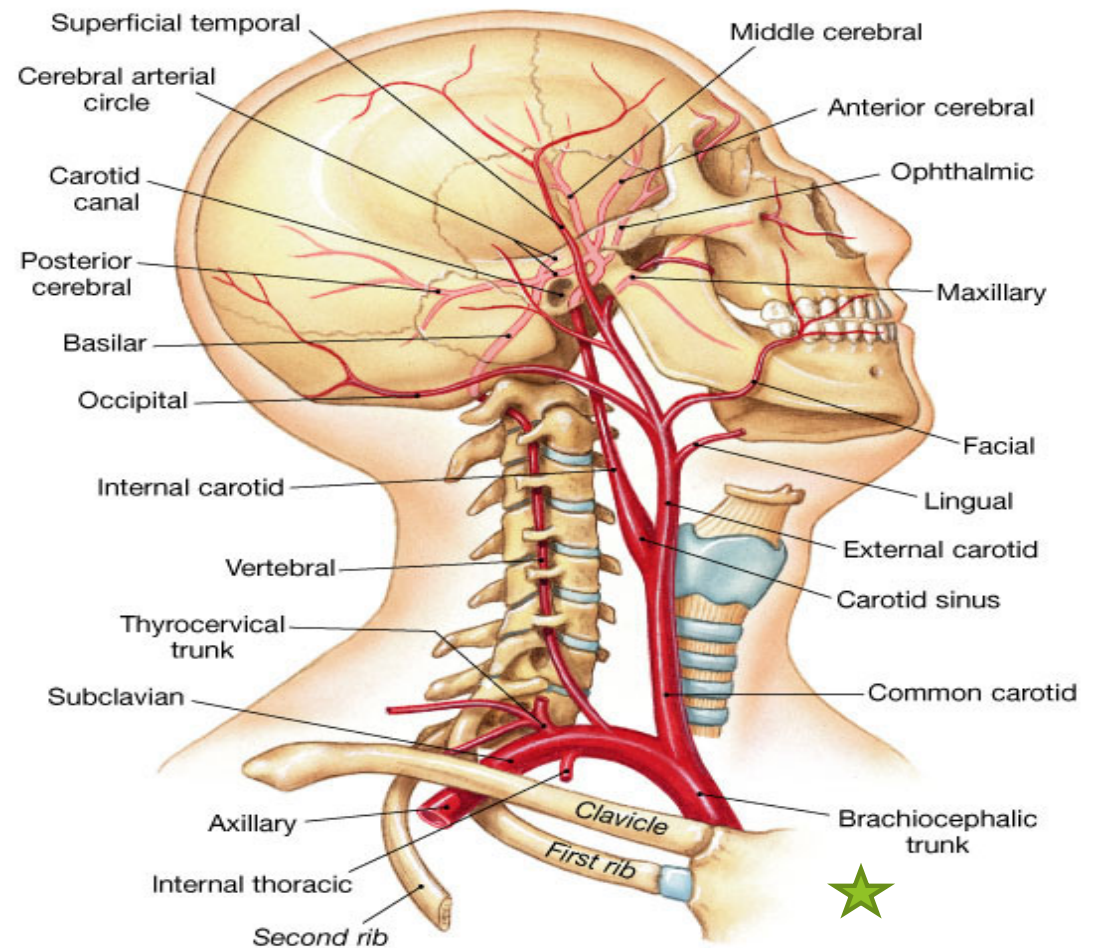
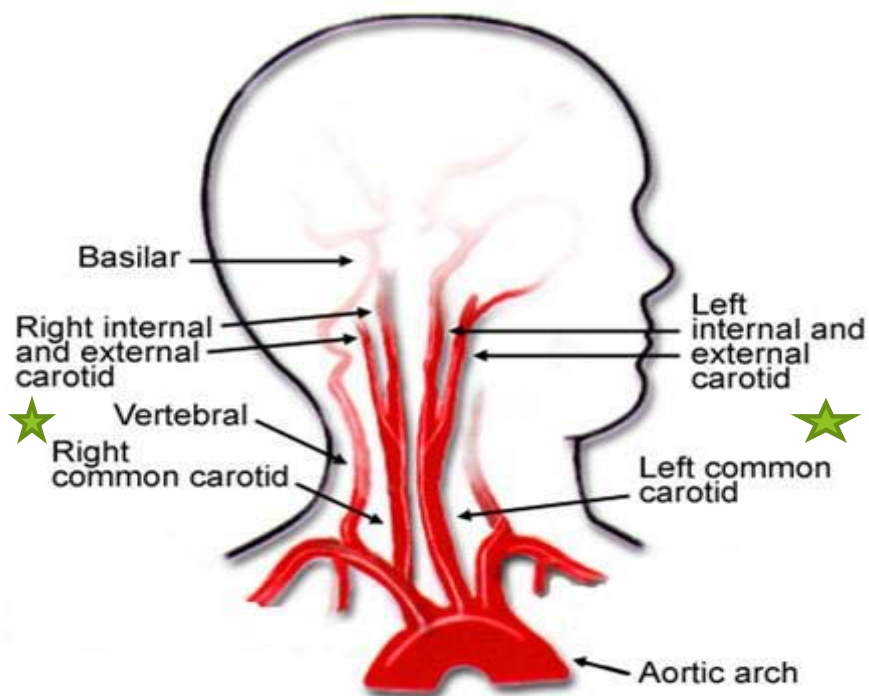
Carotid arteries are major blood vessels in the neck that supply blood to the (brain, neck, and face).

There are two carotid arteries, one on the right and one on the left.

- 1- Right common carotid artery.
- 2- Left common carotid artery.

Right common Carotid artery

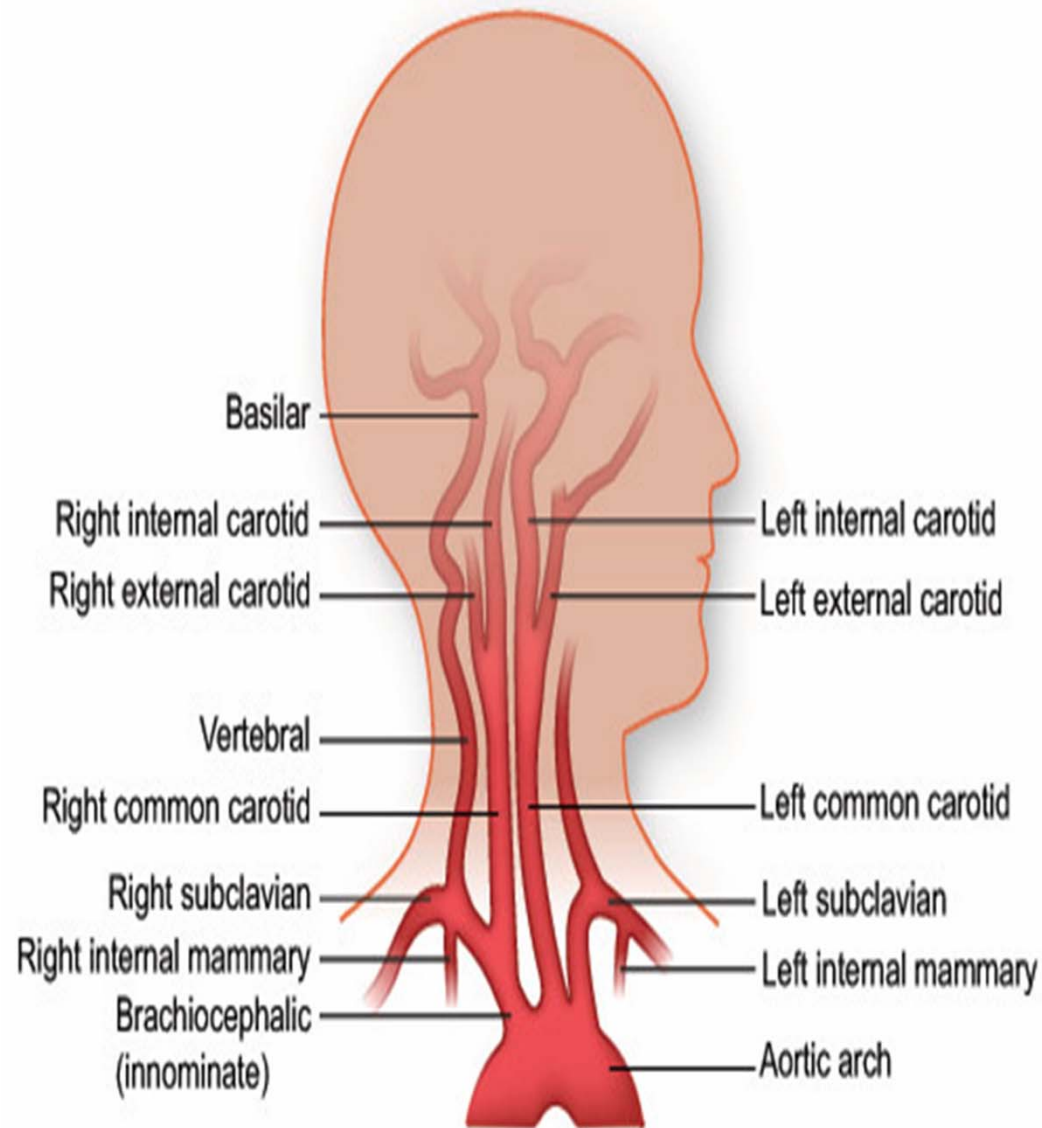
It arises from the
brachiocephalic artery
behind the right
sternoclavicular joint.





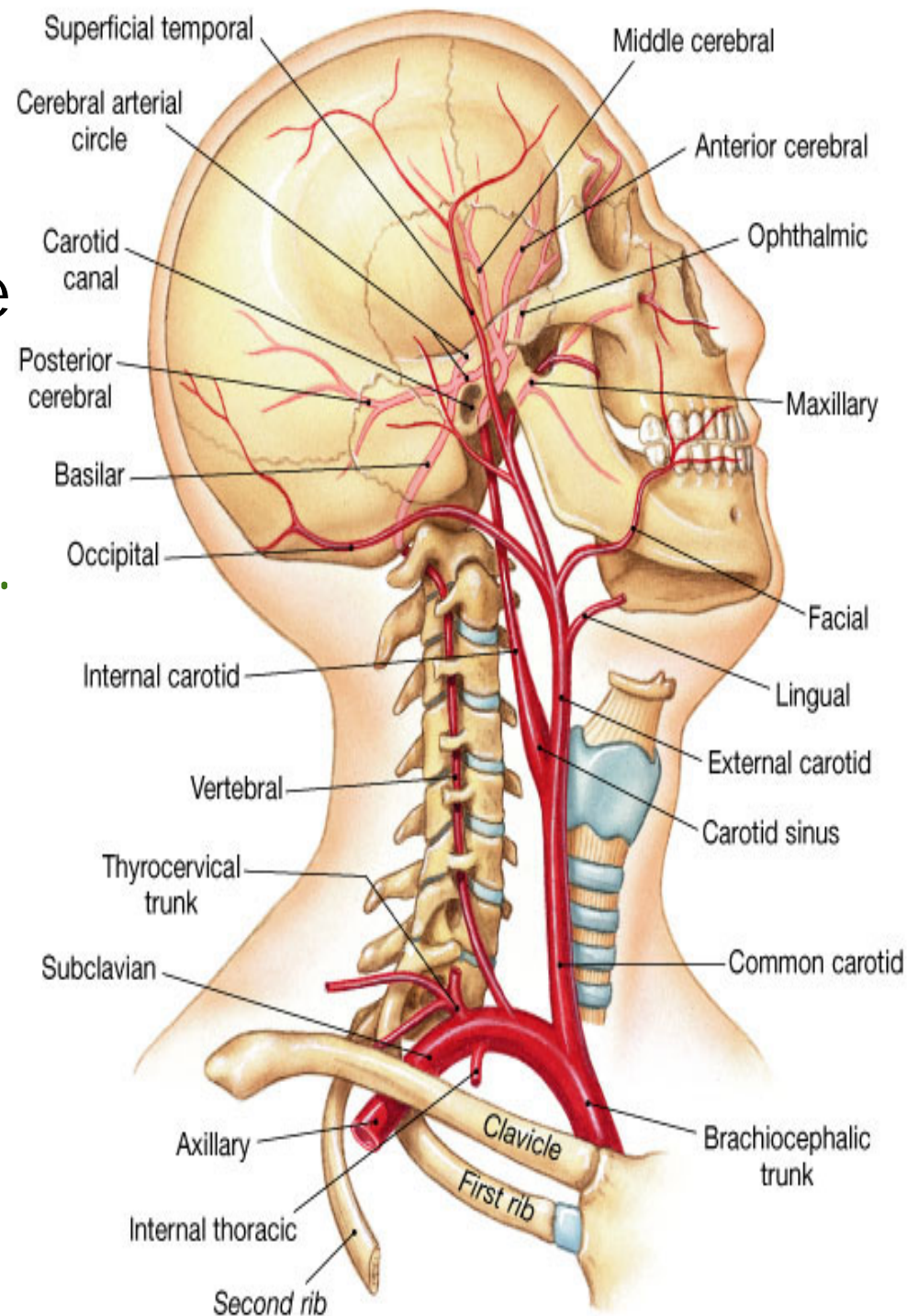
left common carotid artery

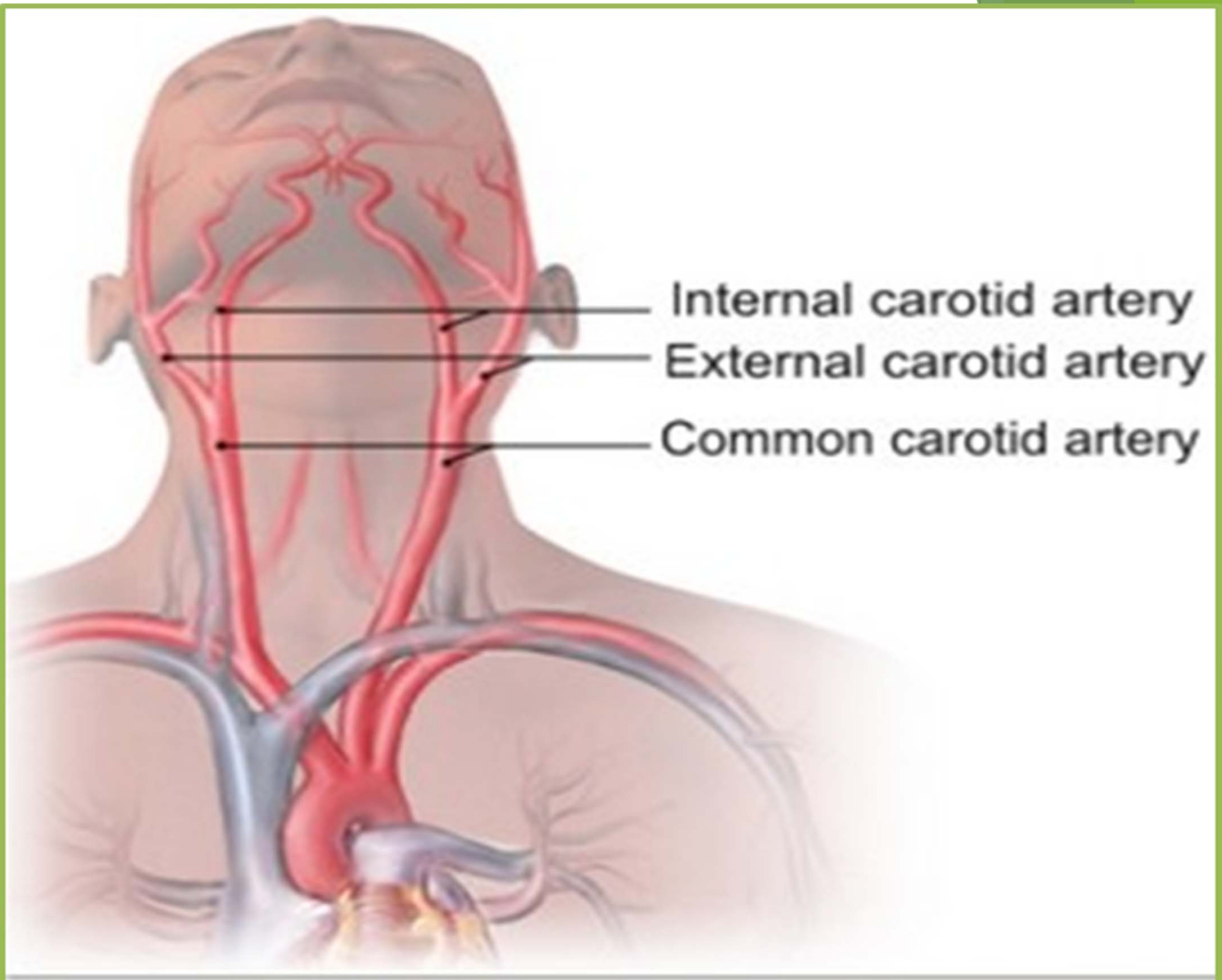
It arises from the arch of the aorta .



The common carotid artery runs upward from the sternoclavicular joint to the upper border of the thyroid cartilage where it divides into the:

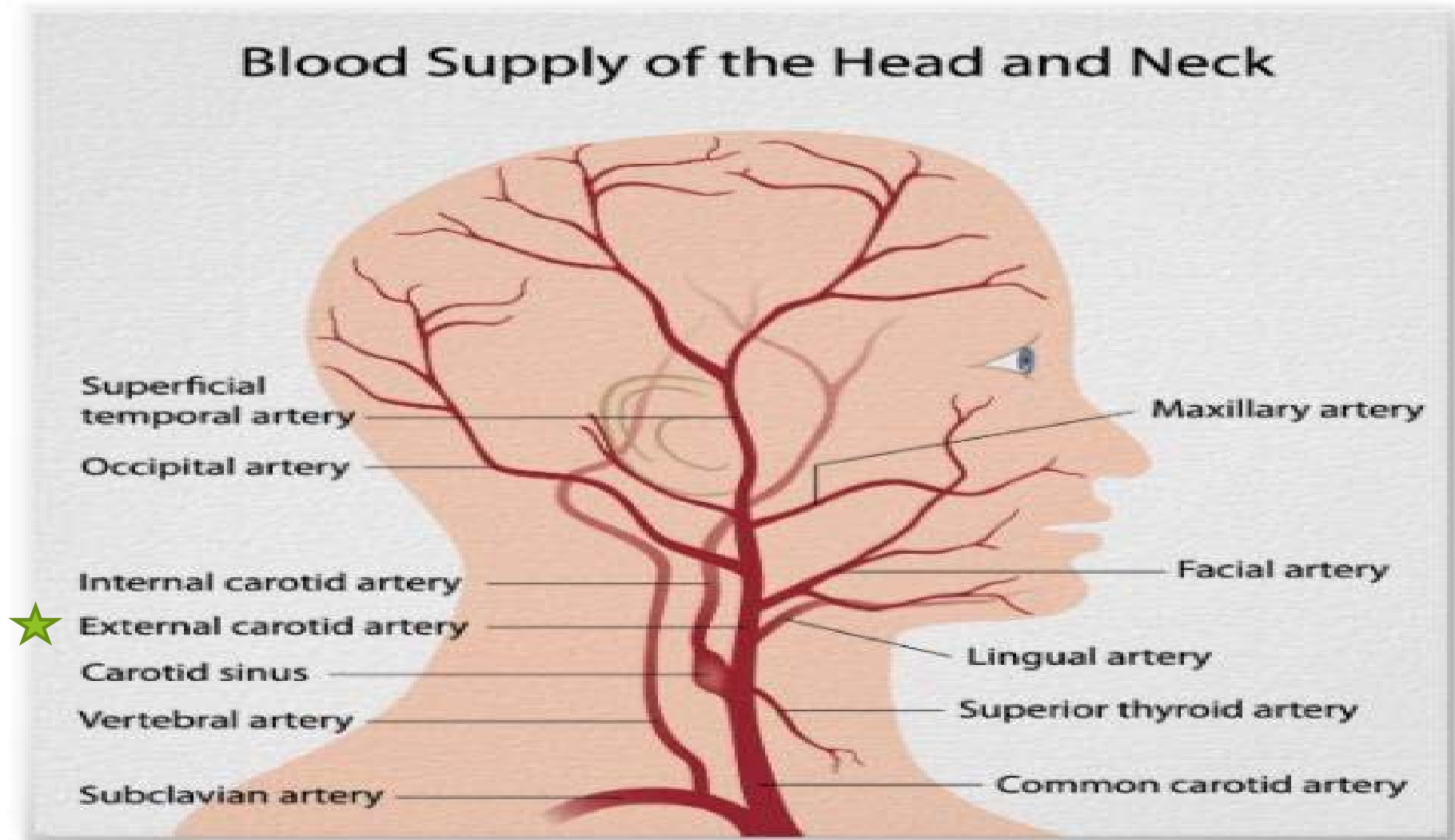
- 1- External carotid artery.
- 2- Internal carotid artery.





1- External Carotid Artery

It is a major artery of the head and neck arises from the common carotid artery.



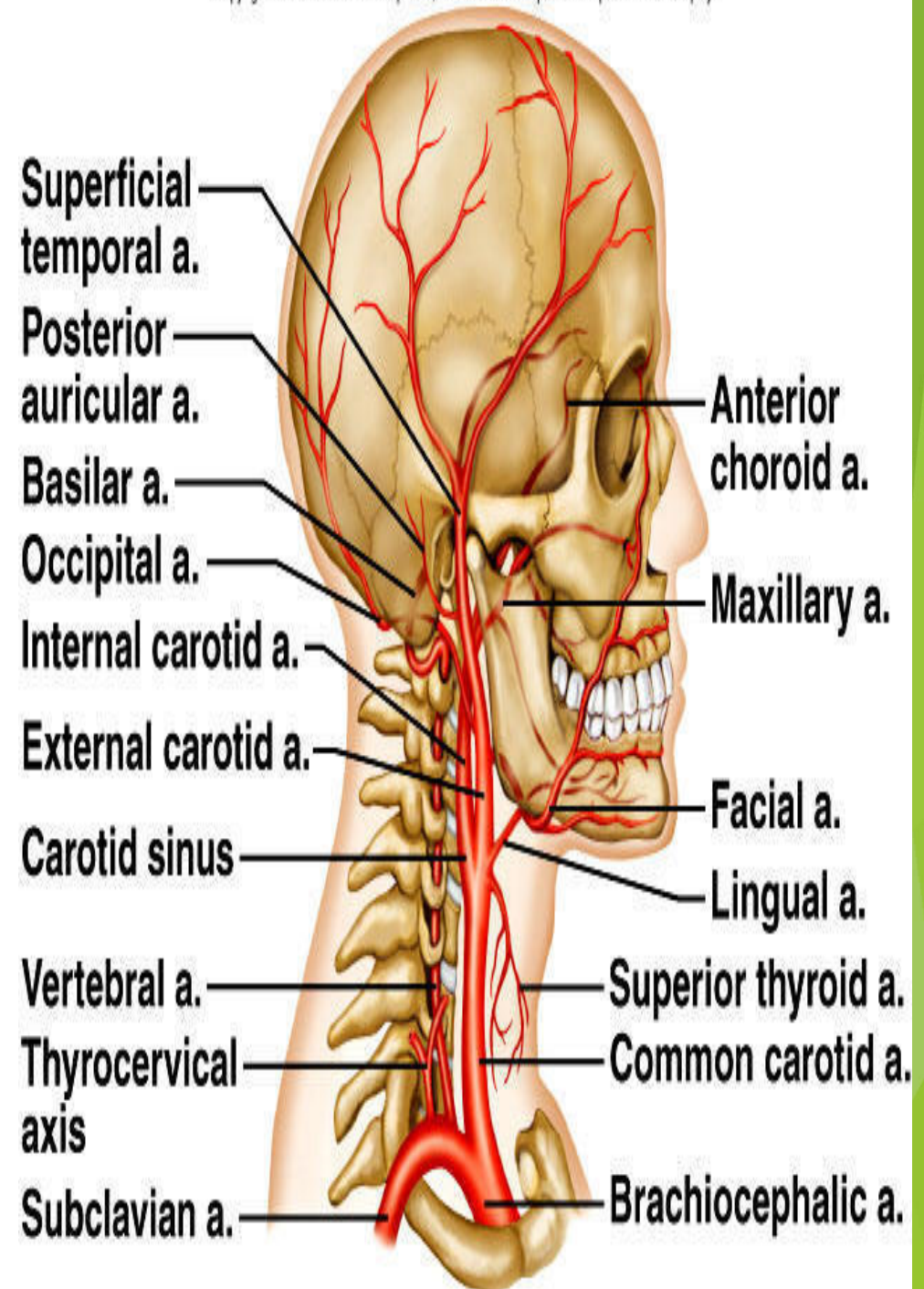
Begins at the level of the upper border of the thyroid cartilage.

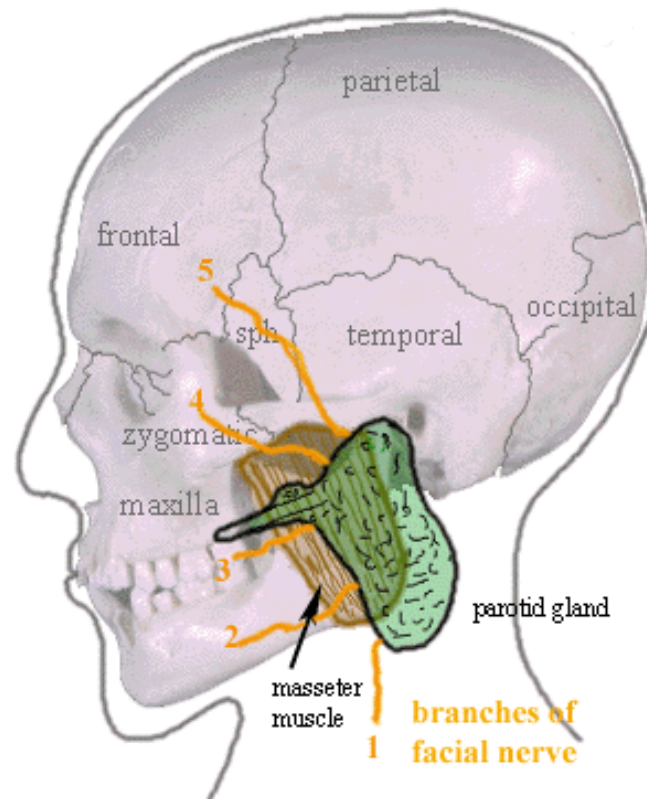
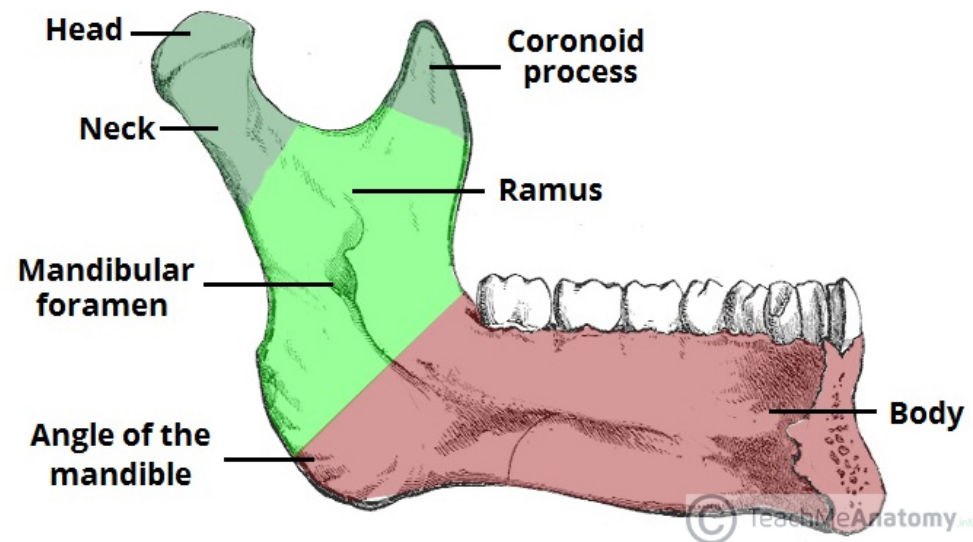
supplies blood to the face, neck, and scalp.

Terminates in the substance of the parotid gland behind the neck of the mandible by dividing into:

1- Superficial temporal artery.

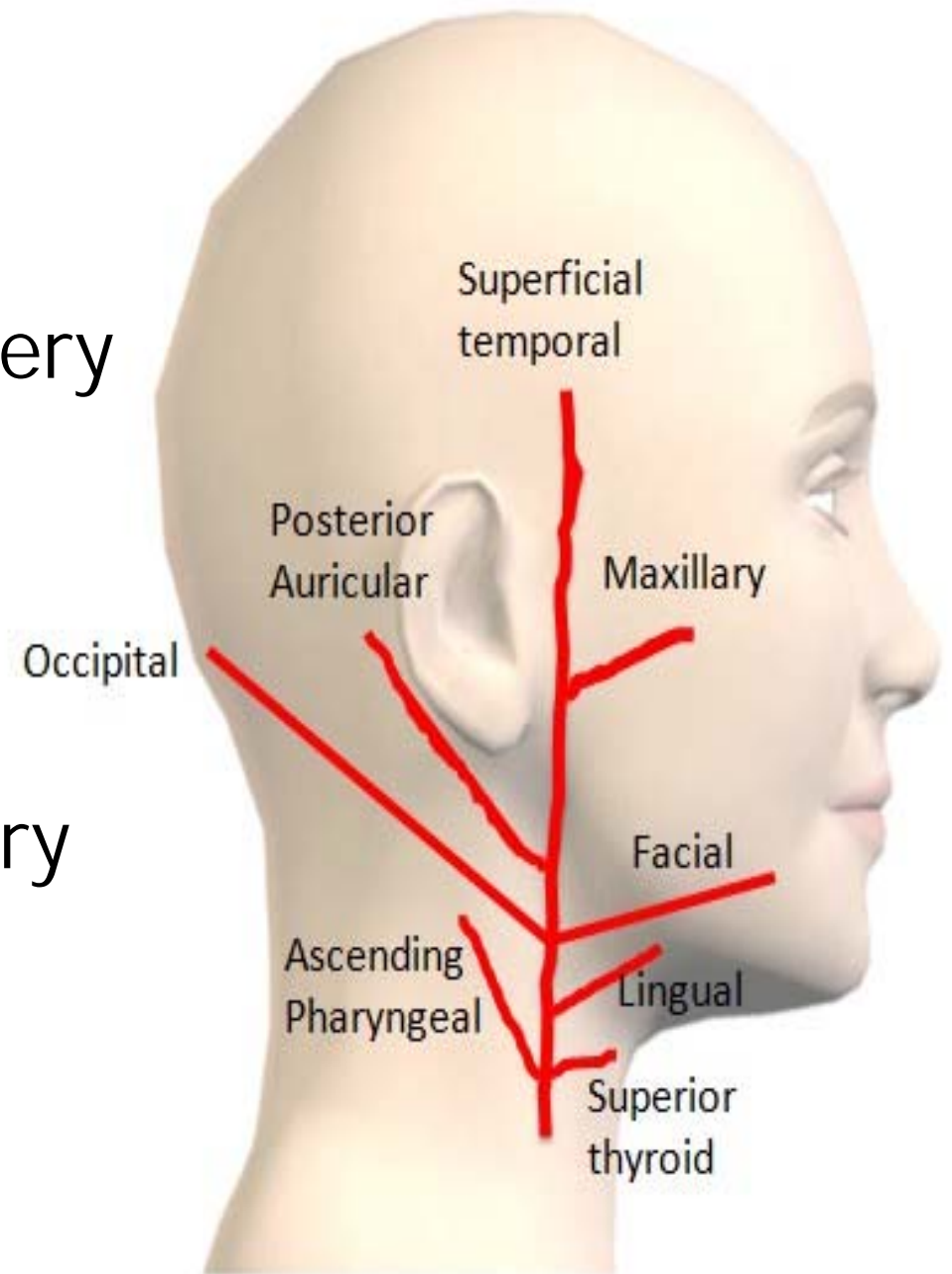
2- Maxillary artery.

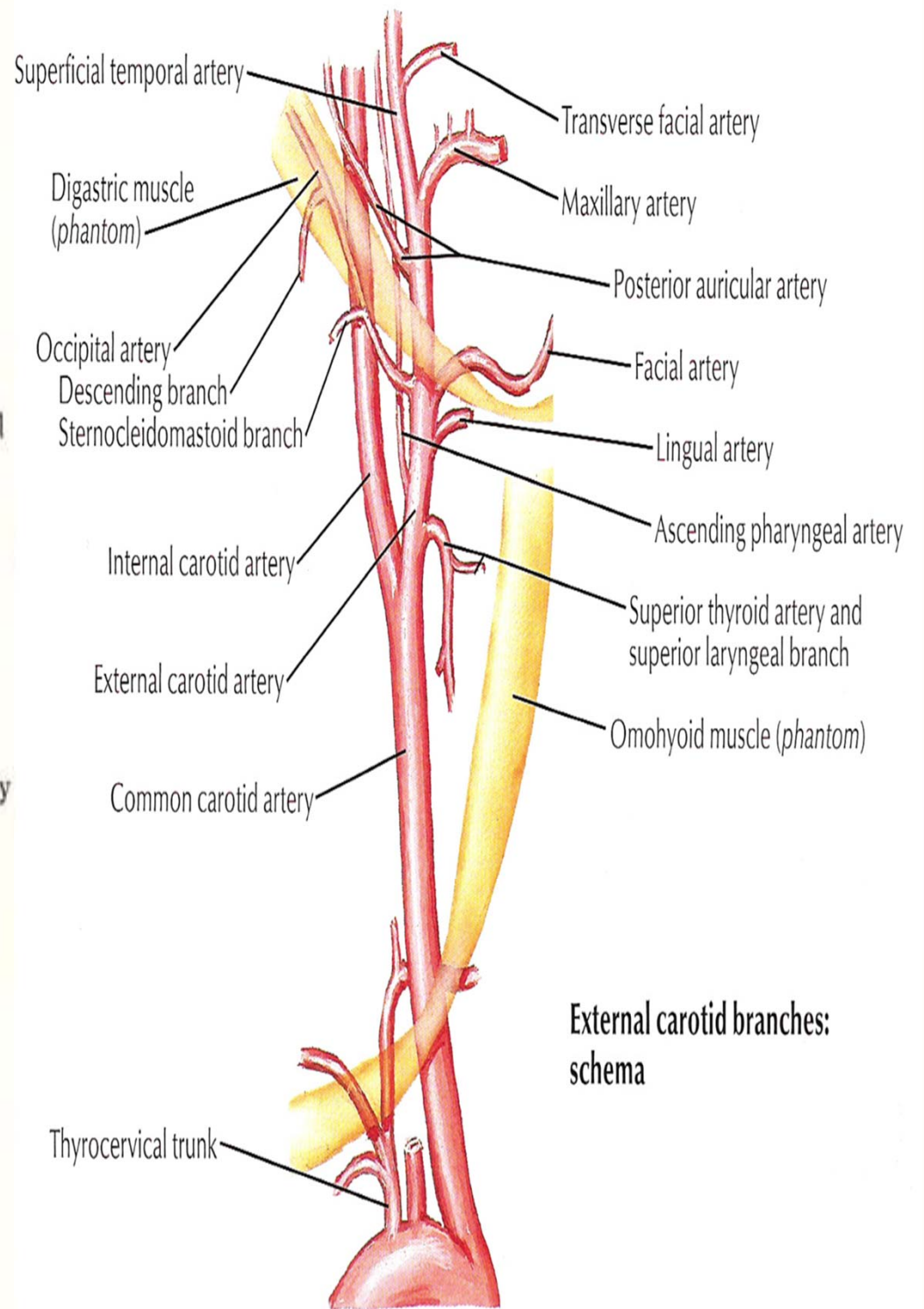
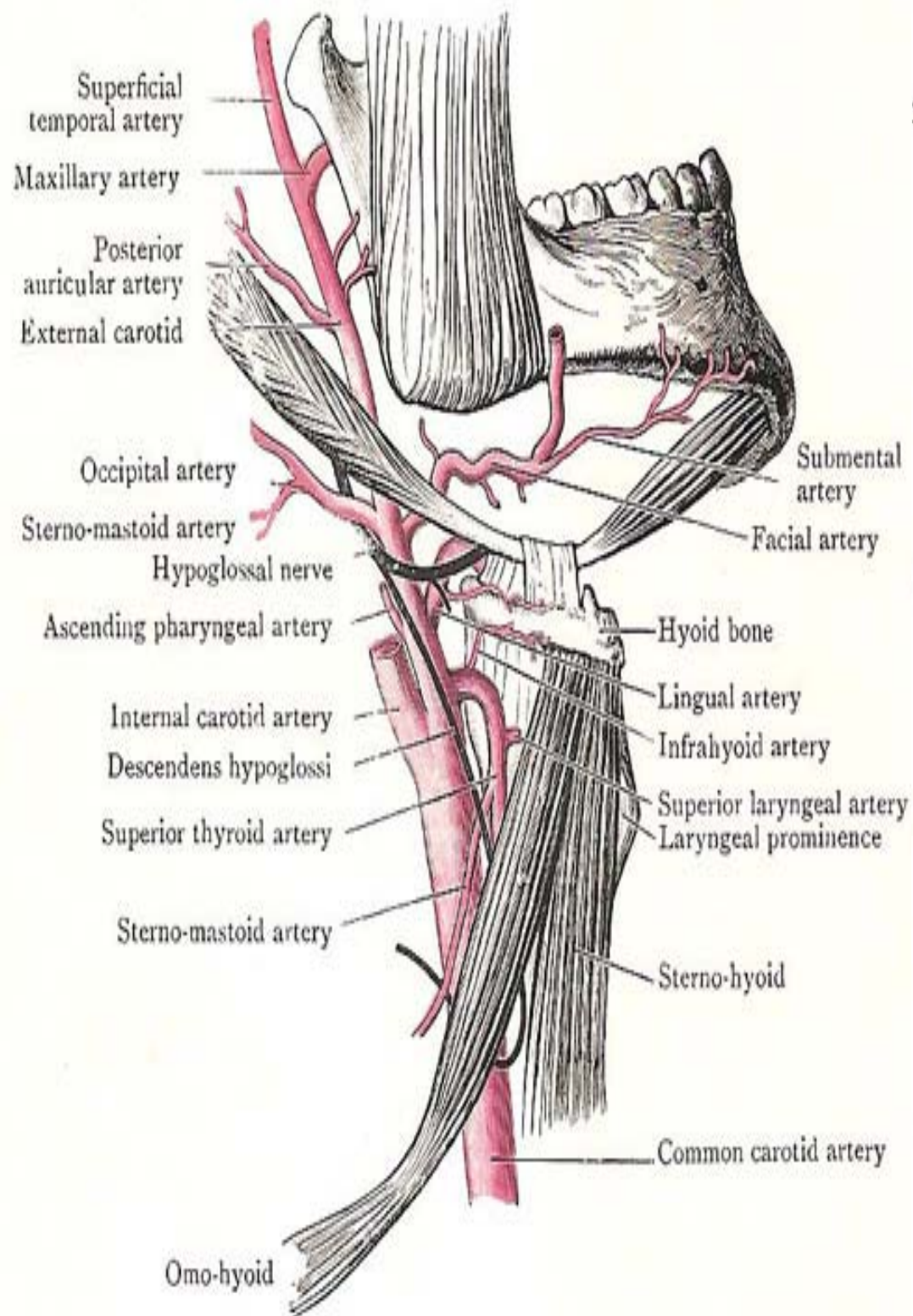




Branches of the External Carotid Artery

1. Superior thyroid artery
2. Ascending pharyngeal artery
3. Lingual artery
4. Facial artery
5. Occipital artery
6. Posterior auricular artery
7. Superficial temporal artery
8. Maxillary artery





2-Internal Carotid Artery

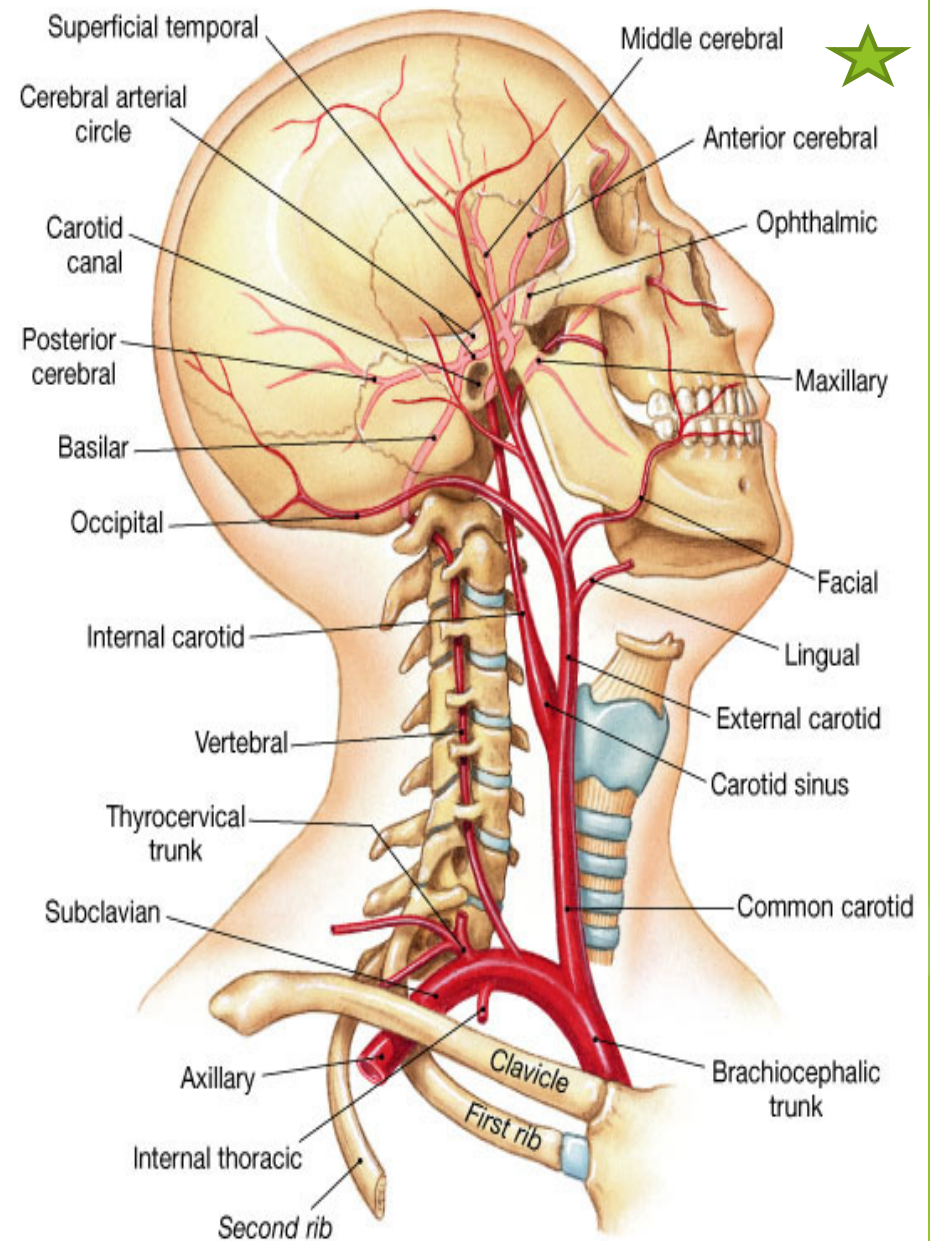
begins at the bifurcation of the common carotid artery at the level of the upper border of the thyroid cartilage.

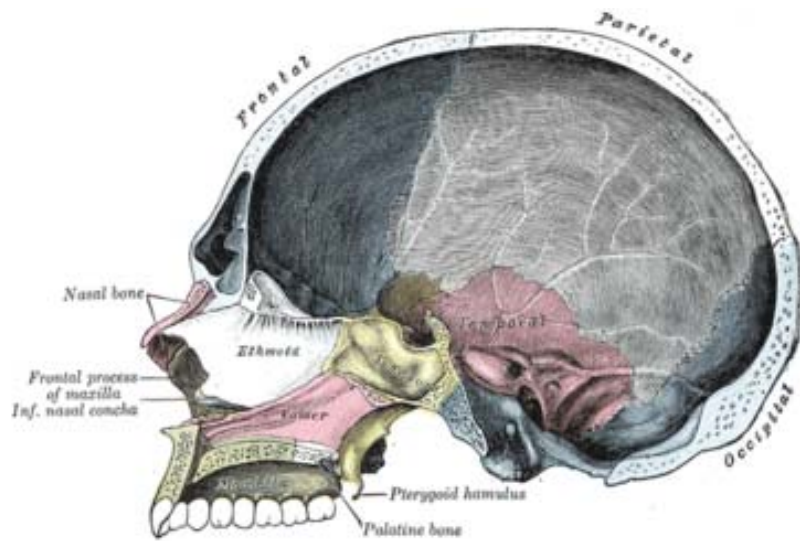
supplies the brain, the eye, the forehead, and part of the nose.

It ascends in the neck embedded in the carotid sheath with the internal jugular vein and vagus nerve.

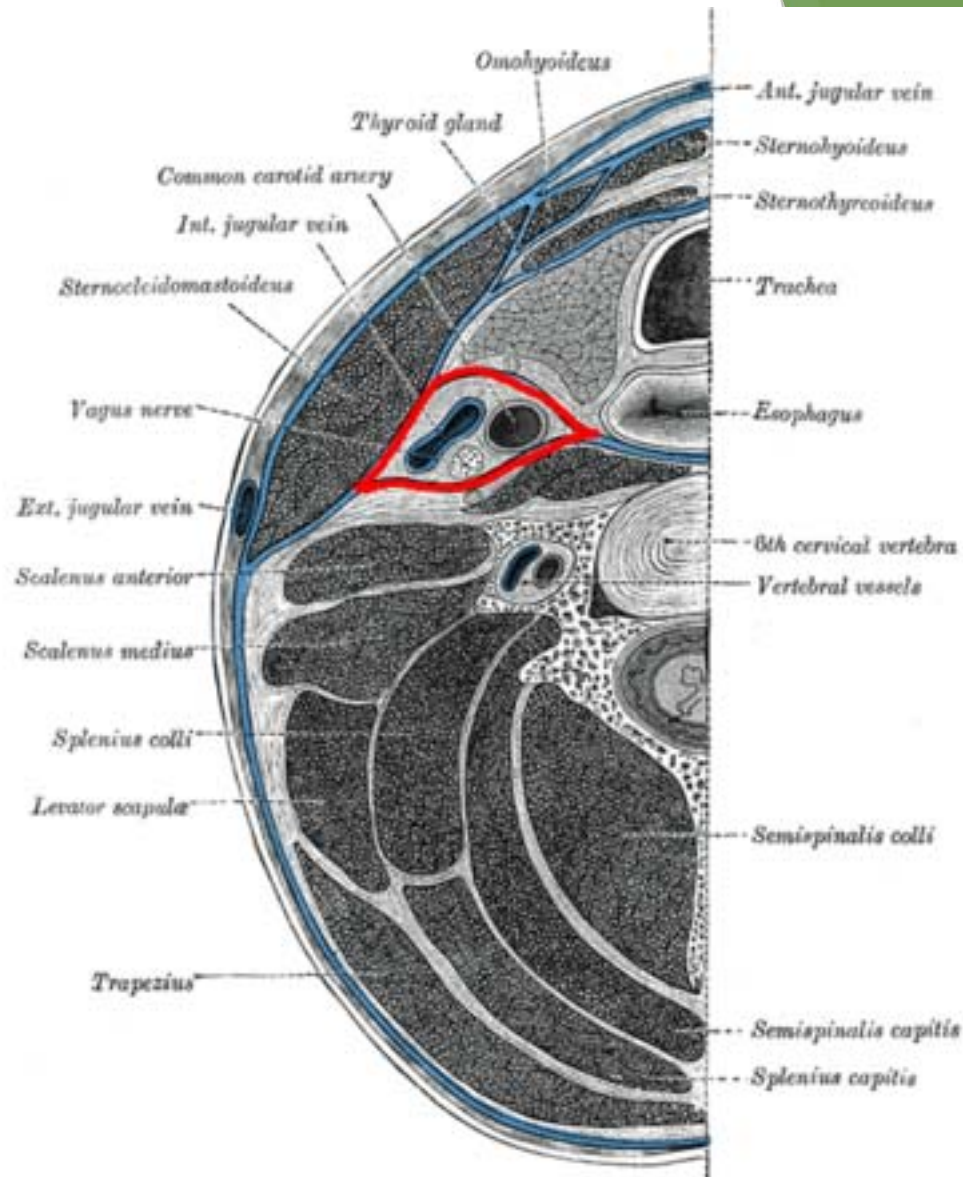
It leaves the neck by passing into the cranial cavity through the carotid canal.

It terminates by dividing into the anterior and the middle cerebral arteries.

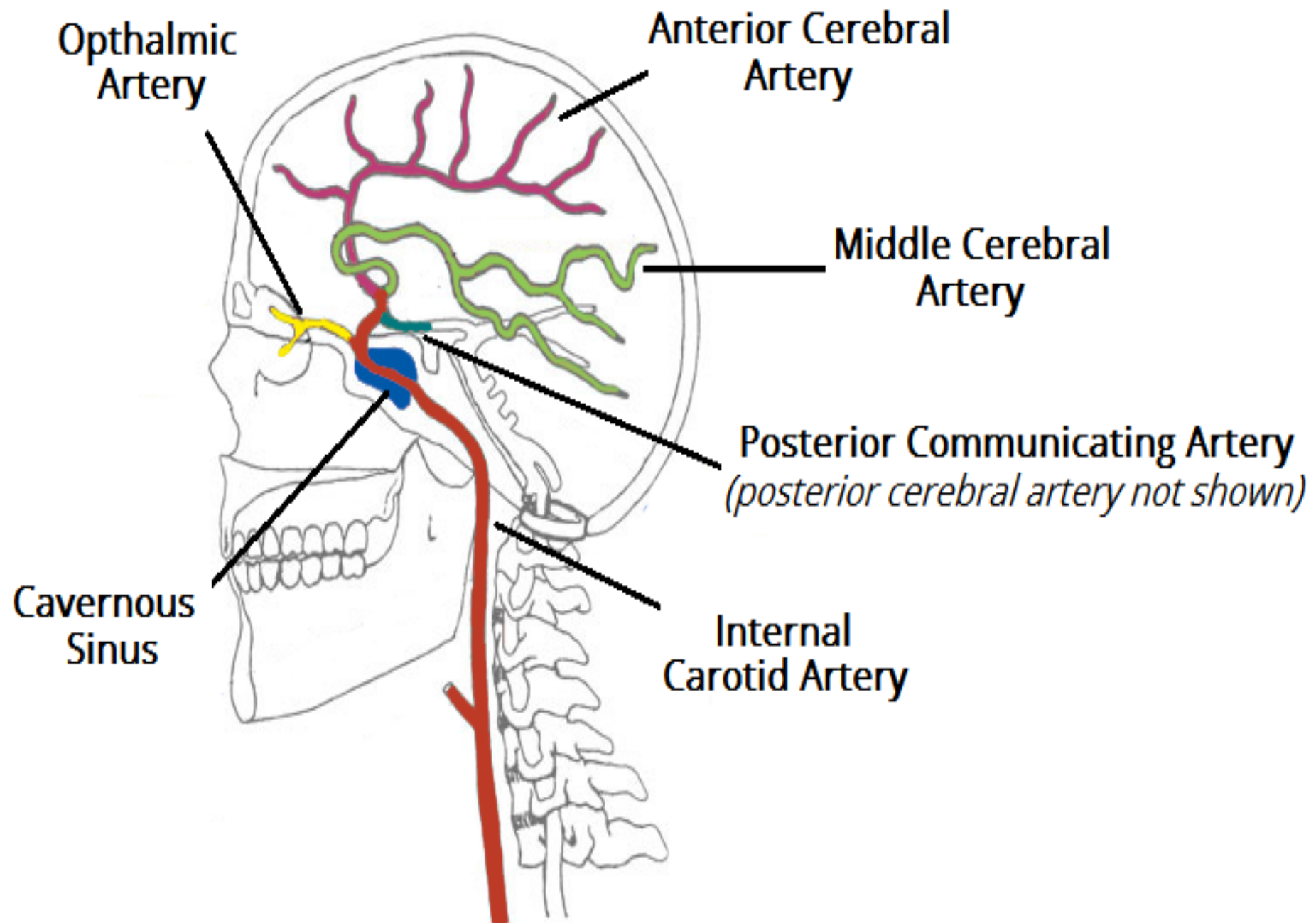




Cranial cavity



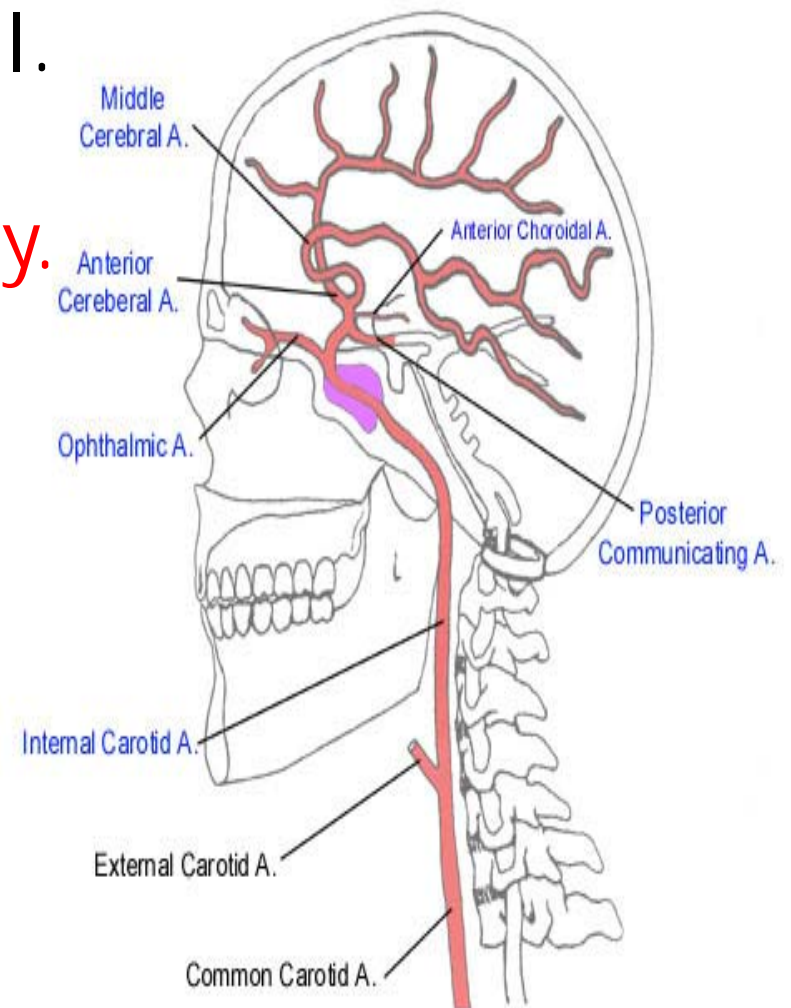
Carotid sheath



Branches of the Internal Carotid Artery

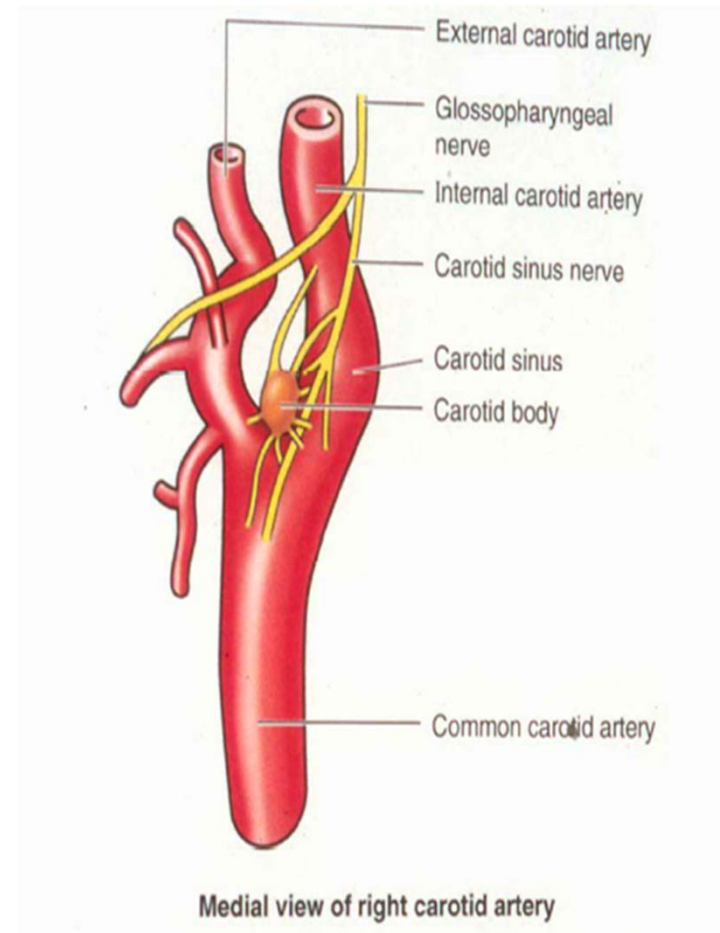
There are no branches in the neck.
Many important branches,
however, are given off in the skull.

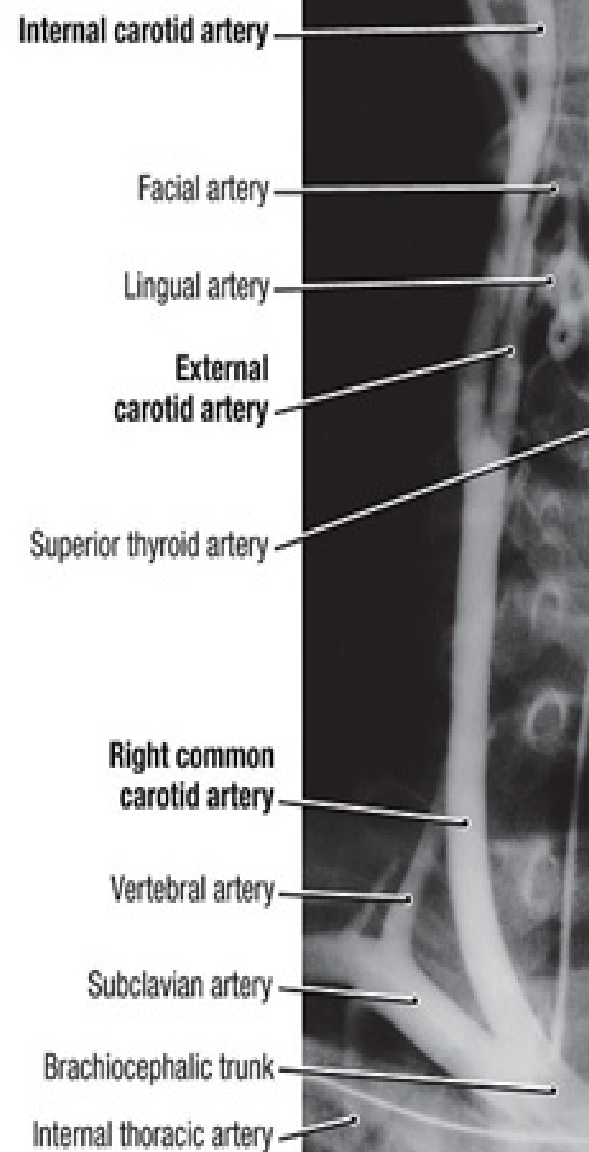
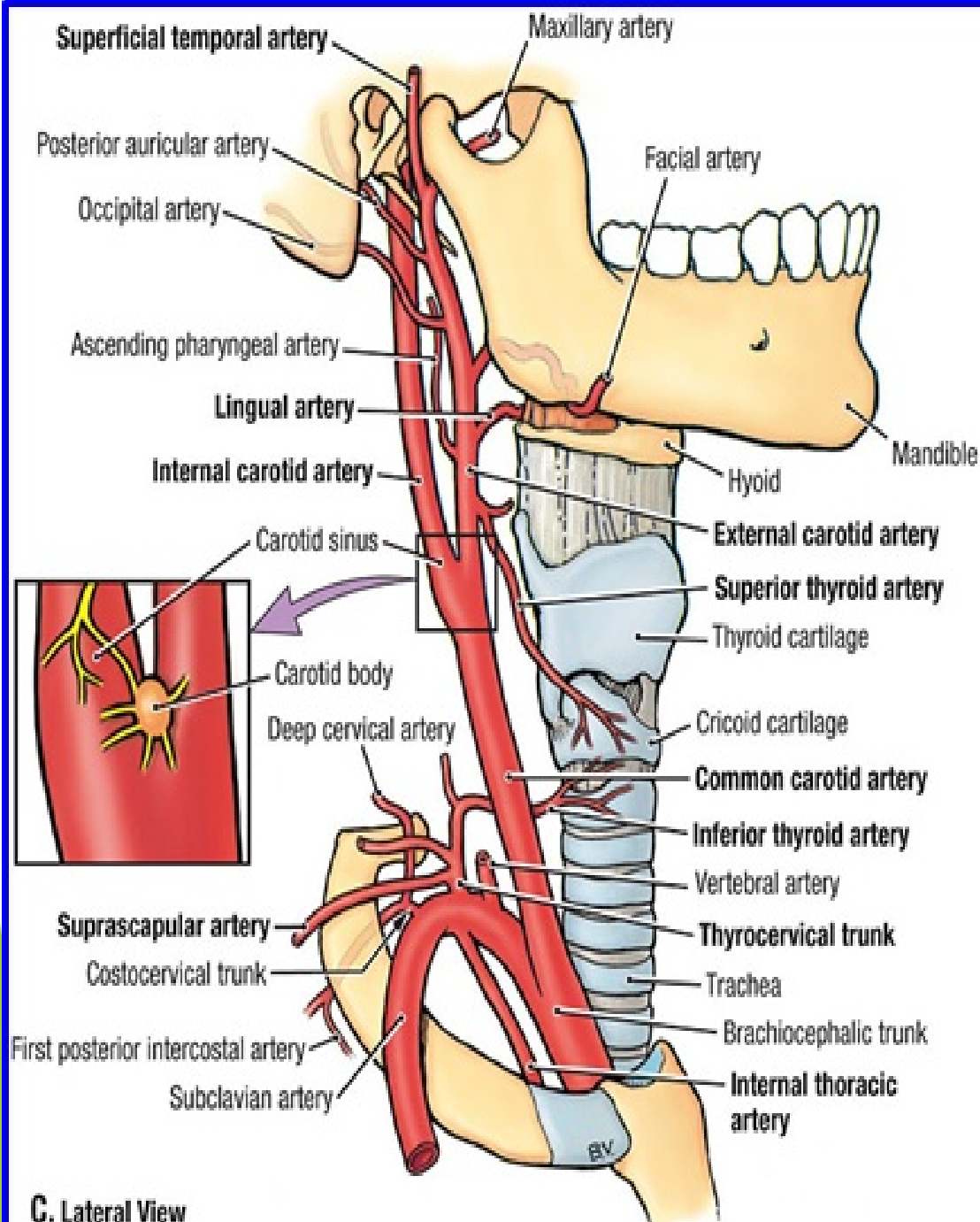
- 1- Ophthalmic artery.
- 2- Posterior Communicating artery.
- 3- Anterior Cerebral artery.
- 4- Middle Cerebral artery.



Carotid Sinus

Is a dilated area at the base of the internal carotid just superior to the bifurcation of the common carotid at the level of the superior border of thyroid cartilage.





The carotid sinus is sensitive to pressure changes in the arterial blood at this level, because they contain numerous baroreceptors which have function to regulate the autonomic control of the heart and blood vessels. A rise in blood pressure causes a slowing of the heart rate and vasodilatation of the arterioles.

