

# **SCALP**

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# Lecture ILOS & Objectives:

- *By the end of this lecture the student should be able to:*
- *Understand layers of the scalp*
- *Understand important muscles of the scalp*
- *Describe the blood supply of the scalp*
- *outline the lymphatic drainage of the scalp*



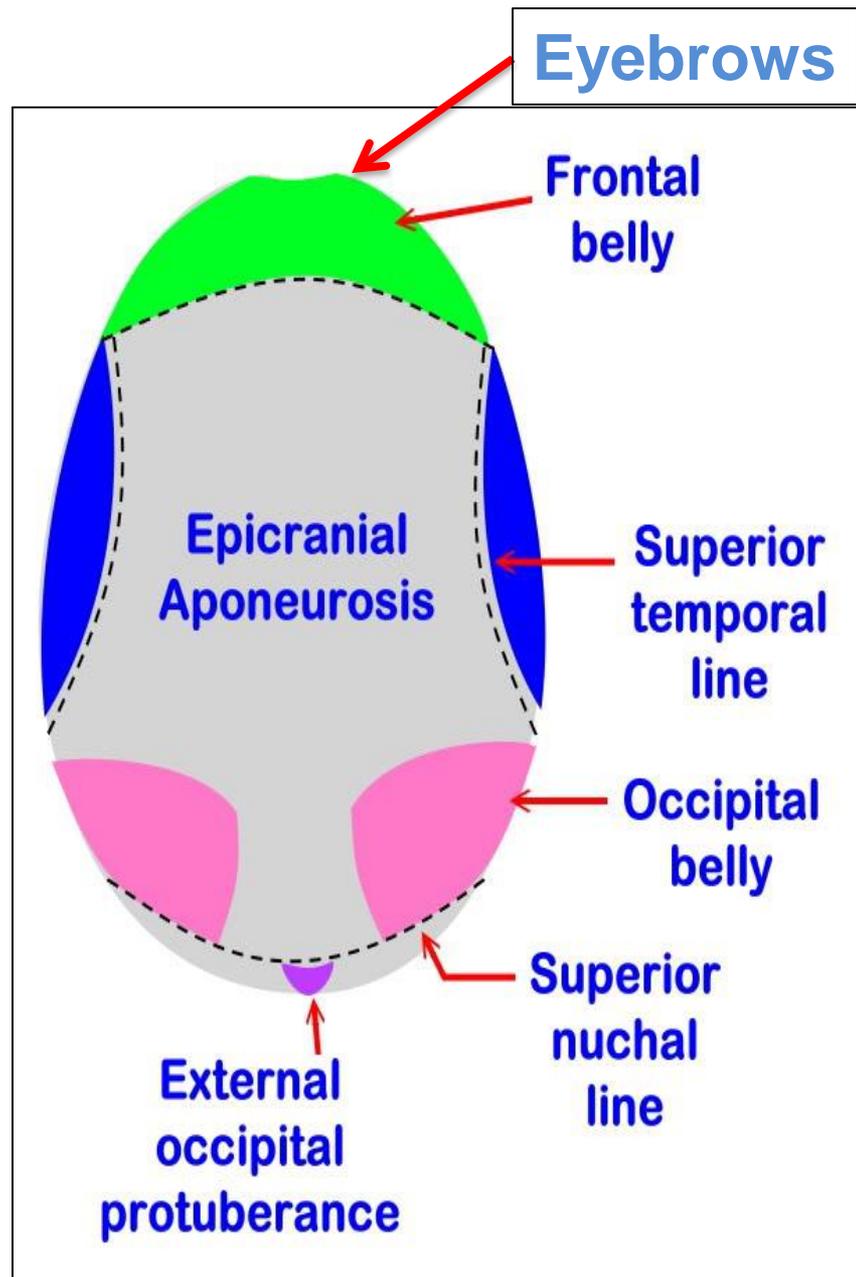
# Scalp

## Definition:

It is the soft tissue covering the skull cap

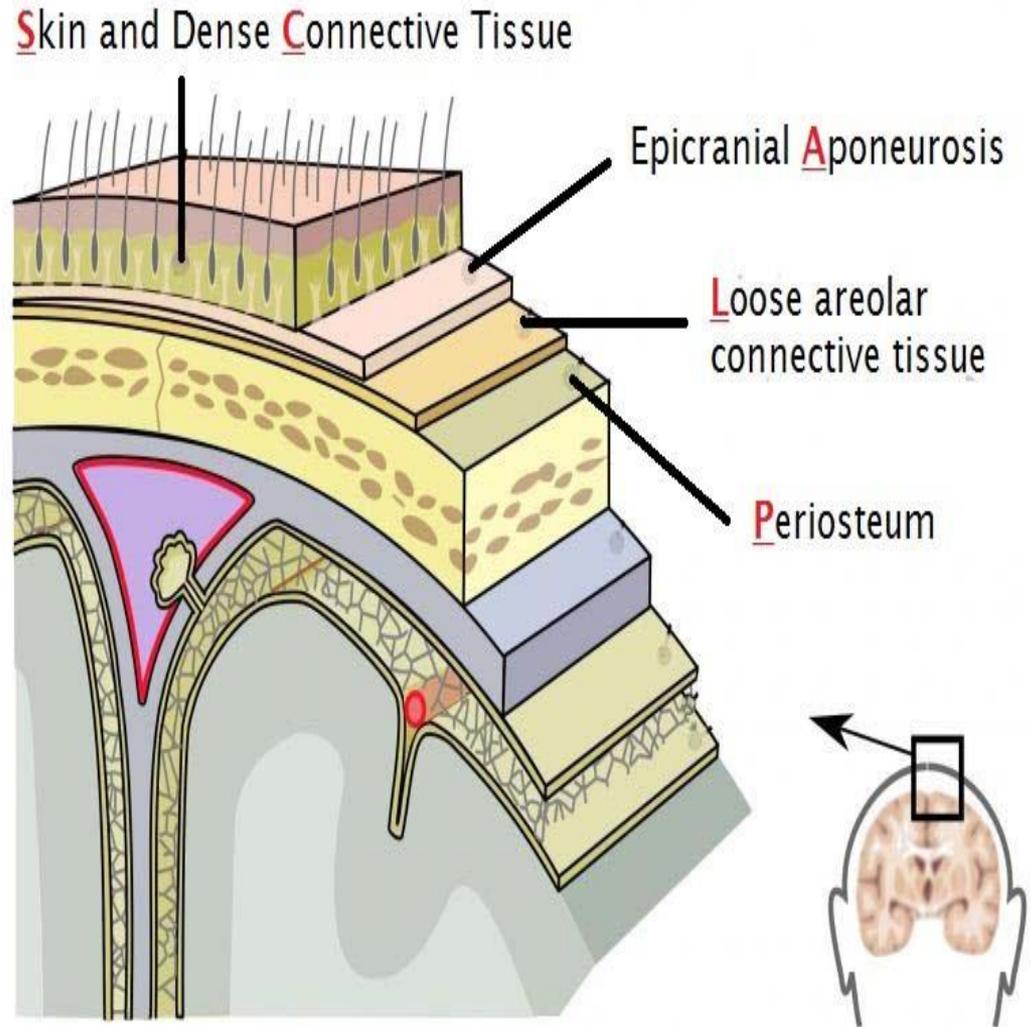
## Extensions:

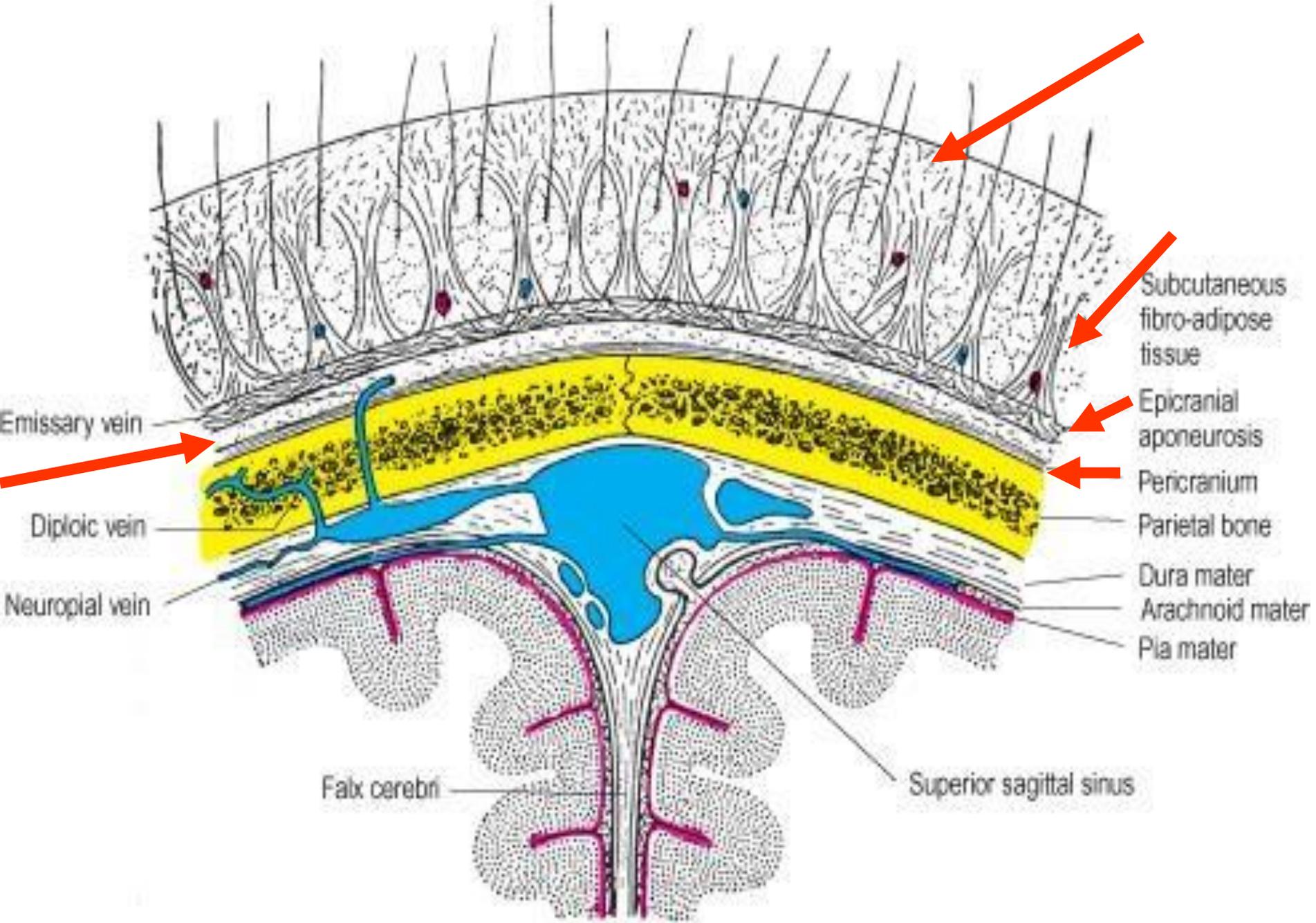
- from eyebrow in front
- to superior nuchal line behind
- between temporal lines of both sides



# Layers of the scalp

- S- Skin
- C- CT
- A- Epicranial aponeurosis
- L- Loose areolar tissue
- P- pericranium





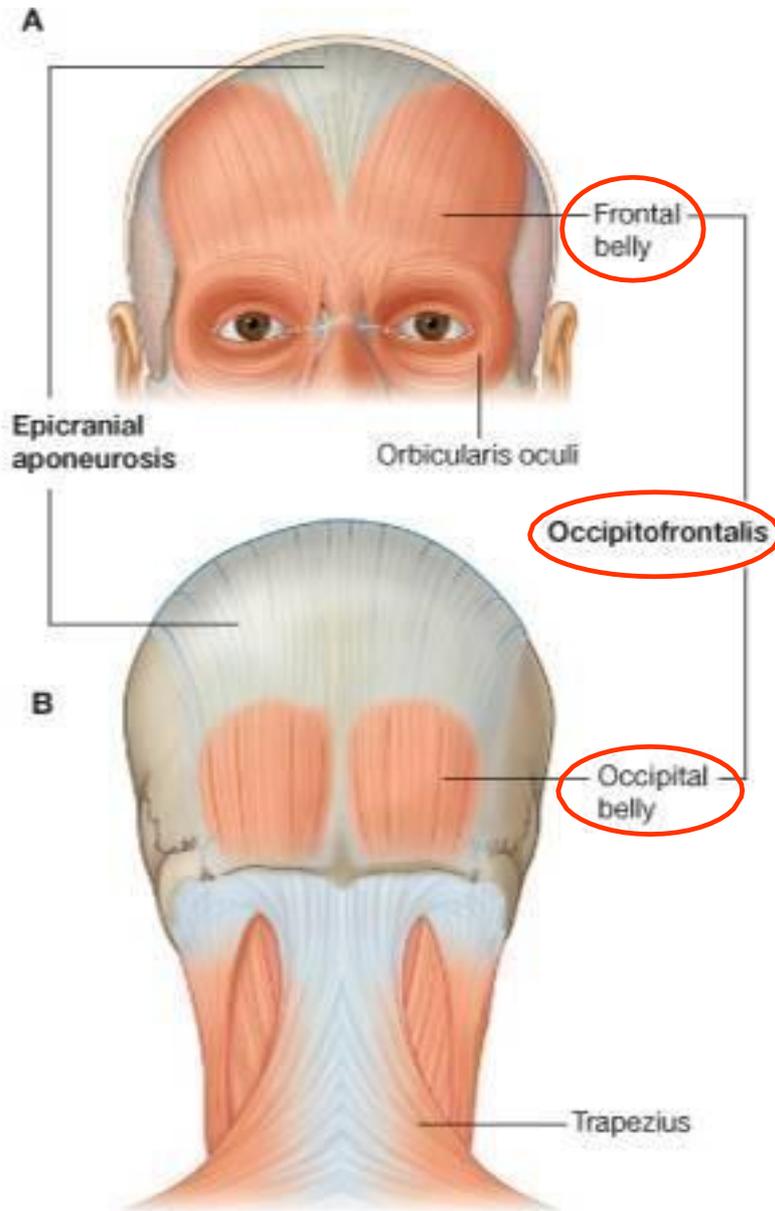
# Connective subcutaneous tissue (Superficial fascia)

- It is adherent to the overlying and the underlying layers.
- It contains the vessels and nerves of the scalp.
- The walls of the vessels are firmly attached to the tissues
- *So, a cut vessel in it cannot retract and leads to profuse bleeding.*

## □ Note

- *the skin, the subcutaneous connective tissue and the epicranial aponeurosis (layers 1, 2, 3) are adherent to each other and move as a one unit*
- ***A cut wound in it does not gap unless it involves the underlying aponeurosis.***

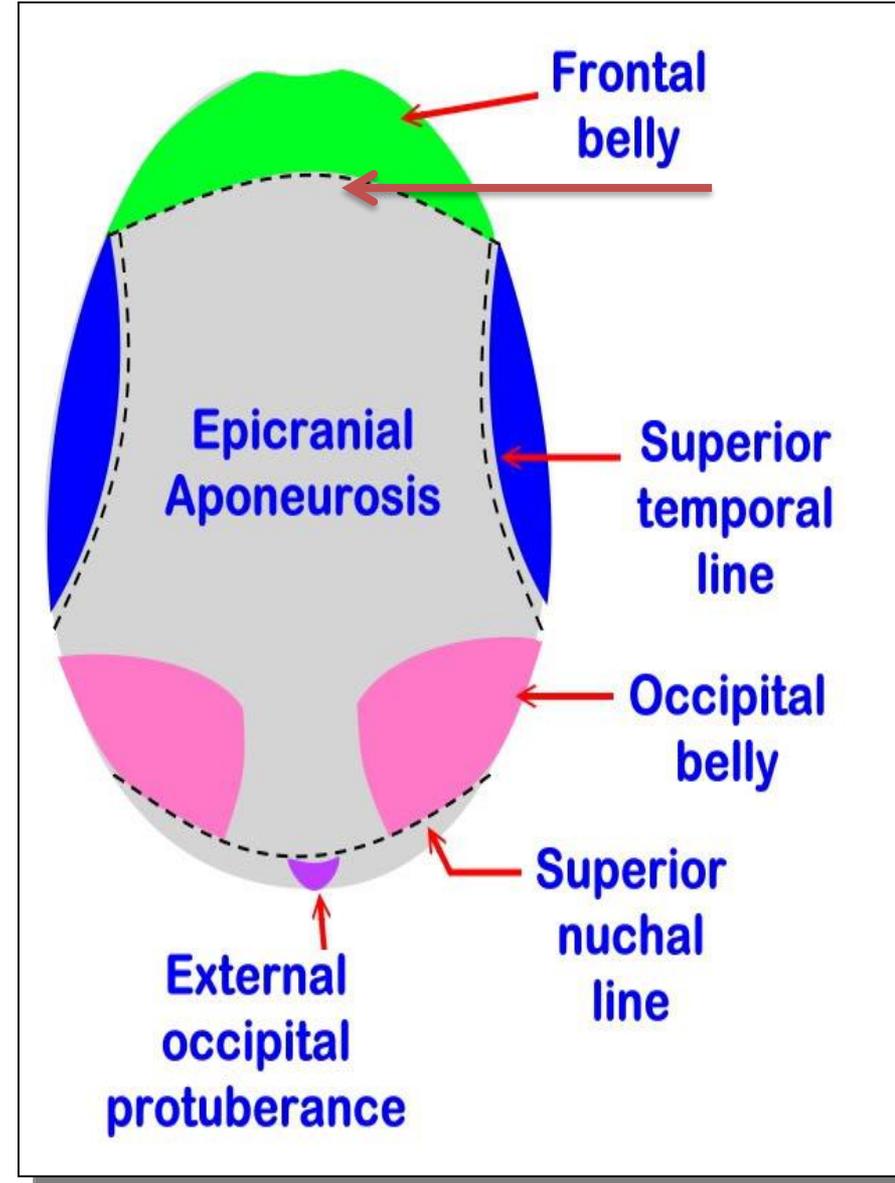
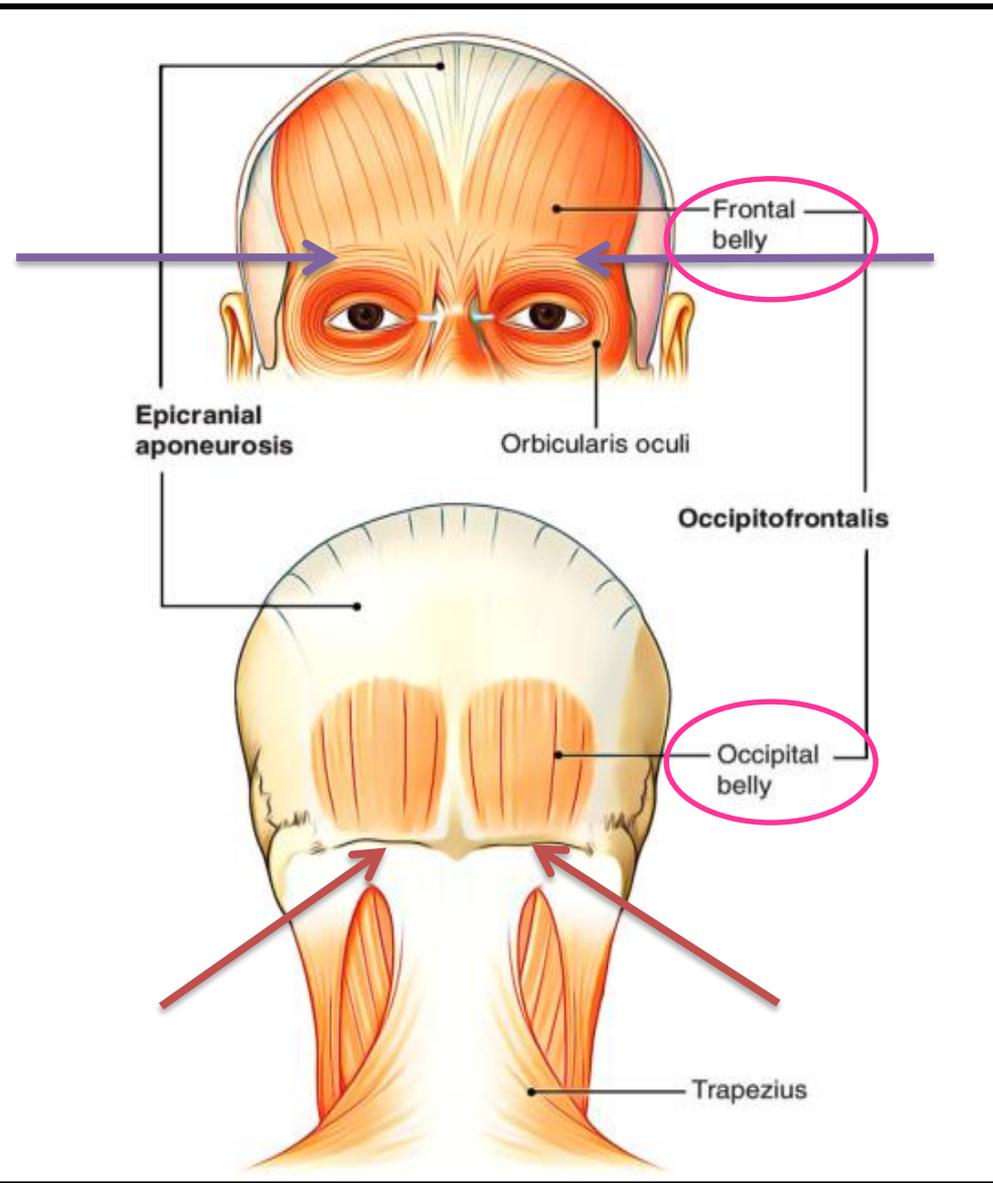
# MUSCLES OF THE SCALP



## Occipito-frontalis (epicranius)

- **Origin:** It consists of four bellies, two occipital and two frontal, connected by an aponeurosis.
- **The occipital bellies are smaller and** arise from the highest nuchal line
- **The frontal bellies are larger and closer to each other in the middle line** arise from the skin and superficial fascia of the eyebrow

# Occipitofrontalis muscle



□ **Nerve supply:**

- The **occipital belly** is supplied by the posterior auricular branch of the facial nerve;
- the **frontal belly** is supplied by the temporal branch of the facial nerve.

occipital belly

frontal belly

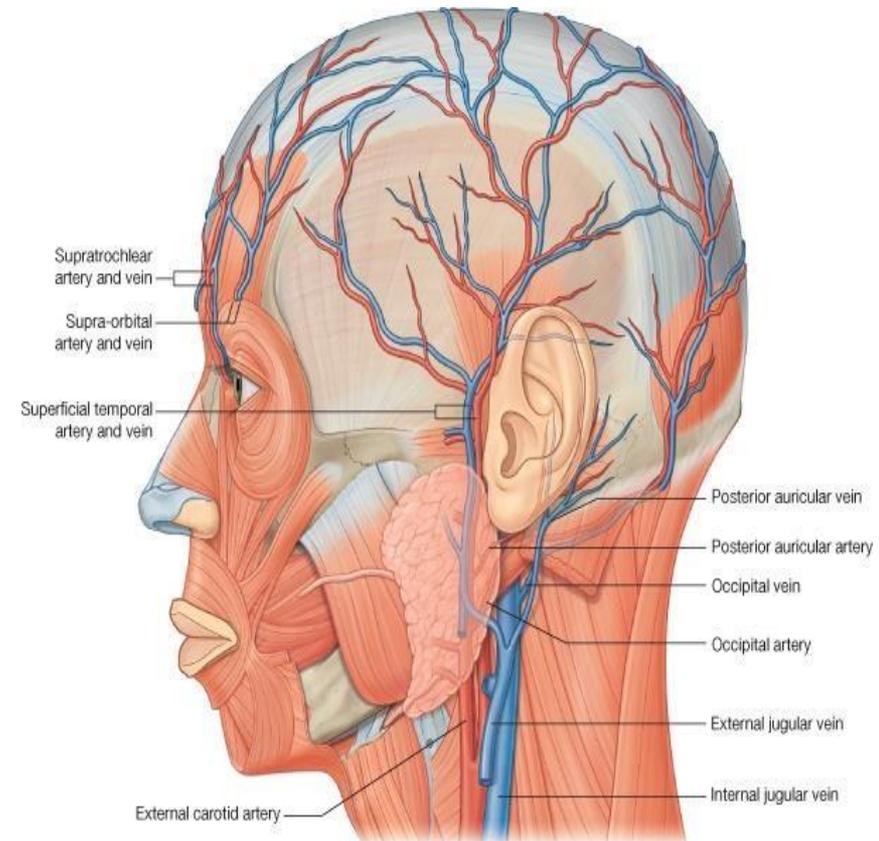
# Loose areolar tissue

- *This layer is called the dangerous area of the scalp because infection can spread to the cranial cavity via the emissary veins.*
- Bleeding lead to black eye
- Bleeding cause generalized swelling of scalp

# ARTERIAL SUPPLY OF SCALP

5.The occipital a

- ❑ **3** arteries lie in front of the auricle and the other
- ❑ **2** lie behind Auricle

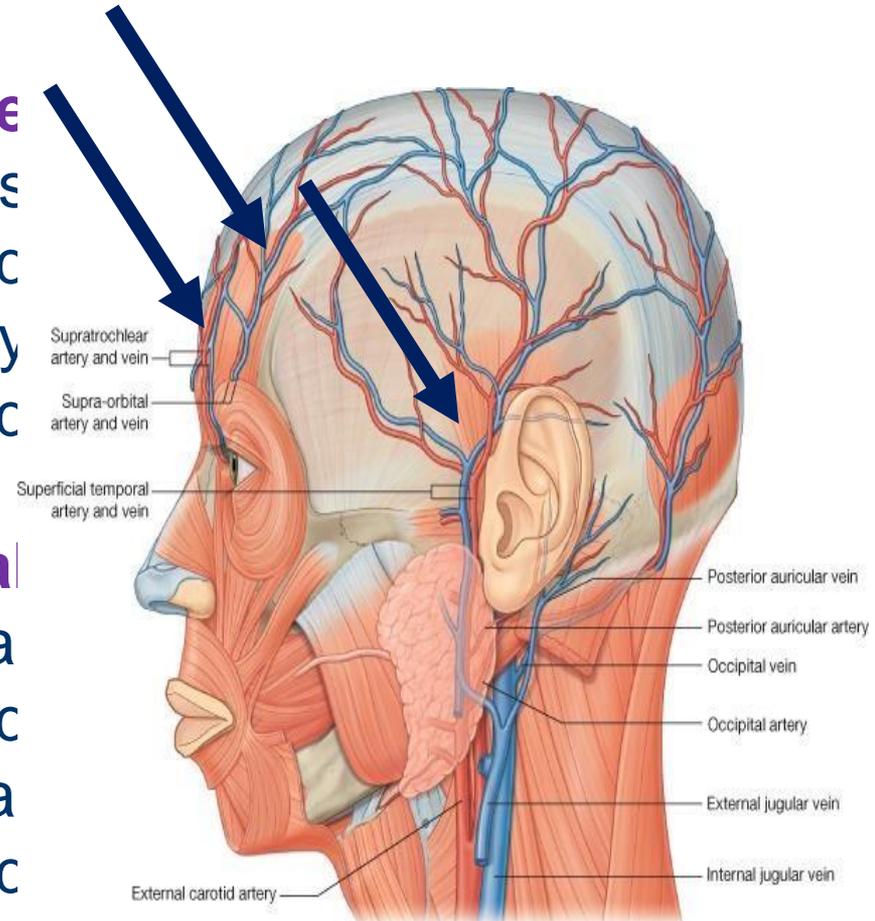


# ARTERIAL SUPPLY OF SCALP

5.The occipital a

## Arteries in front of auricle

1. The **supratrochlear** and the **supraorbital arteries**, branches of the ophthalmic artery, ascend over the forehead in company with the supratrochlear and supraorbital nerves.
2. The **superficial temporal artery**, the smaller terminal branch of the external carotid artery with the auriculotemporal nerve. It divides into anterior and posterior branches, which supply the skin over the frontal and temporal regions.



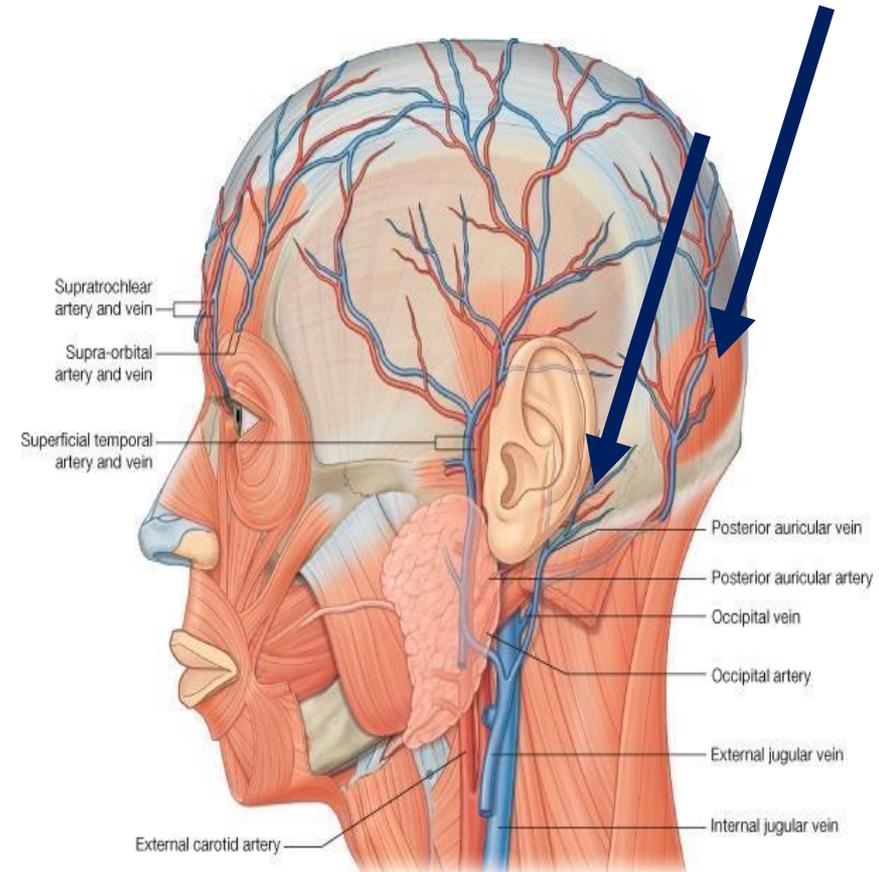
# ARTERIAL SUPPLY OF SCALP

5.The occipital a

## Arteries Behind auricle

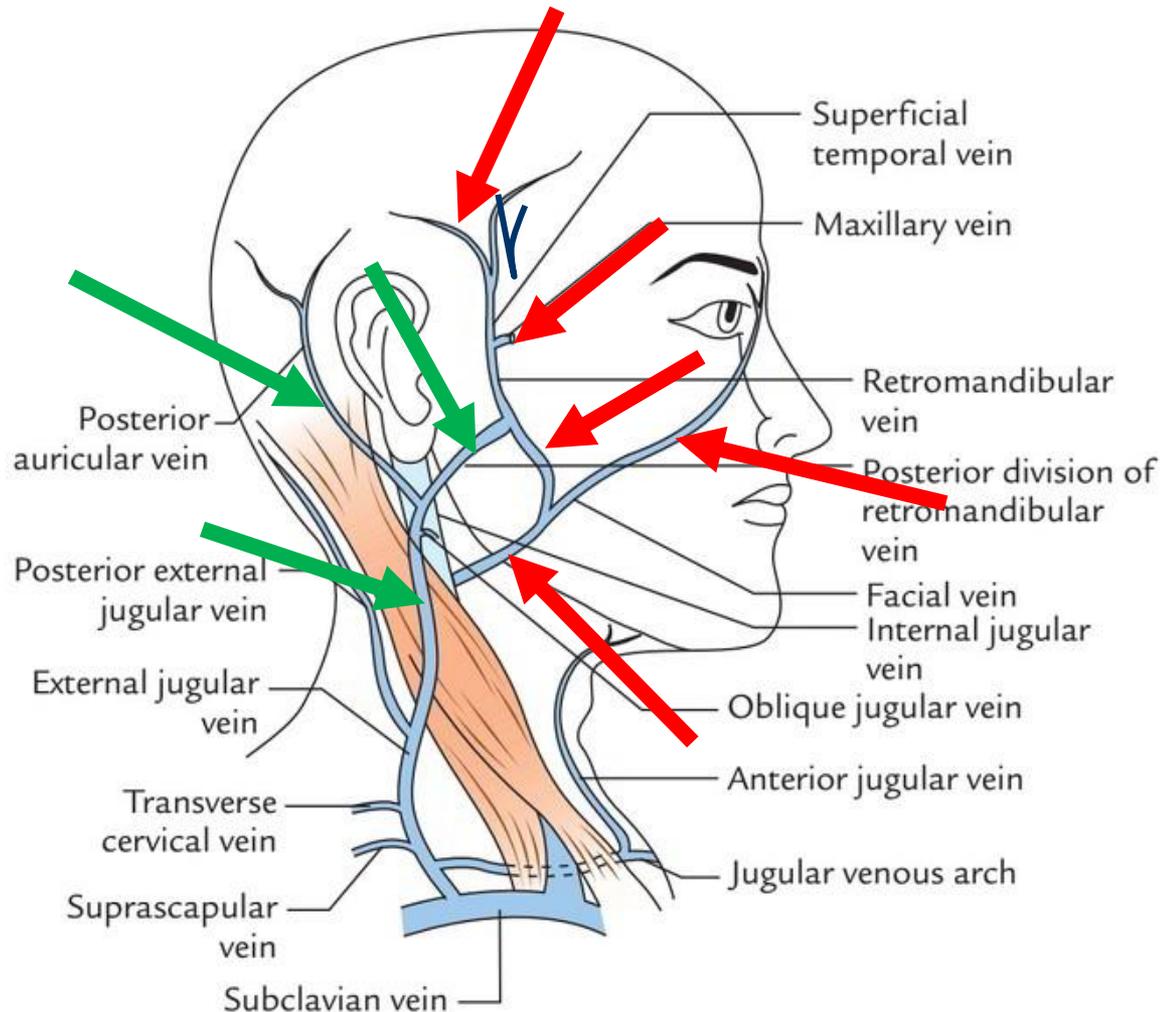
1.The posterior auricular artery, a branch of the external carotid artery.

1.The occipital artery, a branch of the external carotid artery.



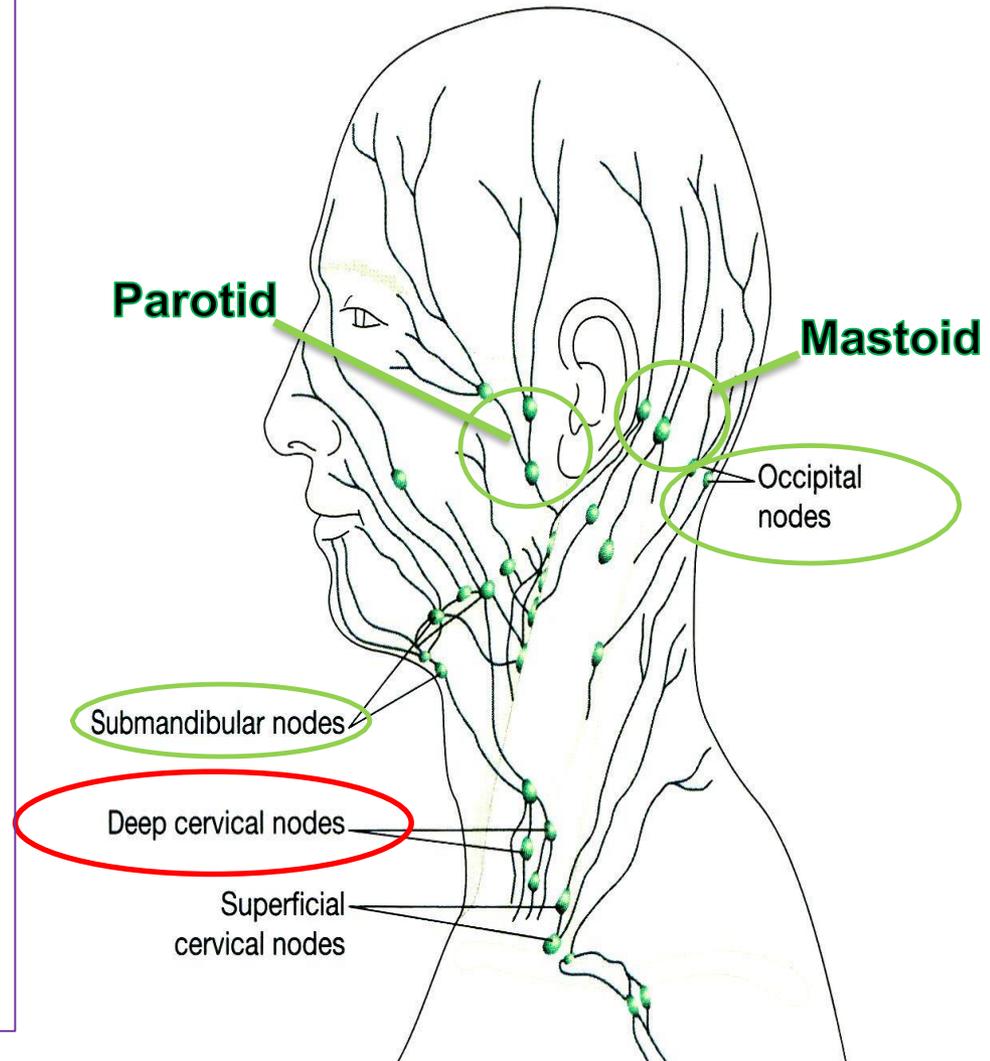
# VENOUS DRAINAGE OF SCALP

- **Superficial temporal vein** unites with the maxillary vein to form retromandibular vein.
- **Posterior auricular vein** unites with the posterior division of the retromandibular vein to form the external jugular vein.
- **Occipital vein** drains into the vertebral veins or the internal jugular vein.



# LYMPH DRAINAGE OF SCALP

- Anterior part of the scalp and forehead drain into the submandibular lymph nodes.
- Lateral part of the scalp above the ear drains into the parotid (preauricular) nodes.
- Part of the scalp above and behind the ear drain into the mastoid nodes.
- Back of the scalp drains into the occipital nodes.



# Questions

**Which of the following is the nerve supply of occipitofrontalis muscle ?**

- A. Mandibular
- B. Lingual
- C. Facial
- D. Maxillary

**Which of the following lymph nodes receives lymphatics from above and behind the ear?**

- A. Parotid
- B. Mastoid
- C. Occipital
- D. Submandibular

**Enumerate the arteries supplying scalp.**

THANK  
You! 😊