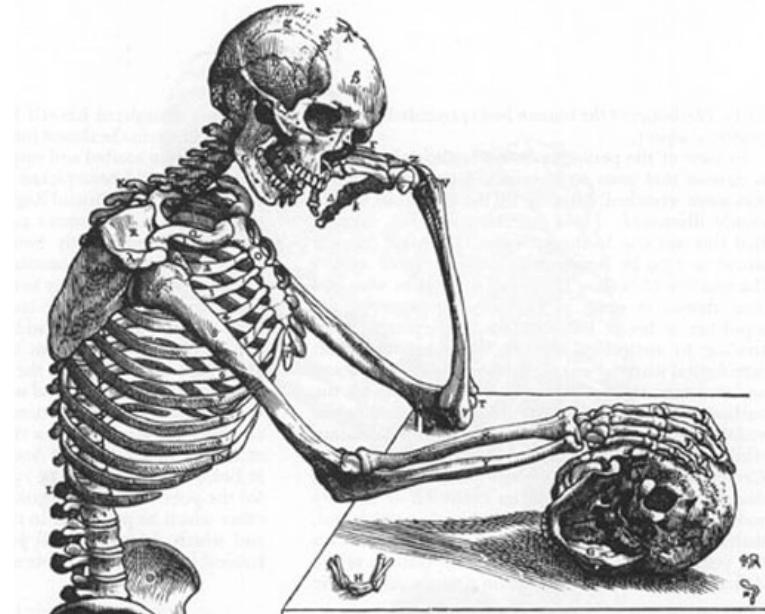


# G17B: Brain and Base of Skull

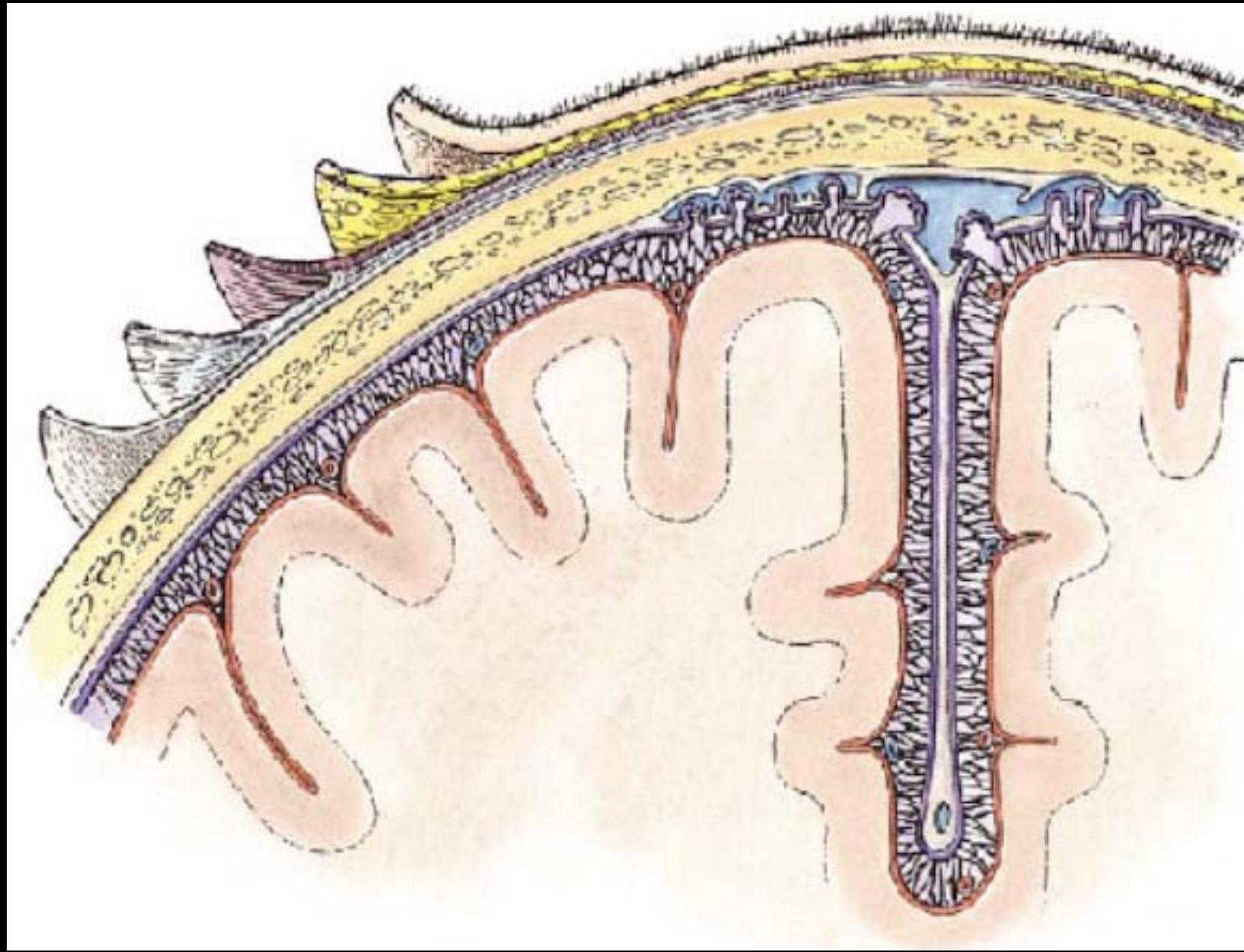


GL17:

A - Clinical Apps (HSEB 1700)

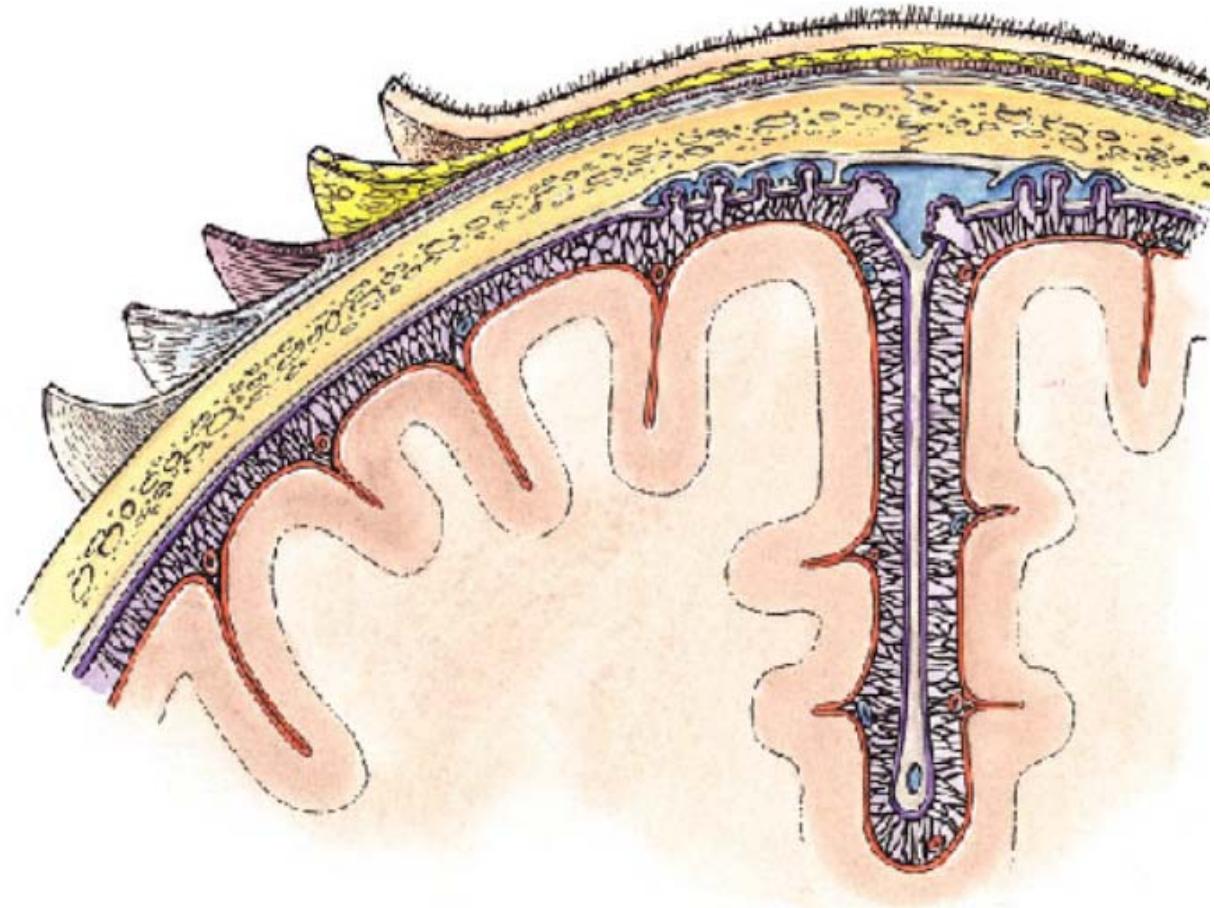
B - Scalp, Calvarium, Brain (Cadaver)

## G17B: Objectives



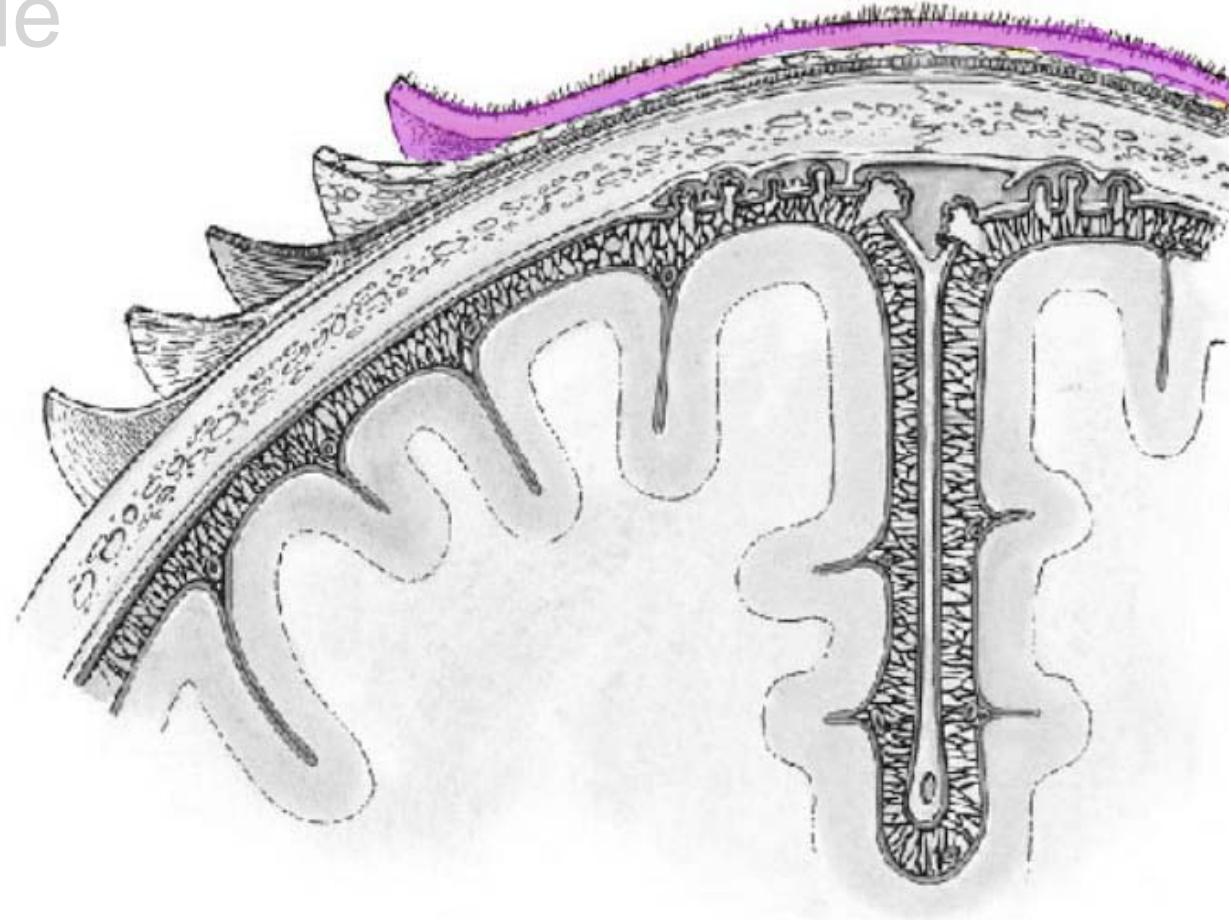
# 1) Scalp

- Skin
- Connective tissue
- Aponeurosis
- Loose CT
- Periosteum



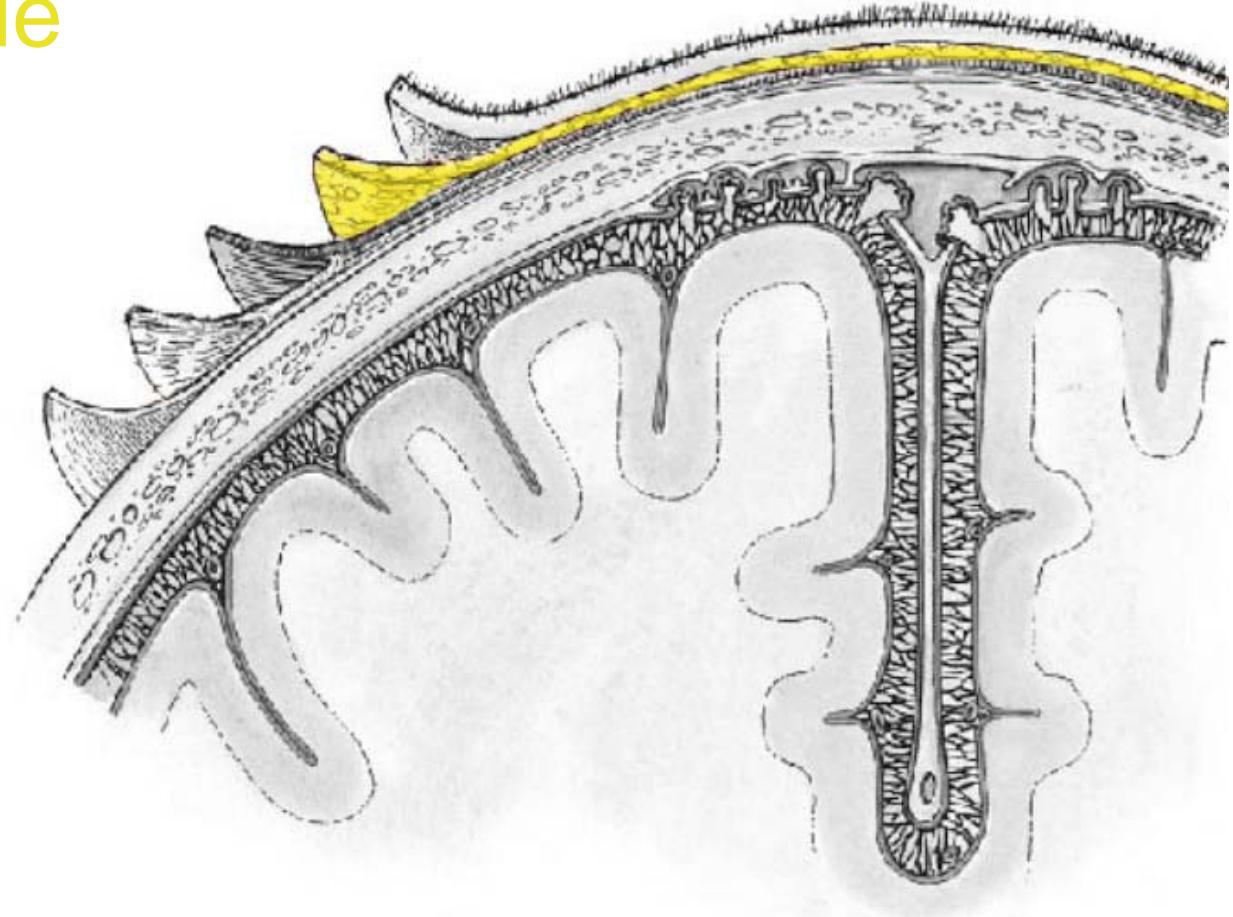
# 1) Scalp

- Skin
- Connective tissue
- Aponeurosis
- Loose CT
- Periosteum



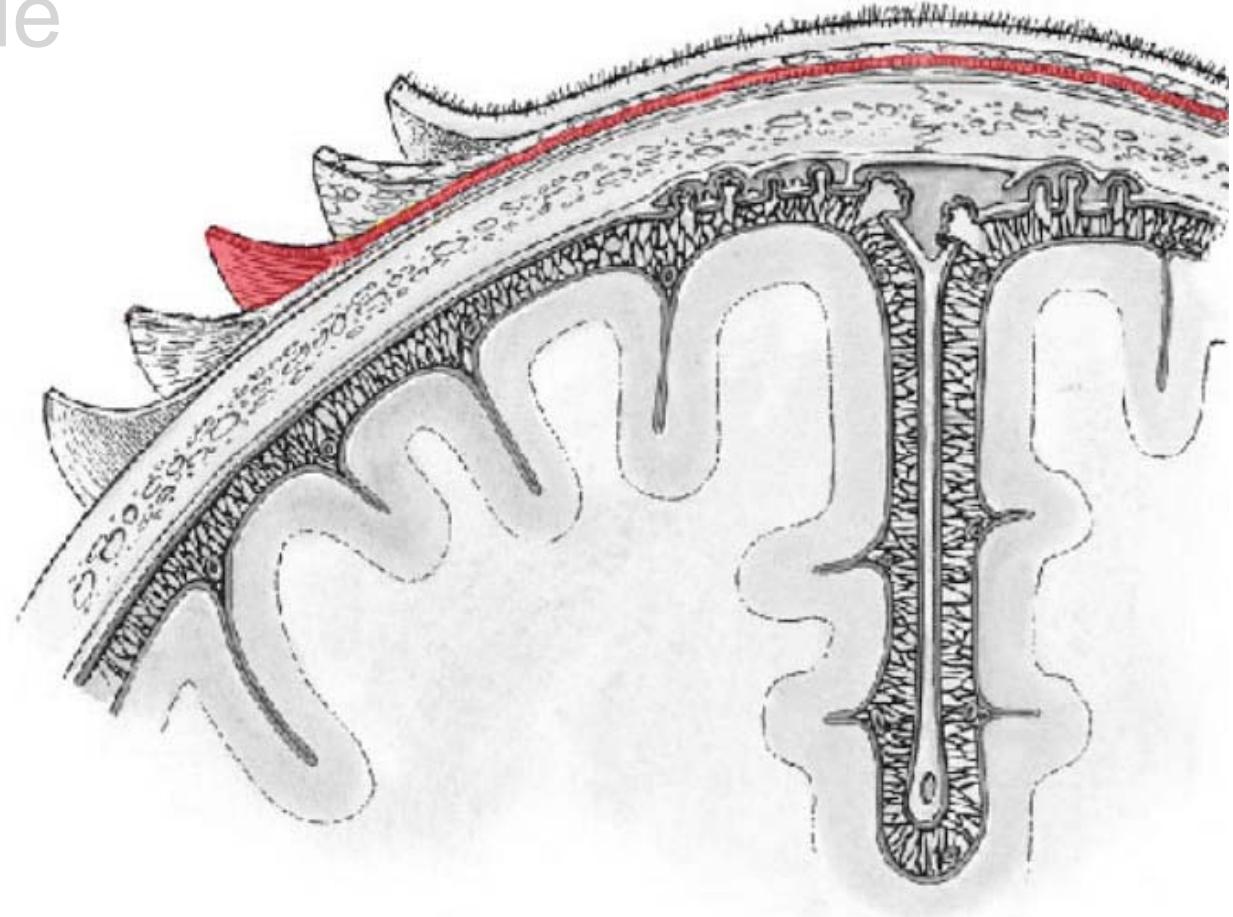
# 1) Scalp

- Skin
- Connective tissue
- Aponeurosis
- Loose CT
- Periosteum



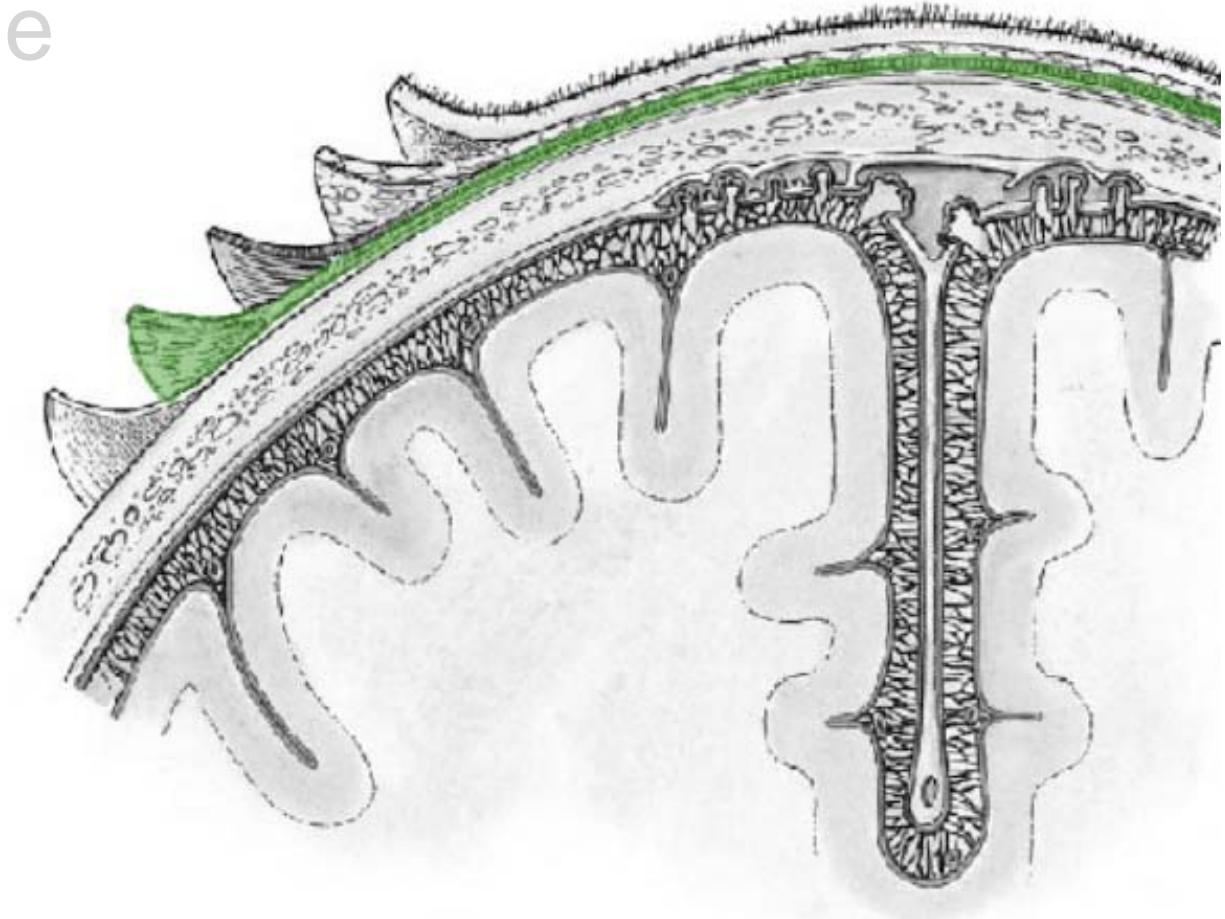
# 1) Scalp

- Skin
- Connective tissue
- **Aponeurosis**
- Loose CT
- Periosteum



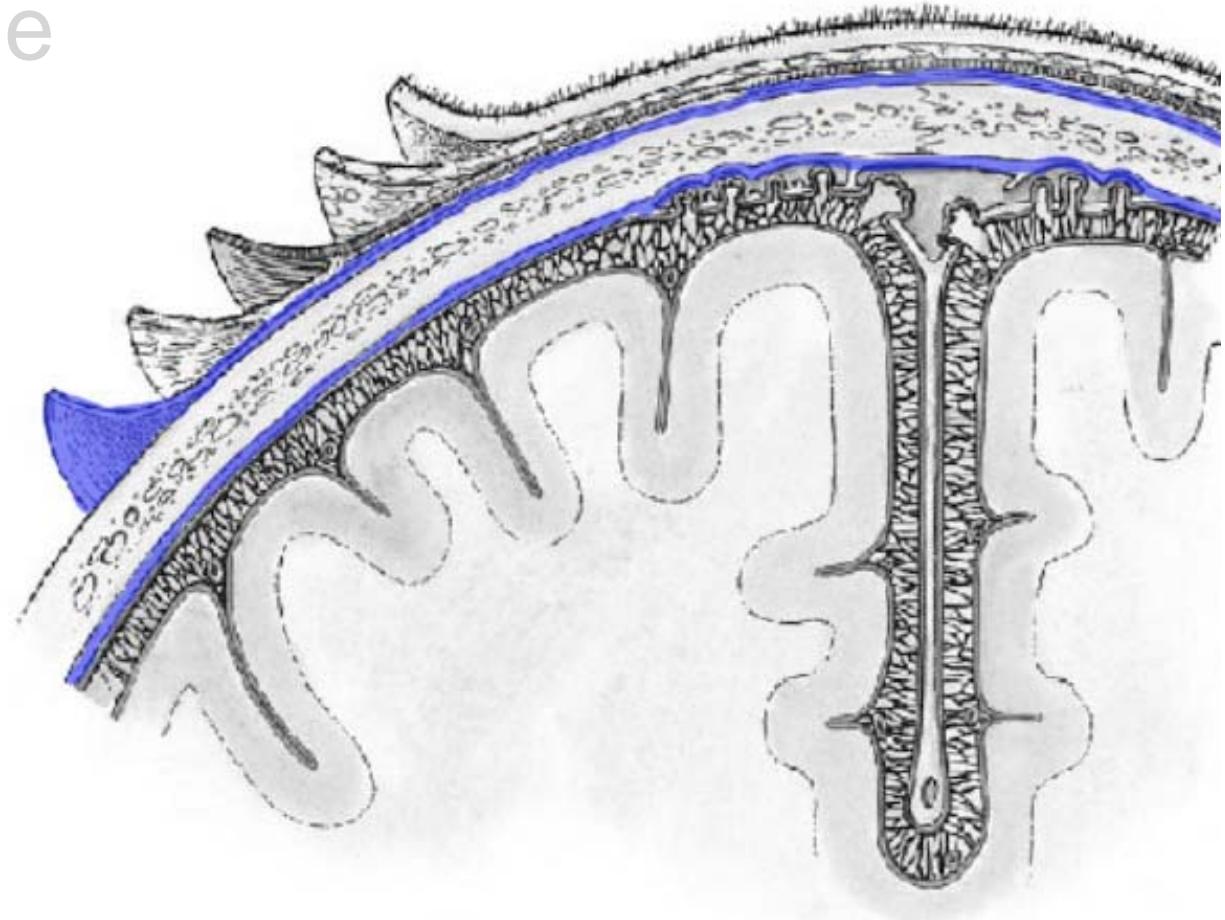
# 1) Scalp

- Skin
- Connective tissue
- Aponeurosis
- Loose CT
- Periosteum



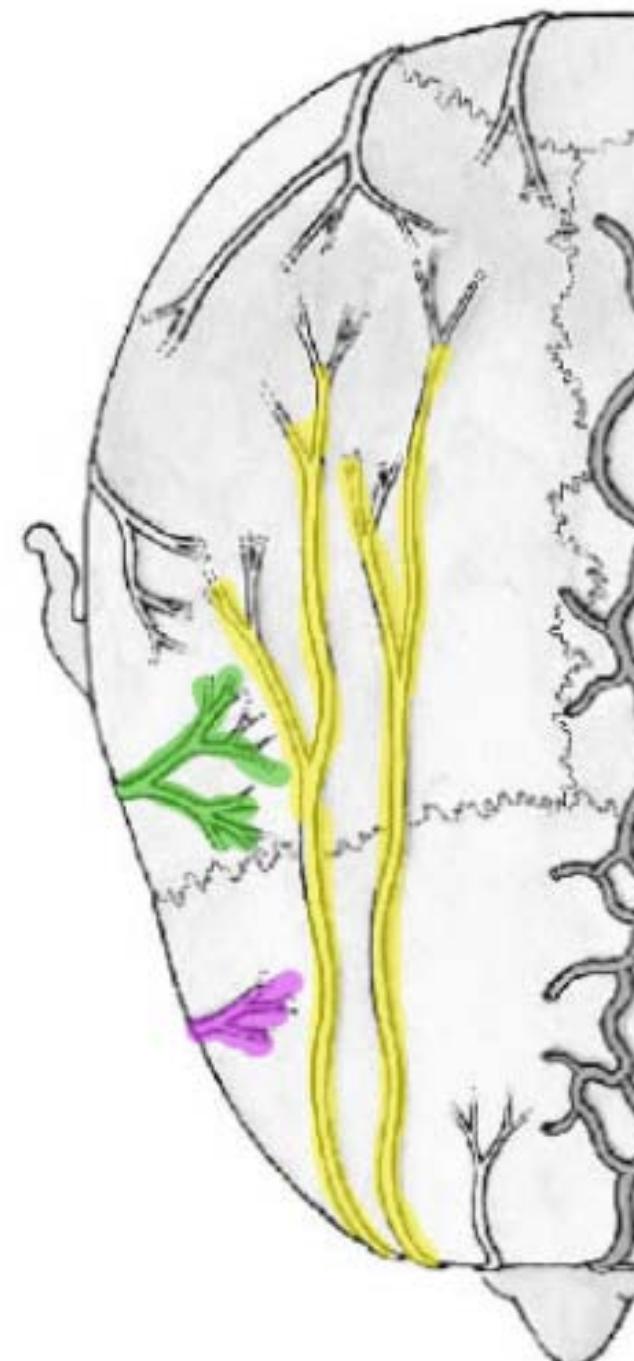
# 1) Scalp

- Skin
- Connective tissue
- Aponeurosis
- Loose CT
- **Periosteum**



# 1) Scalp - Cutaneous innervation

- CN V-1
- CN V-2
- CN V-3
- Lesser occipital n.
- Greater occipital n.
- Least occipital n.

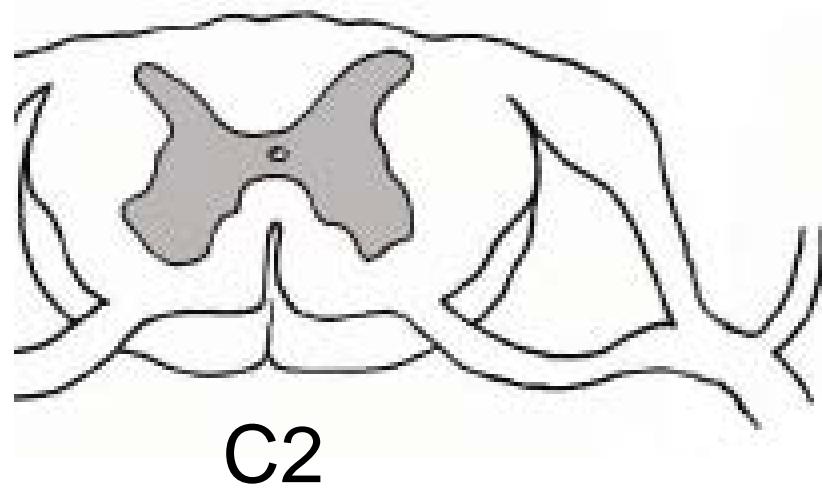


# 1) Scalp - Cutaneous innervation

- CN V-1
- CN V-2
- CN V-3
- Least occipital n. (C3)
- Greater occipital n. (C2)
- Lesser occipital n. (C2)



# 1) Scalp - Cutaneous innervation

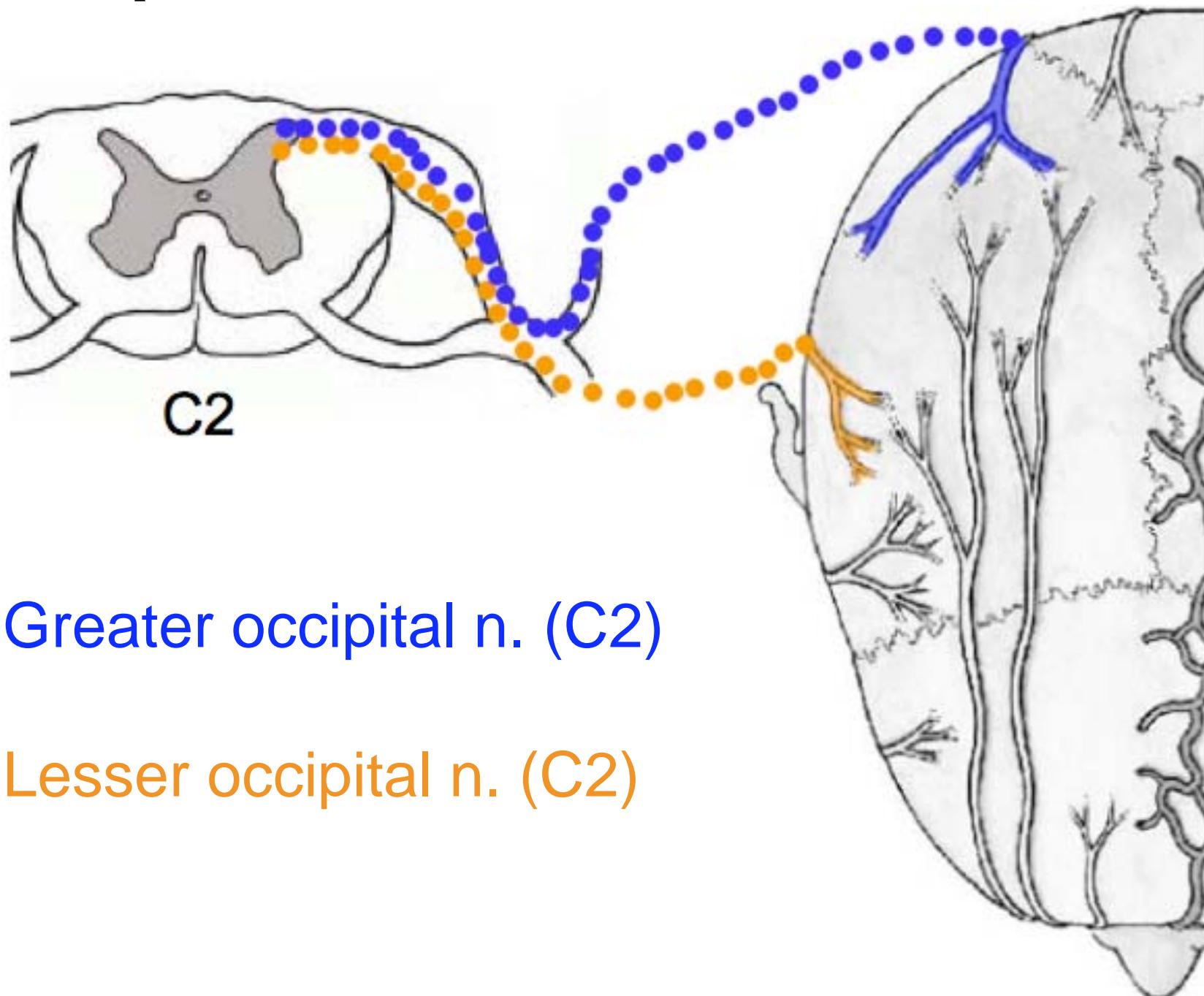


C2

- Greater occipital n. (C2)
- Lesser occipital n. (C2)

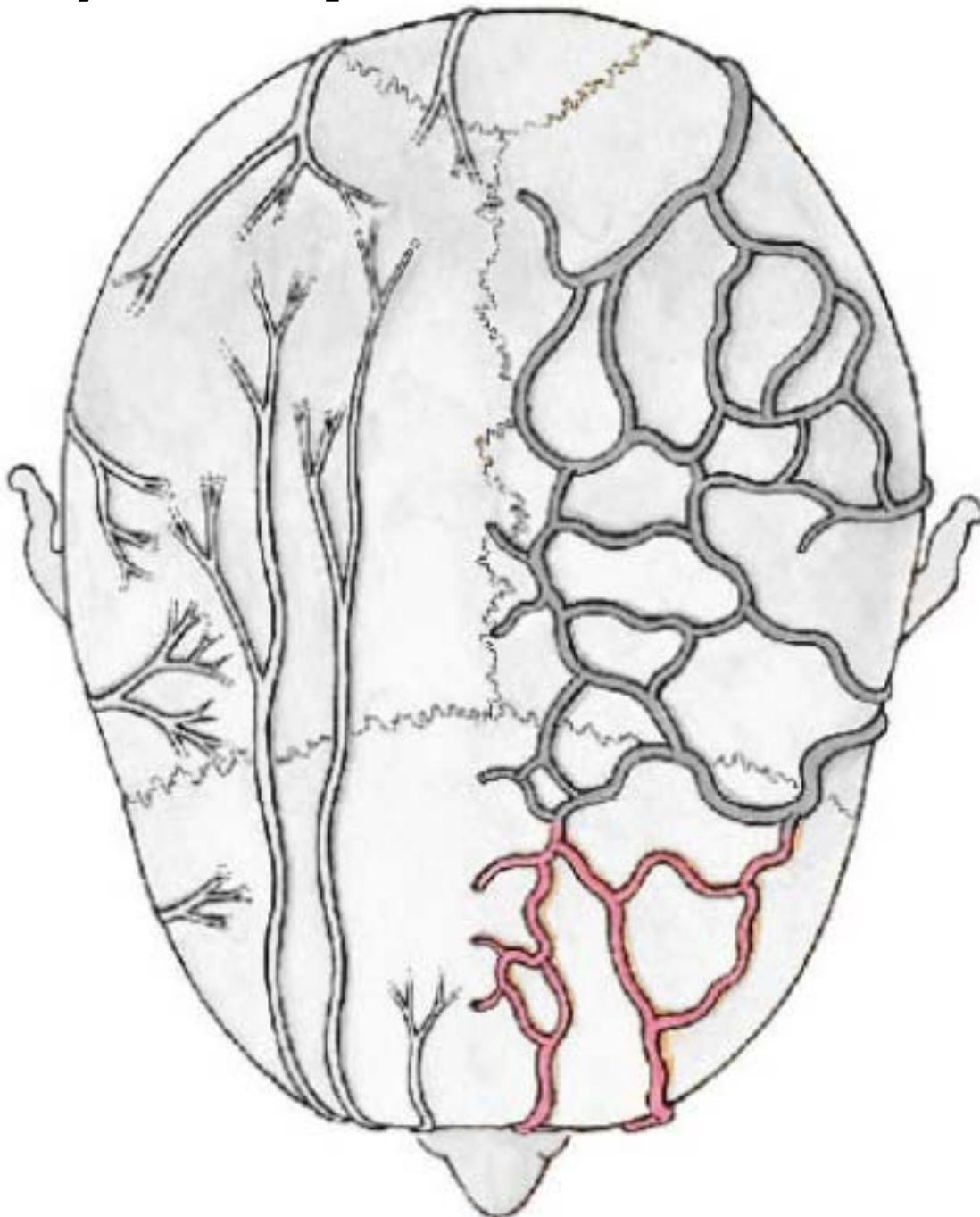


# 1) Scalp - Cutaneous innervation



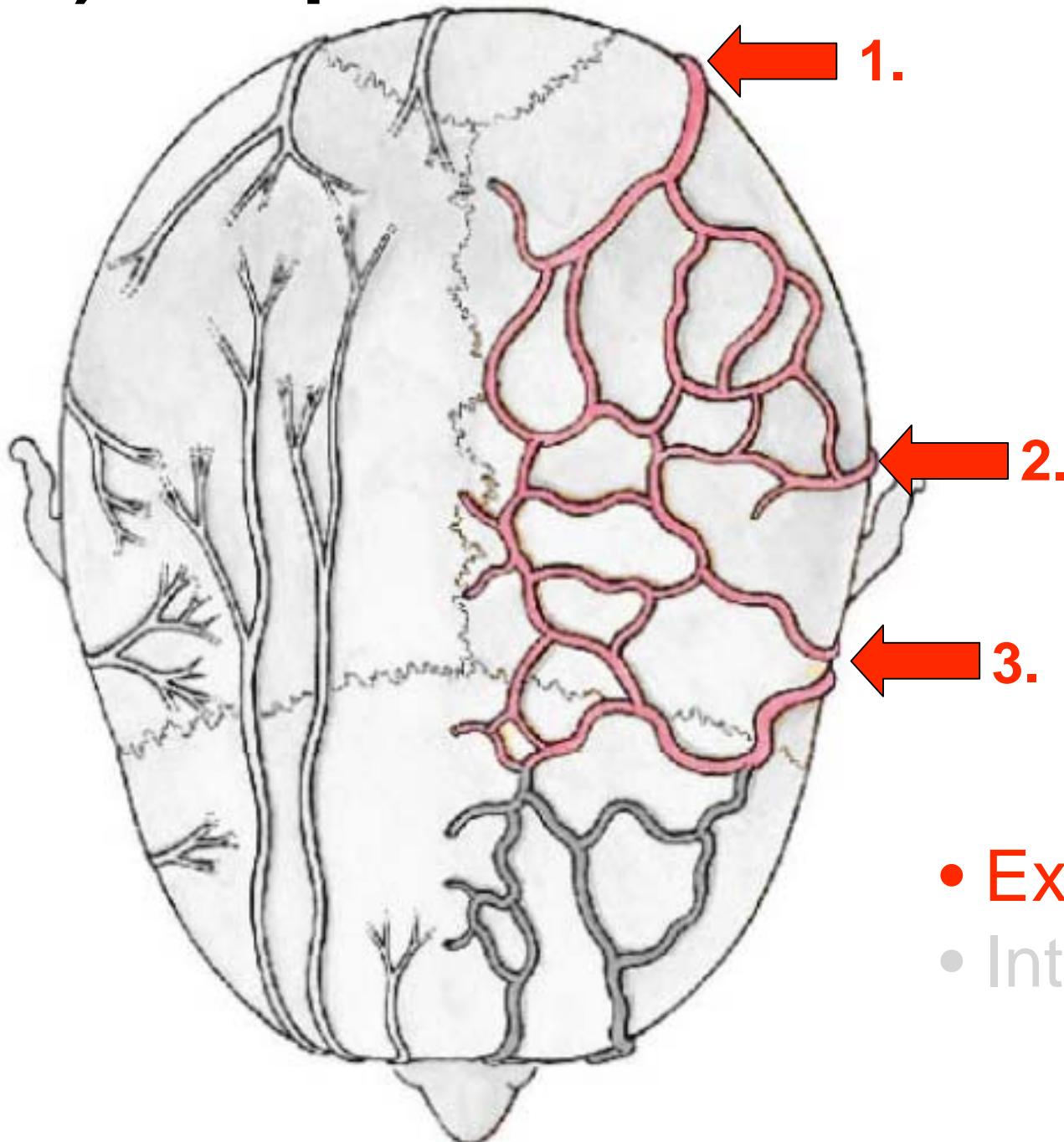
- Greater occipital n. (C2)
- Lesser occipital n. (C2)

# 1) Scalp - Arterial vascularization



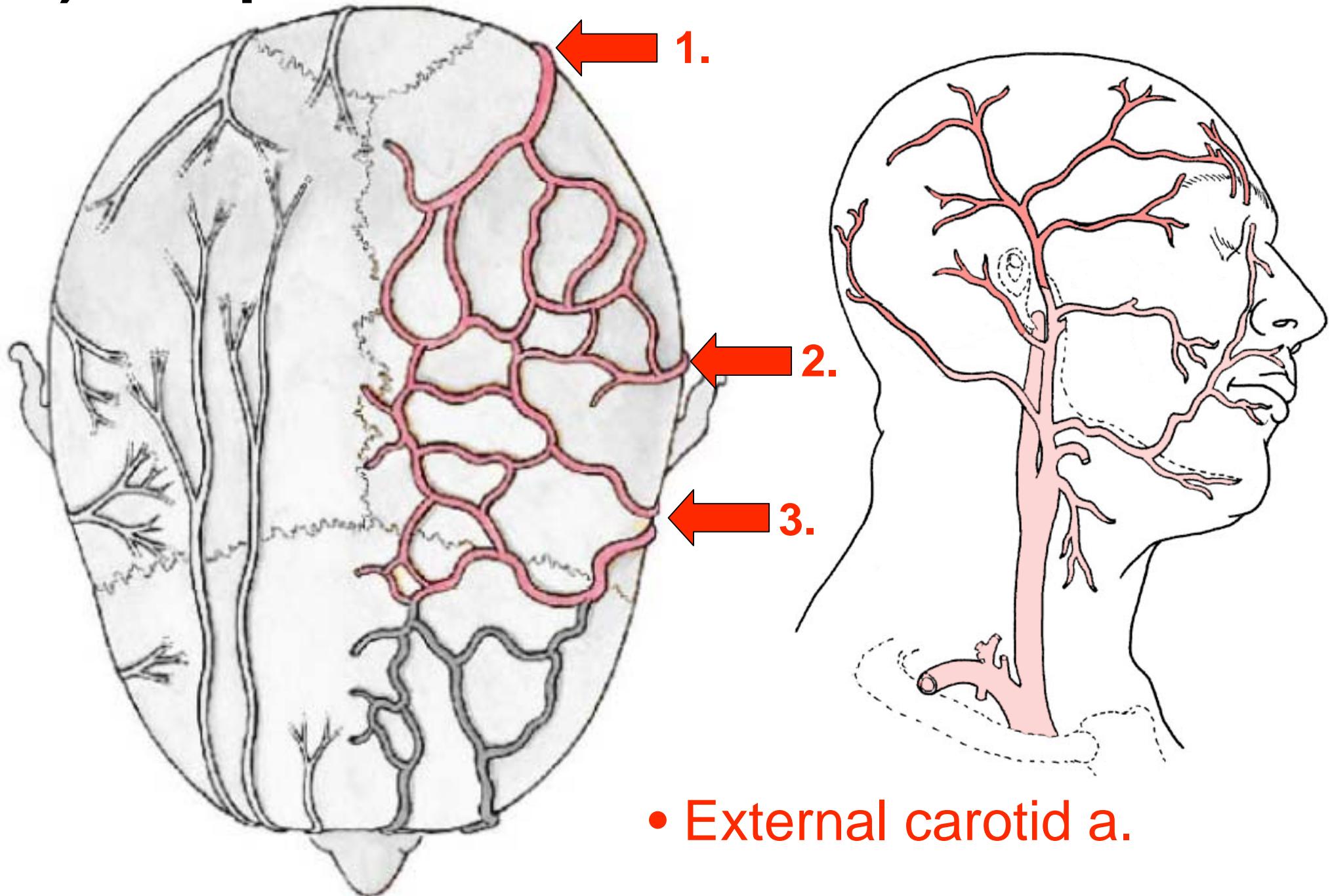
- External carotid a.
- Internal carotid a.

# 1) Scalp - Arterial vascularization

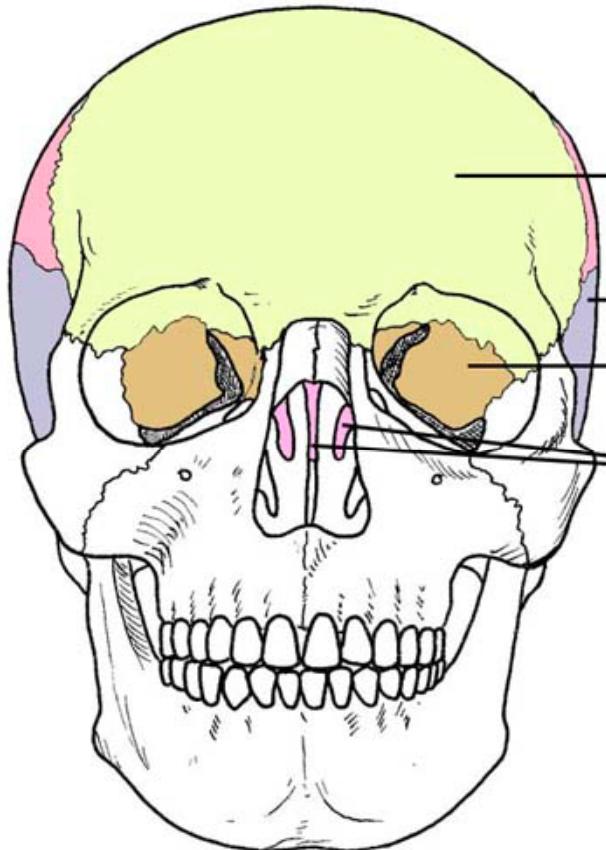


- External carotid a.
- Internal carotid a.

# 1) Scalp - Arterial vascularization



## 2) Skull



Skull; anterior

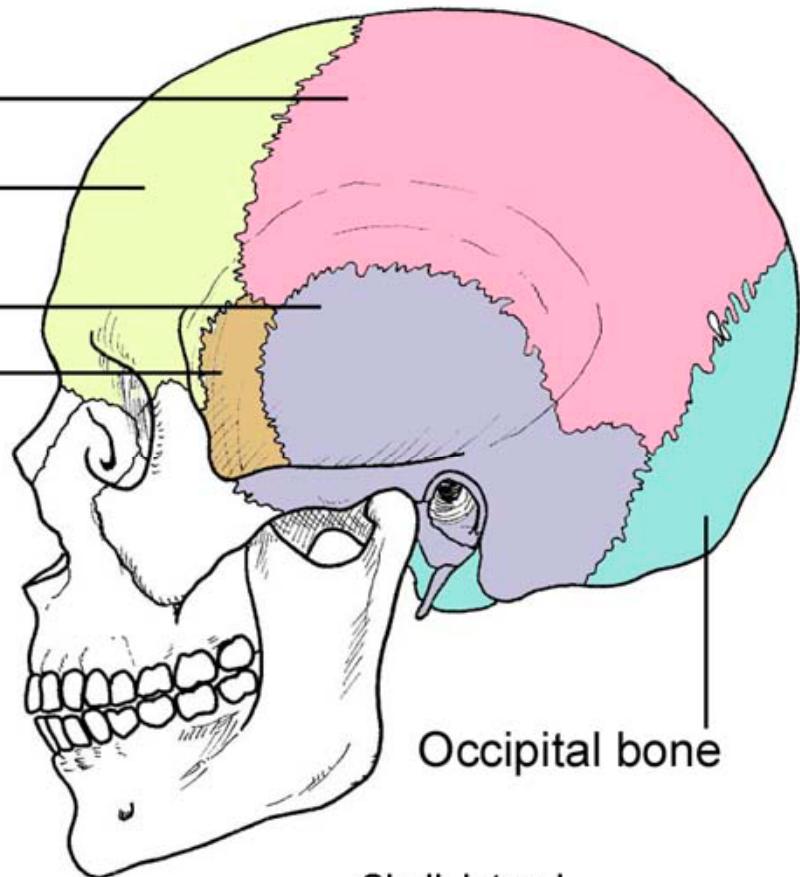
Parietal bone

Frontal bone

Temporal bone

Sphenoid bone

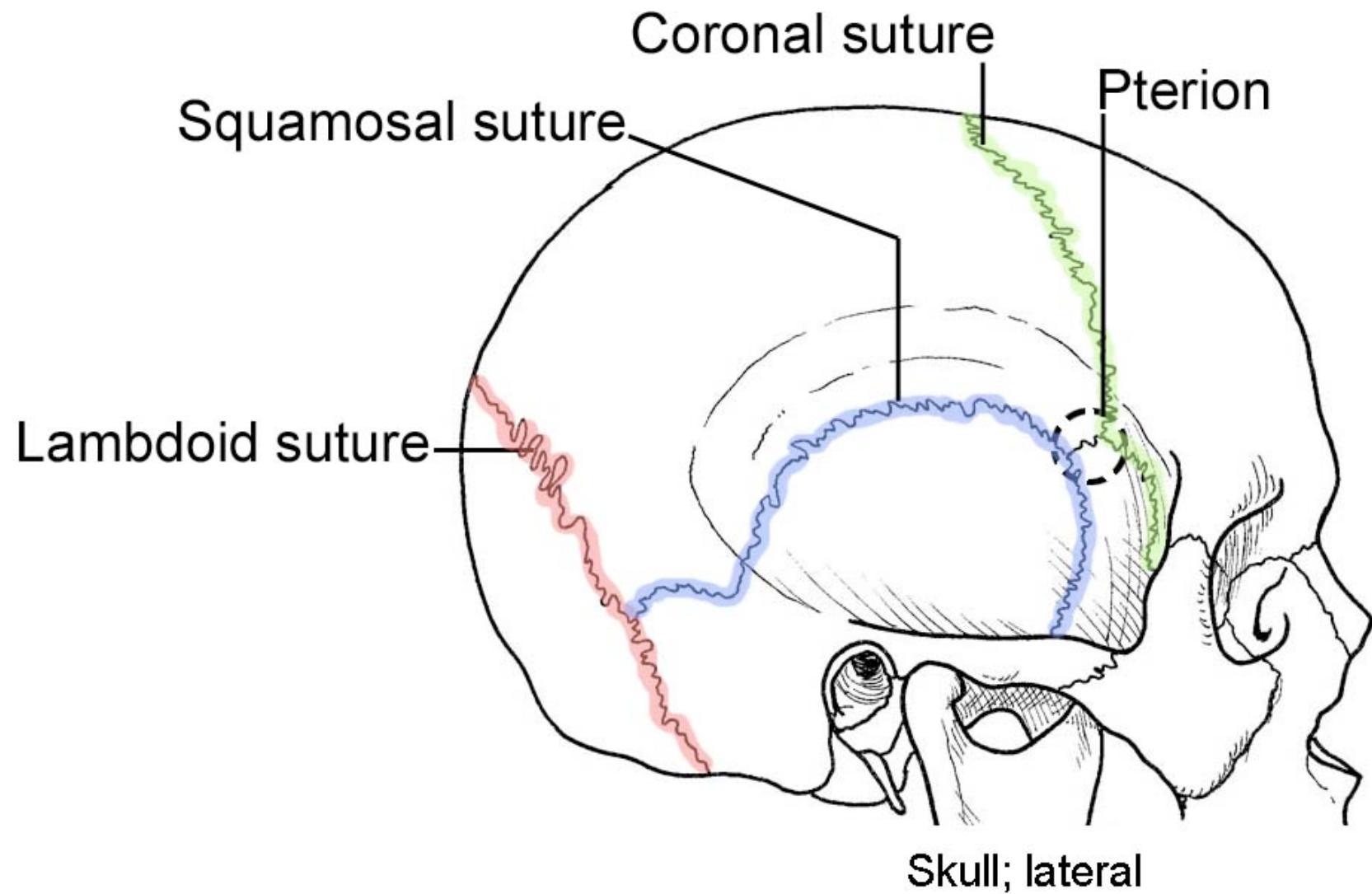
Ethmoid bone



Skull; lateral

Occipital bone

## 2) Skull

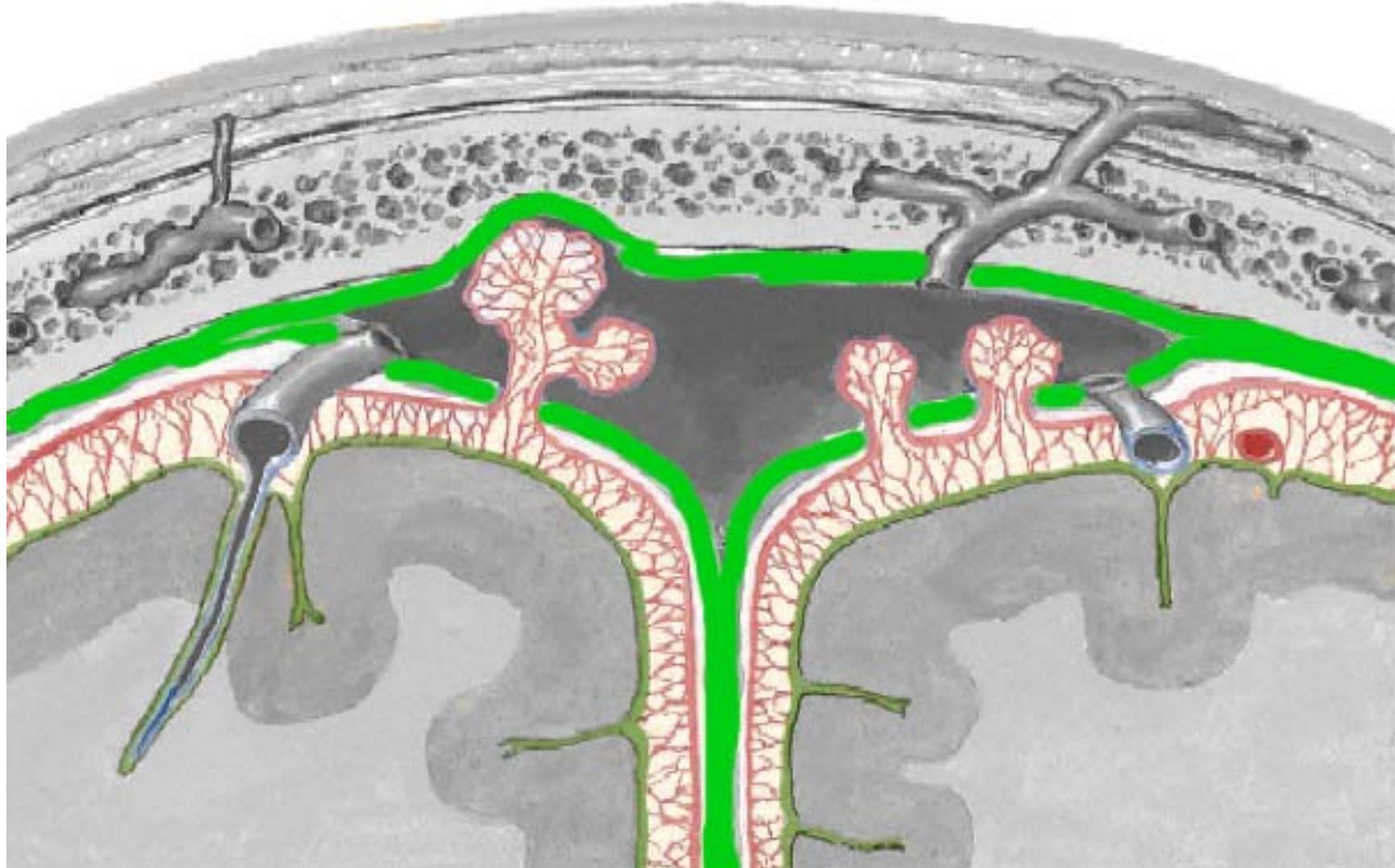


### 3) Cranial Meninges

Dura mater

Arachnoid mater

Pia mater

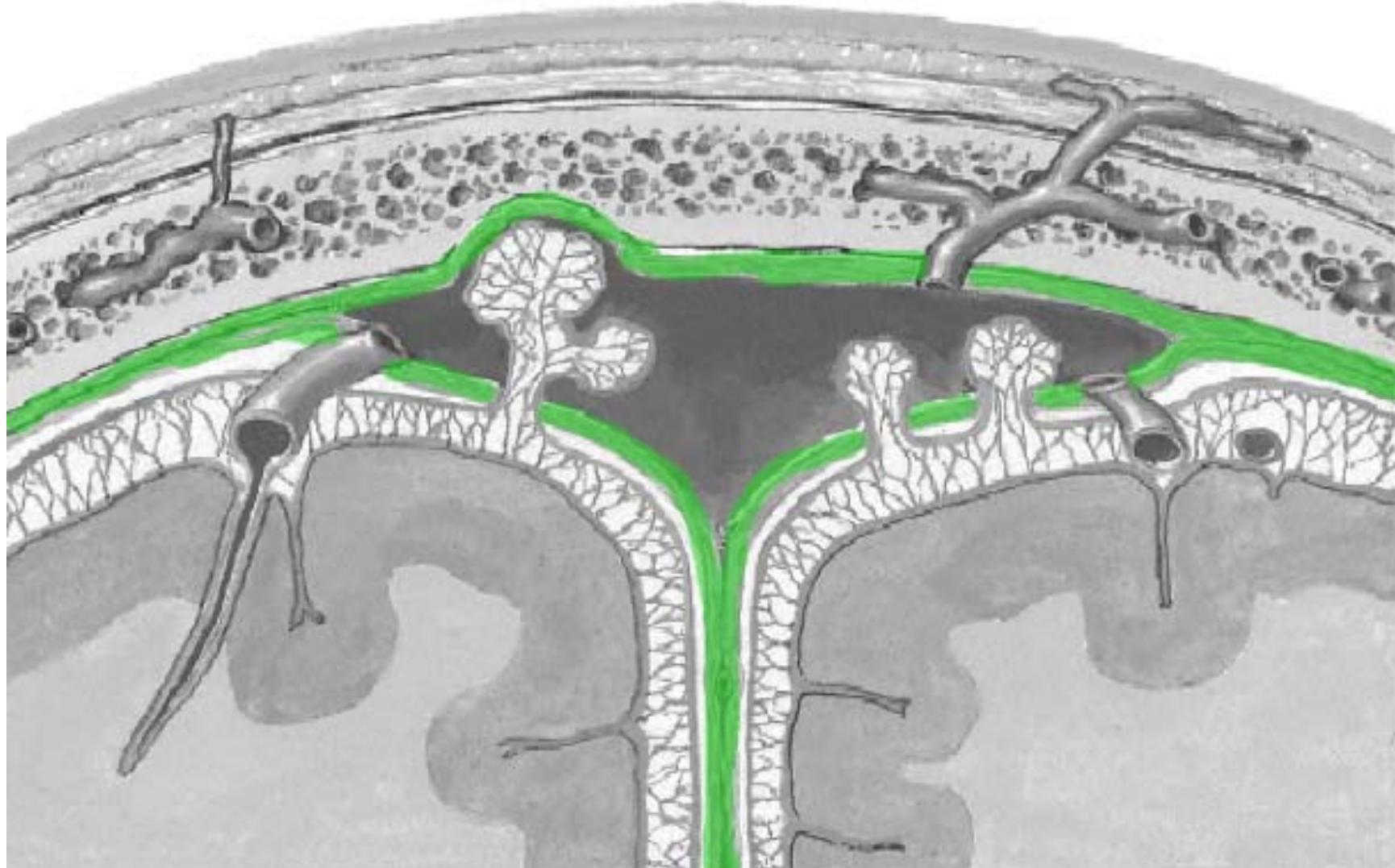


# 3) Cranial Meninges

## Dura mater

Arachnoid mater

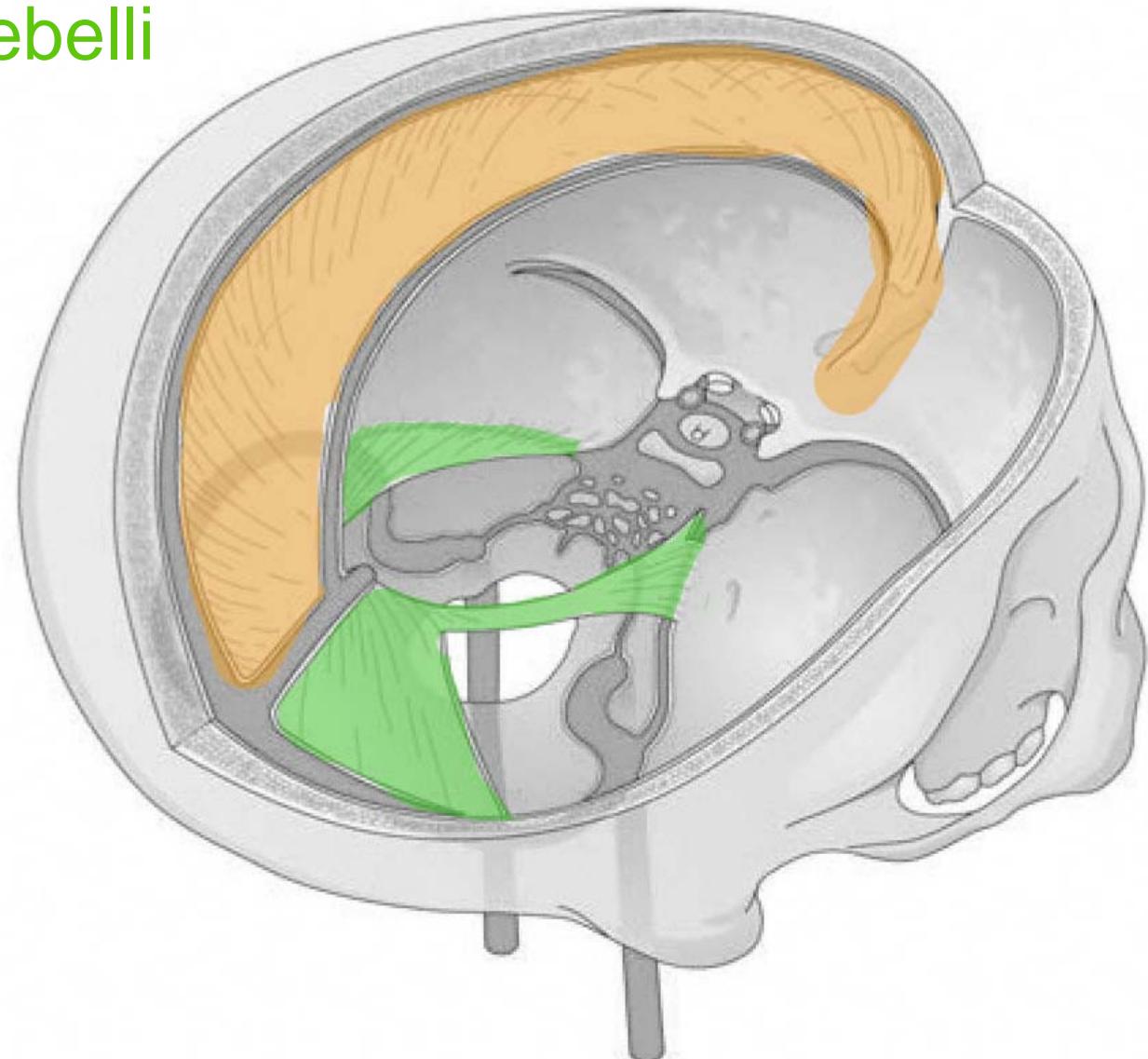
Pia mater



# 3) Cranial Meninges

## Dura mater

- Falx cerebri
- Tentorium cerebelli
- Falx cerebelli



# 3) Cranial Meninges

## Dura mater

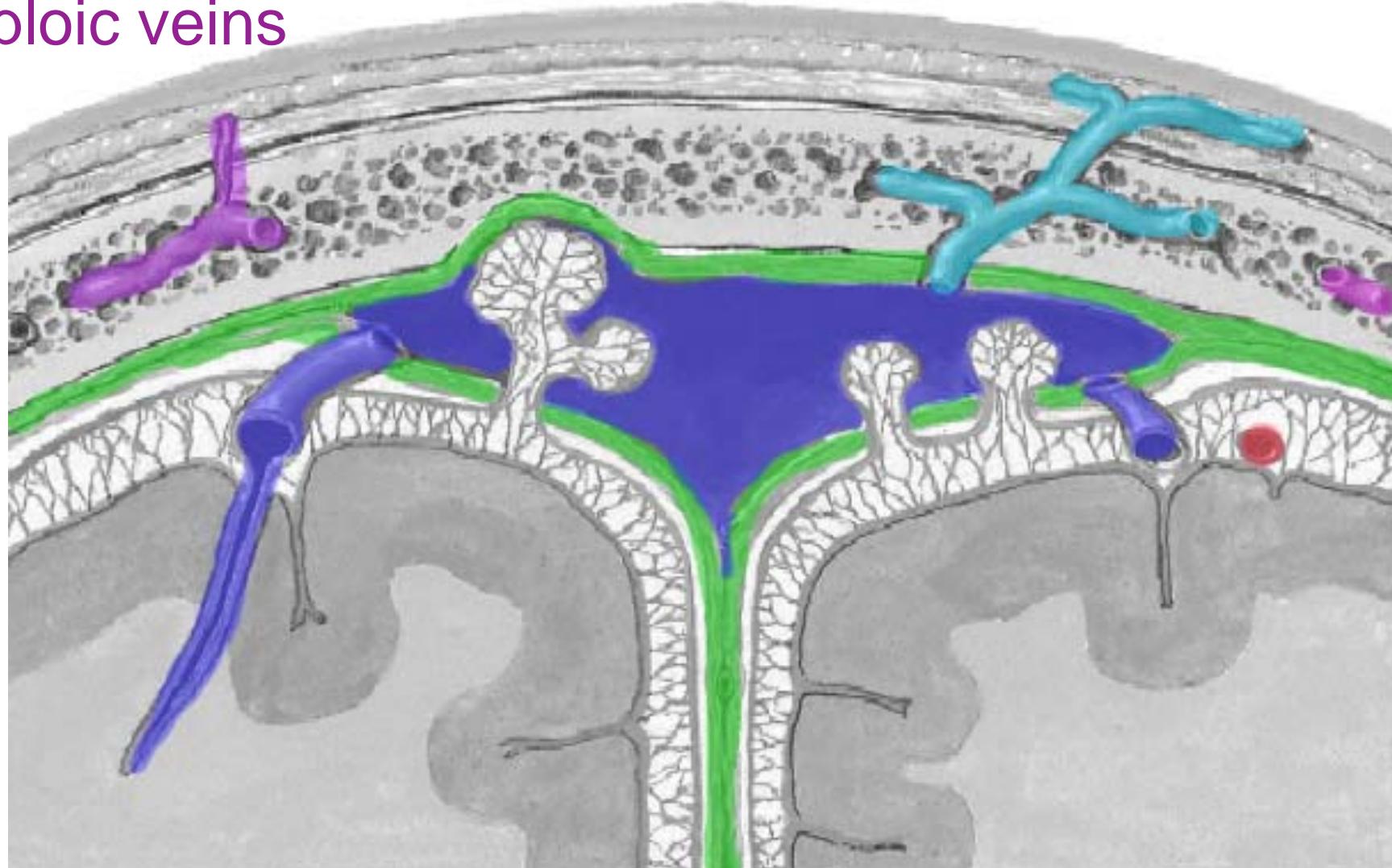
- Dural venous sinus



# 3) Cranial Meninges

## Dura mater

- Cerebral veins
- Emissary veins
- Diploic veins



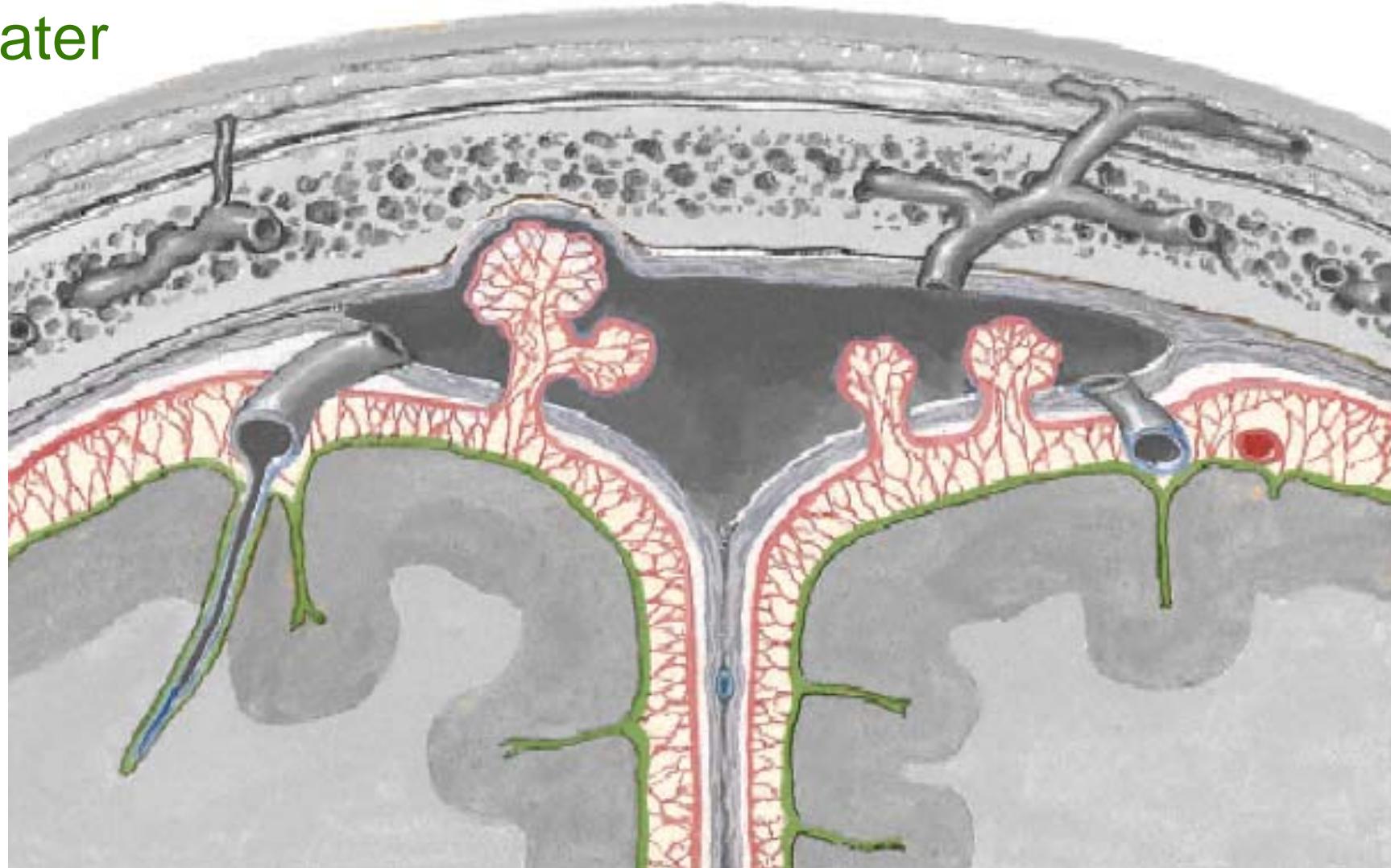
### 3) Cranial Meninges

Arachnoid mater

Arachnoid granulations (villi)

Subarachnoid space

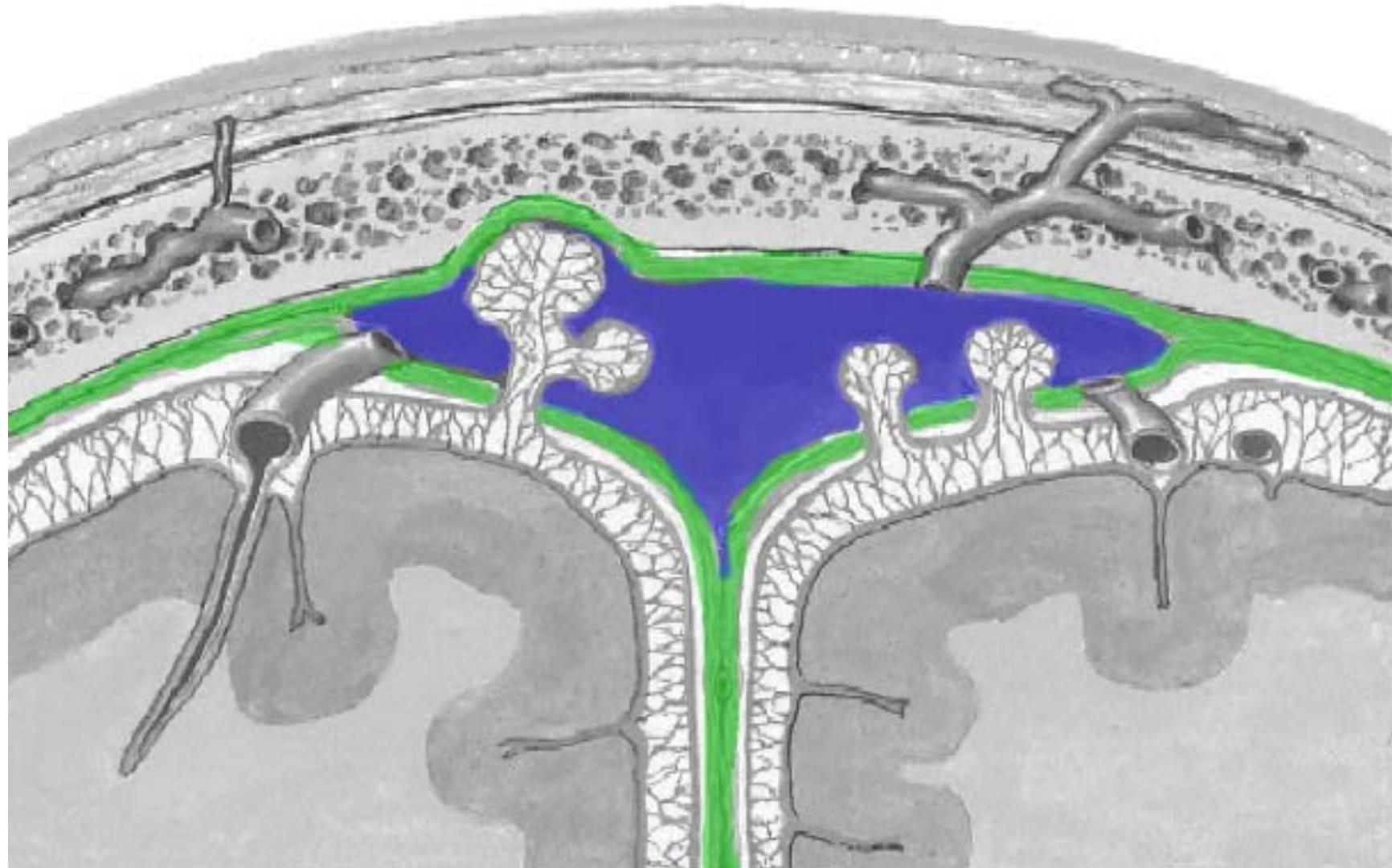
Pia mater



# 3) Cranial Meninges

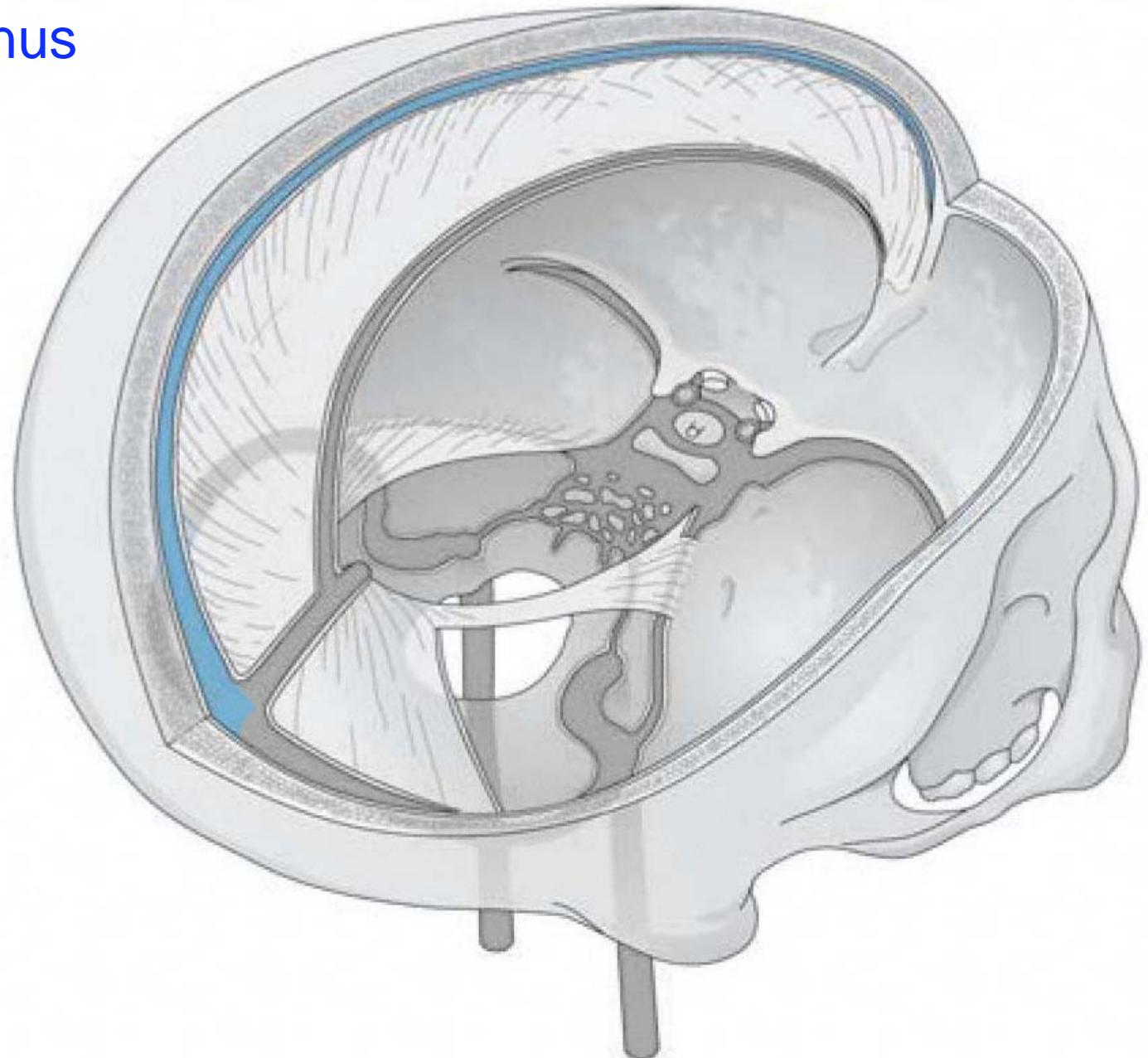
## Dura mater

- Dural venous sinus



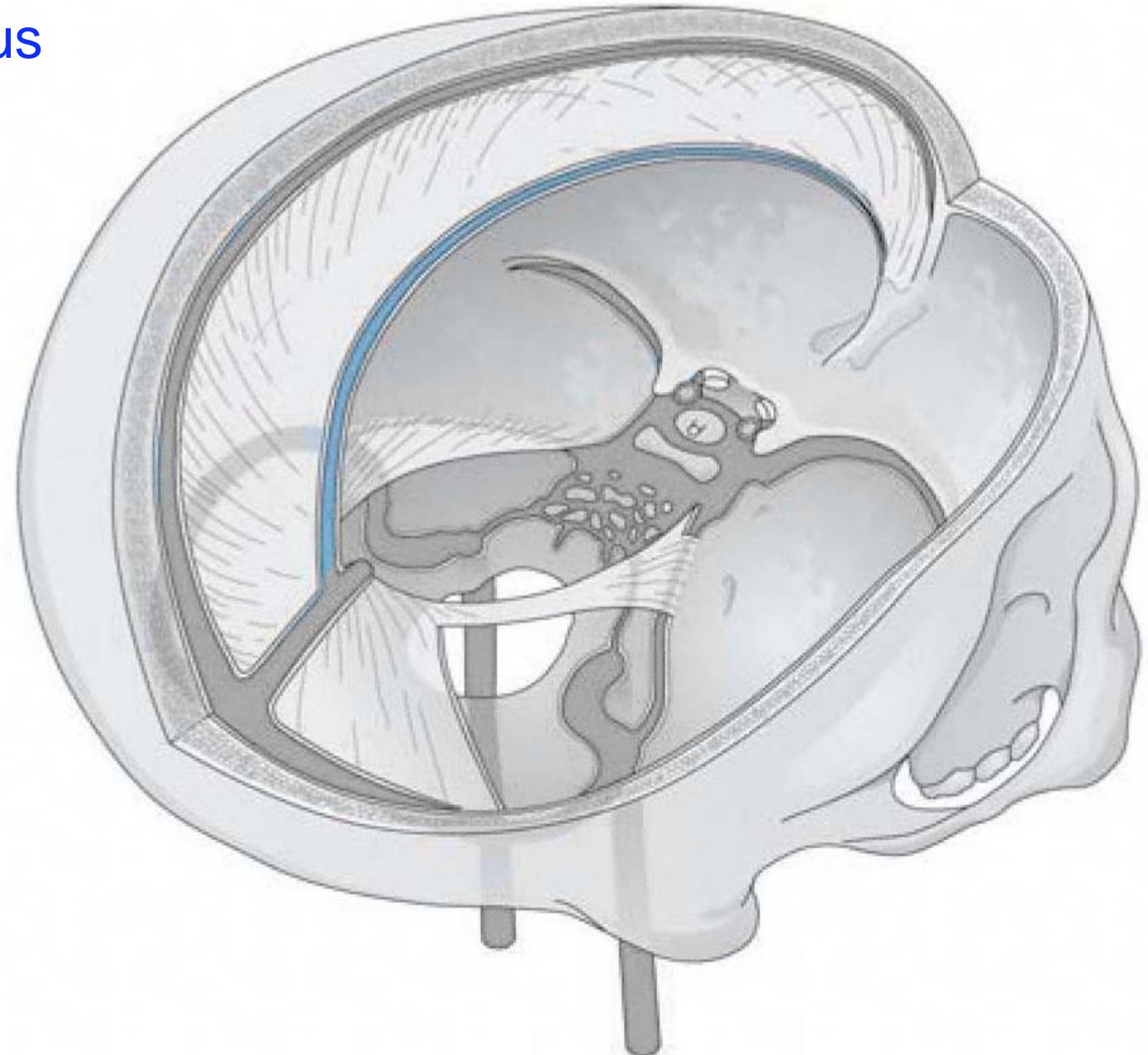
### 3) Cranial Meninges - Dural ven. sinuses

Superior sagittal sinus



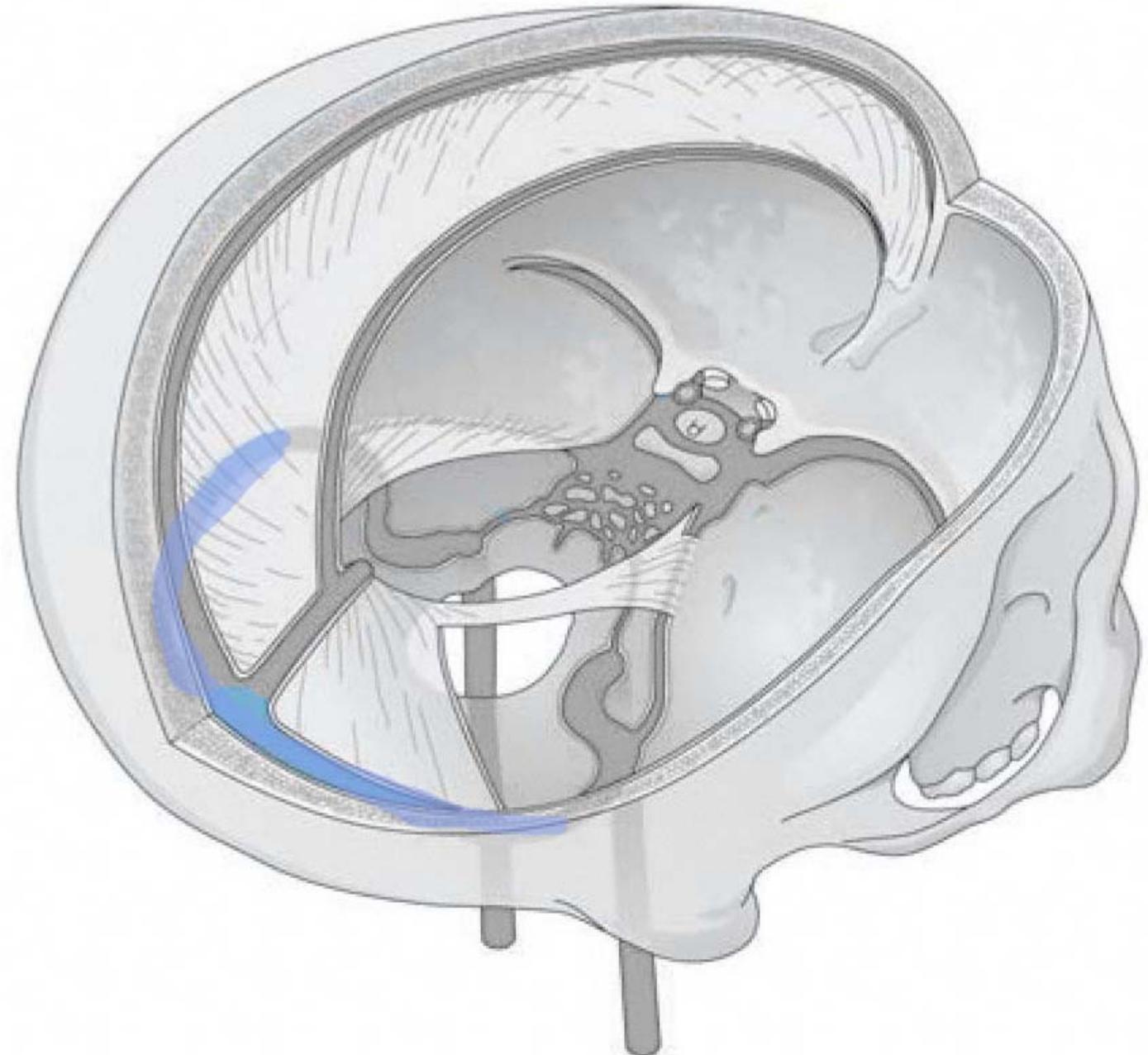
### 3) Cranial Meninges - Dural ven. sinuses

Inferior sagittal sinus



### 3) Cranial Meninges - Dural ven. sinuses

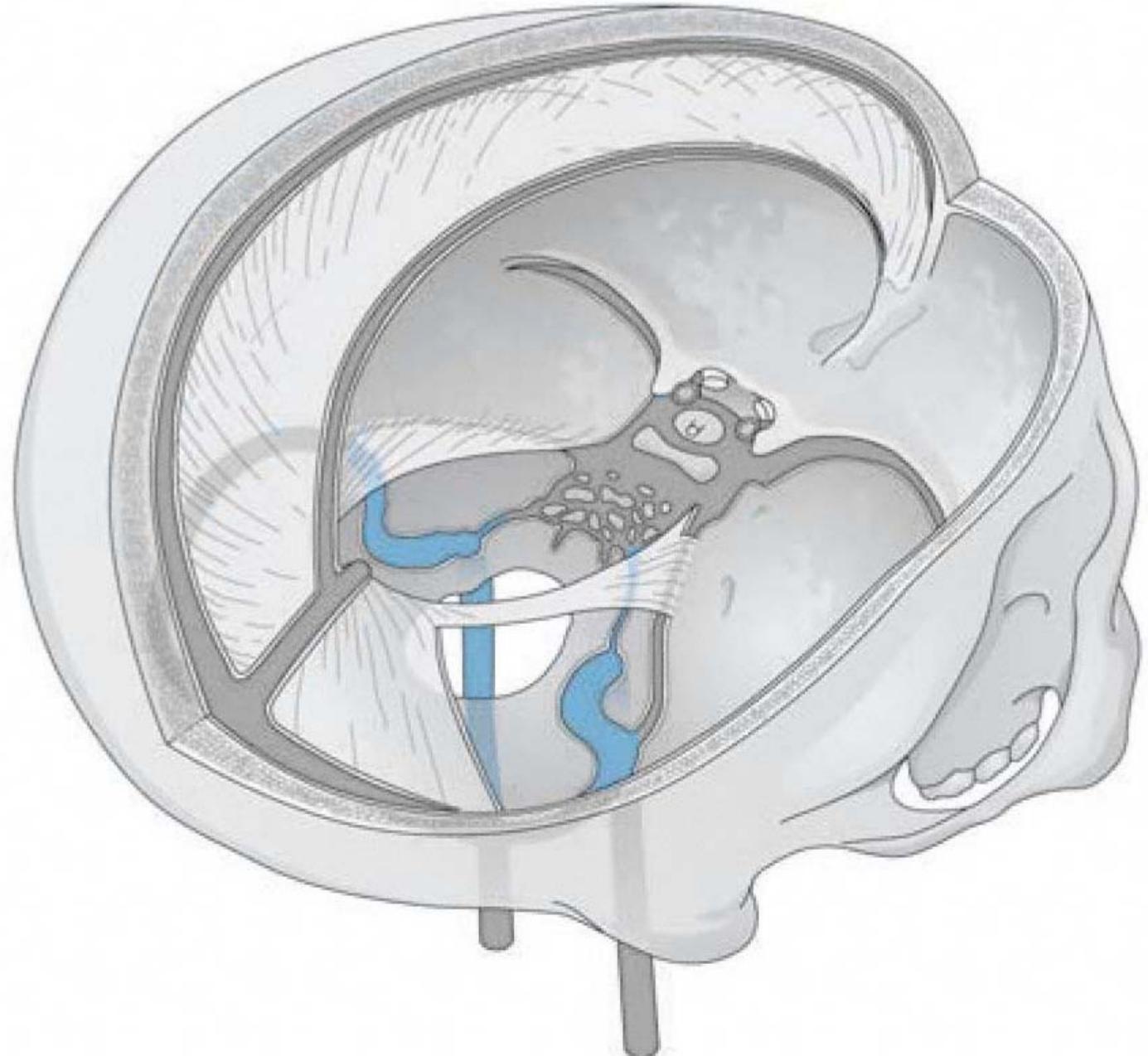
Transverse sinus



### 3) Cranial Meninges - Dural ven. sinuses

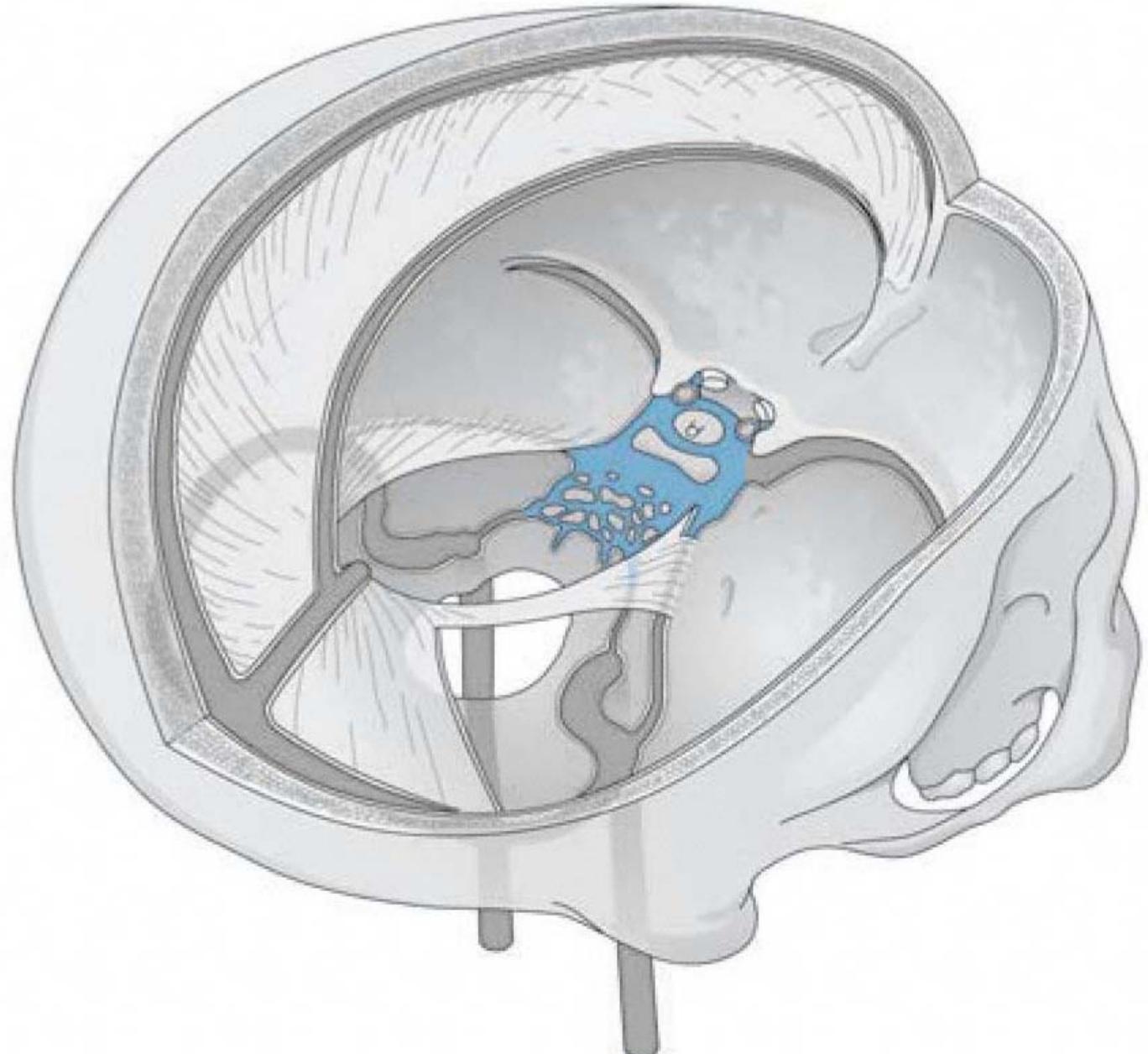
Sigmoid sinus

IJV



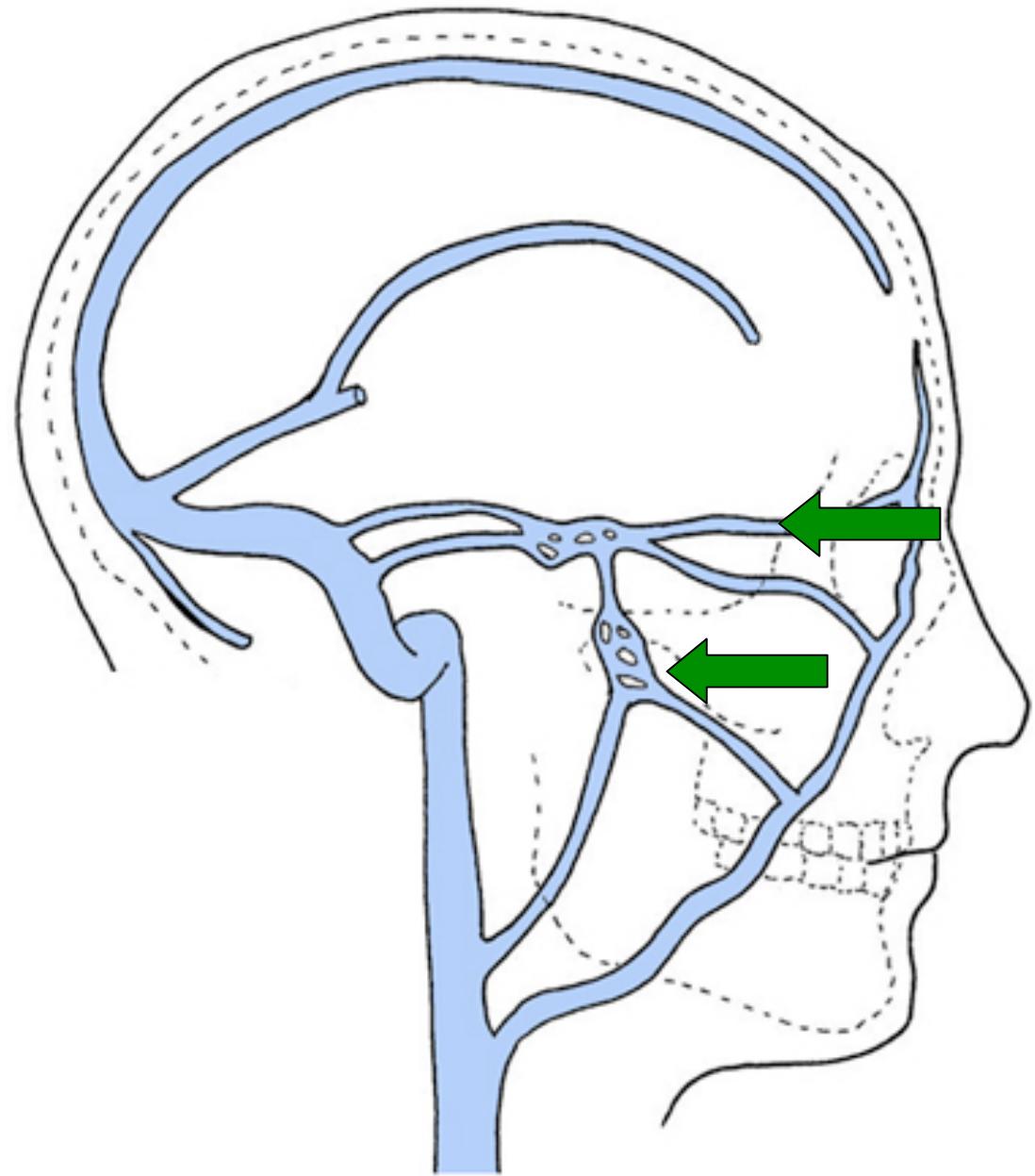
### 3) Cranial Meninges - Dural ven. sinuses

Cavernous sinus



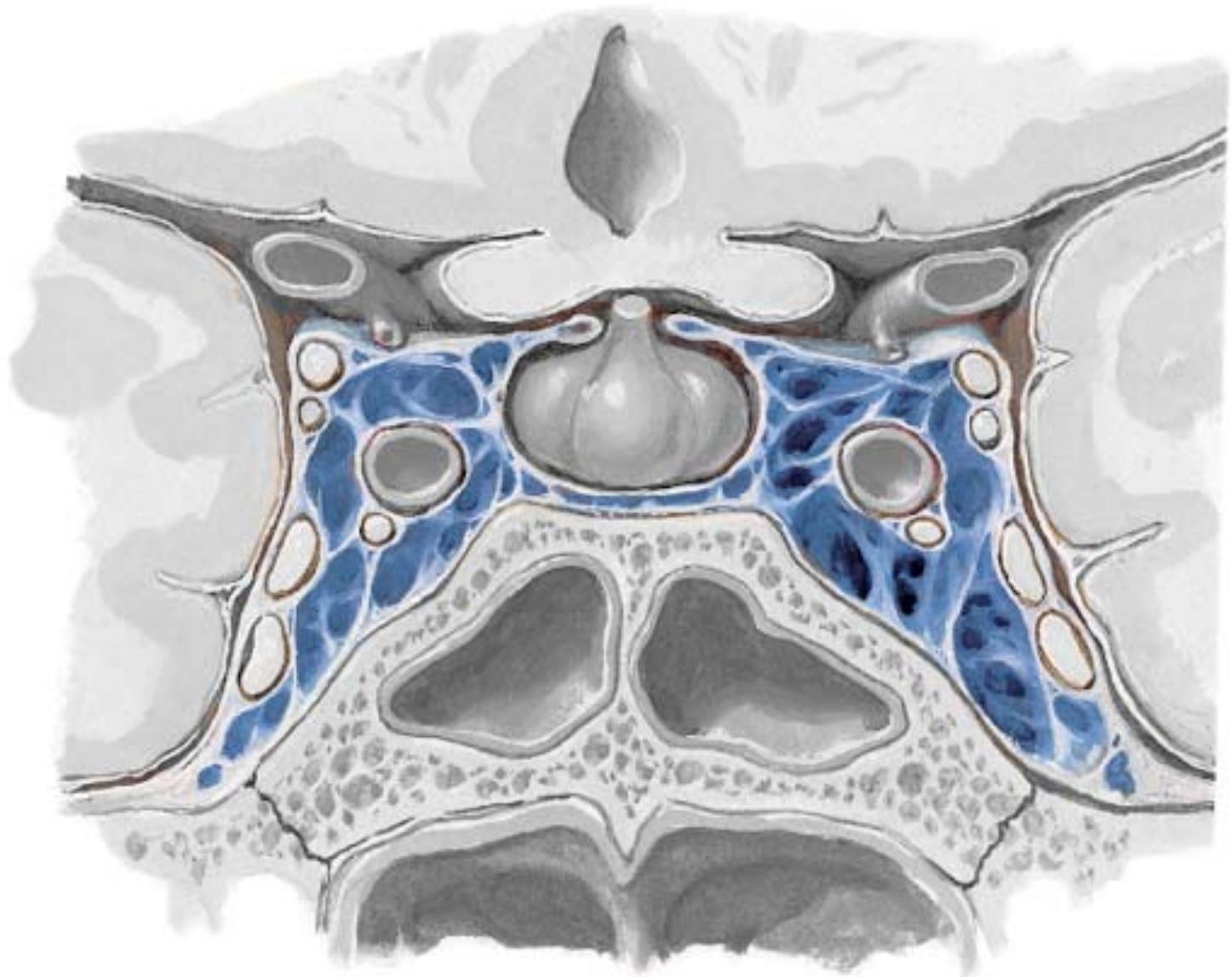
### 3) Cranial Meninges - Dural ven. sinuses

Cavernous sinus



### 3) Cranial Meninges - Cavernous sinus

Cavernous sinus

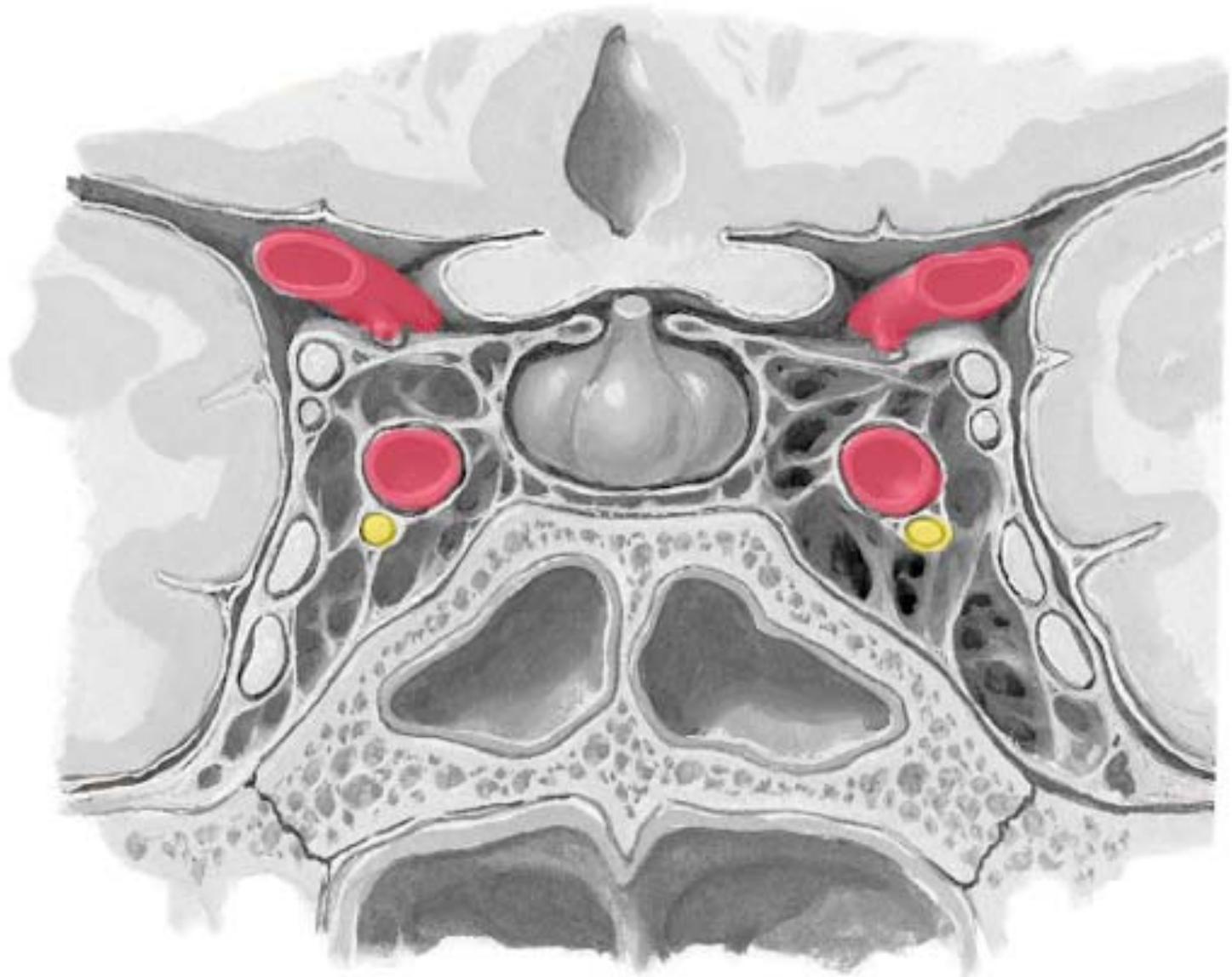


### 3) Cranial Meninges - Cavernous sinus

Structures passing THROUGH the sinus:

ICA

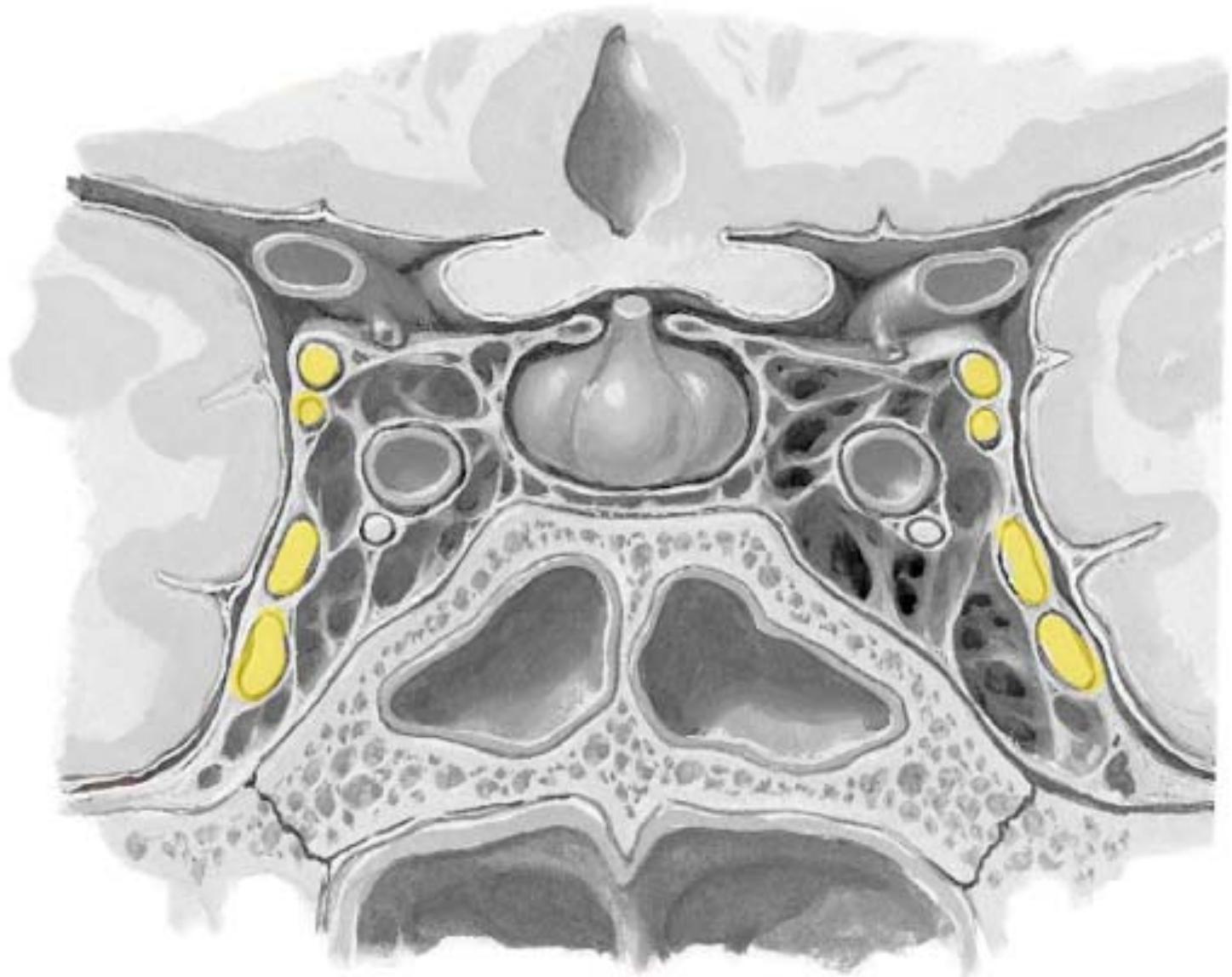
CN VI



### 3) Cranial Meninges - Cavernous sinus

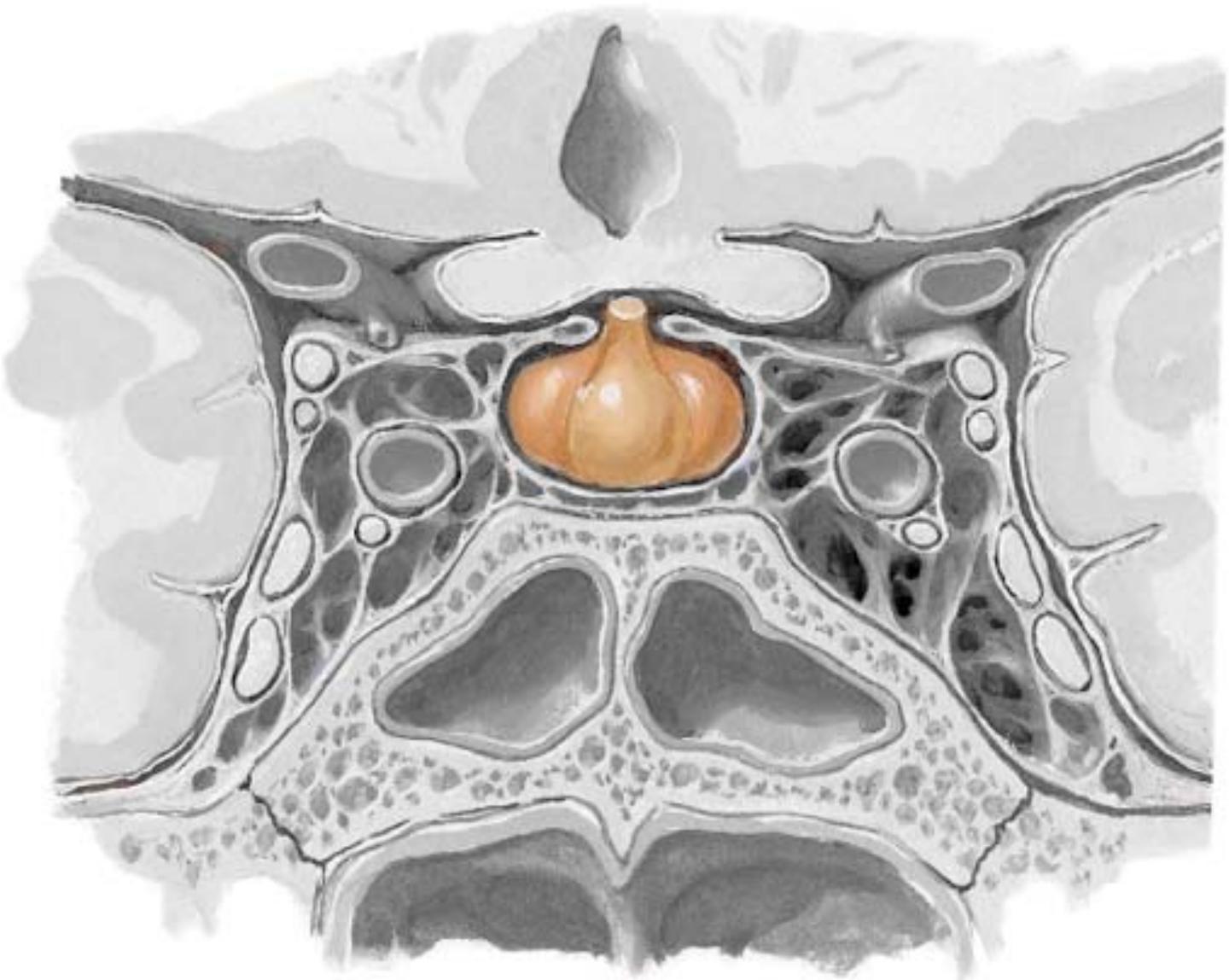
Structures in LATERAL WALL of sinus:

CN III  
CN IV  
CN V-1  
CN V-2



### 3) Cranial Meninges - Cavernous sinus

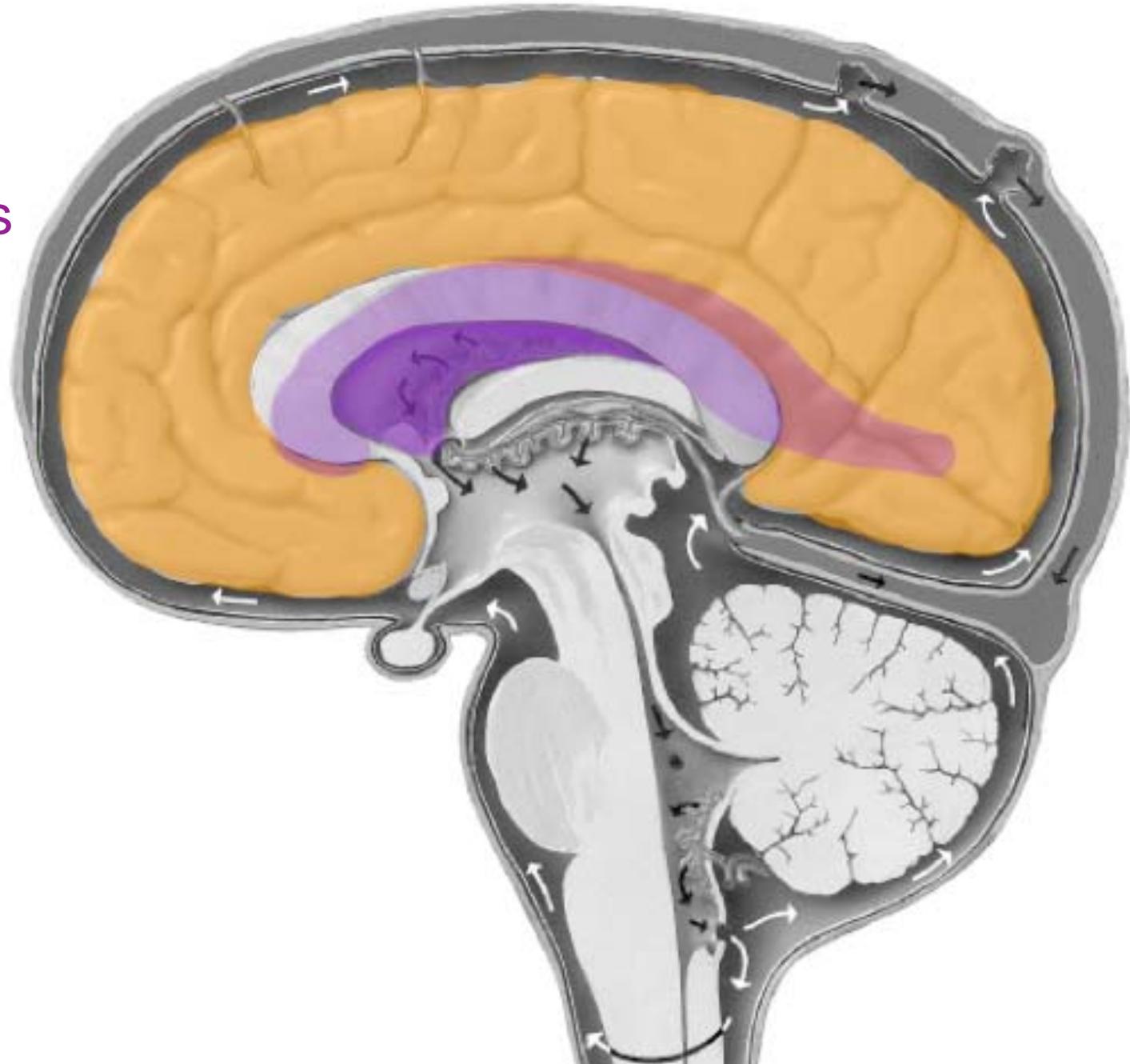
Pituitary gland



# 4) Brain

Cerebrum

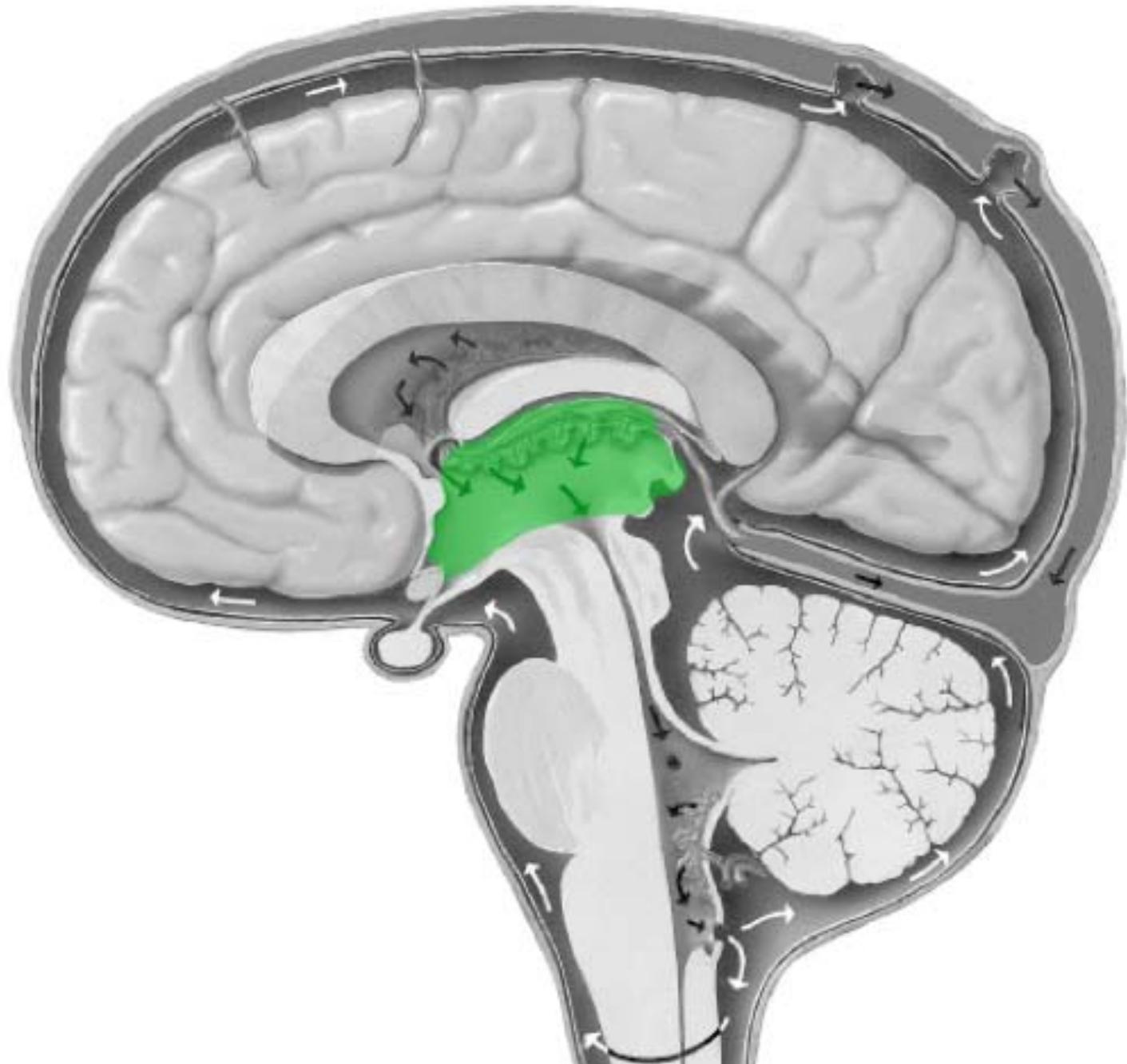
Lateral ventricles



# 4) Brain

Diencephalon

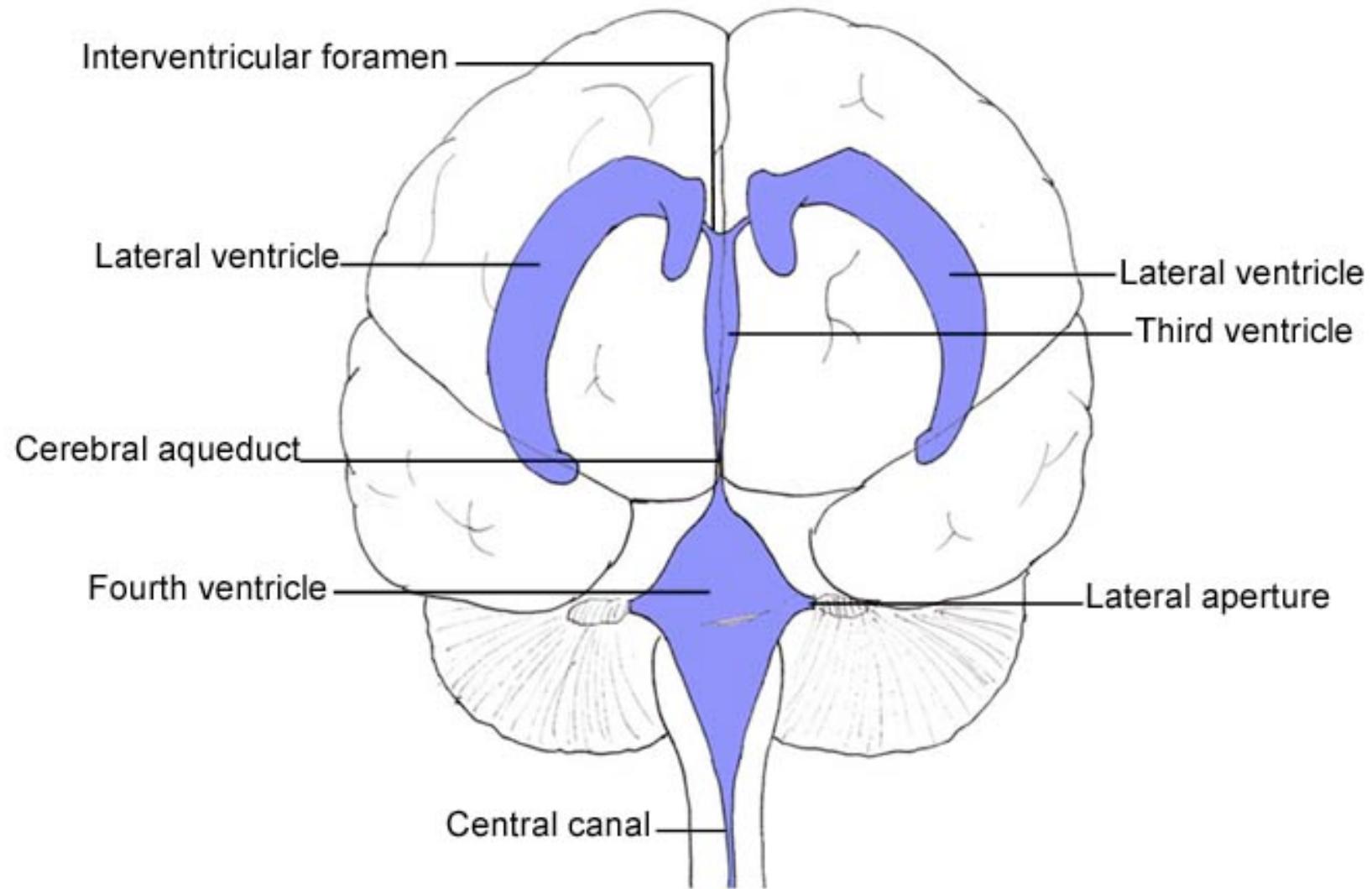
Third ventricle



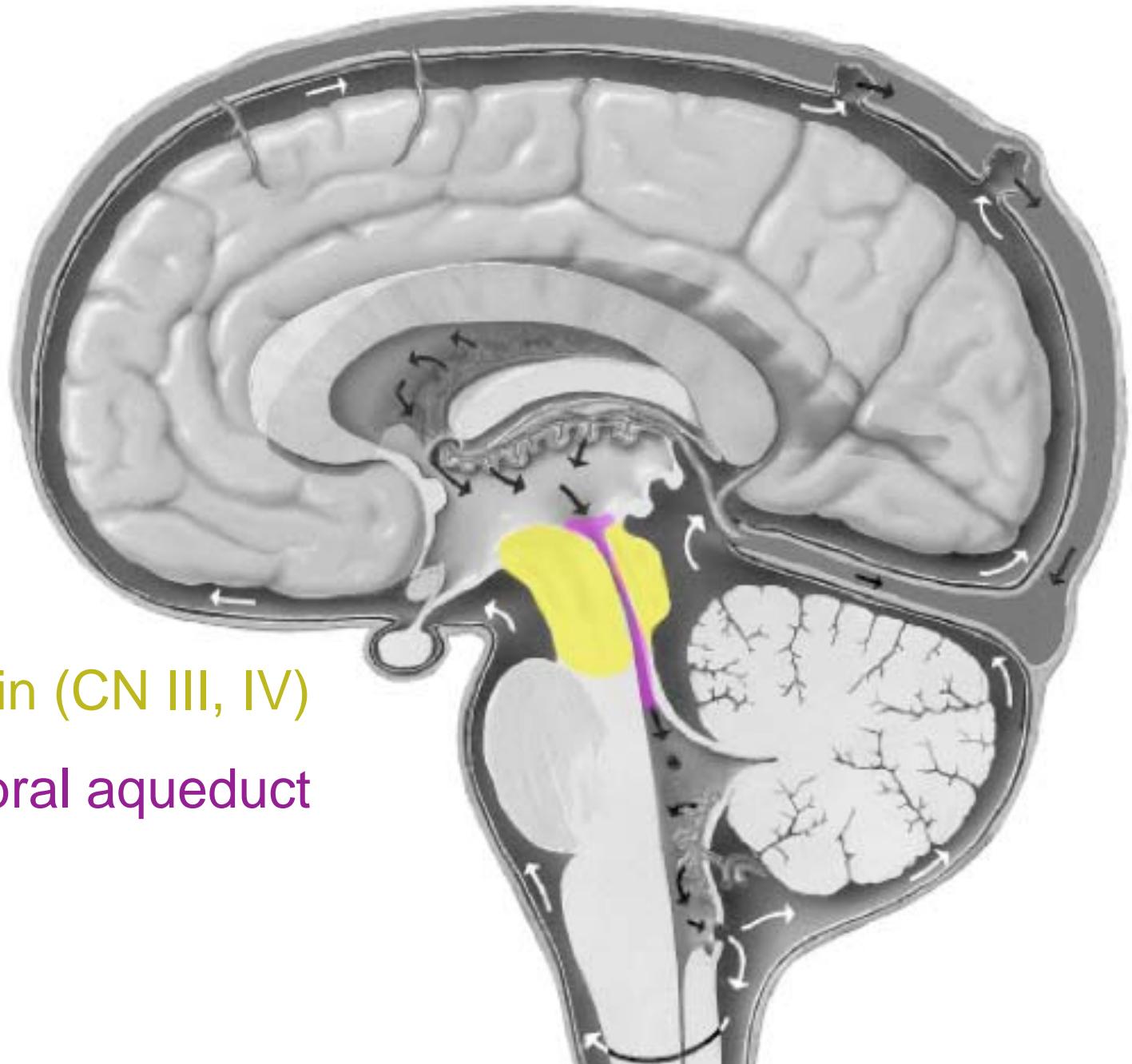
# 4) Brain

## Lateral ventricles

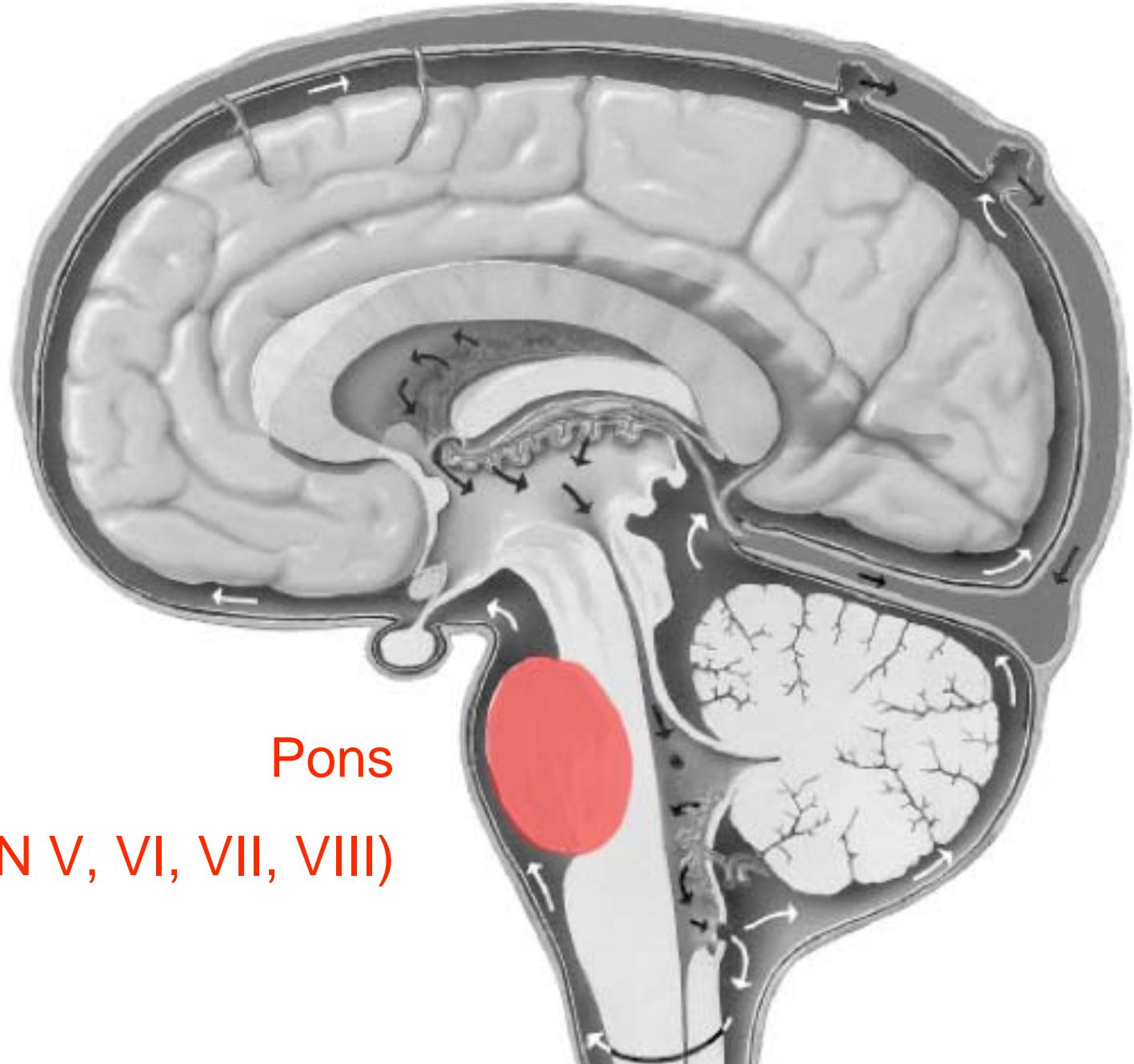
## Third ventricle



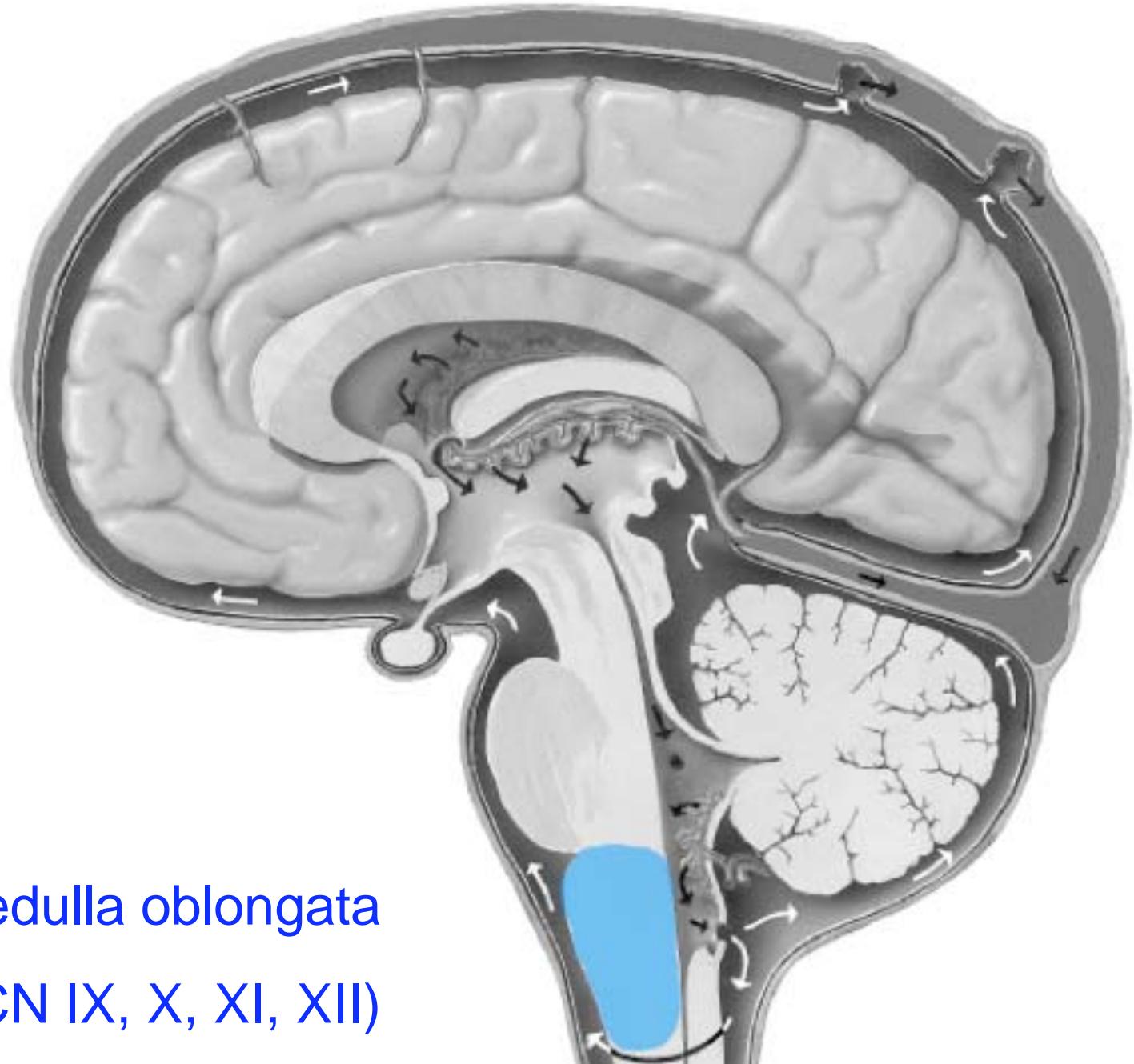
# 4) Brain



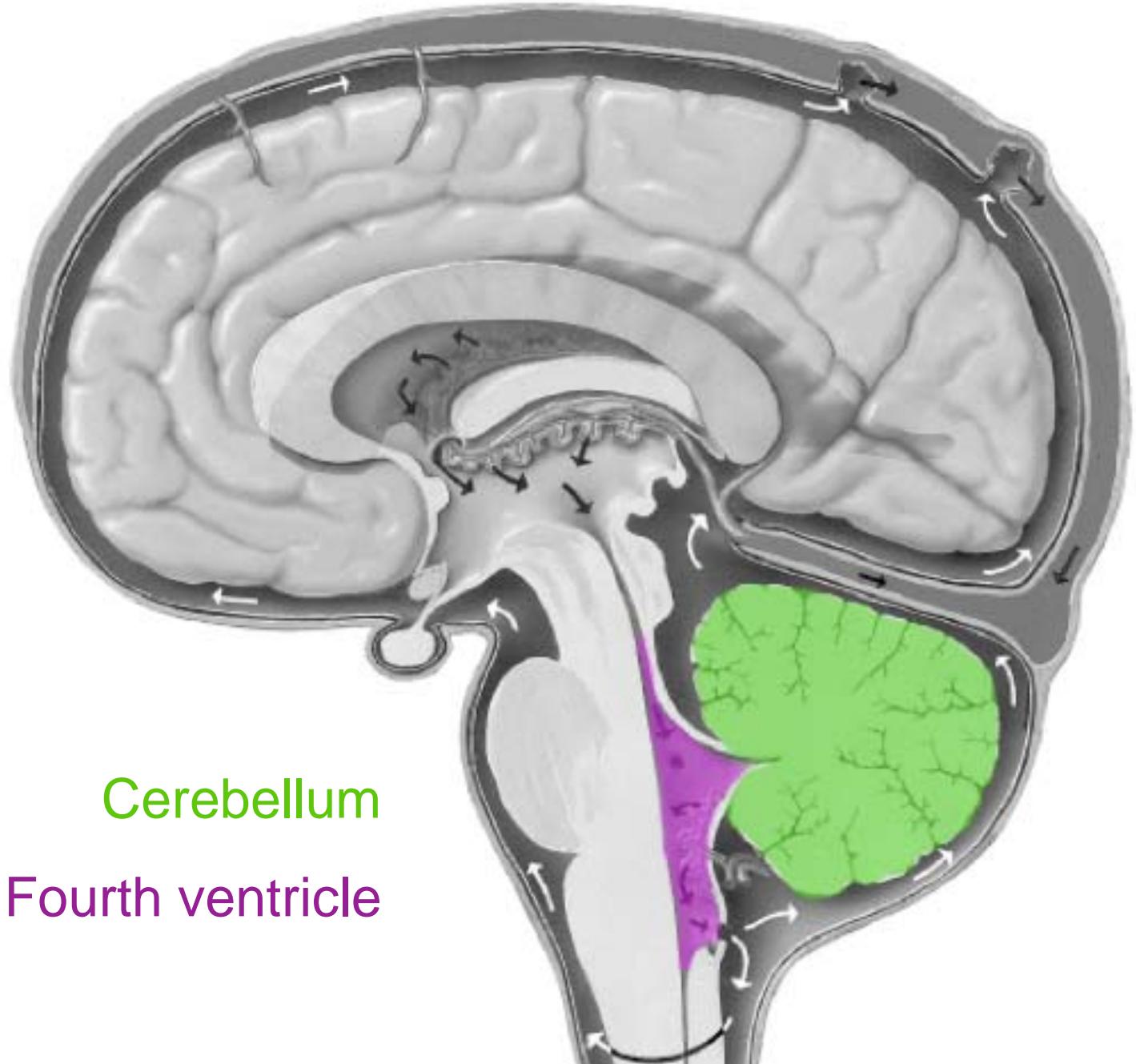
# 4) Brain



# 4) Brain

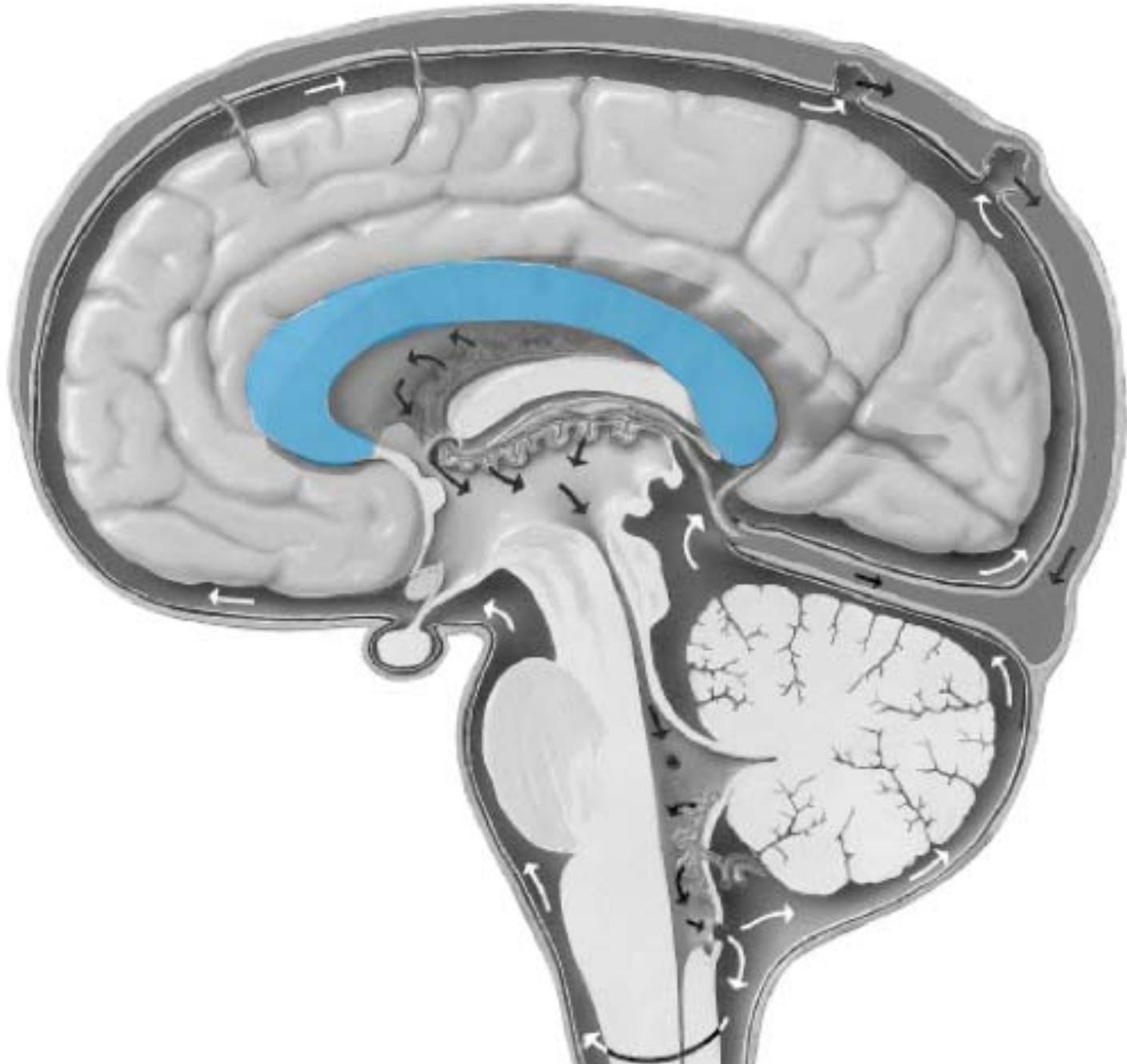


# 4) Brain



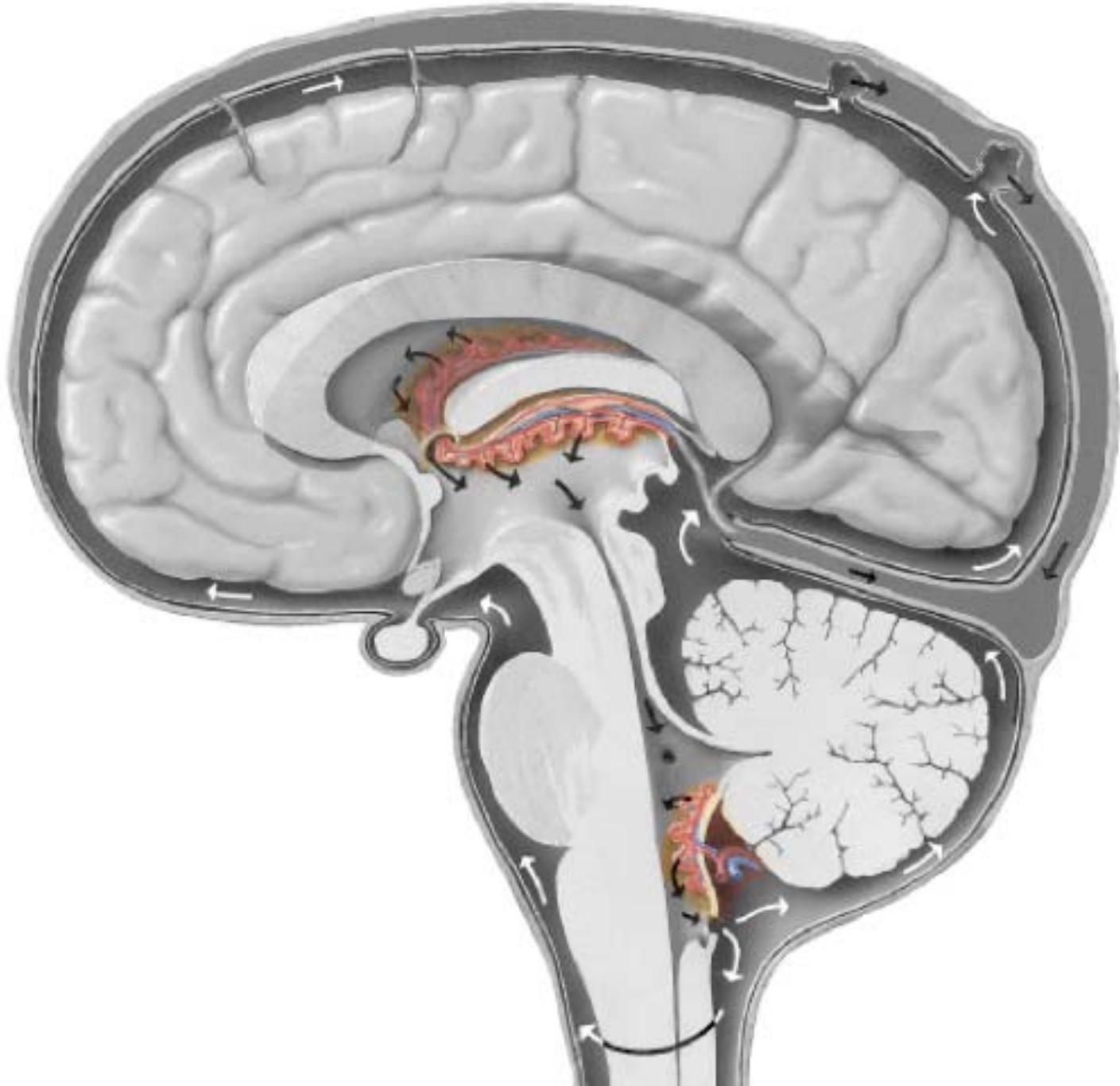
# 4) Brain

Corpus callosum



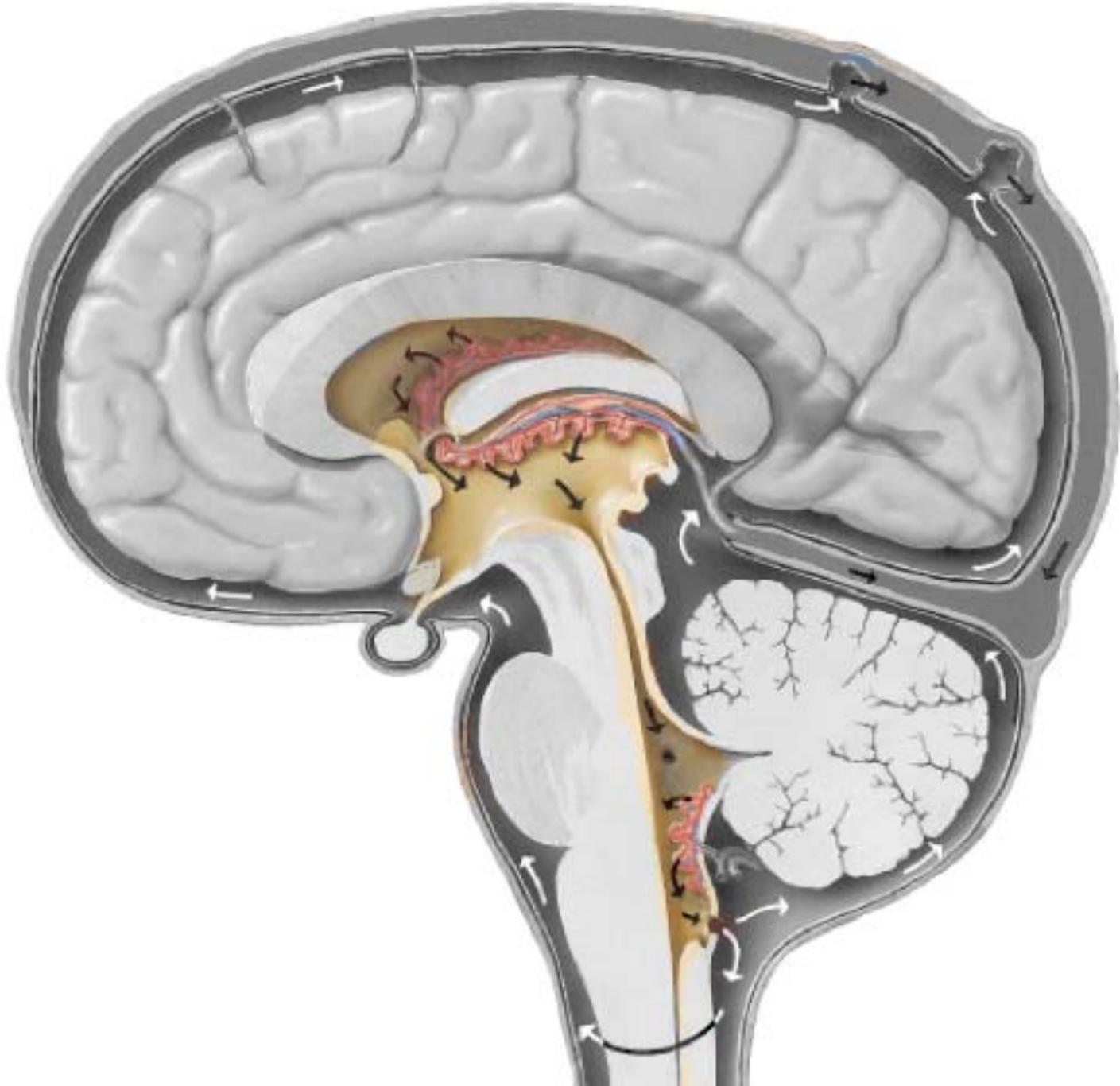
# 4) Brain

Choroid plexus

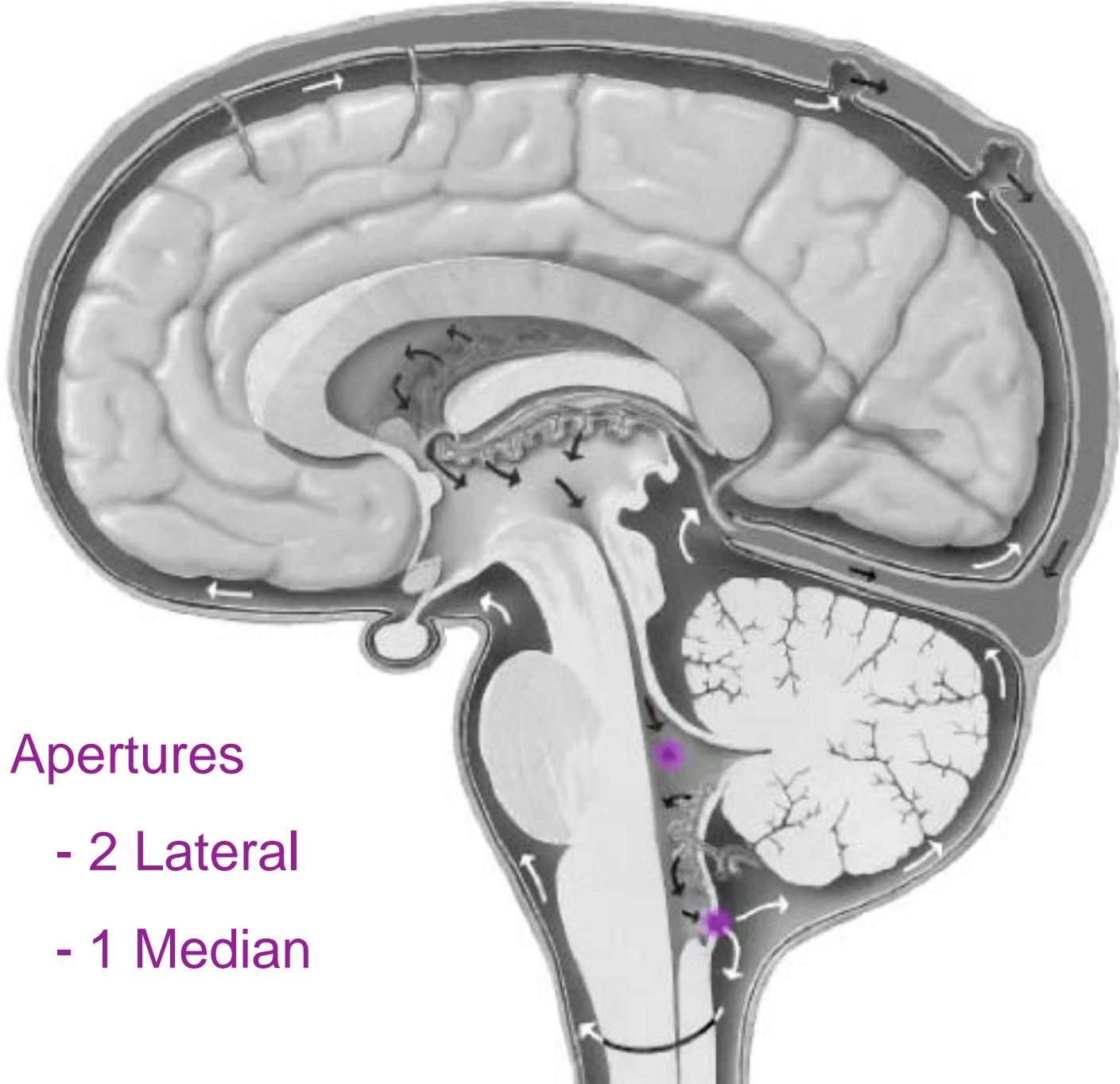


# 4) Brain

## Ventricles



# 4) Brain



Apertures

- 2 Lateral
- 1 Median

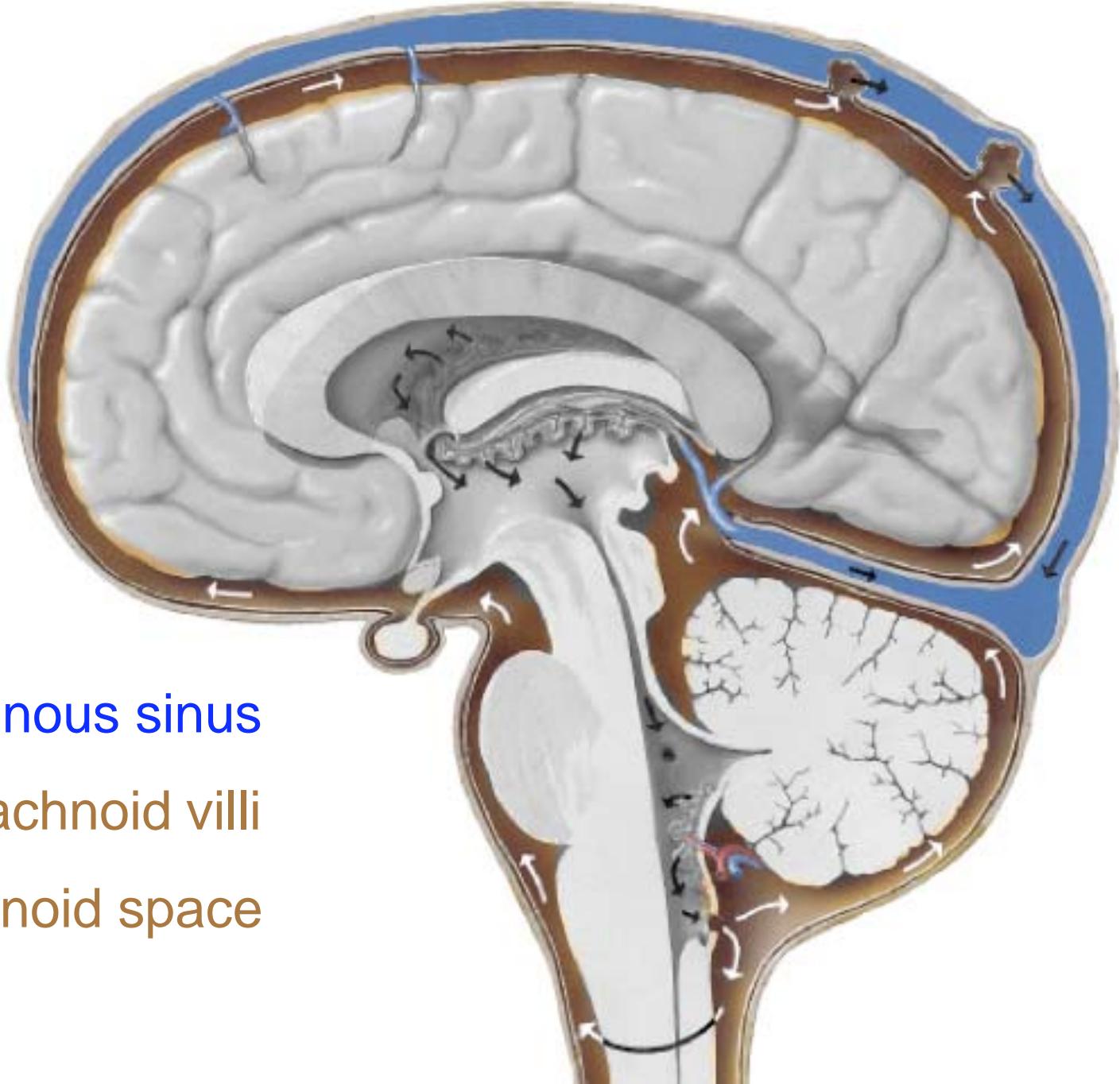
# Nutty Putty Caves



# Nutty Putty Caves



# 4) Brain



Dural venous sinus

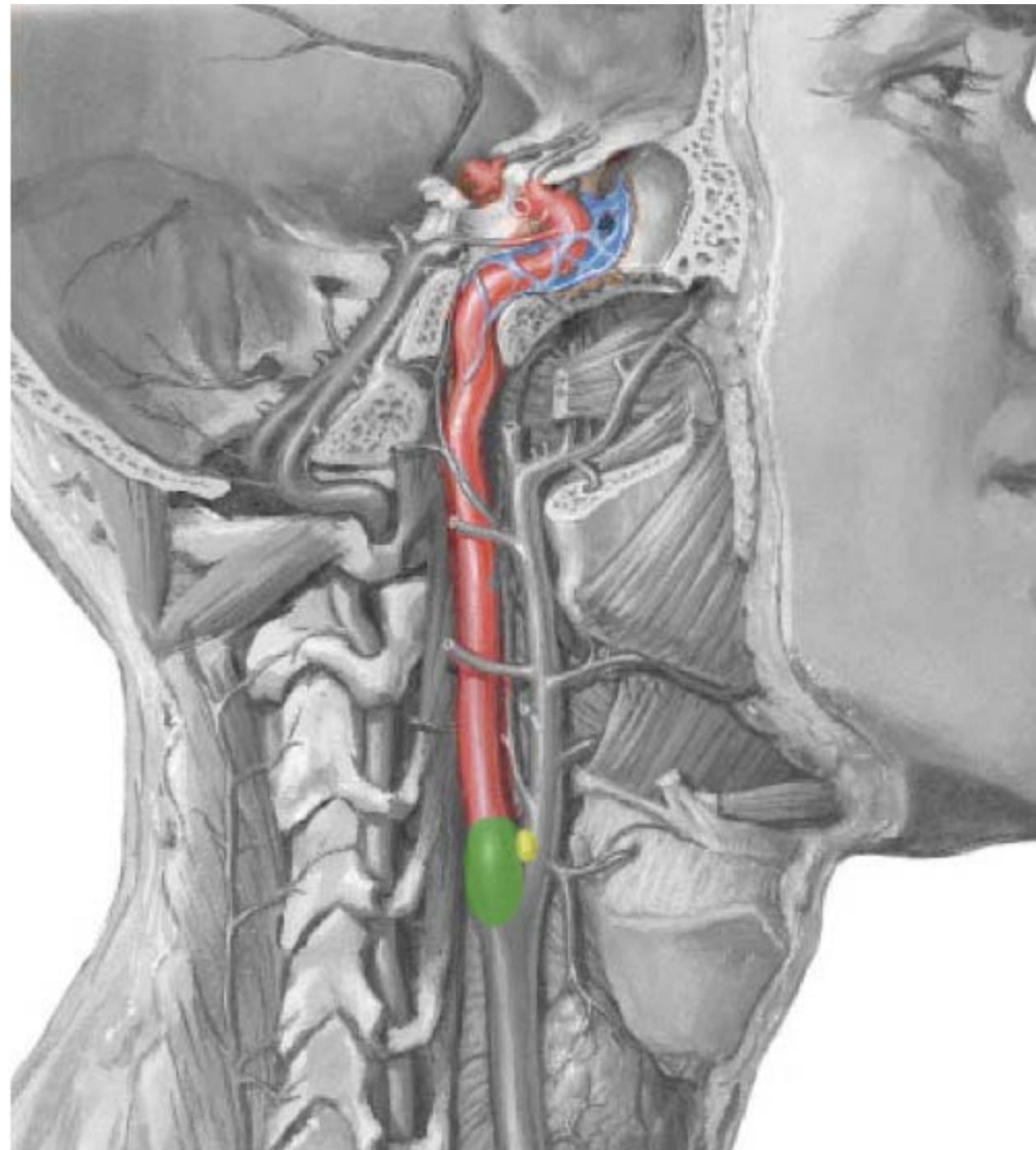
Subarachnoid villi

Subarachnoid space

# 5) Blood Supply to the Brain

Internal carotid artery

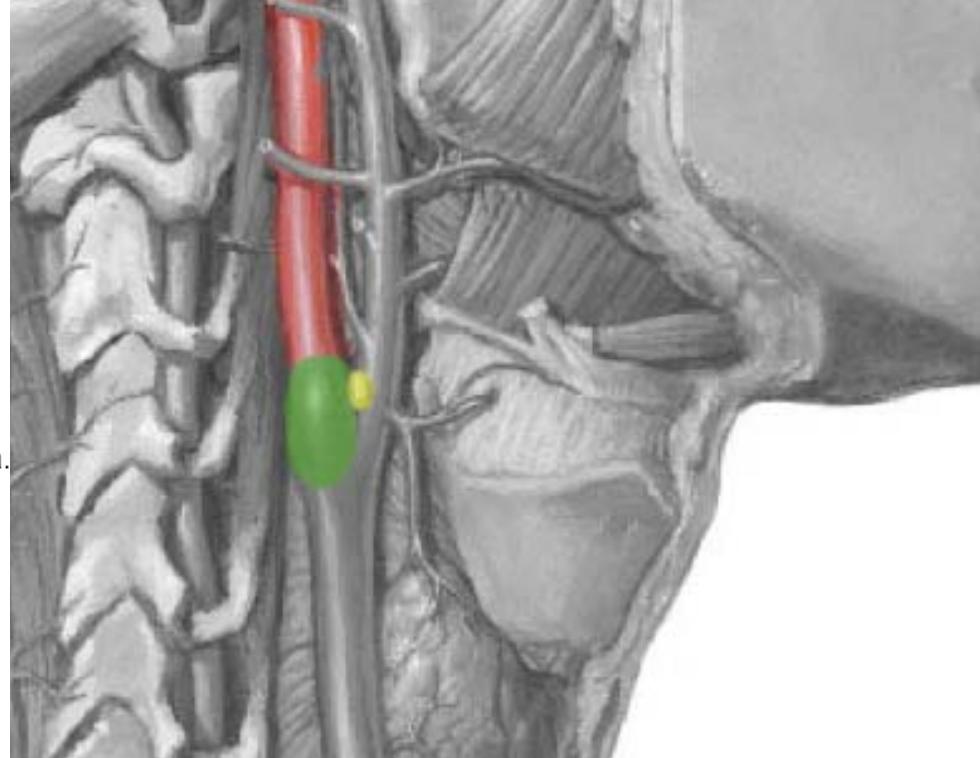
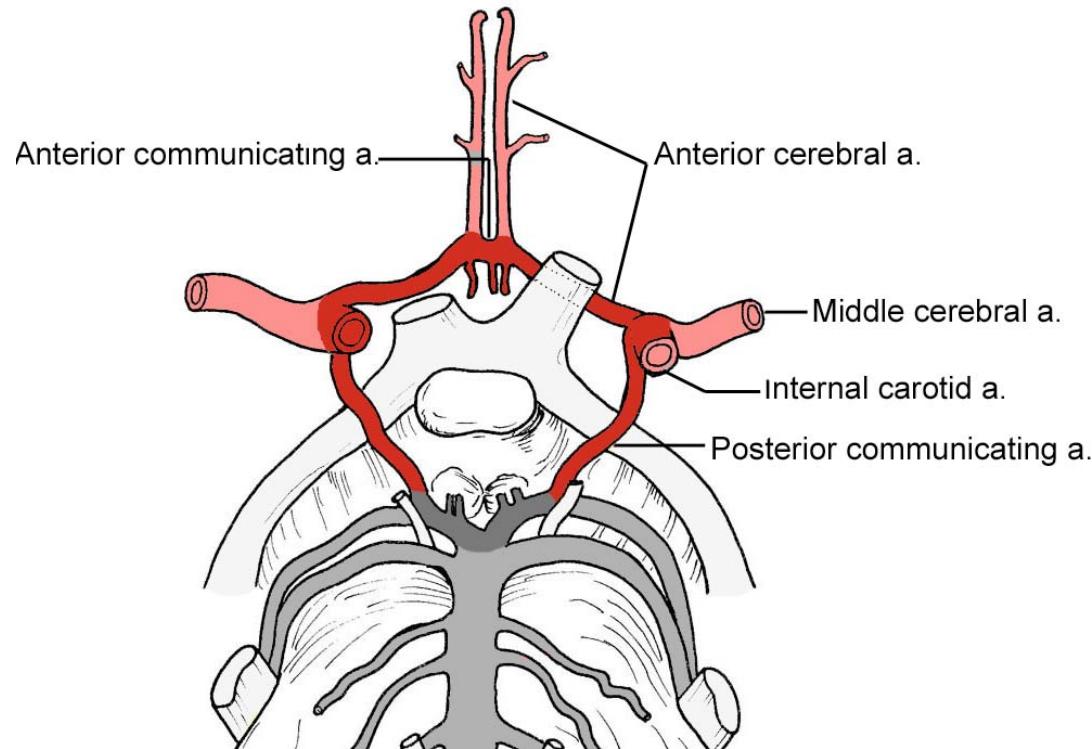
Vertebral artery



# 5) Blood Supply to the Brain

Internal carotid artery

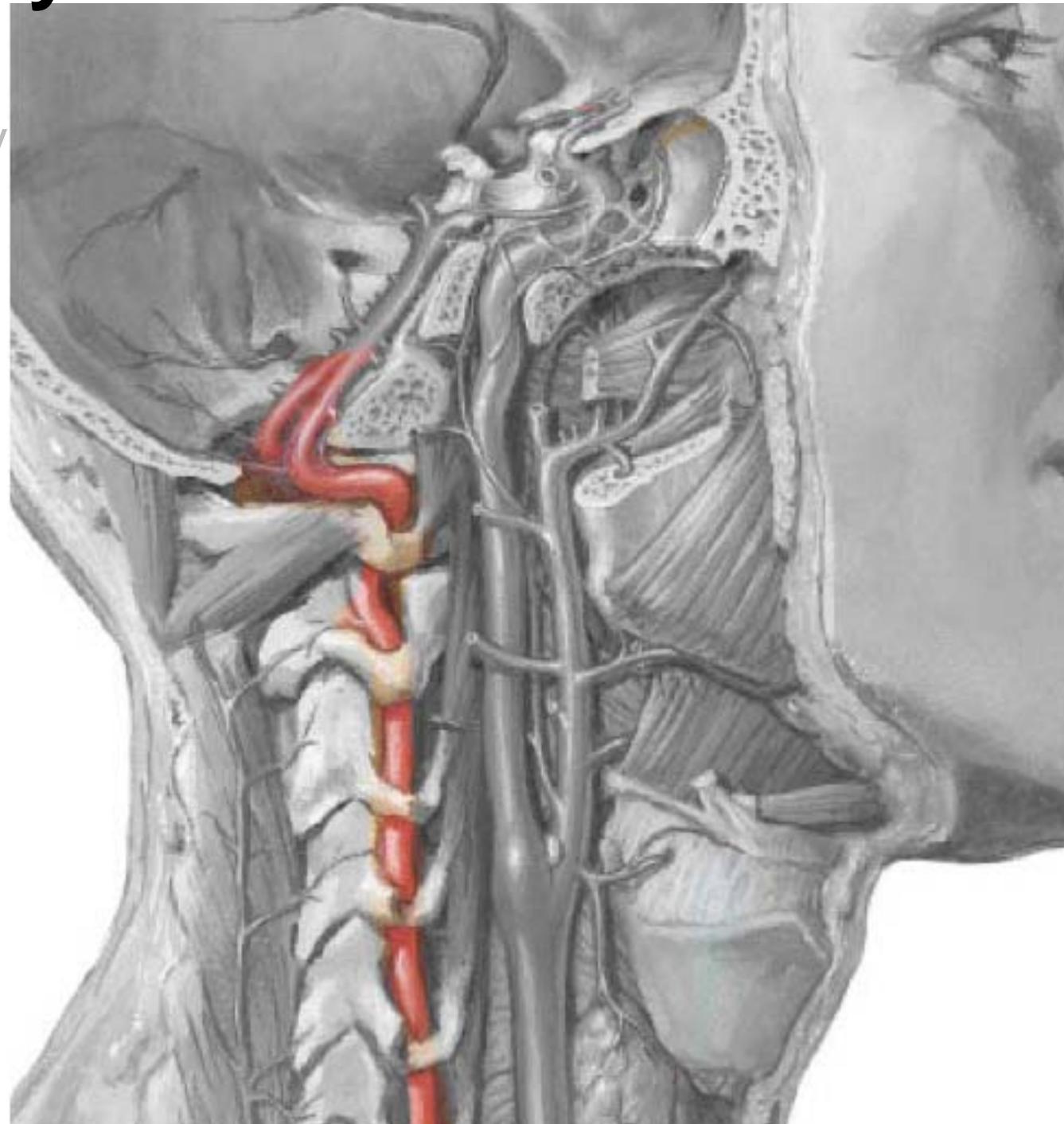
Vertebral artery



# 5) Blood Supply to the Brain

Internal carotid artery

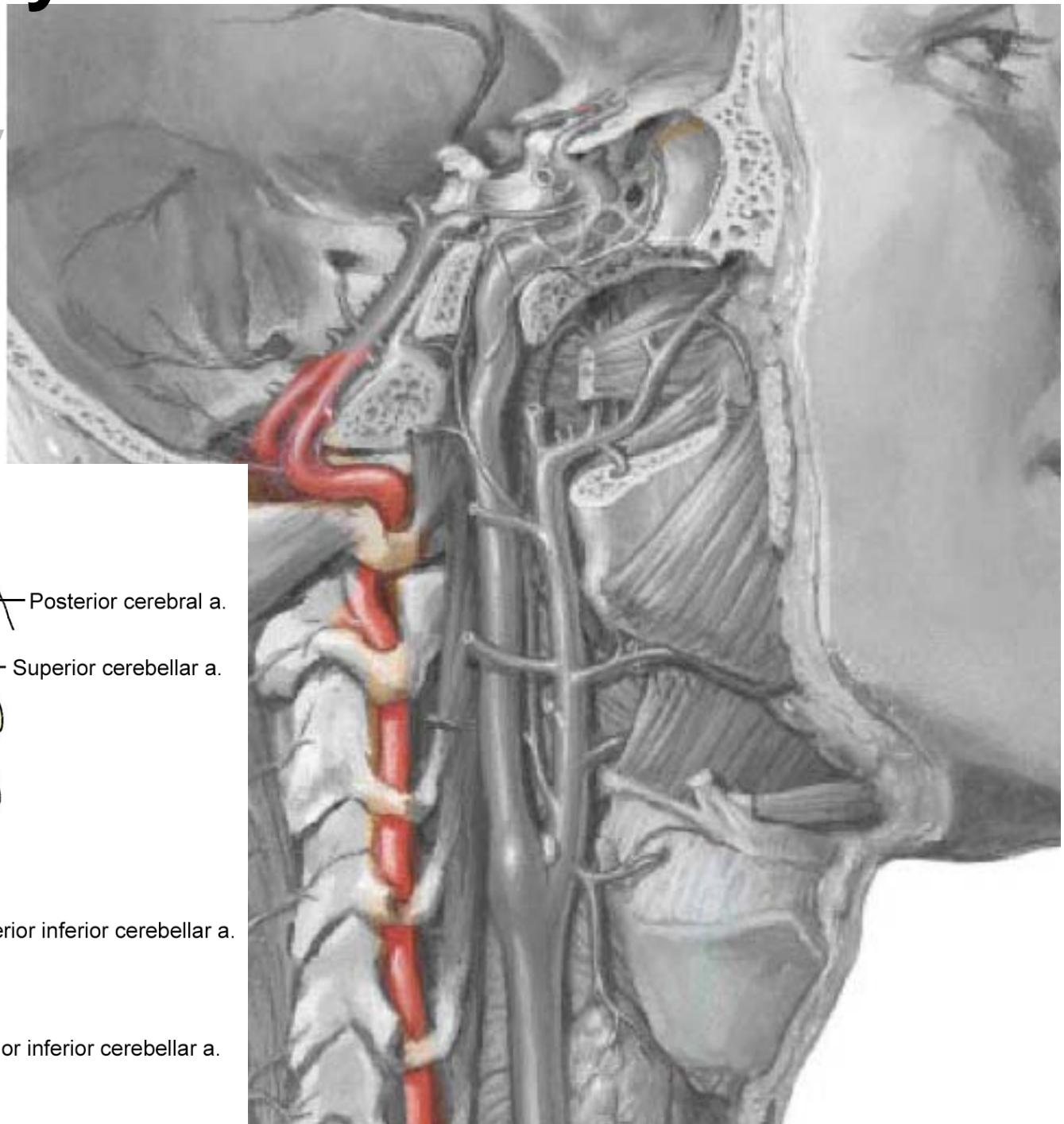
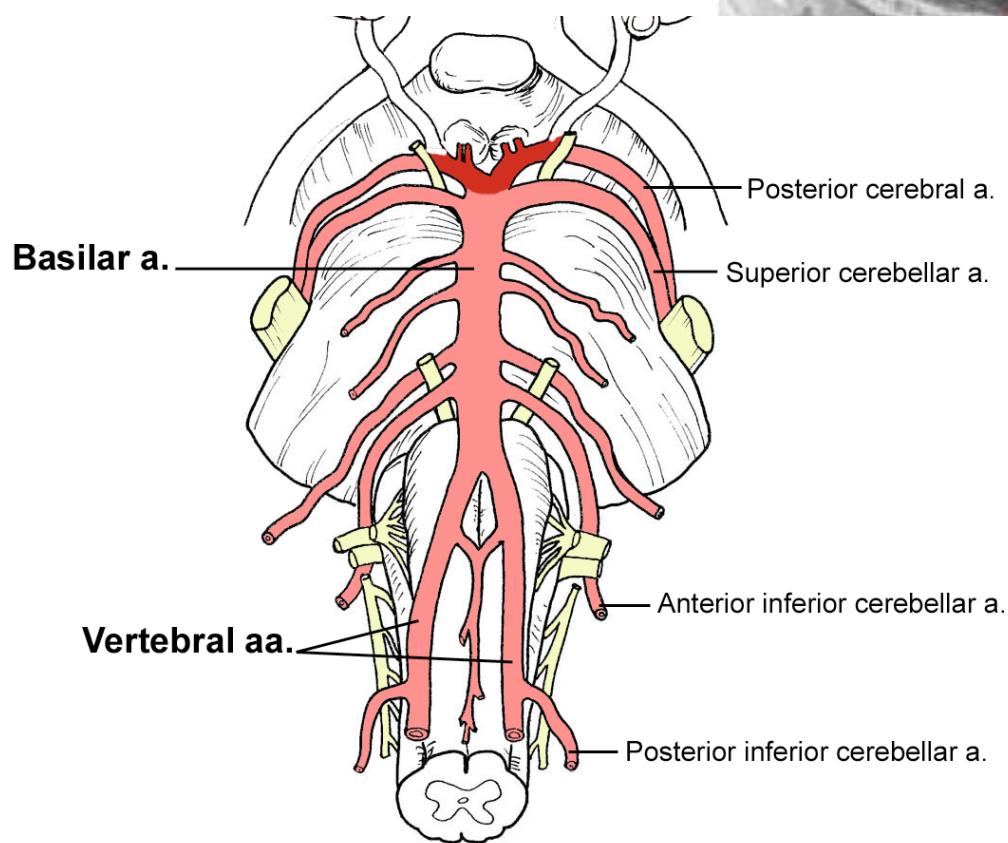
Vertebral artery



# 5) Blood Supply to the Brain

Internal carotid artery

Vertebral artery

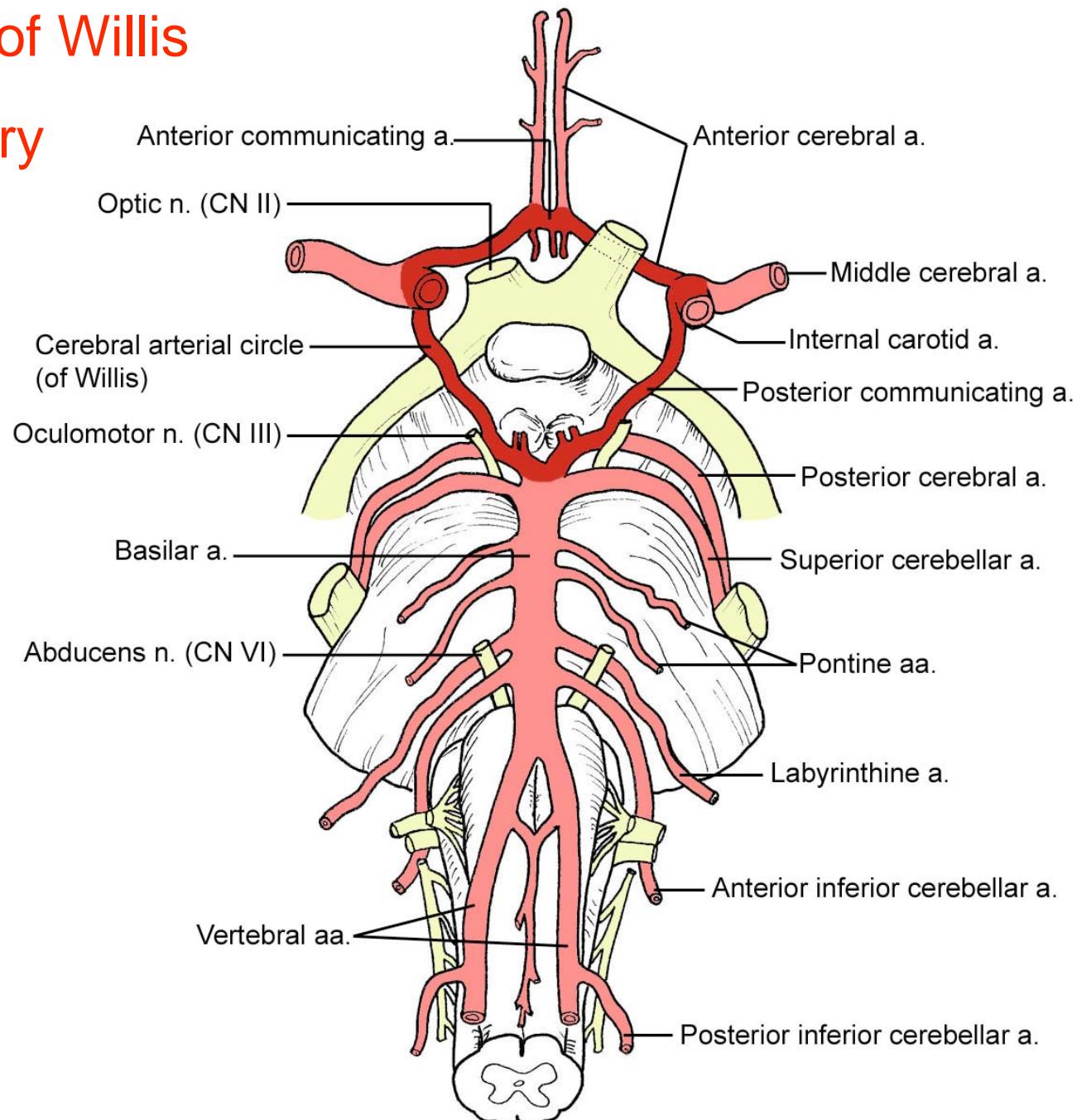


# 5) Blood Supply to the Brain

Cerebral arterial circle of Willis

Internal carotid artery

Vertebral artery



# **5) Blood Supply to the Brain**

# THANK-YOU