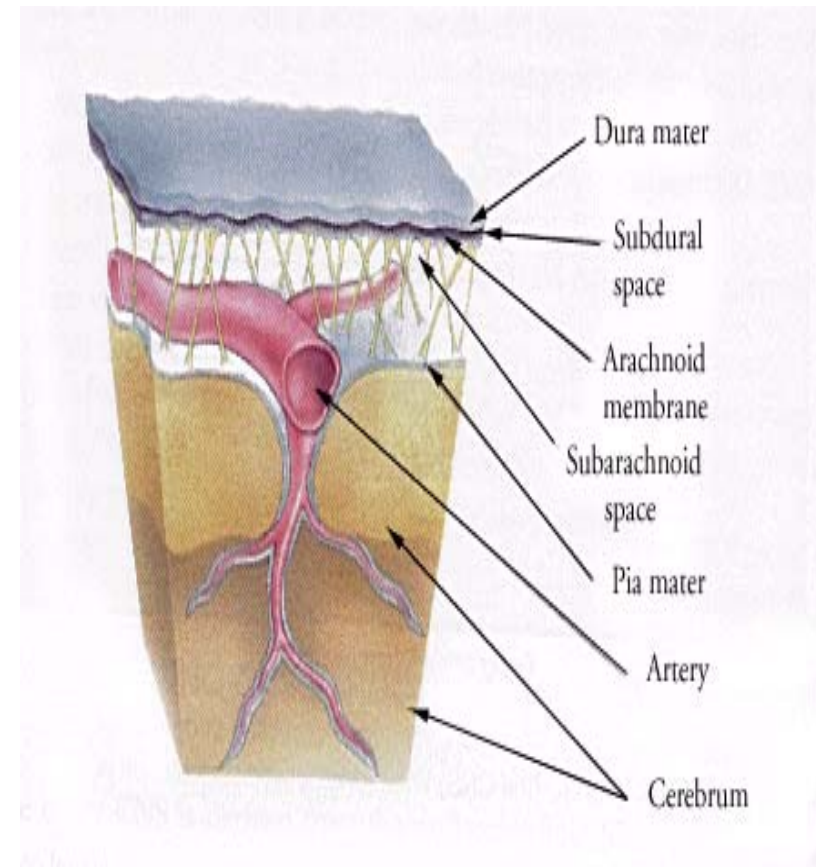
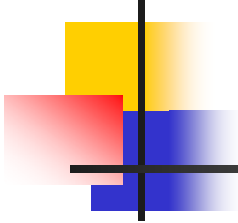


Cranial cavity , meninges , dural venous sinuses and pituitary gland

Brain & spinal cord are enveloped by three concentric membranes, which provide support and protection.

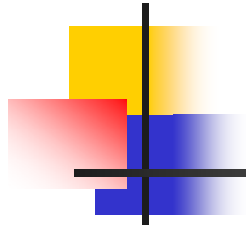
- Outermost layer-
duramater
(pachymeninx)
- Arachnoid mater and
piamater
(leptomeninges)





Durater –opaque,tough,fibrous,thick ,dense composed of densely packed fascicles of collagen fibres arranged in laminae.

- Cranial duramater is composed of two layers
 - outer endosteal layer
 - Inner meningeal layer
- Characteristic features
 - histologically two are different
 - Duramater-acellular but it contains fibroblasts
 - Meningeal layer-osteoblasts are present in this layer



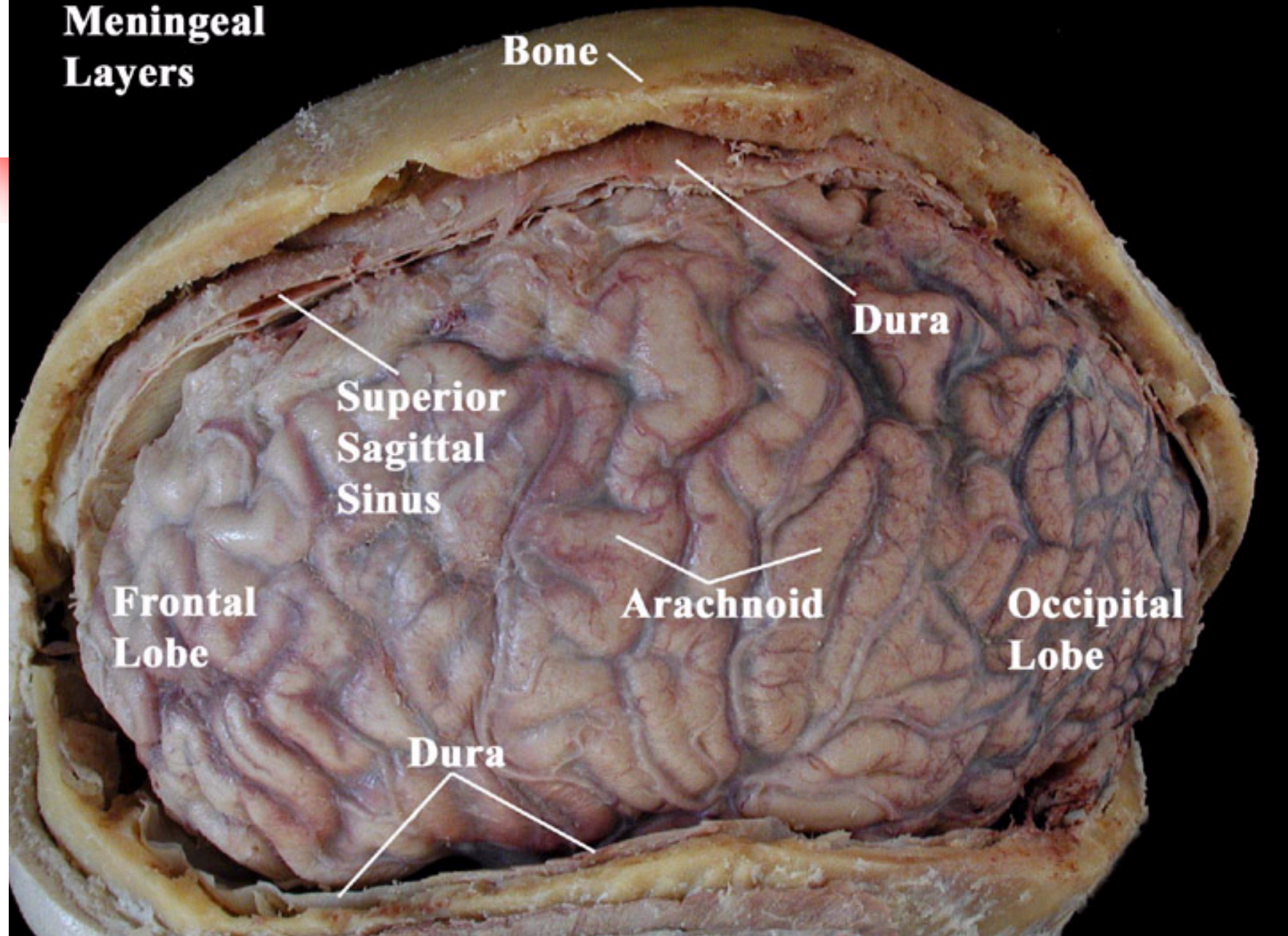
- Endosteal layer Is continuous throughout the cranial sutures and foramina with pericranium .
- the inner aspect of the duramater is closely applied to arachnoid mater over the surface of brain however physically joined at the site where either vein pass from brain into venous sinuses

Meningeal layer Is reflected inward to form four folds

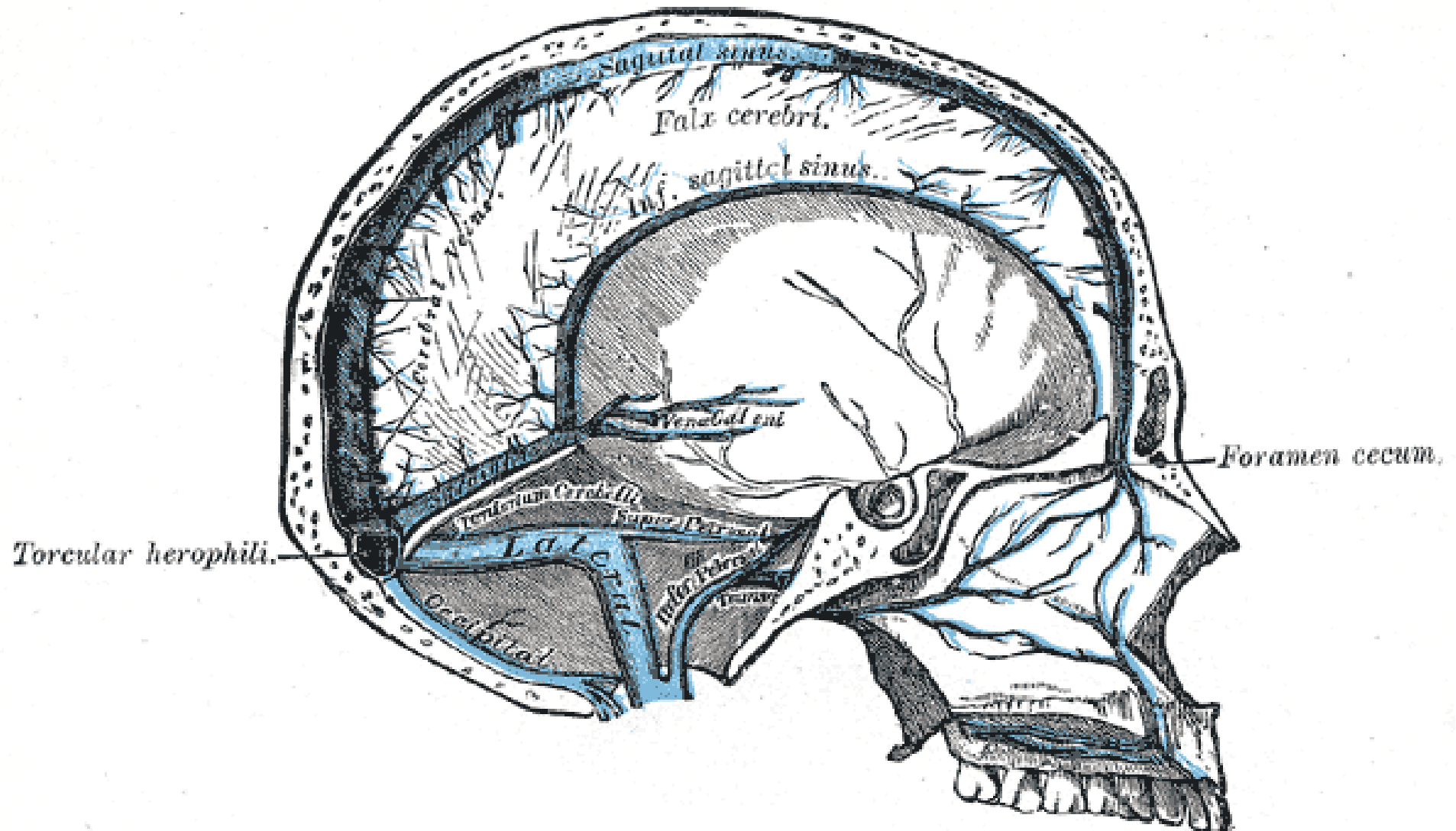


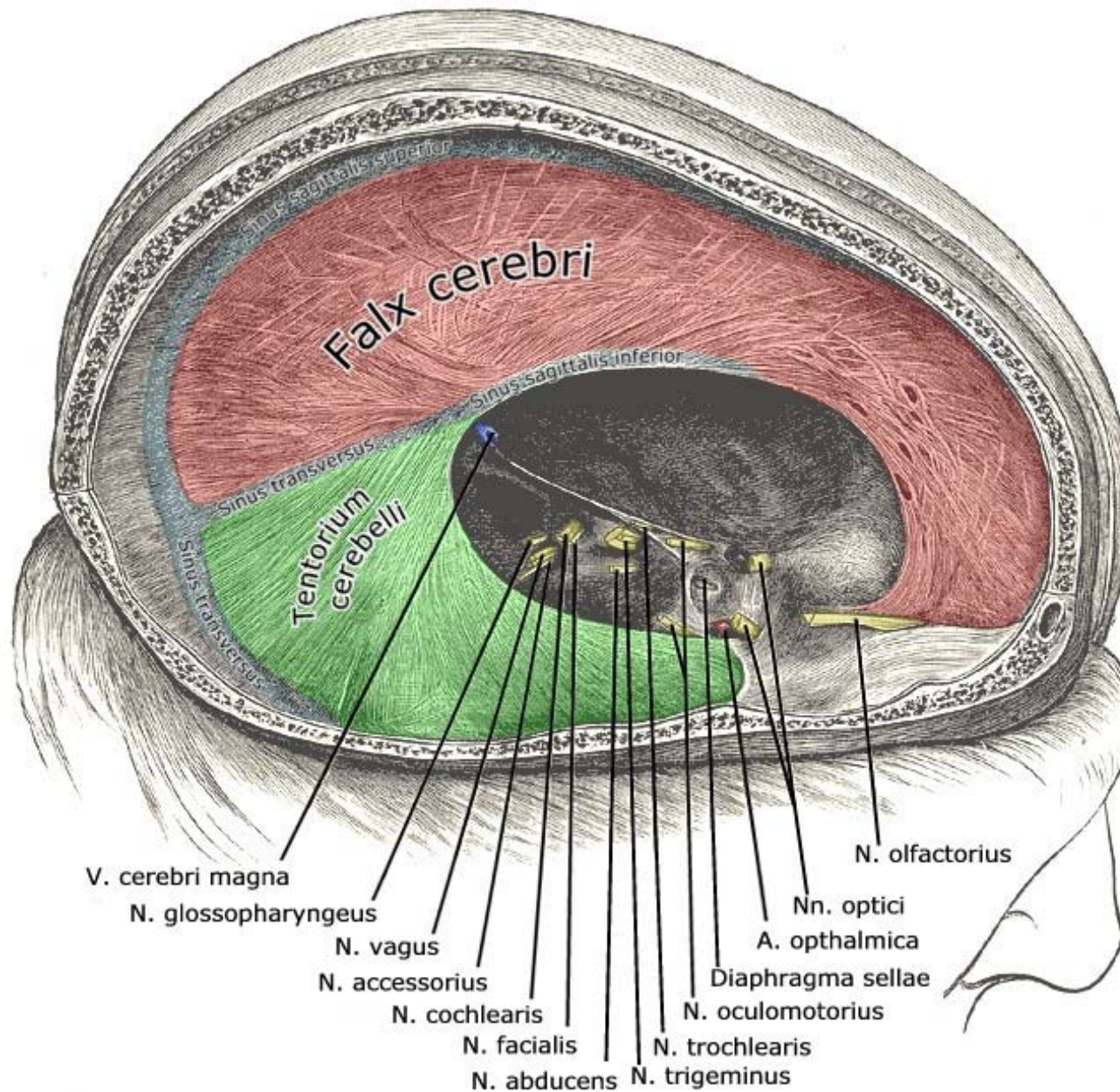
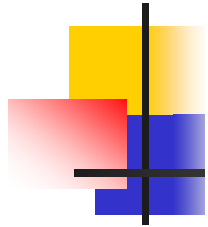
- Falx cerebri
- Tentorium cerebelli
- Falx cerebelli
- Diaphragma sellae

Meningeal Layers



Folds of duramater and its venous sinuses



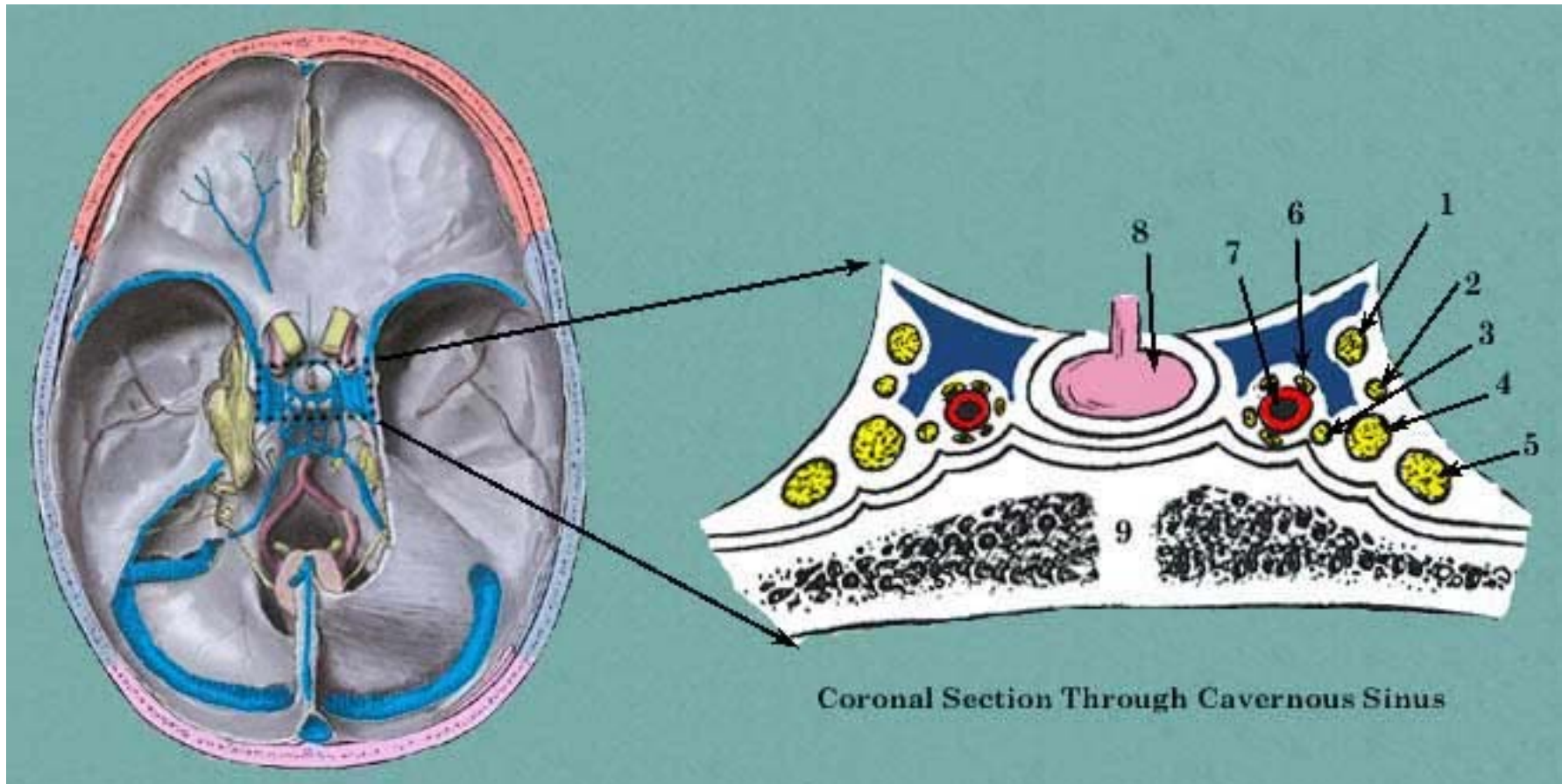




Dural venous sinuses

- Complex of venous channels lie between two layers of dura mater
- lined by endothelium
- no valves .
- walls are devoid of muscular tissue.

Cranial cavity and cavernous sinus





Subdural and extradural haematoma

❑ Subdural haematoma

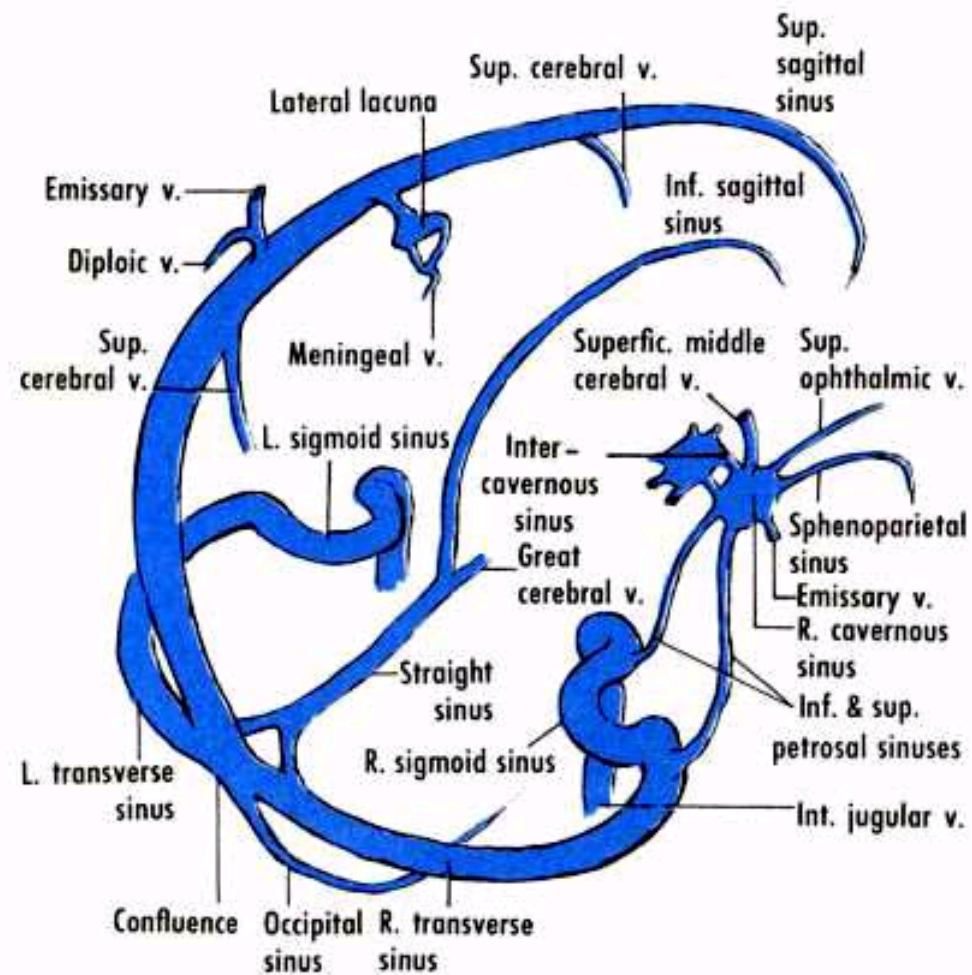
- Due to damage to small bridging veins in the space
- sUbidual haematoma tend to be biconcave in shape and more extensive .
- they will pass deep to any major dural venous sinus can not extend along the falx cerebri or tentorium cerebelli

❑ Extradural haematoma

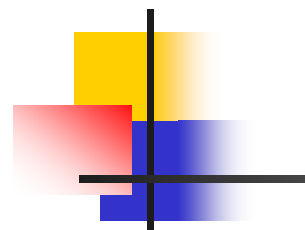
- due to damage to any arterial vessel Commonly skull fracture
- Lentiform in shape
- Follow the line of duramater along the falx and tentorium and always superficial to deep venous sinus

classic medical emergency requiring immediate diagnosis and surgery.

Cranial venous sinuses



Cerebral and emissary veins



Middle cerebral veins

Cavernous sinus

Superior cerebral veins

Inferior sagittal sinus

Great cerebral vein

Occipital sinus

Superior sagittal sinus

Sinus Rectus

Inferior cerebral veins

Confluens of sinuses

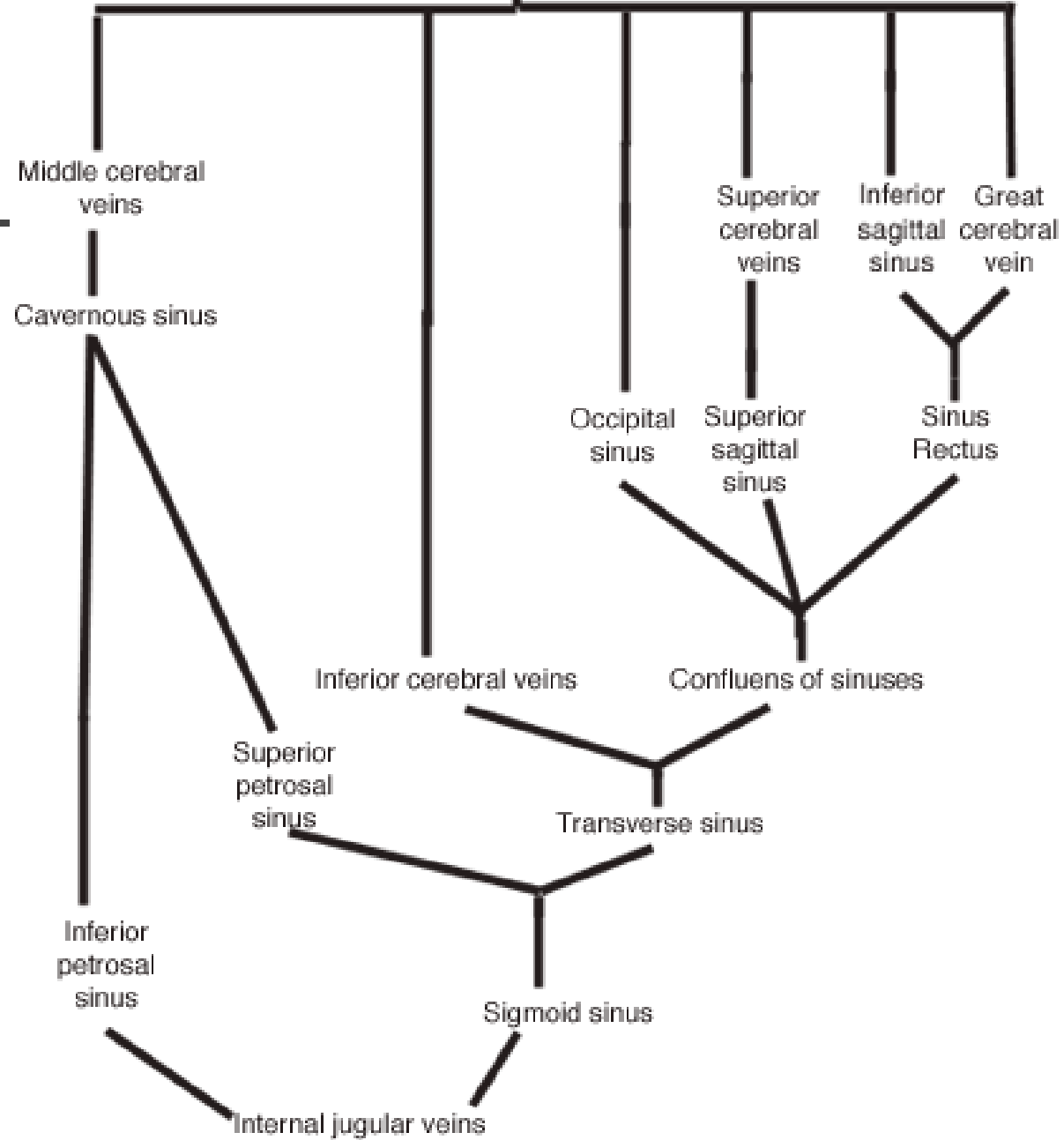
Superior petrosal sinus

Transverse sinus

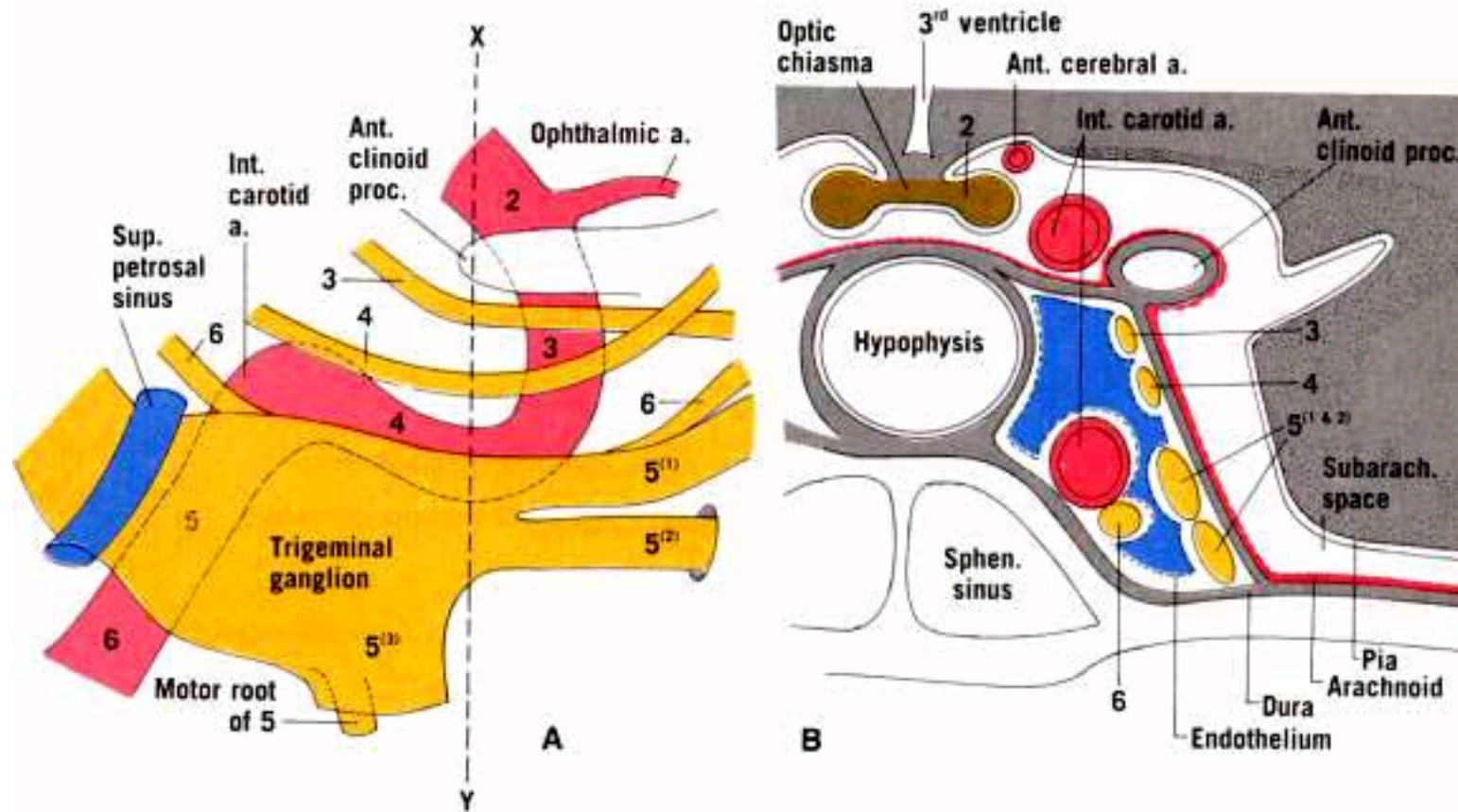
Inferior petrosal sinus

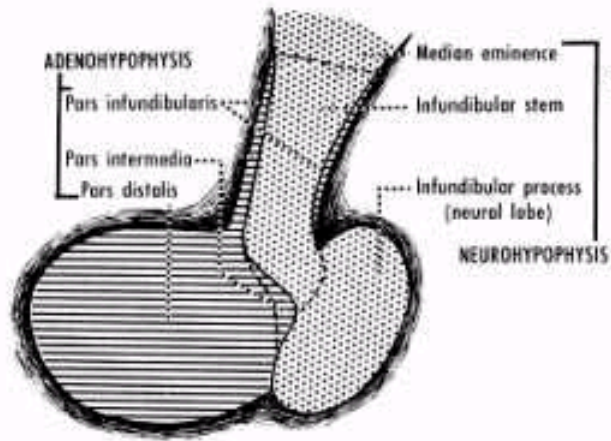
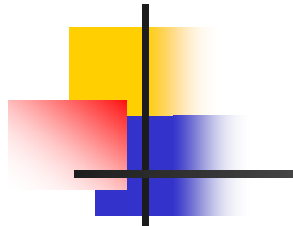
Sigmoid sinus

Internal jugular veins

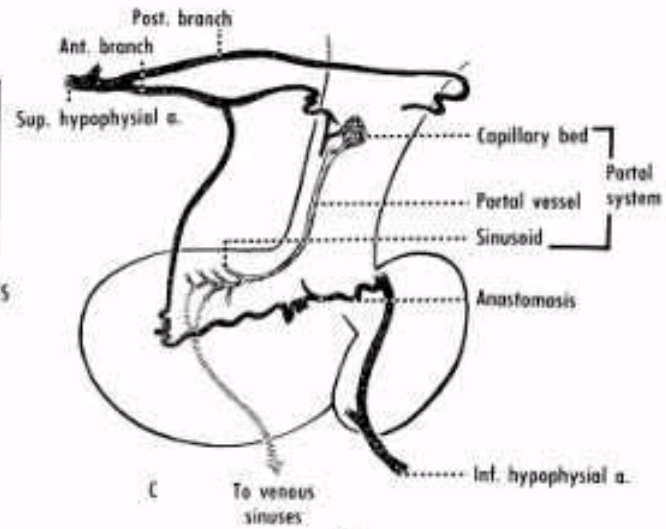


Cavernous sinus and its relations

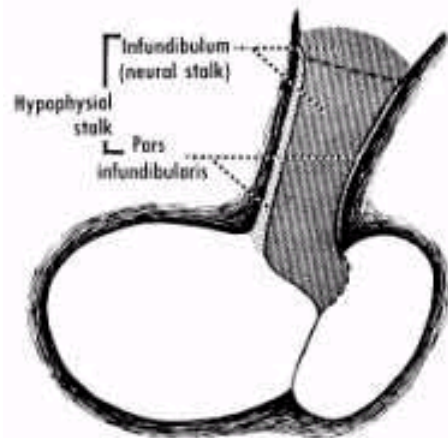




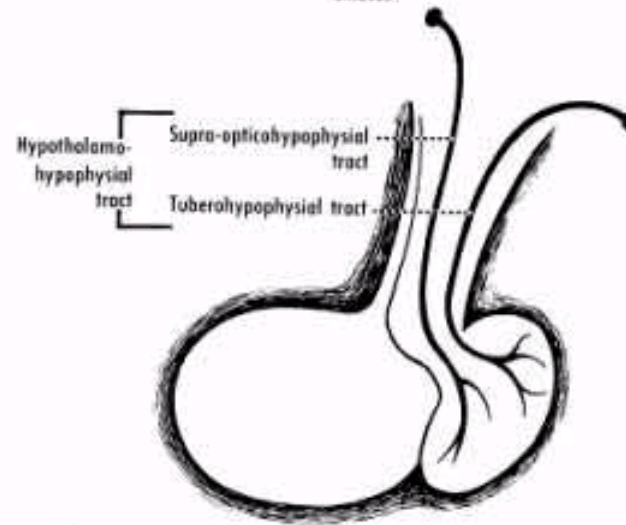
A



C



B



D