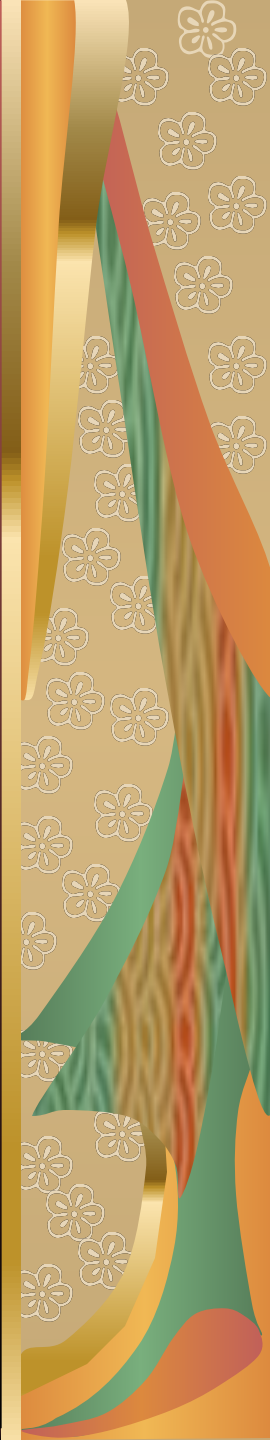


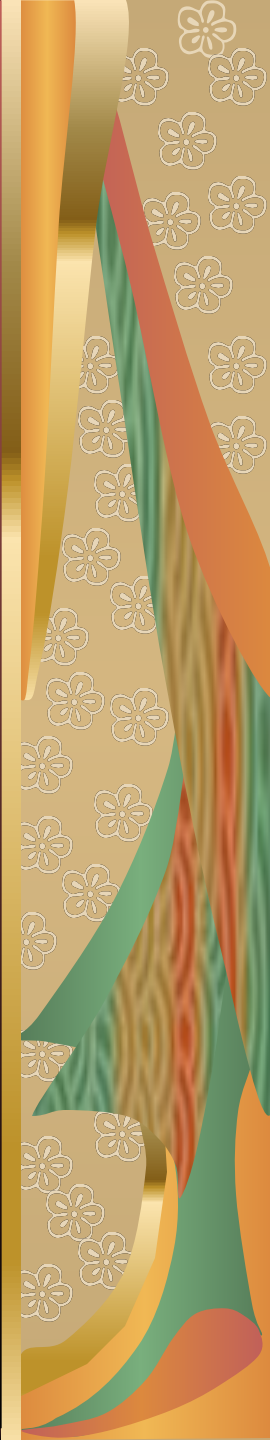
# Anatomical and Physiological Substantiations of the Operative Interventions on the Head

Associate-professor Slaby

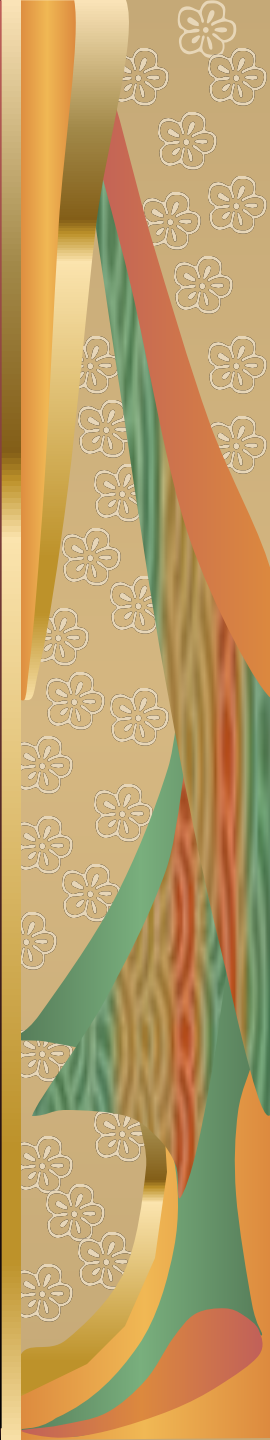
O.B.



Topographical anatomy is a science about the dimensional structure of healthy human body organs, tissues and parts of the body

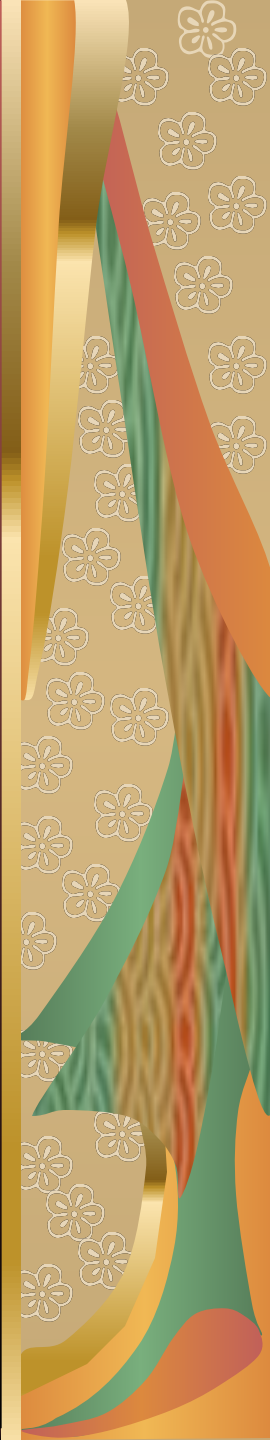


- The operative surgery is a science about surgical operations, methods of surgical operations, the essence of which comes to mechanical action upon the organs and tissues with diagnostic, medical or reconstructive purpose.

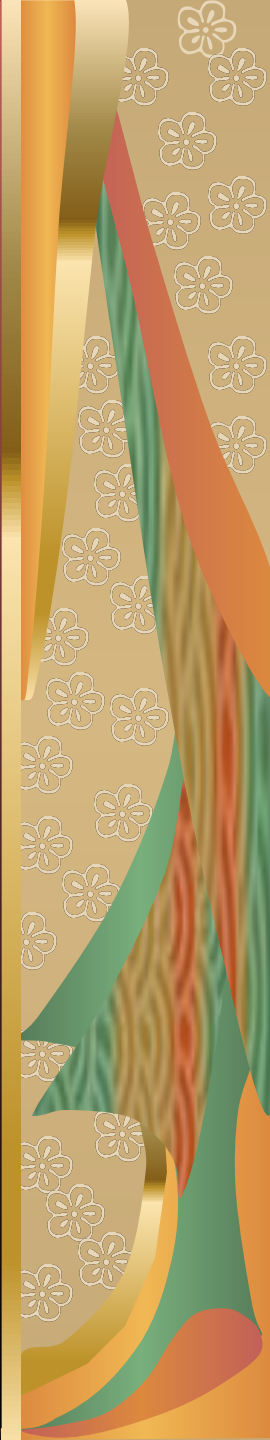


# Classification of operations

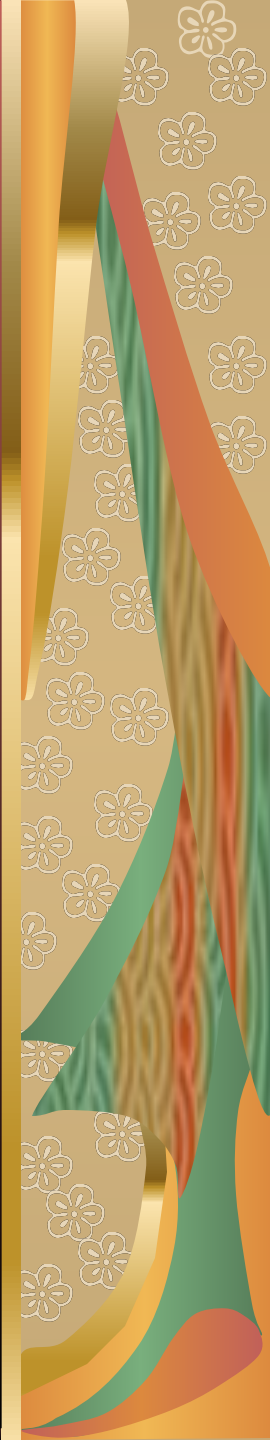
- Emergency
- Urgent
- Planned
- Bloodless
- Bloody
- Radical
- Palliative
- Single stage
- Stage operations



Operative approach means to make the wound for the exposure of the organ to be operated on



Operative method – the main part of the operation, performing the action contained in the name of the operation



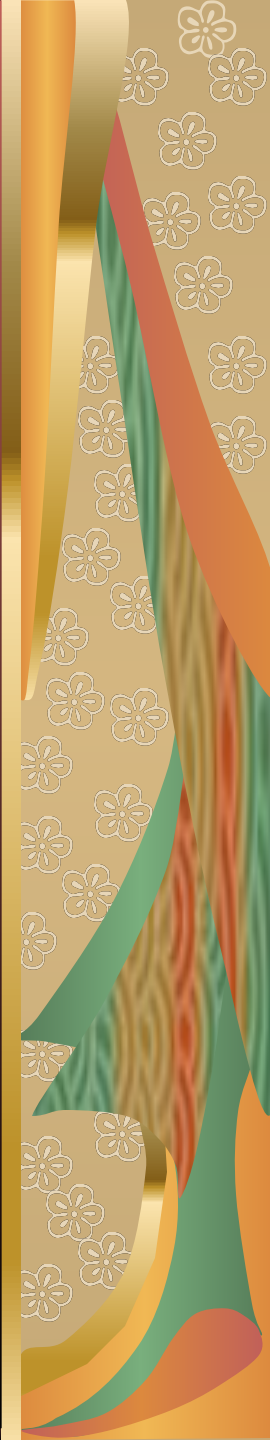
# Suture material

- Absorbable
  - Plain catgut
  - Chromic catgut
  - Polyglycolic synthetics
- Nonabsorbable
  - Natural (silk, cotton)
  - Synthetic braids (Ticron, Tevdek, Ethibond)
  - Synthetic monofilament ( nylon, Prolen)
  - Monofilament stainless
  - Steel wire



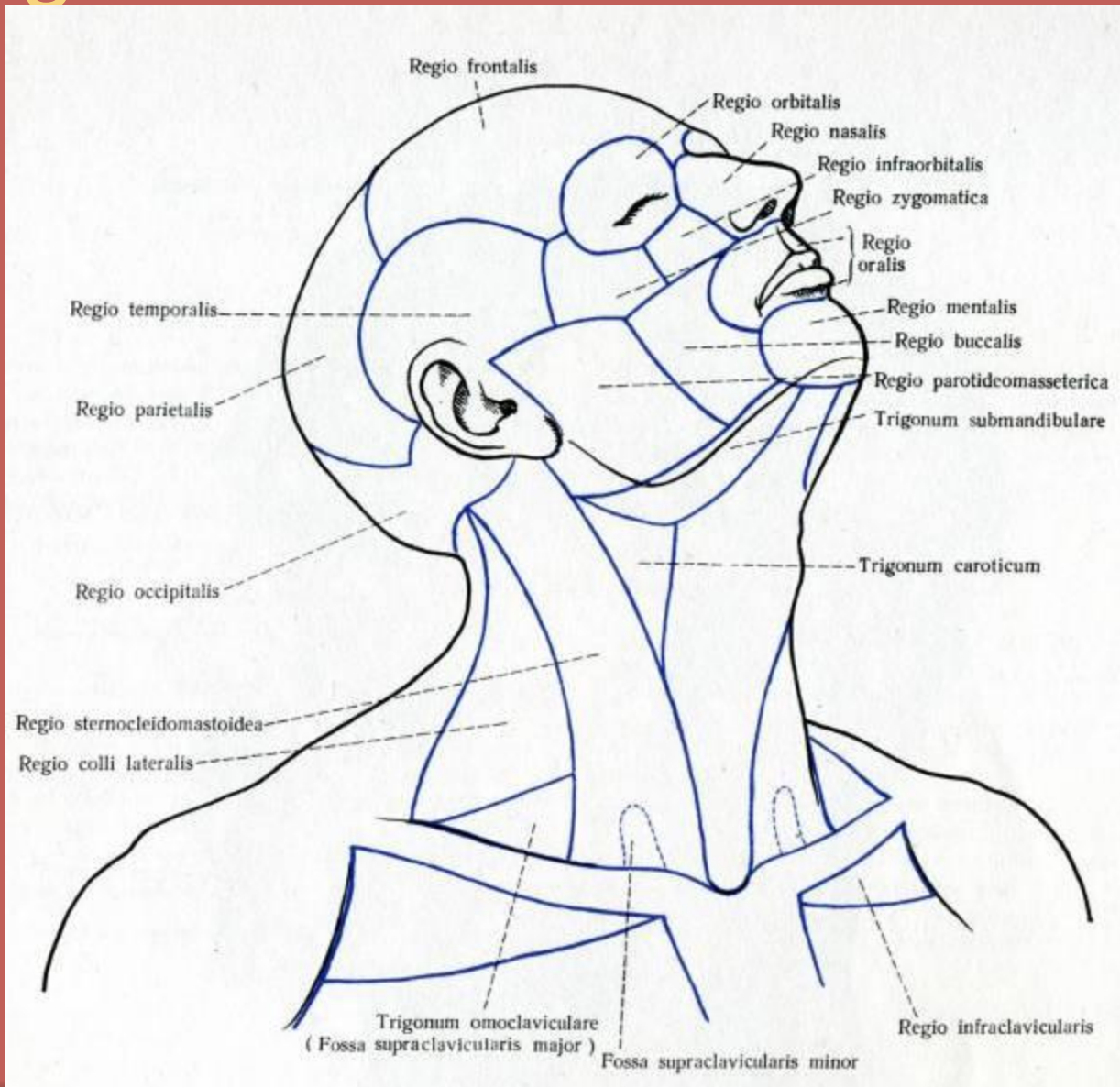
# Type of sutures

- Interrupted
- Continuous

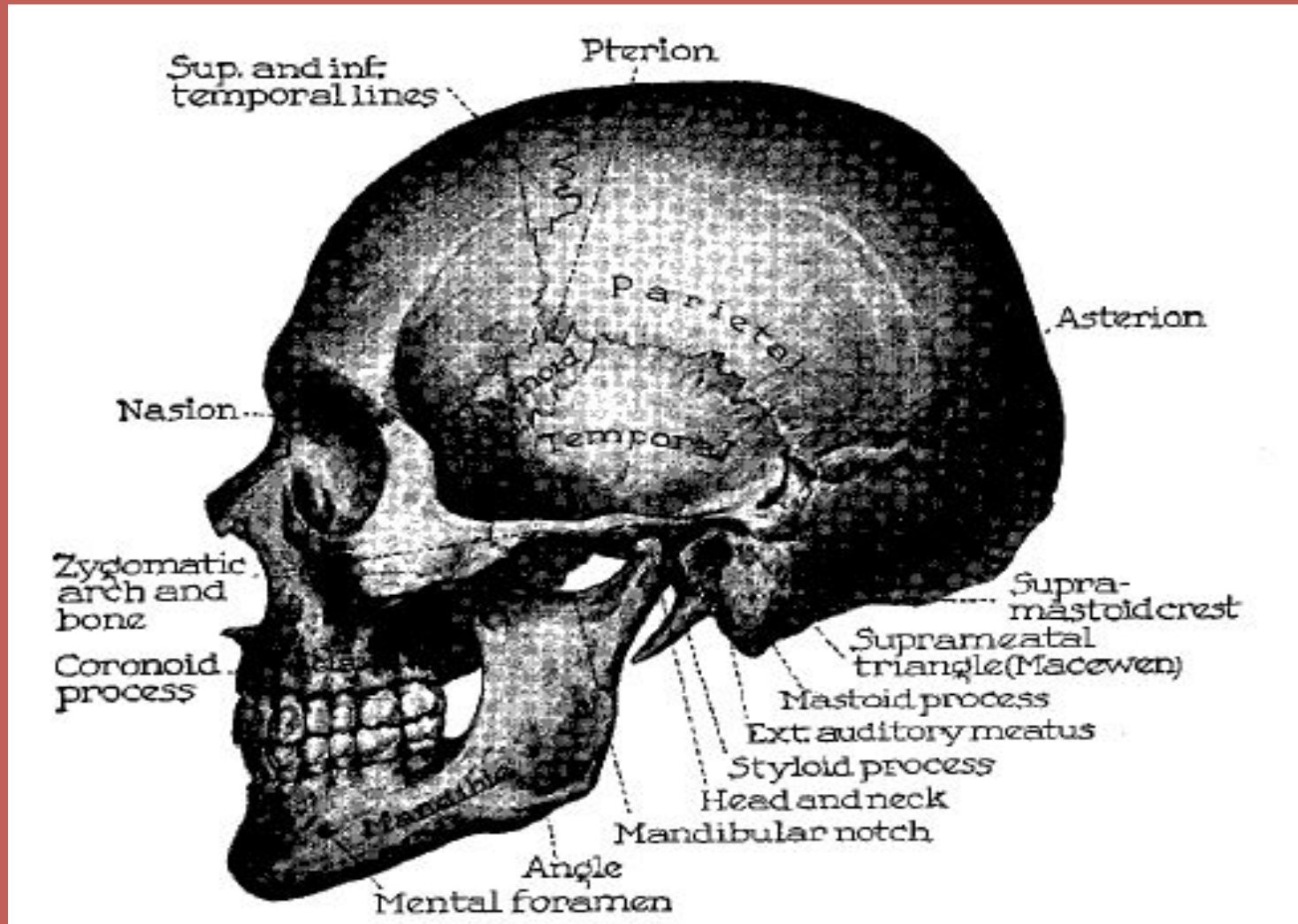




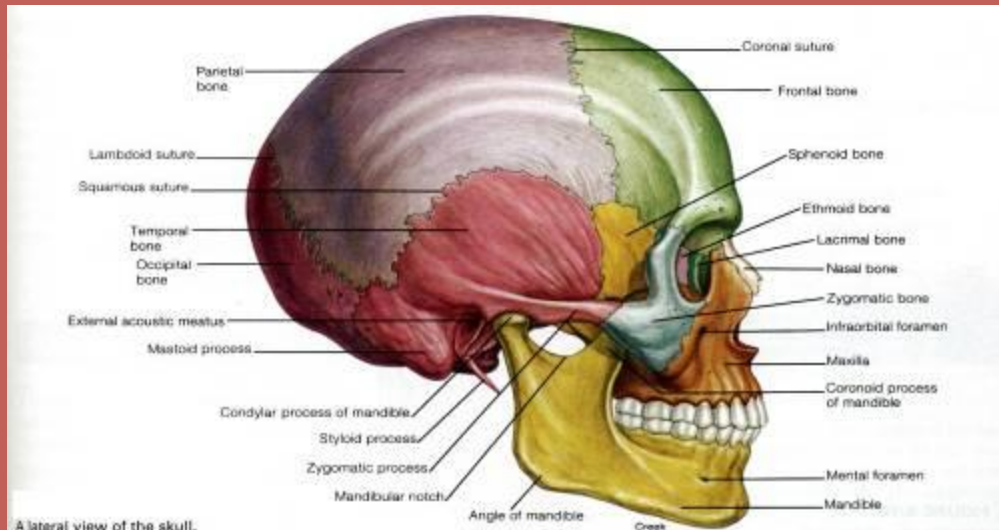
# Regions of the Head and Neck



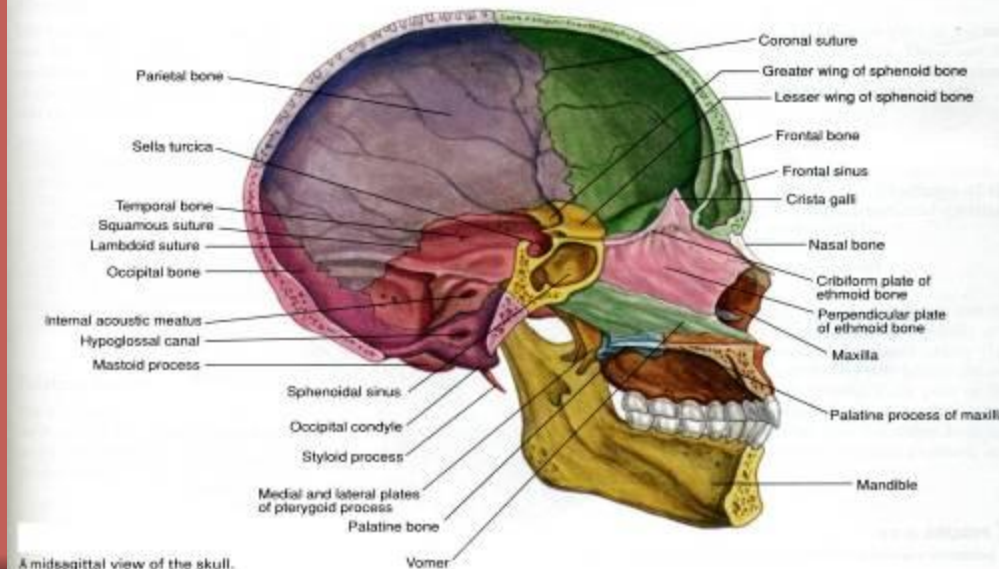
# Side view of the skull (norma lateralis).



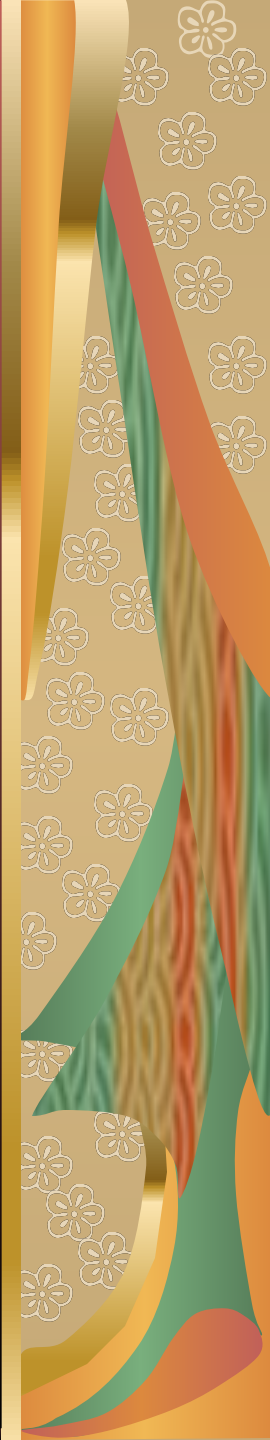
# A Lateral view of the Skull



A lateral view of the skull.

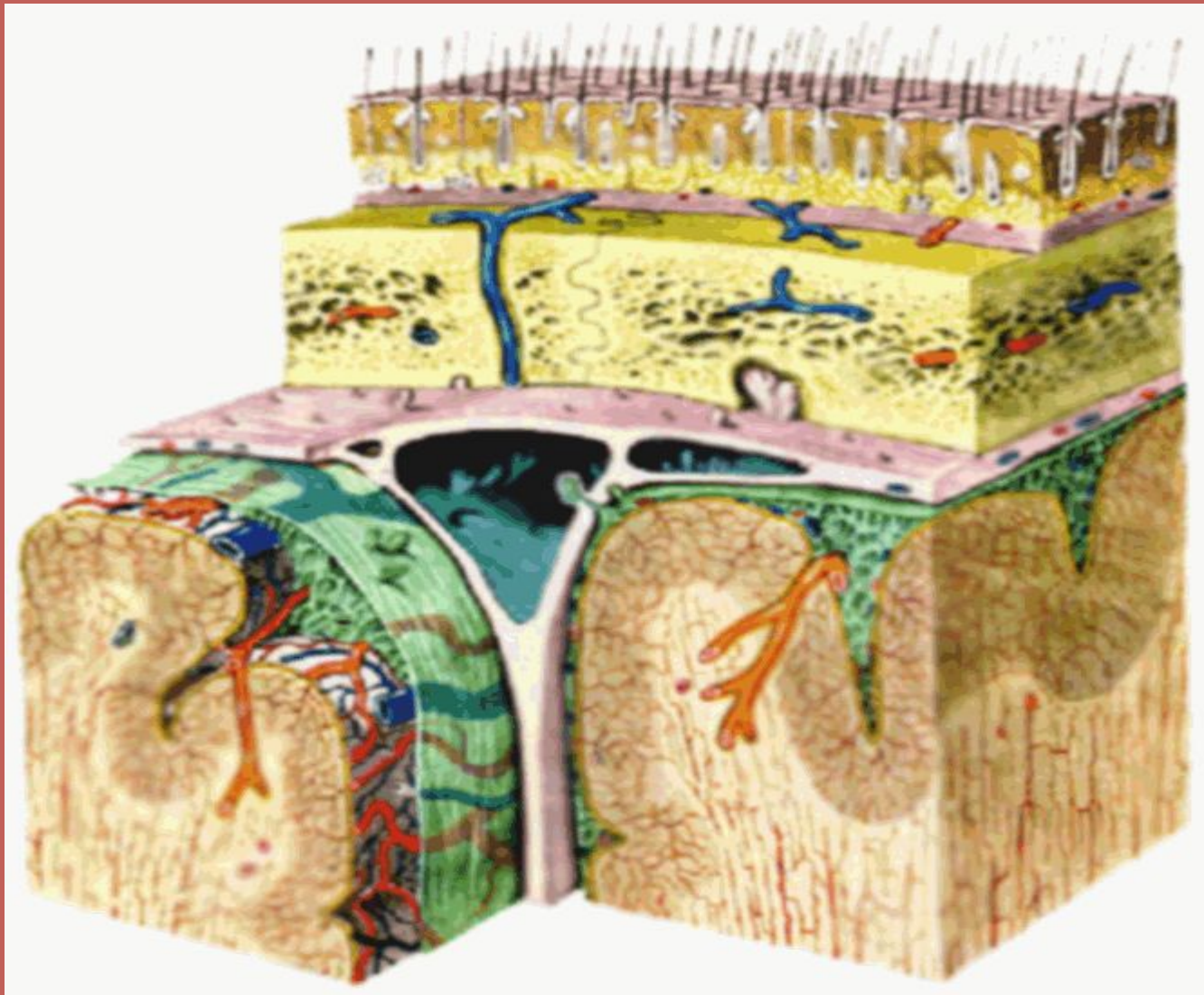


A midsagittal view of the skull.





# Layer Structure of Fronto-Parieto-Occipital Region

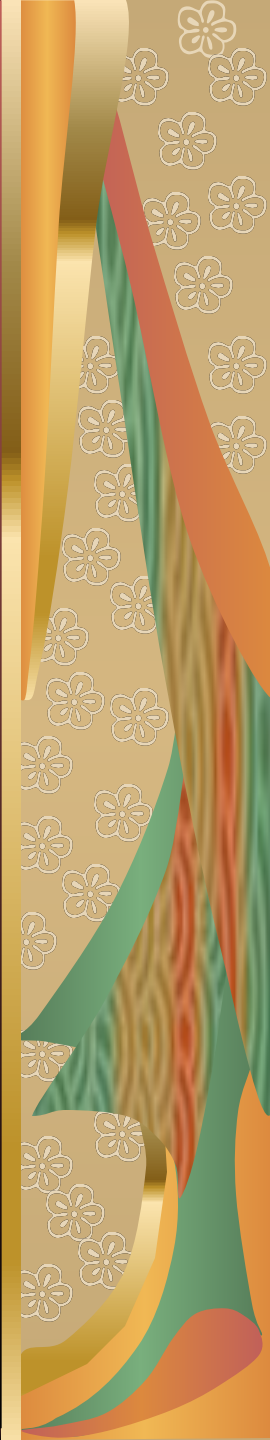


# Layer Structure of Fronto-parieto-occipital Region

1. Skin;
2. subcutaneous tissues;
3. galea aponeurotica;
4. loose areolar tissue;
5. periosteum (pericranium);
6. loose areolar tissue;
7. bone (internal, external lamina and diploe);
8. dura mater.

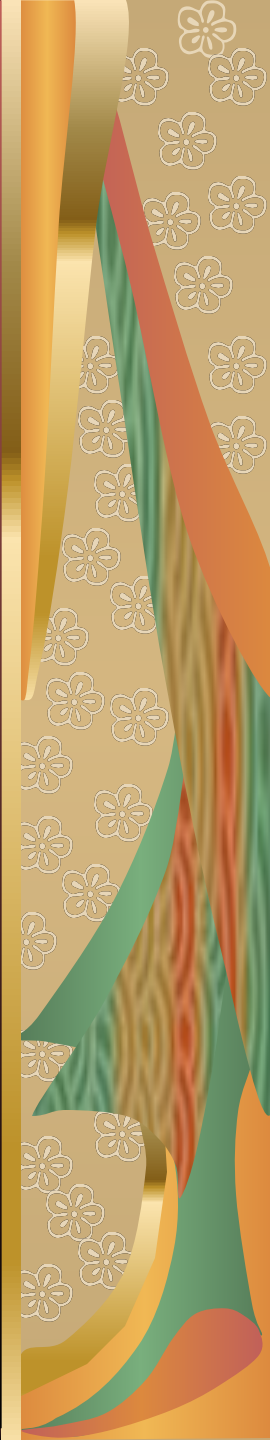


# Head and Neck Arteries



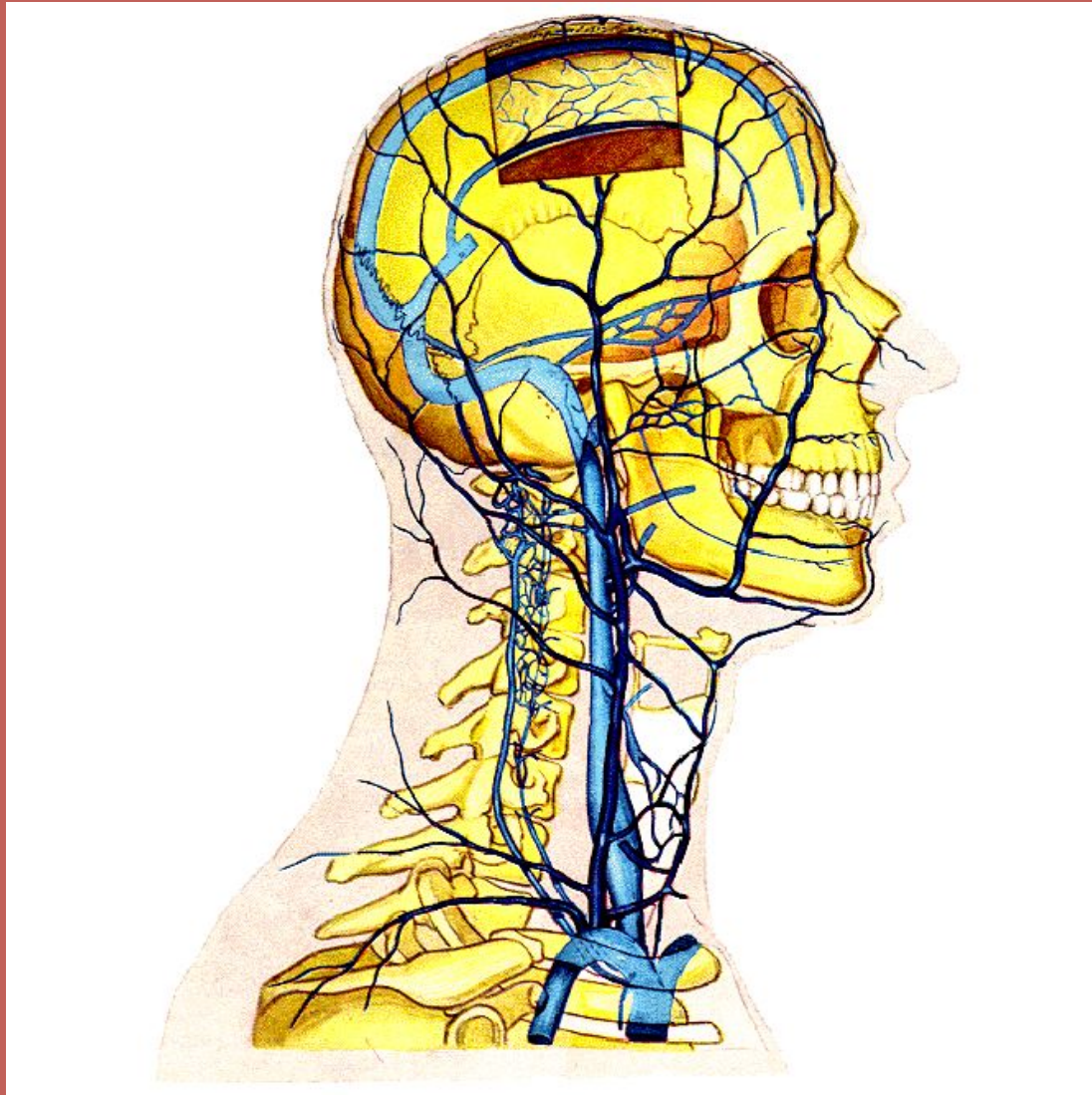
# Arterial and nerve supply of the Scalp

- The supratrochlear and the supraorbital arteries in company with supratrochlear and the supraorbital nerves.
- The superficial temporal artery, zygomaticotemporal and auriculotemporal nerve.
- The posterior auricular artery and lesser occipital nerve (cervical plexus C2)
- The occipital artery and greater occipital nerve (posterior ramus of the second cervical nerve).





# Head and Neck Veins

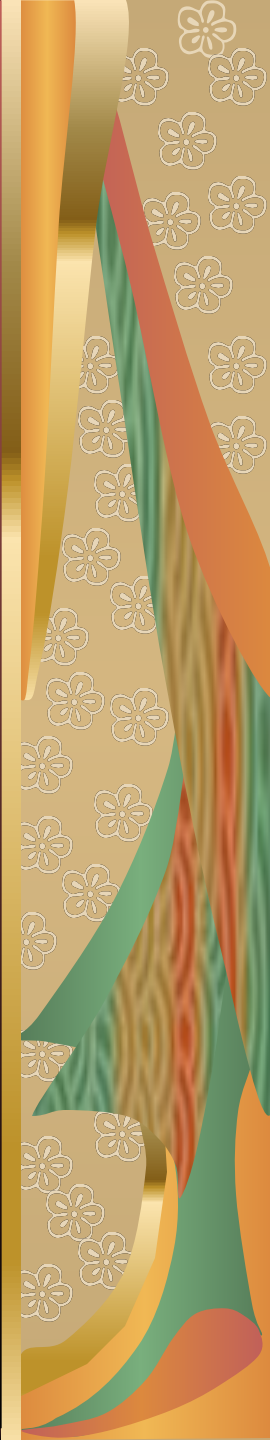
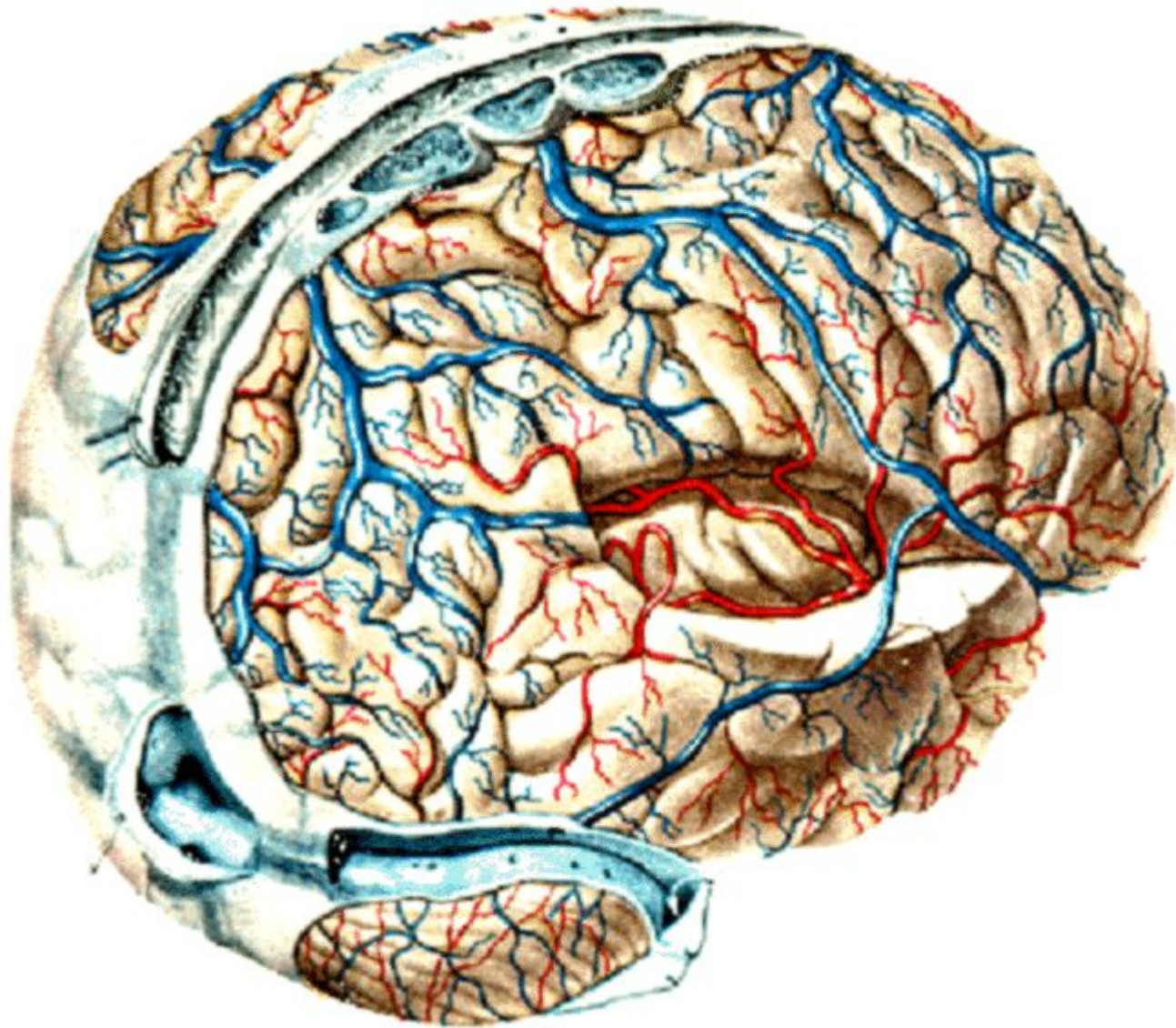




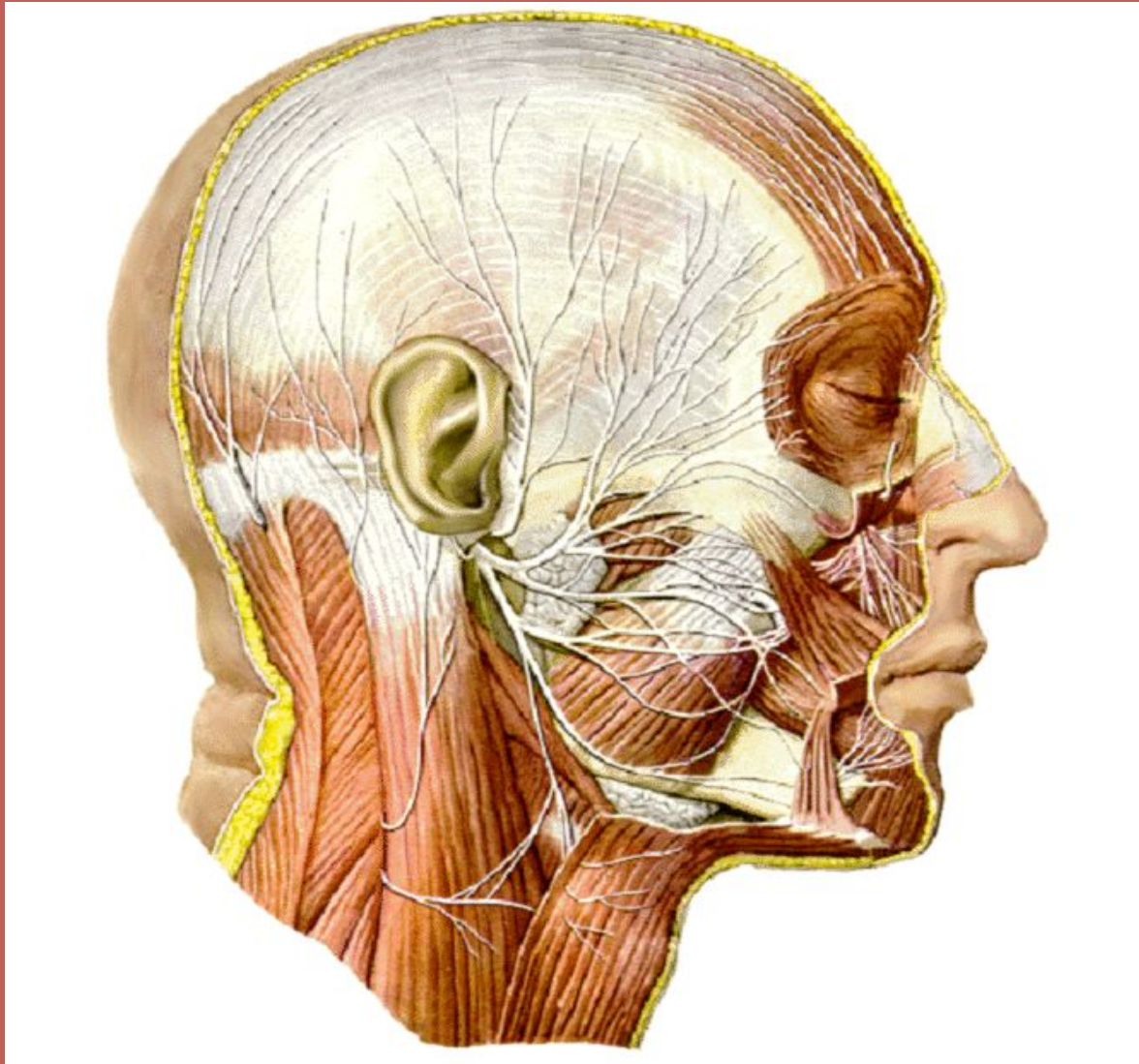
# The venous drainage of the Scalp

- The supratrochlear and supraorbital veins (to from the facial vein).
- The superficial temporal vein (to from the retromandibular vein).
- The posterior auricular vein (to from the external jugular vein).
- The occipital vein (into the suboccipital venous plexus, in turn into the vertebral veins, occasionally forward into the internal jugular vein).
- The veins of the Scalp freely anastomose with another and are connected to the diploic veins and the intracranial venous sinuses by the valveless emissary veins.



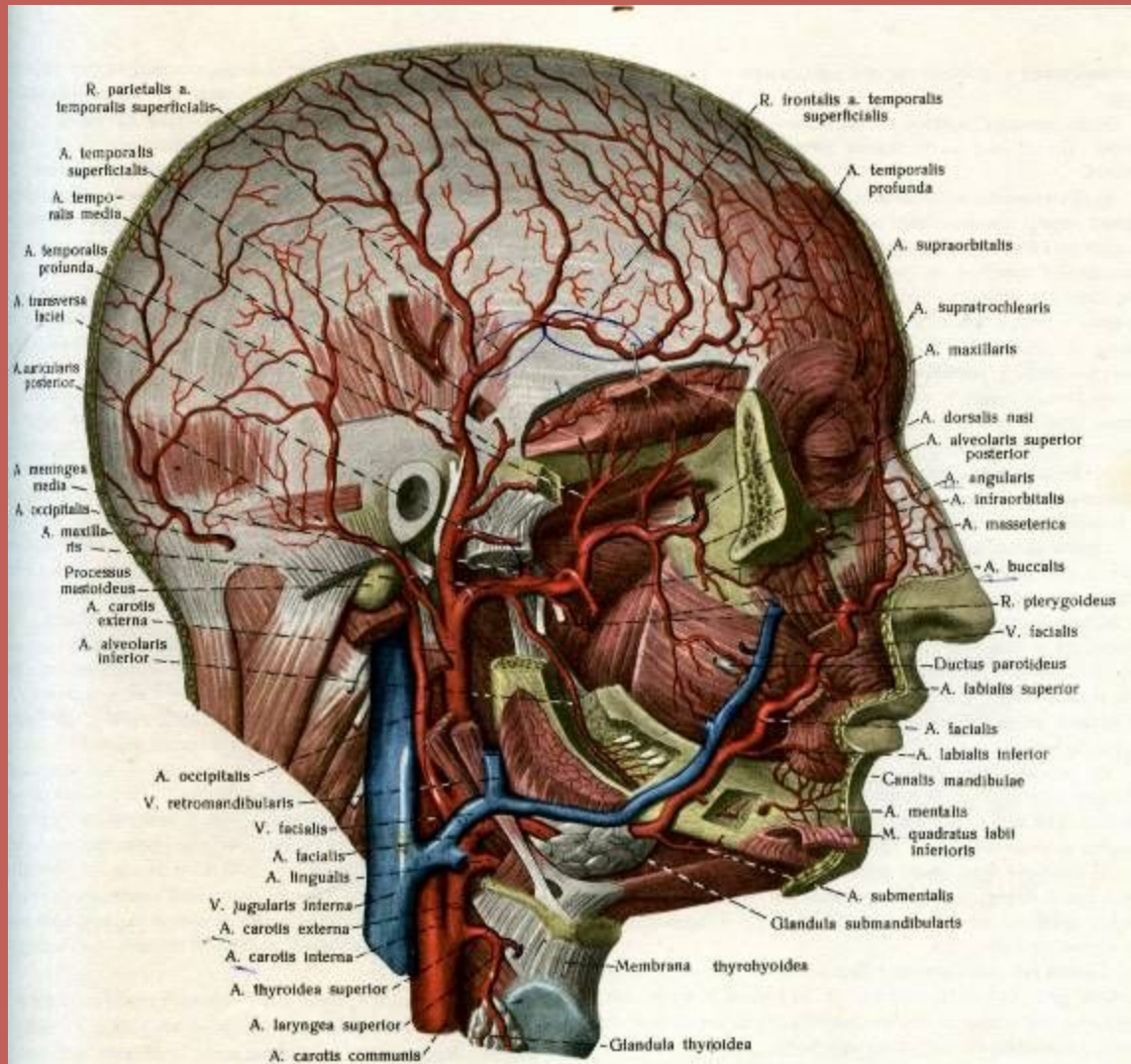


# Temporal region and parotid regions

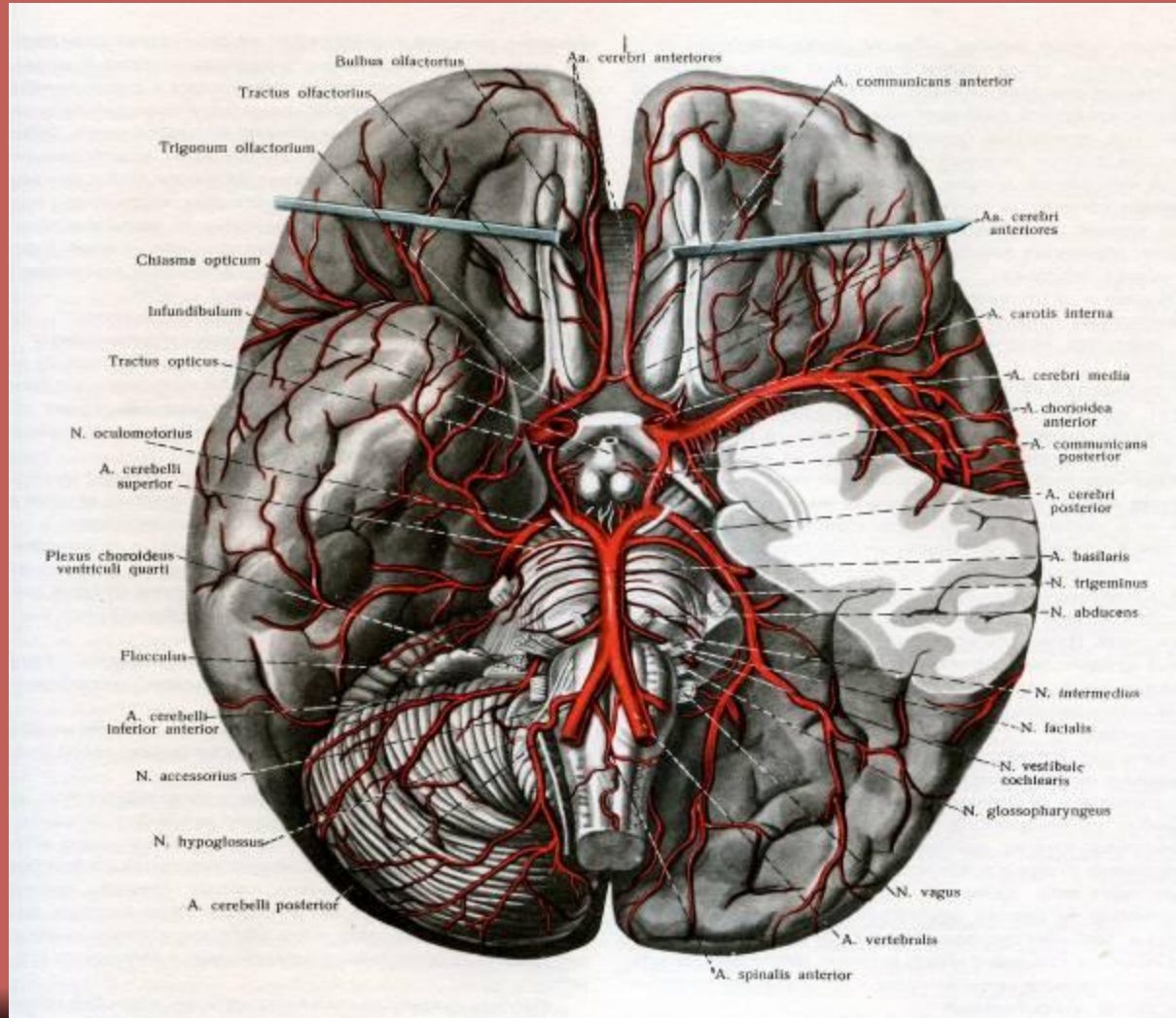




# The temporal and infratemporal fossae, deep region of the face

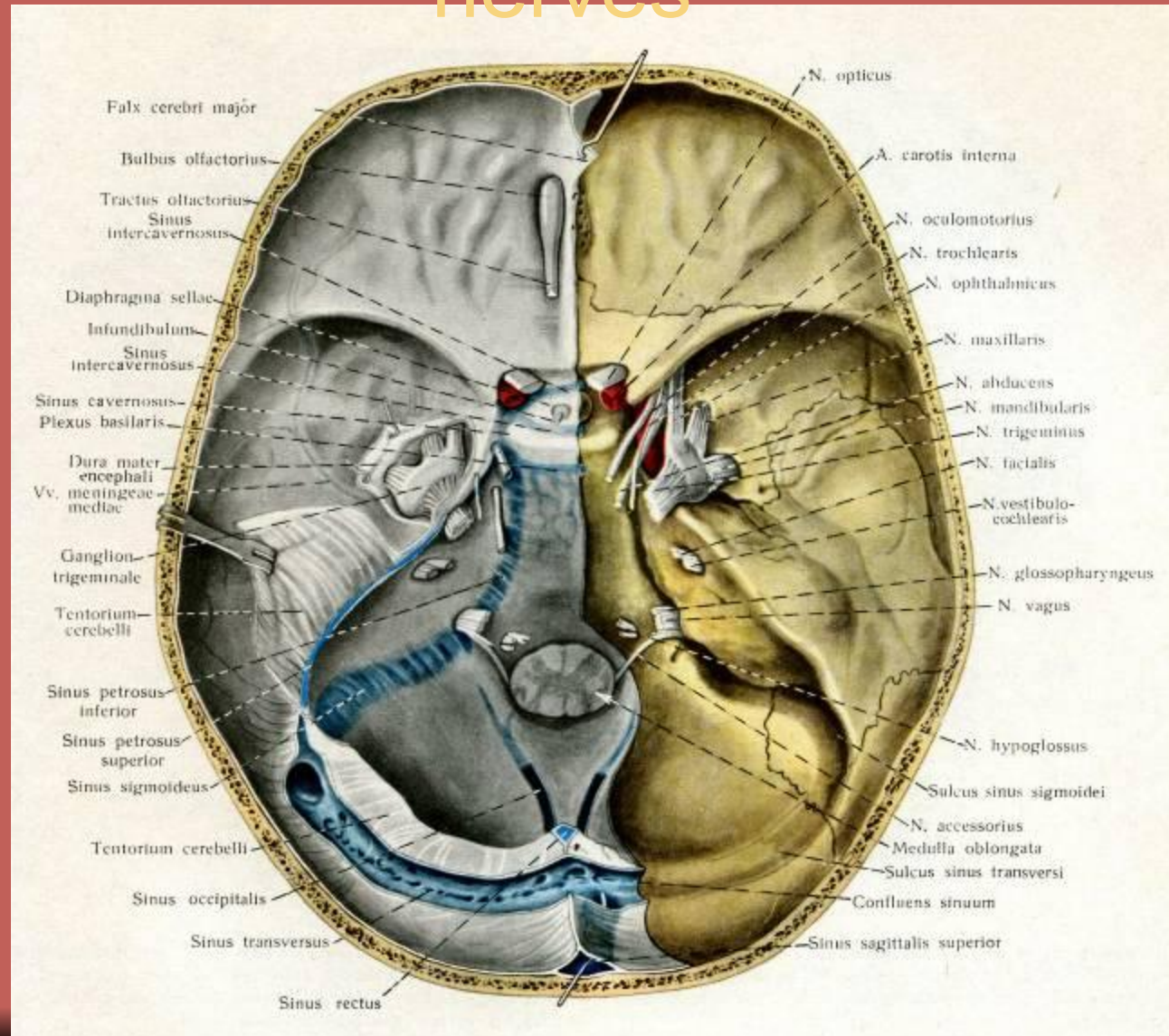


The four arteries anastomose on the inferior surface of the brain and form the *circulus arteriosus*

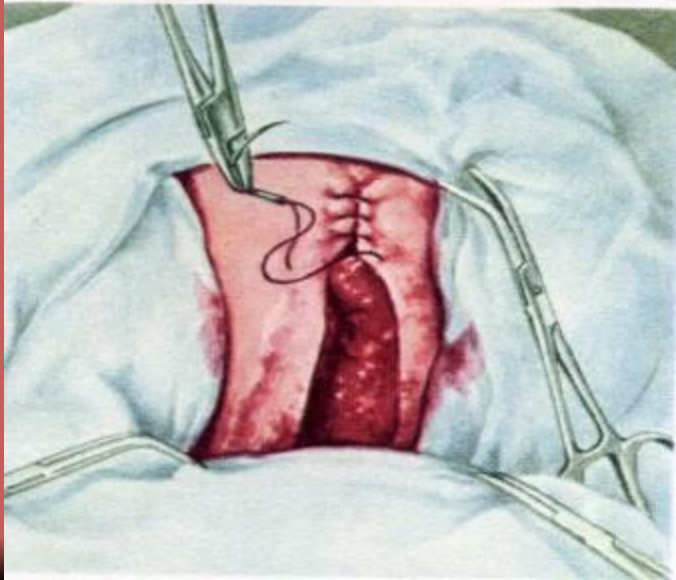




# Internal base the skull, dura mater, venous sinuses and cranial nerves

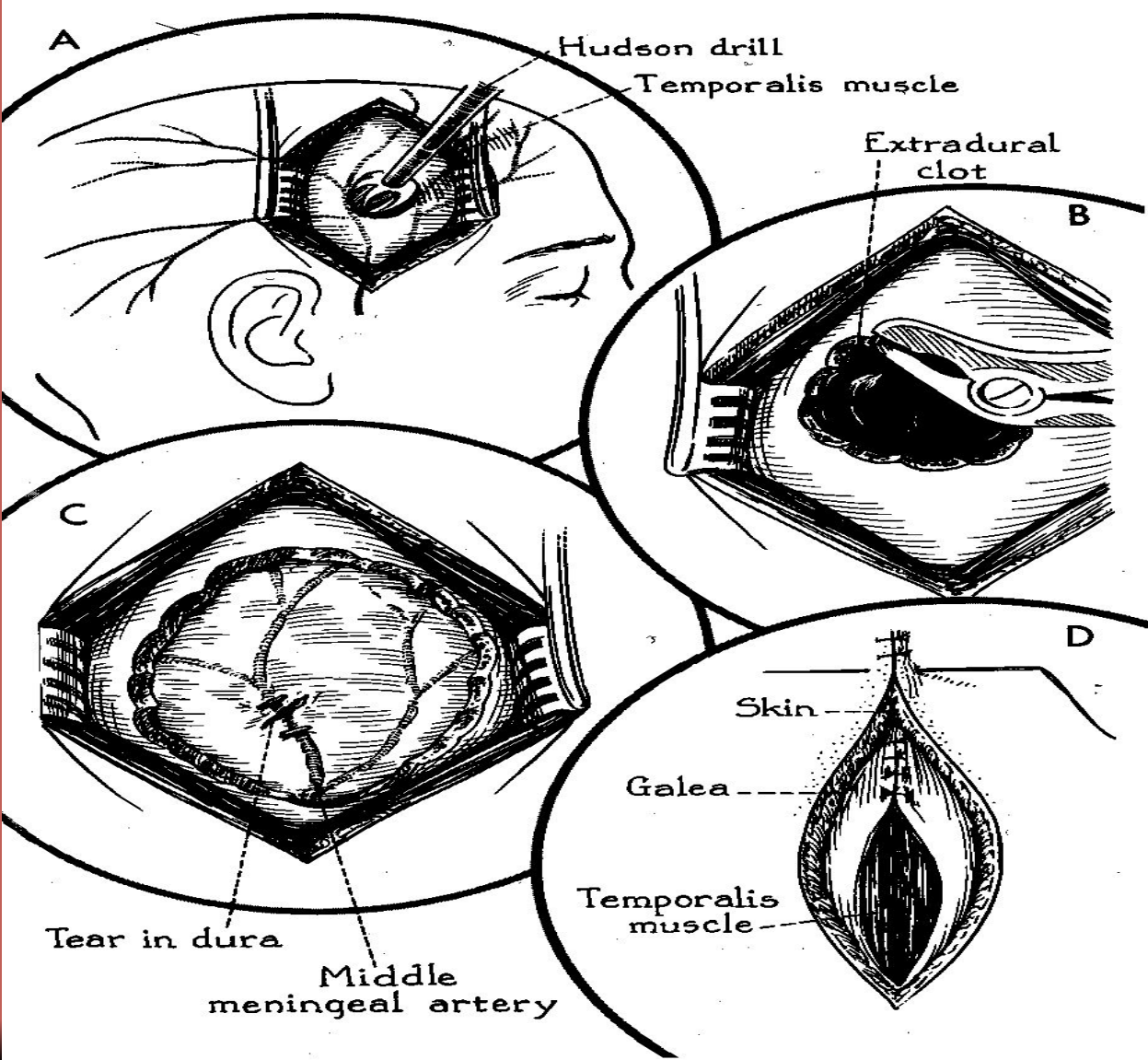


# Scalp wound debridement



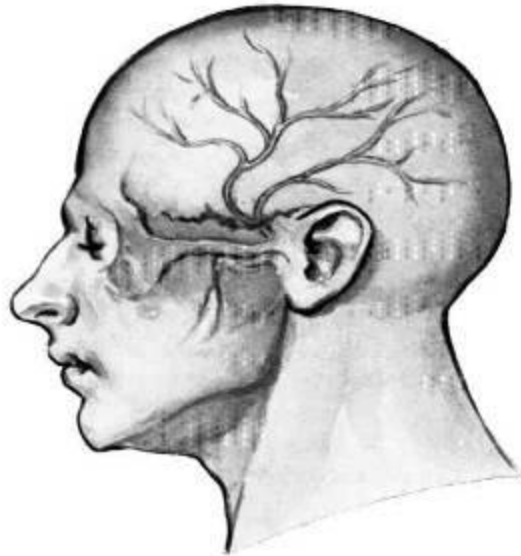


# Decompression trepanation

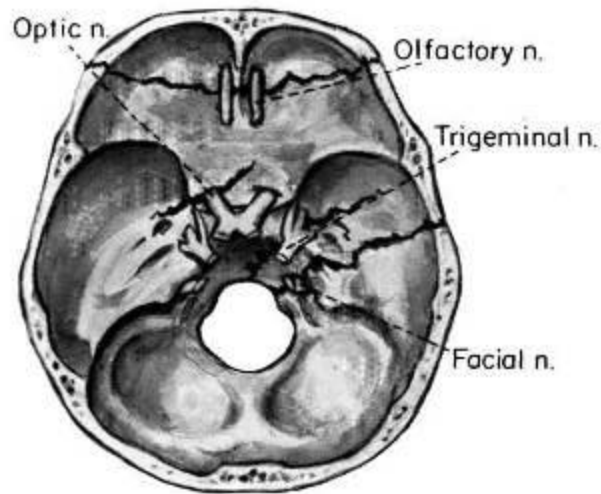
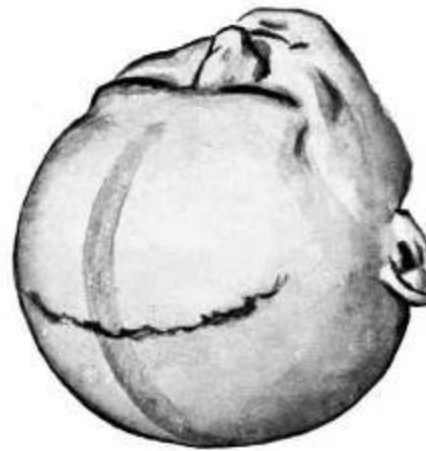




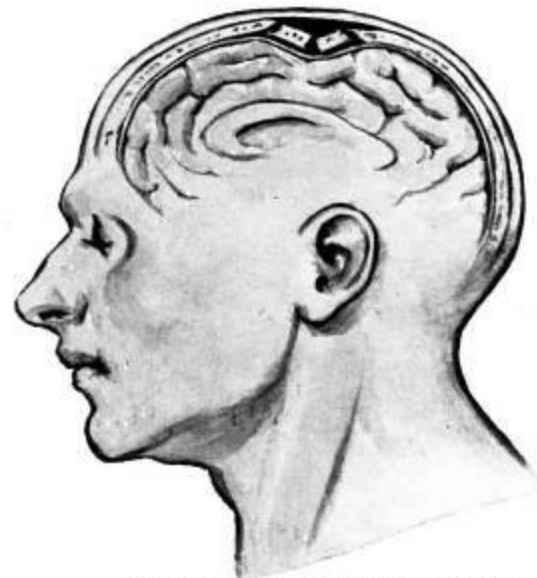
A  
MIDDLE MENINGEAL ARTERY



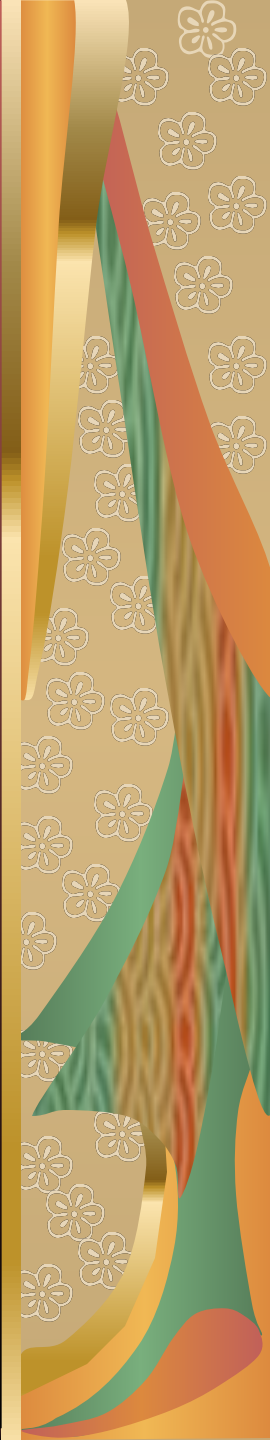
B  
SUPERIOR LONGITUDINAL (SAGITTAL) SINUS

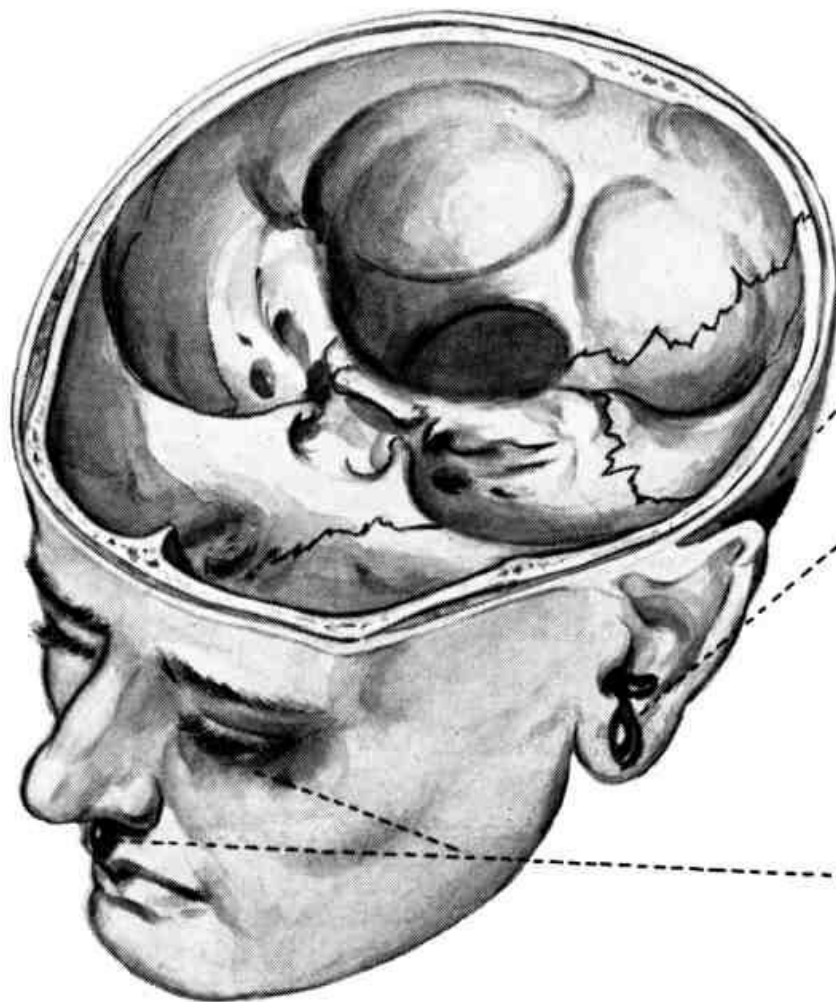


C  
BASILAR FRACTURES



D  
CEREBRAL COMPRESSION





POSTERIOR FOSSA

Mastoid discoloration

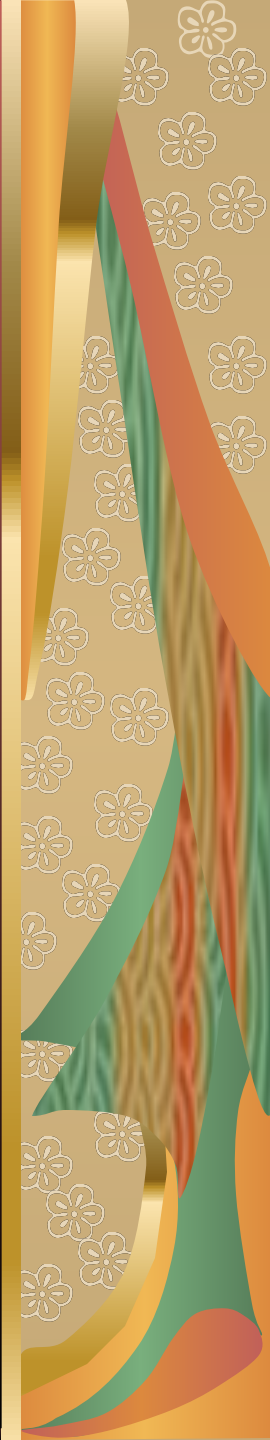
MIDDLE FOSSA

Blood or spinal fluid  
from ear

ANTERIOR FOSSA

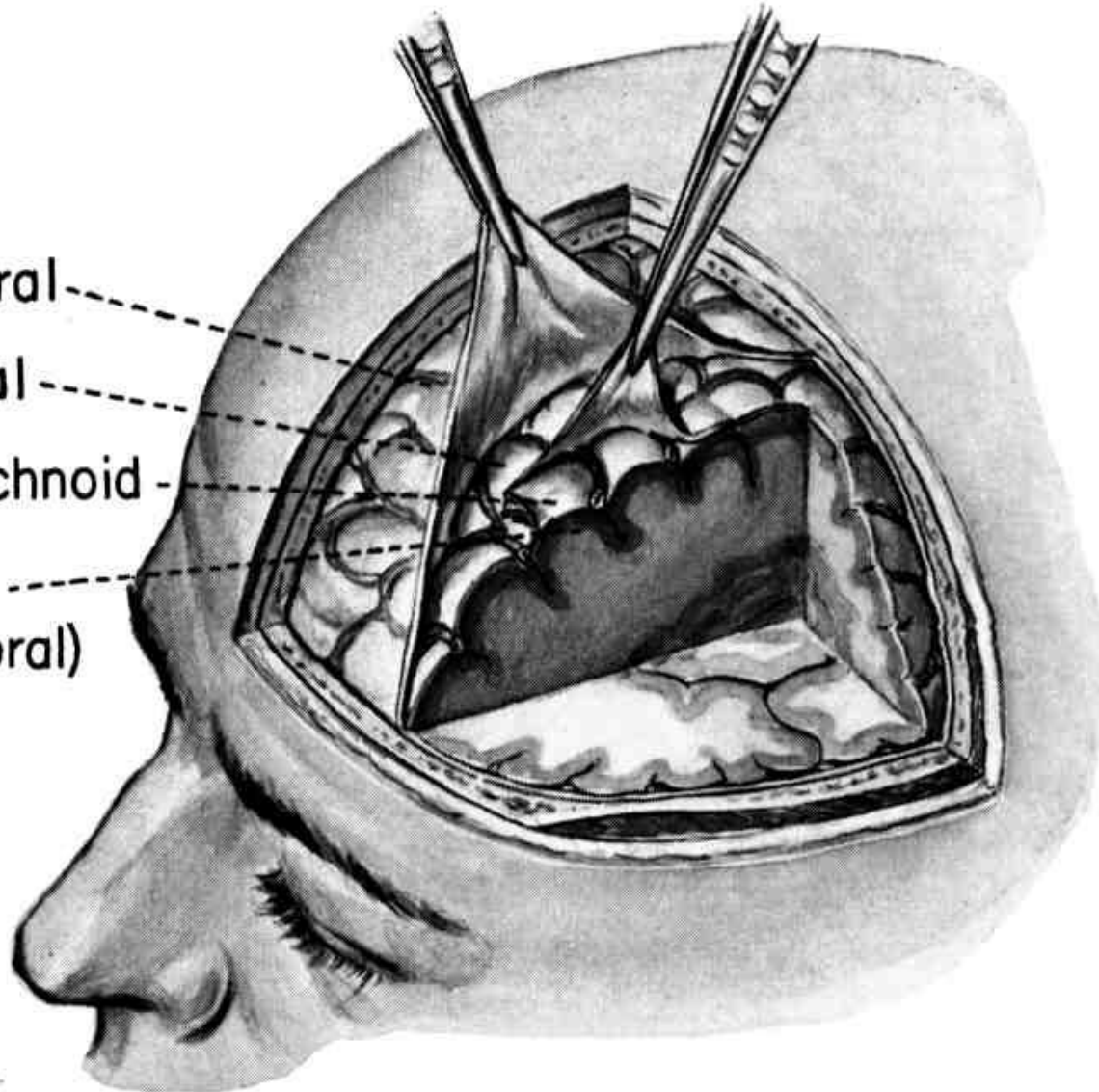
Blood or spinal fluid  
from nose

"Black" eye



# Potential places of intracranial hematoma

- 1- Extradural
- 2- Subdural
- 3- Subarachnoid
- 4- Subpial  
(Intracerebral)



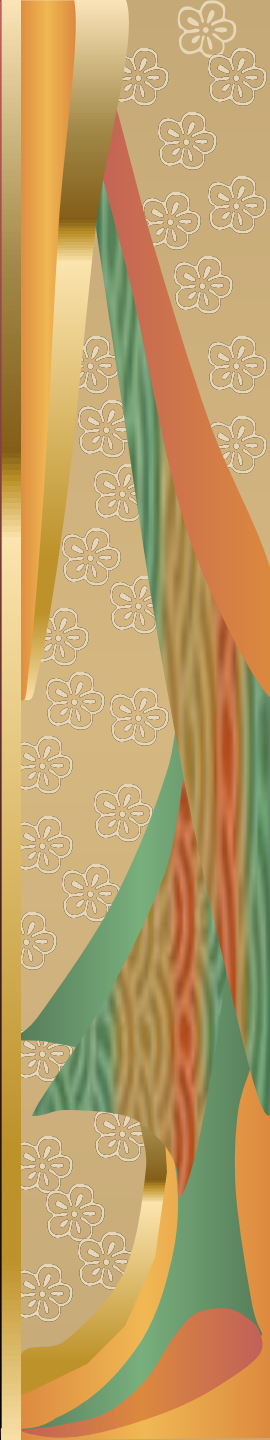
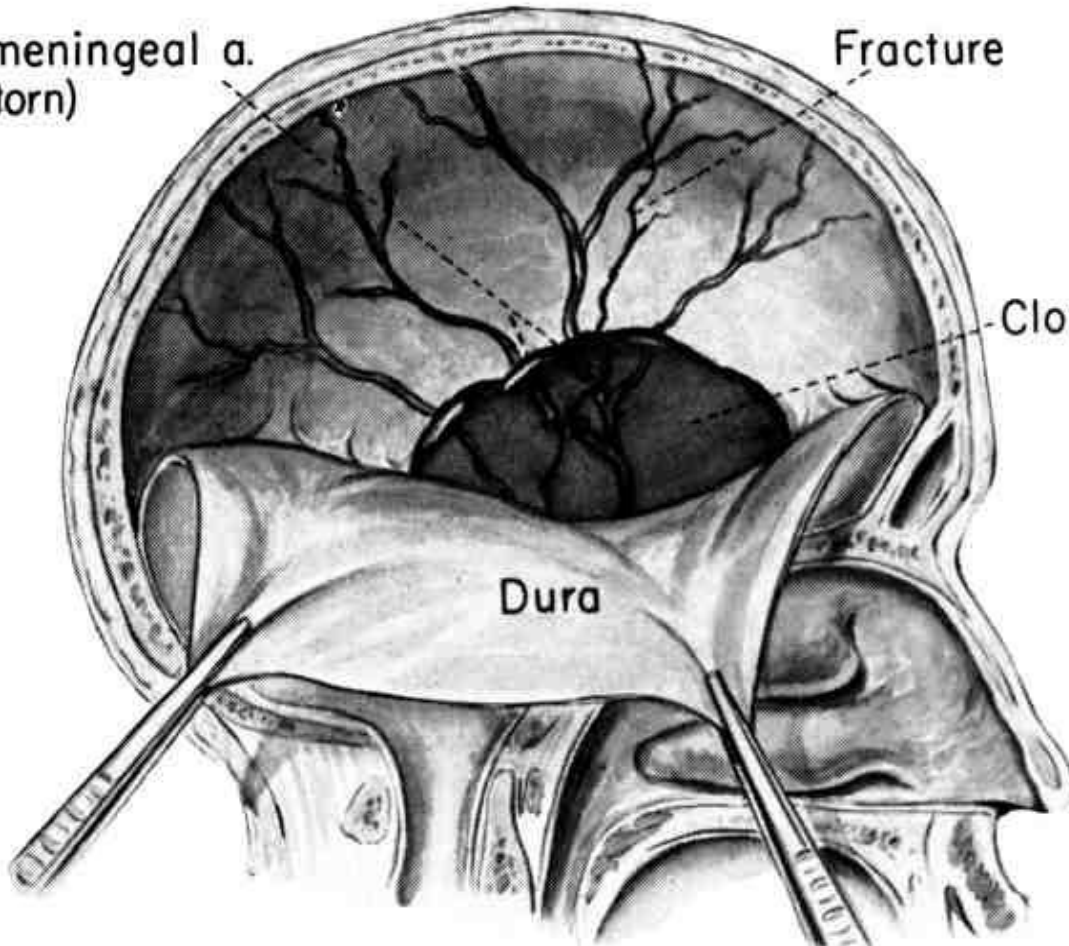


Middle meningeal a.  
(torn)

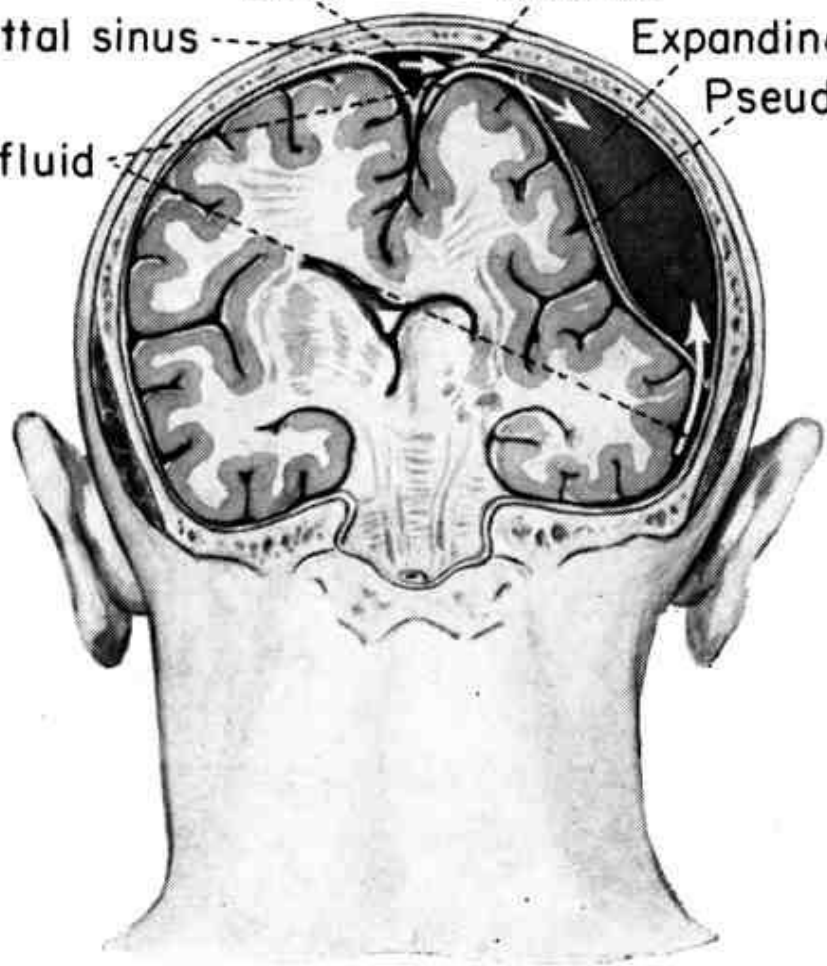
Fracture

Clot

Dura



Sup. sagittal sinus  
Dura  
Fracture  
Expanding clot  
Pseudomembrane  
Cerebrospinal fluid



Thank You for Attention!

