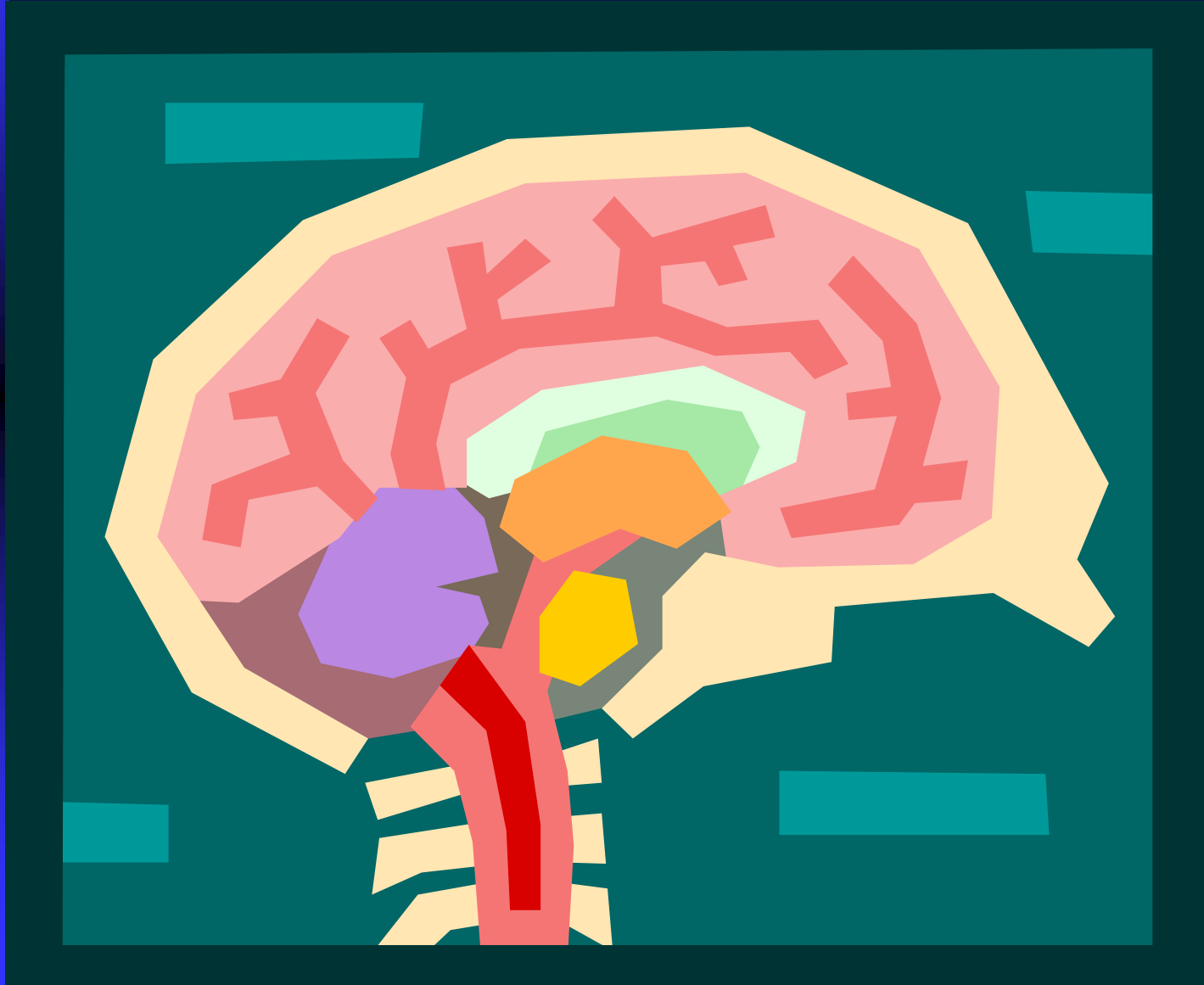


Brain Chapter 3





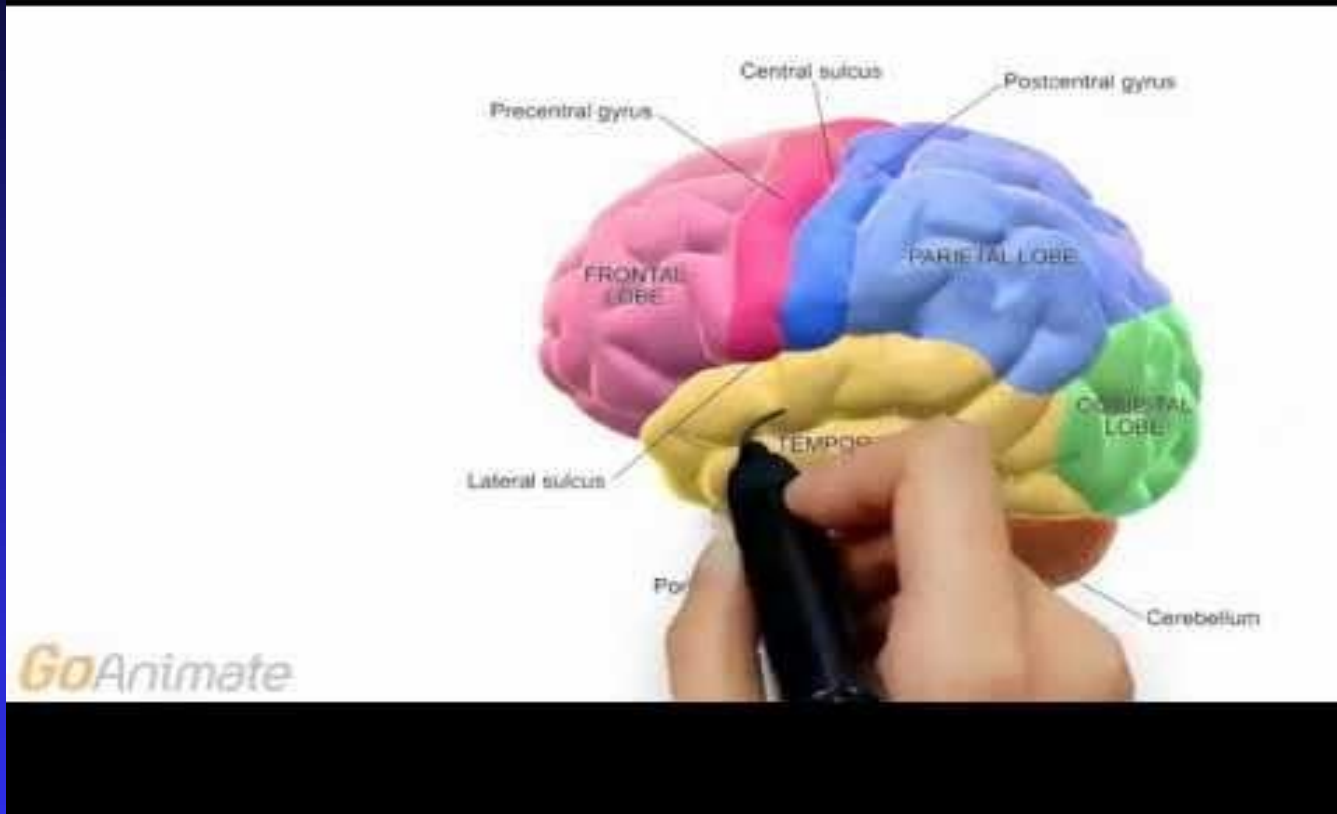
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www.CartoonStock.com



TEMPORAL LOBE



<https://youtu.be/FczvTGluHKM>



<https://www.youtube.com/watch?v=DBRdInd2-Vg>

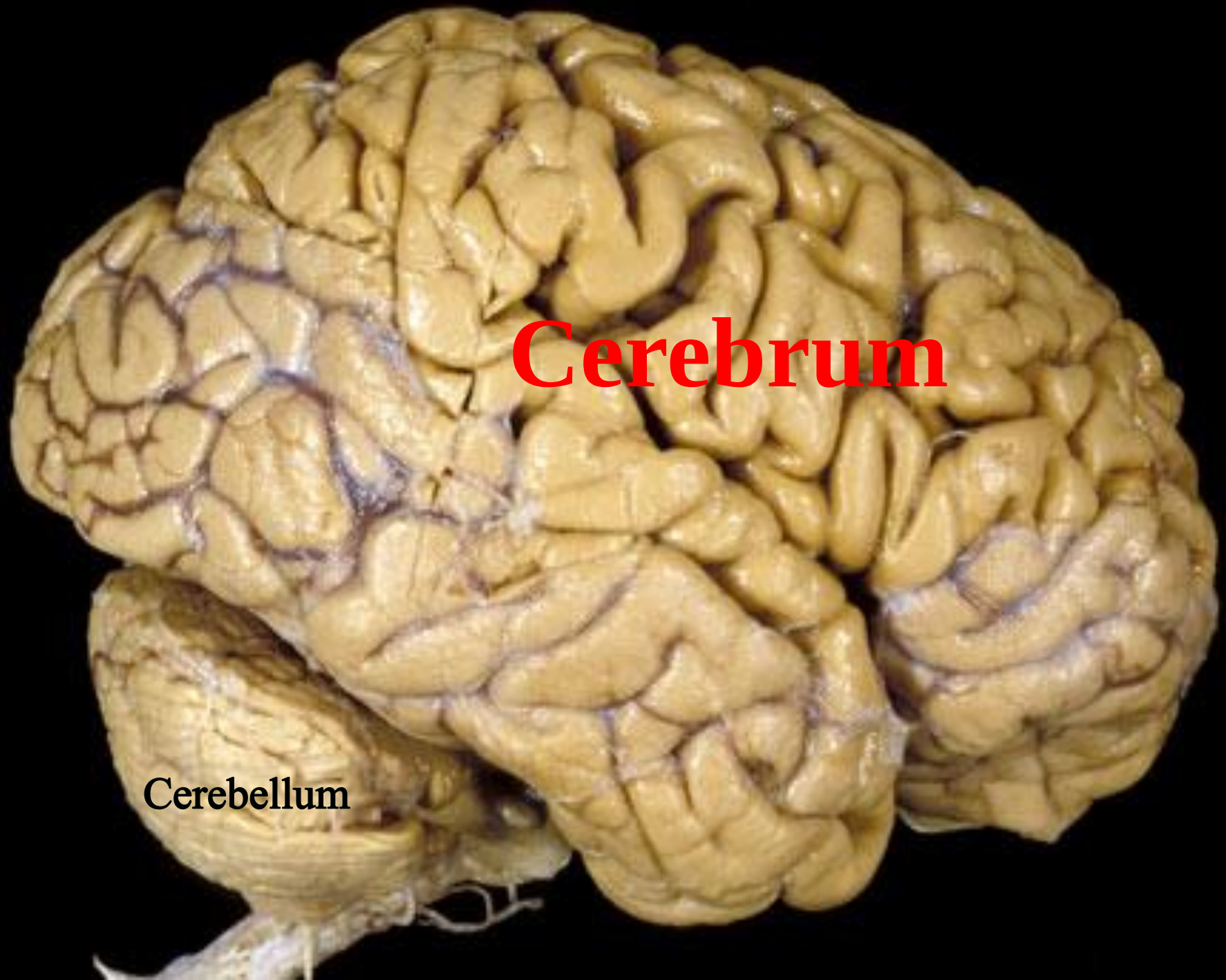
BRAIN

- Three Parts

- 1. Cerebrum

- 2. Cerebellum

- 3. Brainstem



Cerebrum

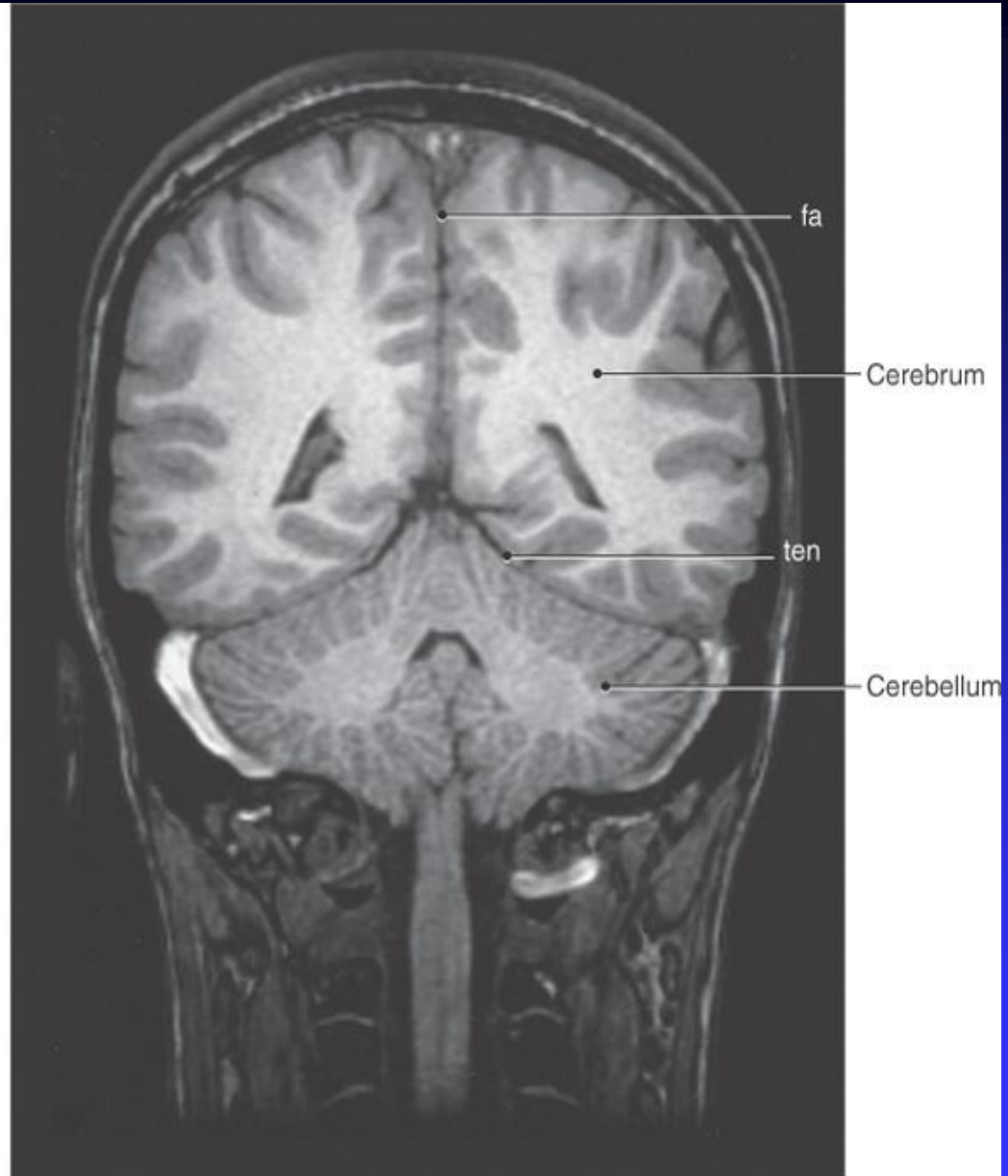
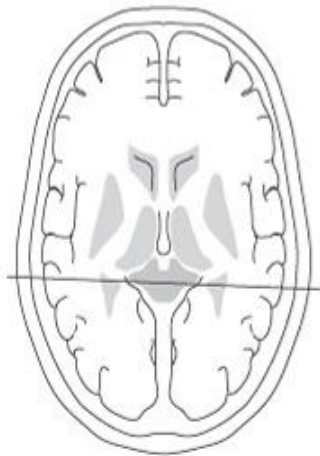
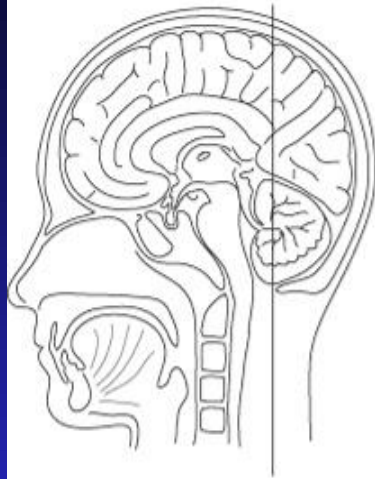
Cerebellum

Three parts of the Brain



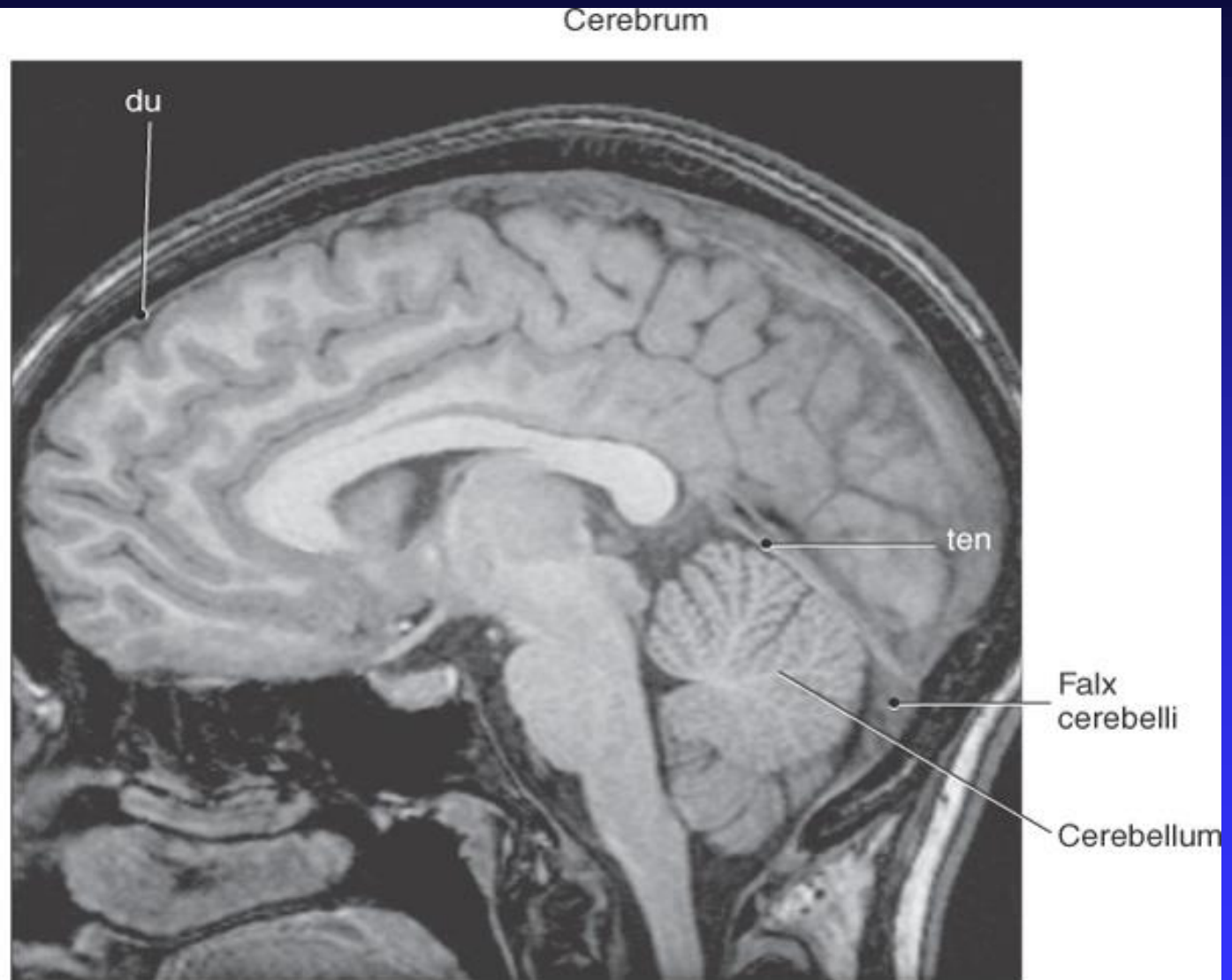
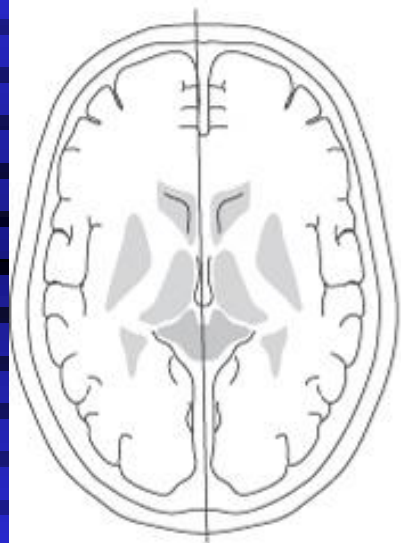
Cerebrum

Cerebellum



KEY: **fa**, Falx cerebri; **ten**, tentorium cerebelli.

3 Lobes Sagittal View



KEY: ten, tentorium cerebelli.

CEREBRUM

- Divided Into Two Hemispheres
- Right Cerebrum
- Left Cerebrum
- Separated By Falx Cerebri

BRAIN IS COVERED BY MENINGES

- 3 LAYERS
- Duramater (Tough Mother)
 - ◆ Outer layer
- Arachnoid (Spiderlike)
 - ◆ Middle layer
- Piamater (Delicate & Tender Mother)
 - ◆ Inner layer

■ Dura Mater

- ◆ Double Layered
- ◆ Between Two Layers Are Dural Sinus, Meningeal Arteries

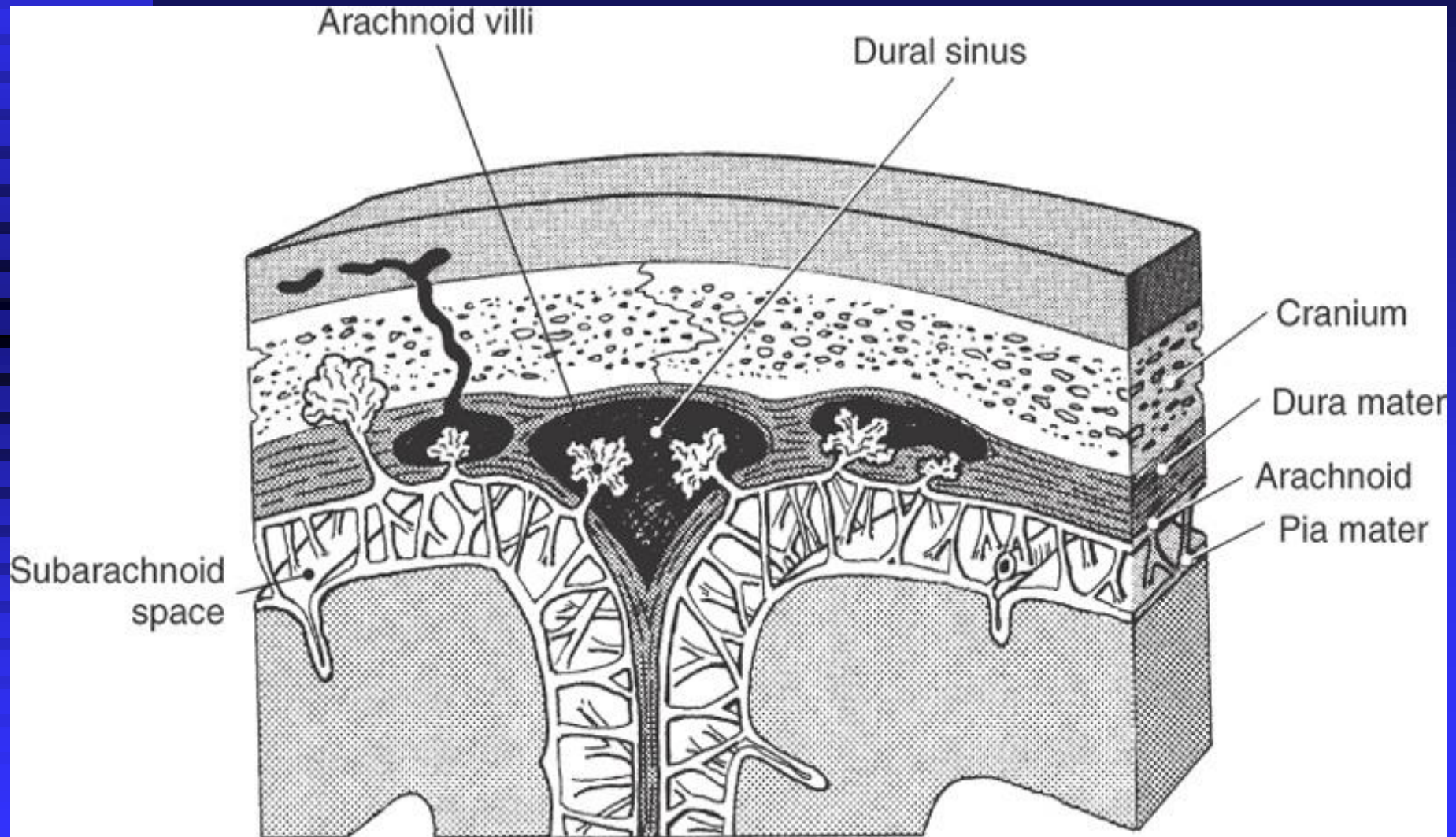
■ Dural Folds Separate Structures And Cushion.

- ◆ Falx Cerebri
- ◆ Falx Cerebelli
- ◆ Tentorium Cerebelli

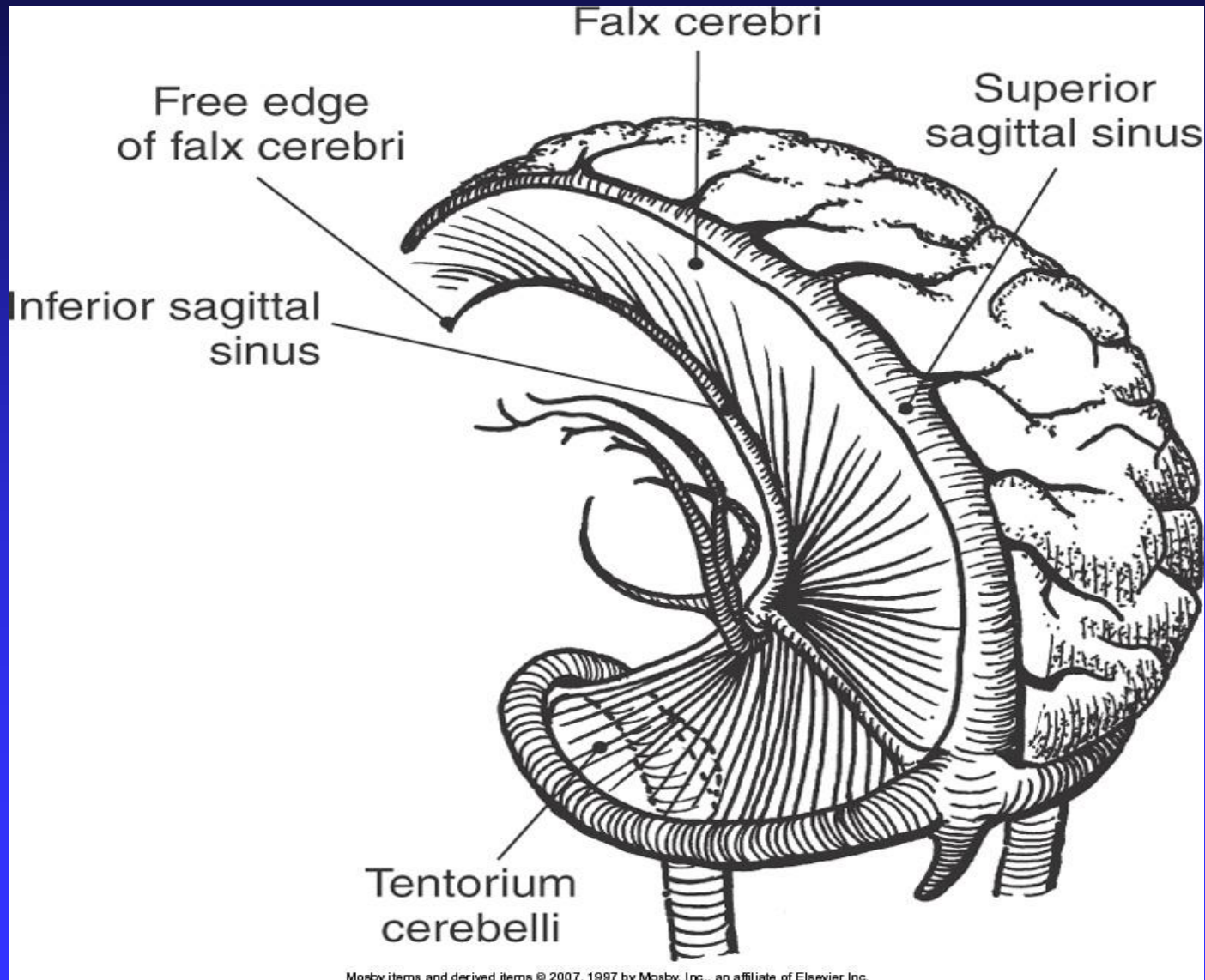
SEPARATION

- **Falx Cerebri – Divides Cerebrum Into Right And Left**
- **Falx Cerebelli – Divides Cerebellum Into Right And Left**
- **Tentorium Cerebelli – Divides Cerebellum From Cerebrum**

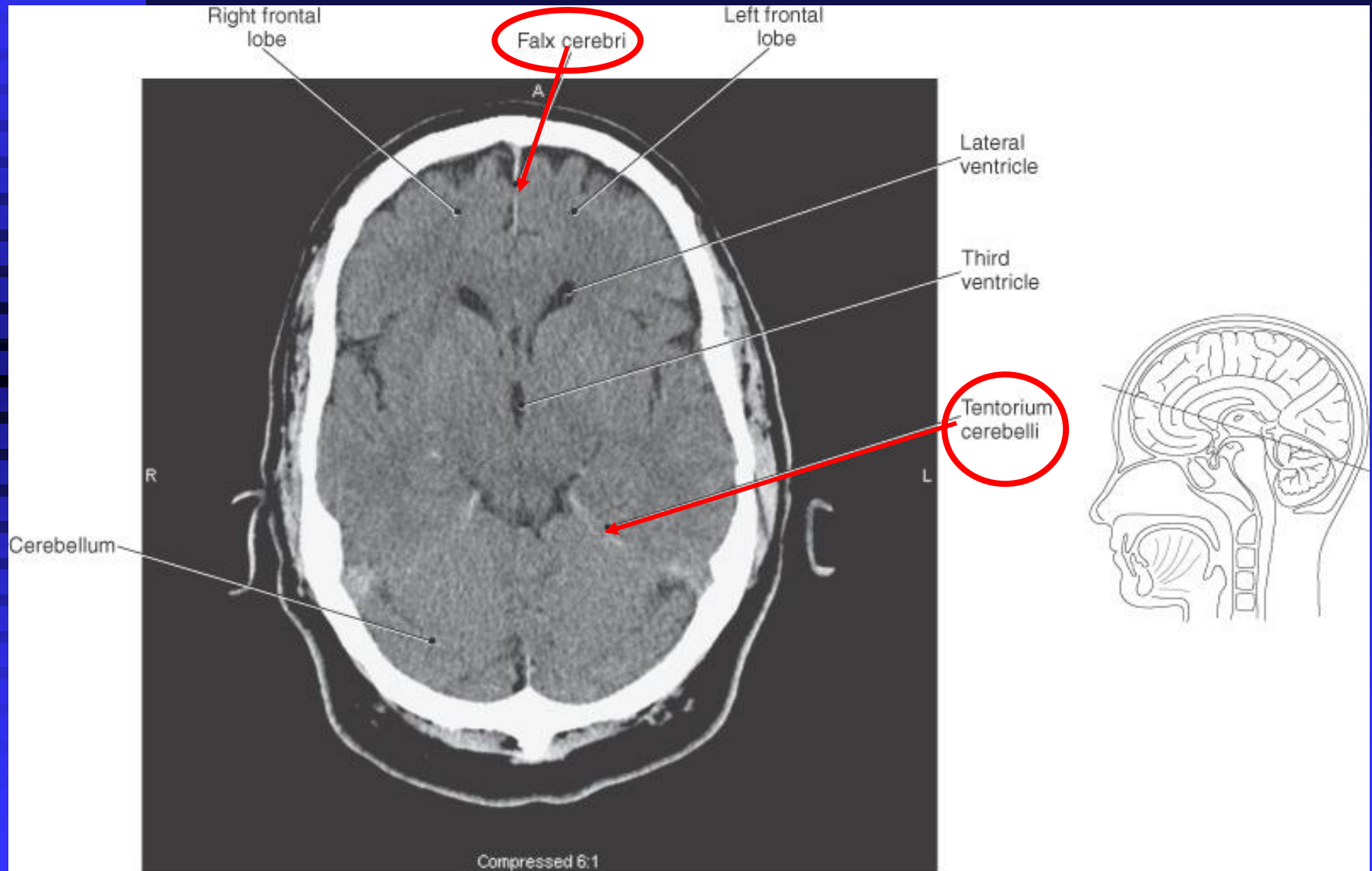
Coverings/Enclosing Structures



Falx and Tentorium & Major Dural Sinuses



Dura Mater



Tentorium

Falx

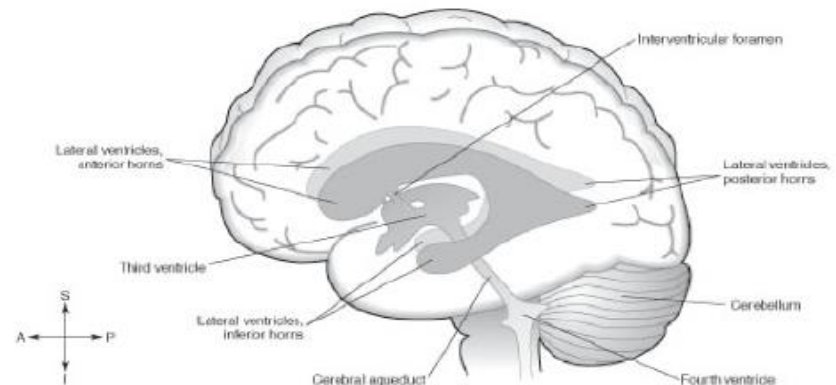


VENTRICLES

- Cavities in Brain that Contain CSF
 - ◆ Choroid Plexus
 - ◆ Cells that line the ventricles
 - ◆ Produce the CSF
 - ◆ Often Calcify
 - ◆ Absorb IV contrast
- Four Ventricles
 - ◆ Right And Left Lateral Ventricles
 - ◆ Third Ventricle
 - ◆ Fourth Ventricle

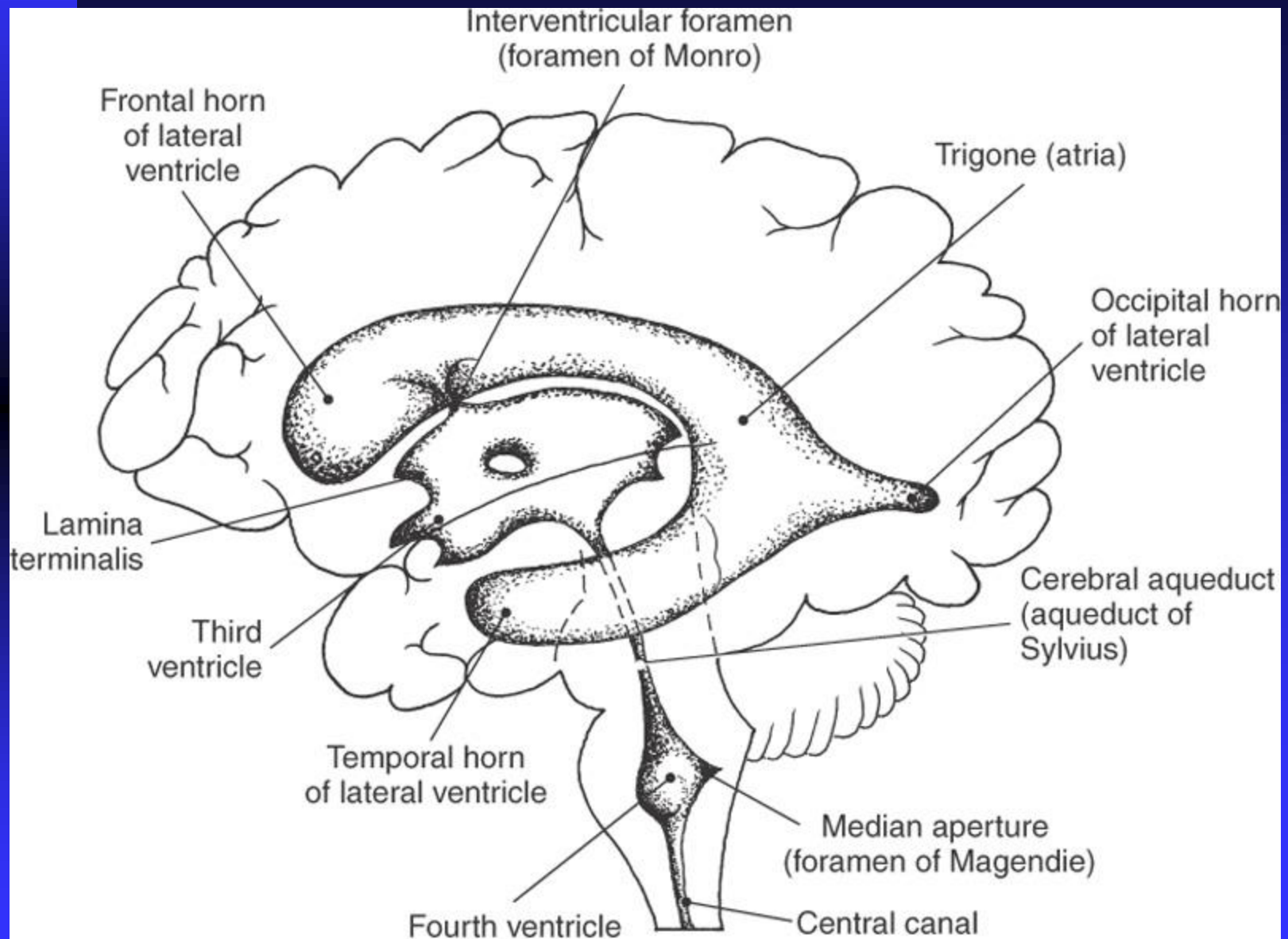
RIGHT AND LEFT LATERAL VENTRICLES

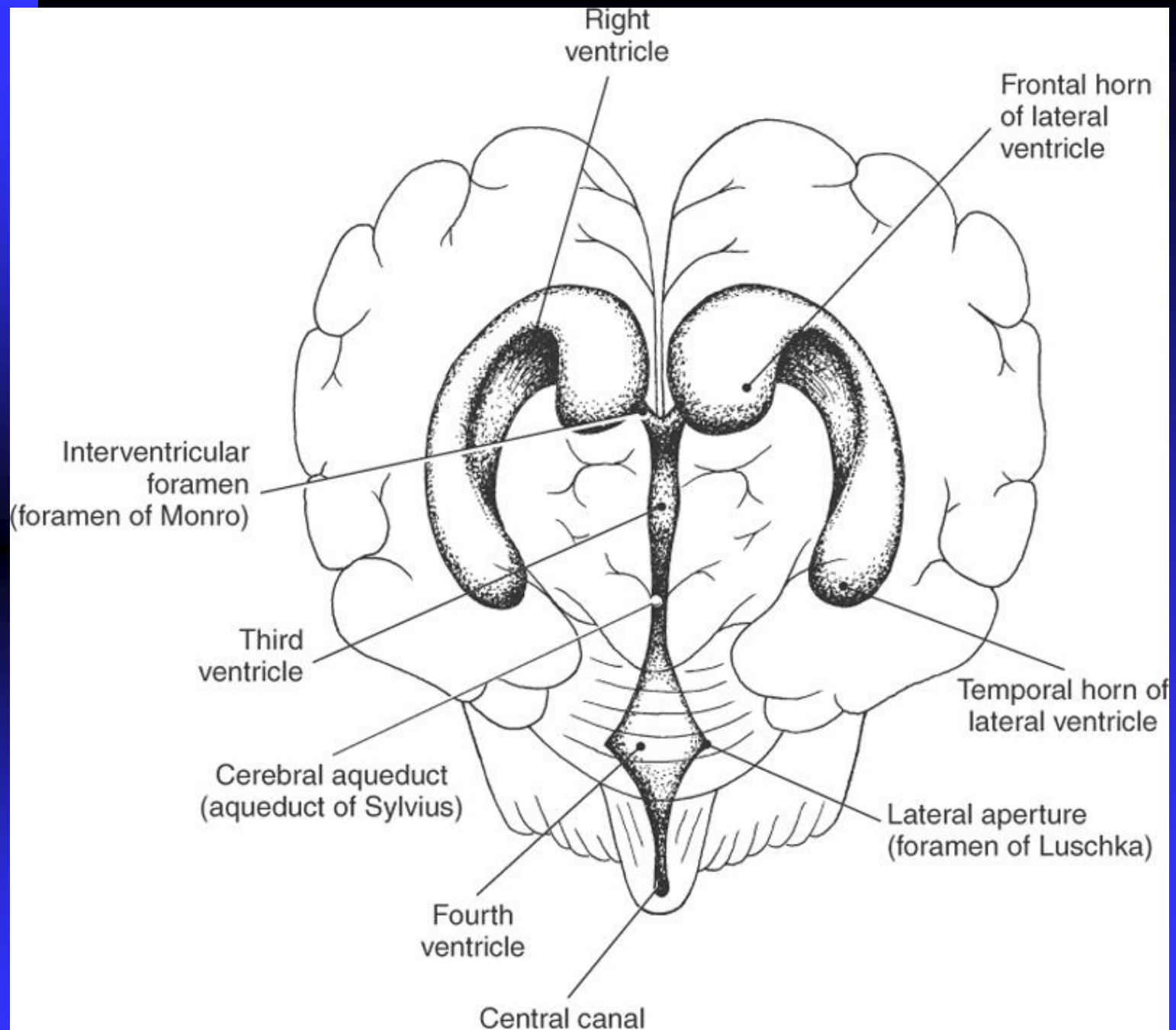
- Separated By Septum Pellucidum
- Frontal Horn
- Temporal Horn
- Occipital Horn
- Body
- Trigone

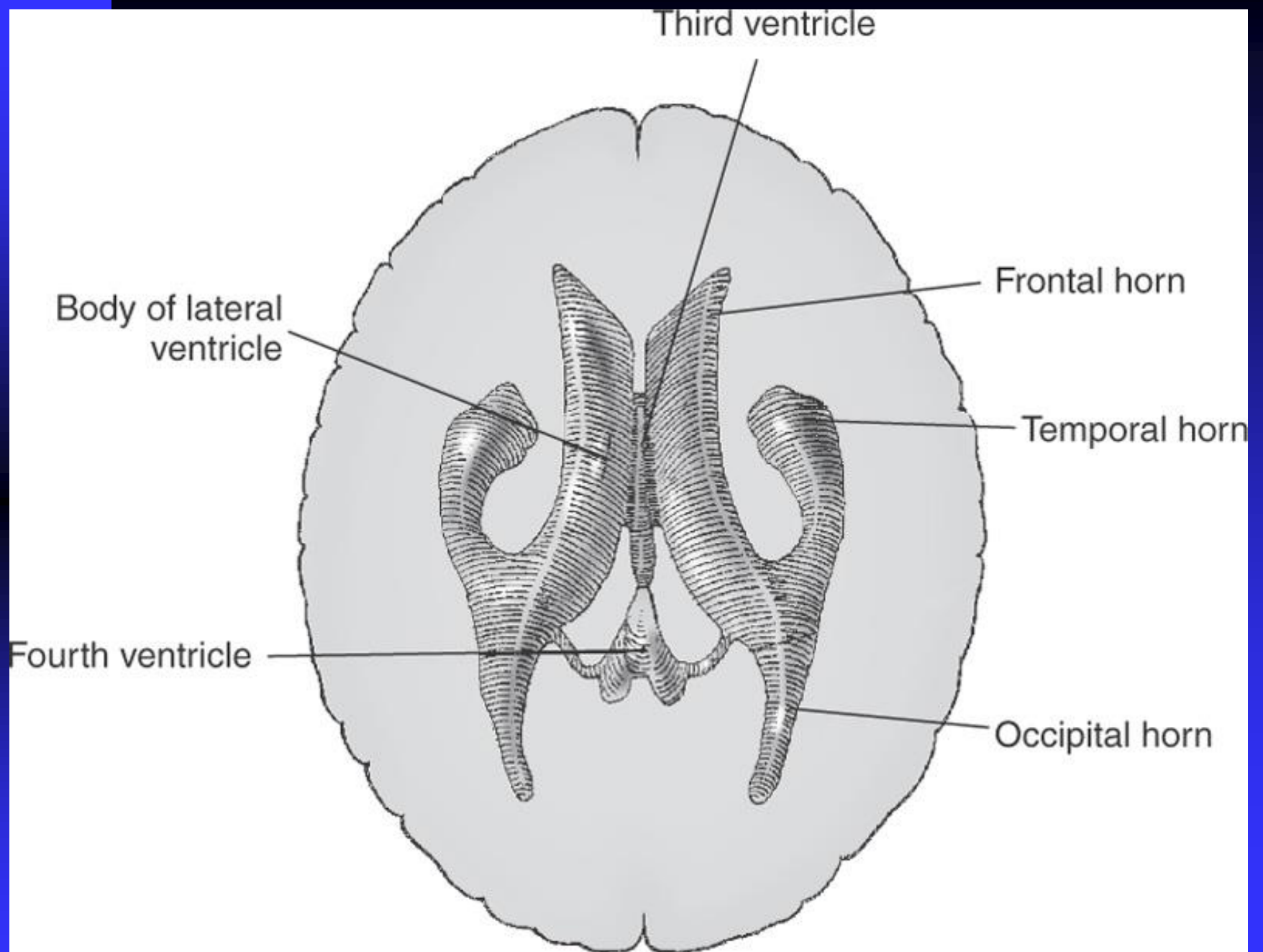


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Ventricles & Openings







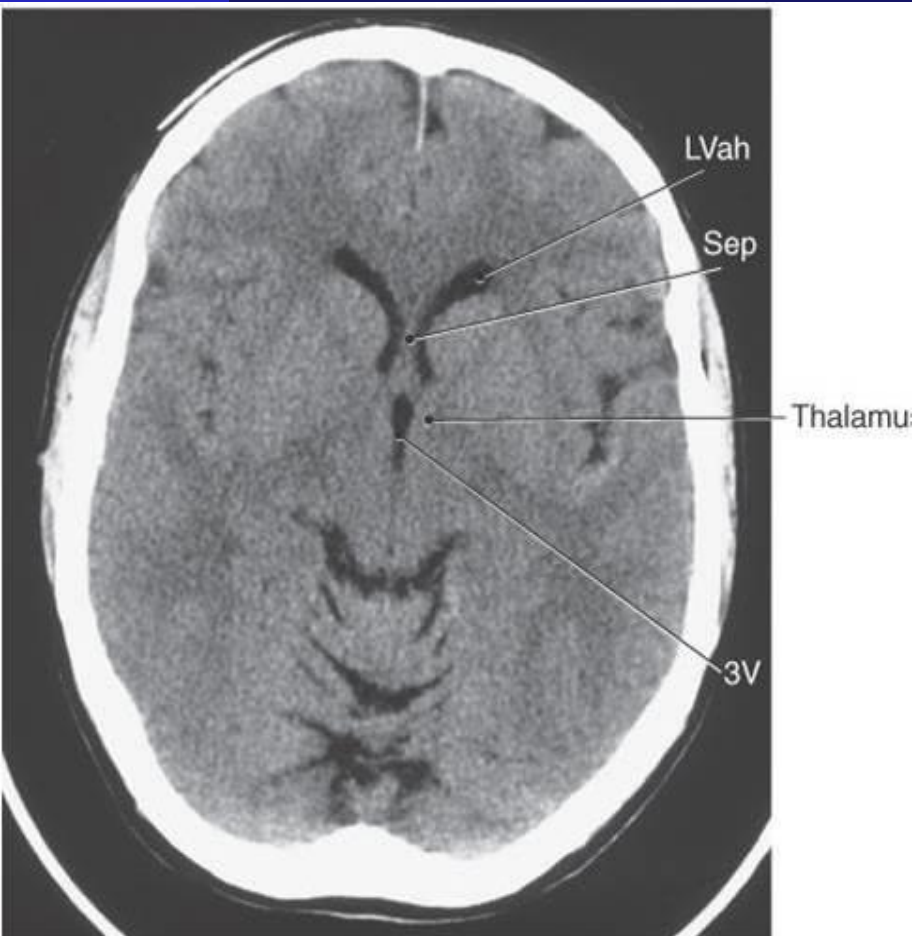
Ventricular Drainage

- Interventricular Foramen Or Foramen Of Monroe
 - ◆ Connects Lateral Ventricles to 3rd
- Cerebral Aqueduct or Aqueduct Of Sylvius
 - ◆ Connects 3rd to 4th
 - ◆ Long and narrow
- Foramen of Luschka & Magendie
 - ◆ Drain 4th Ventricle

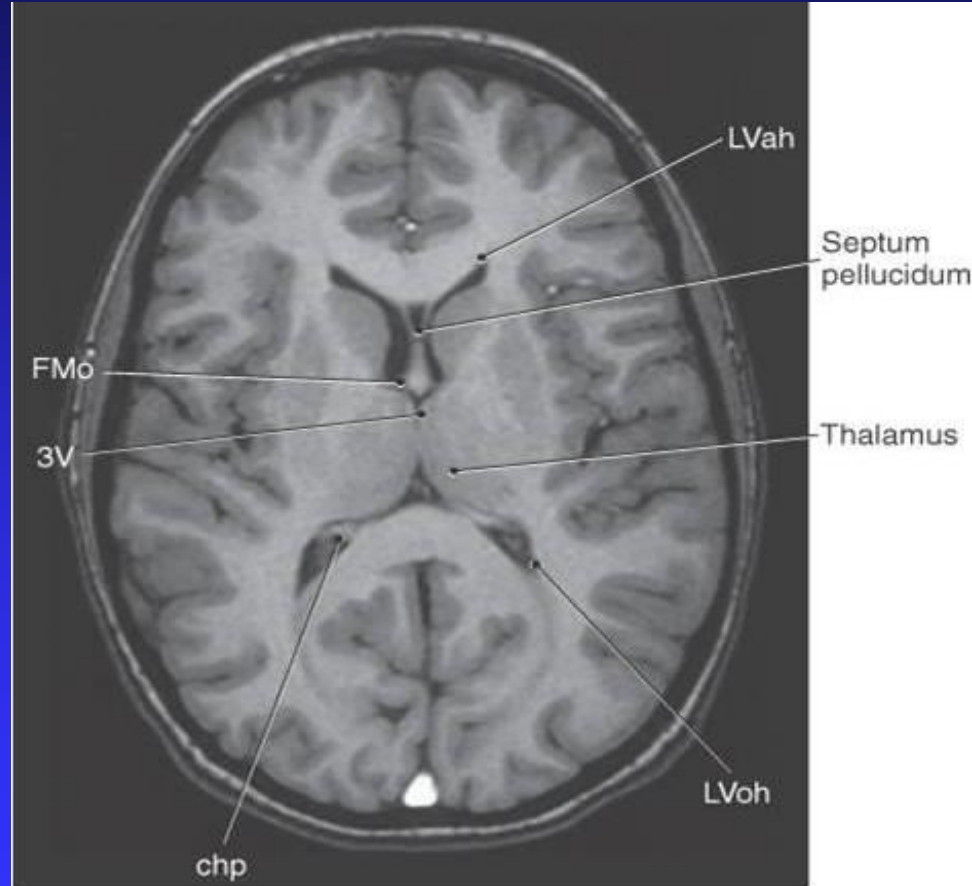
Ventricles - Lateral and 3rd

CT

MRI

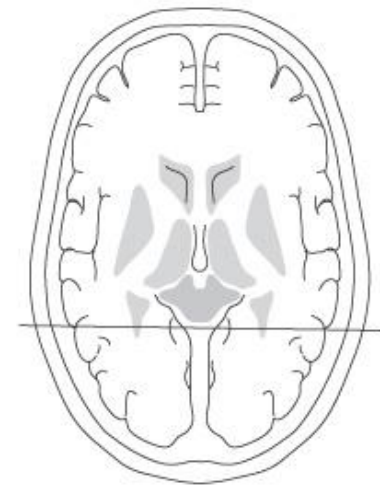
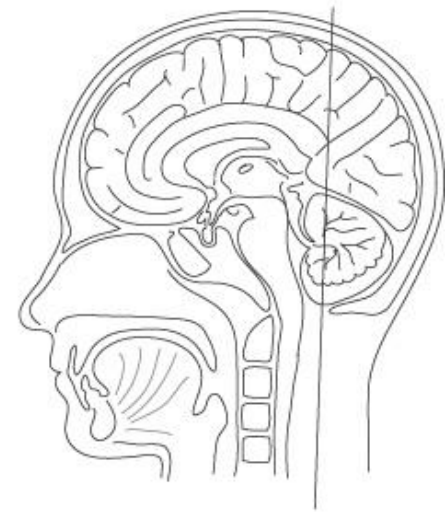
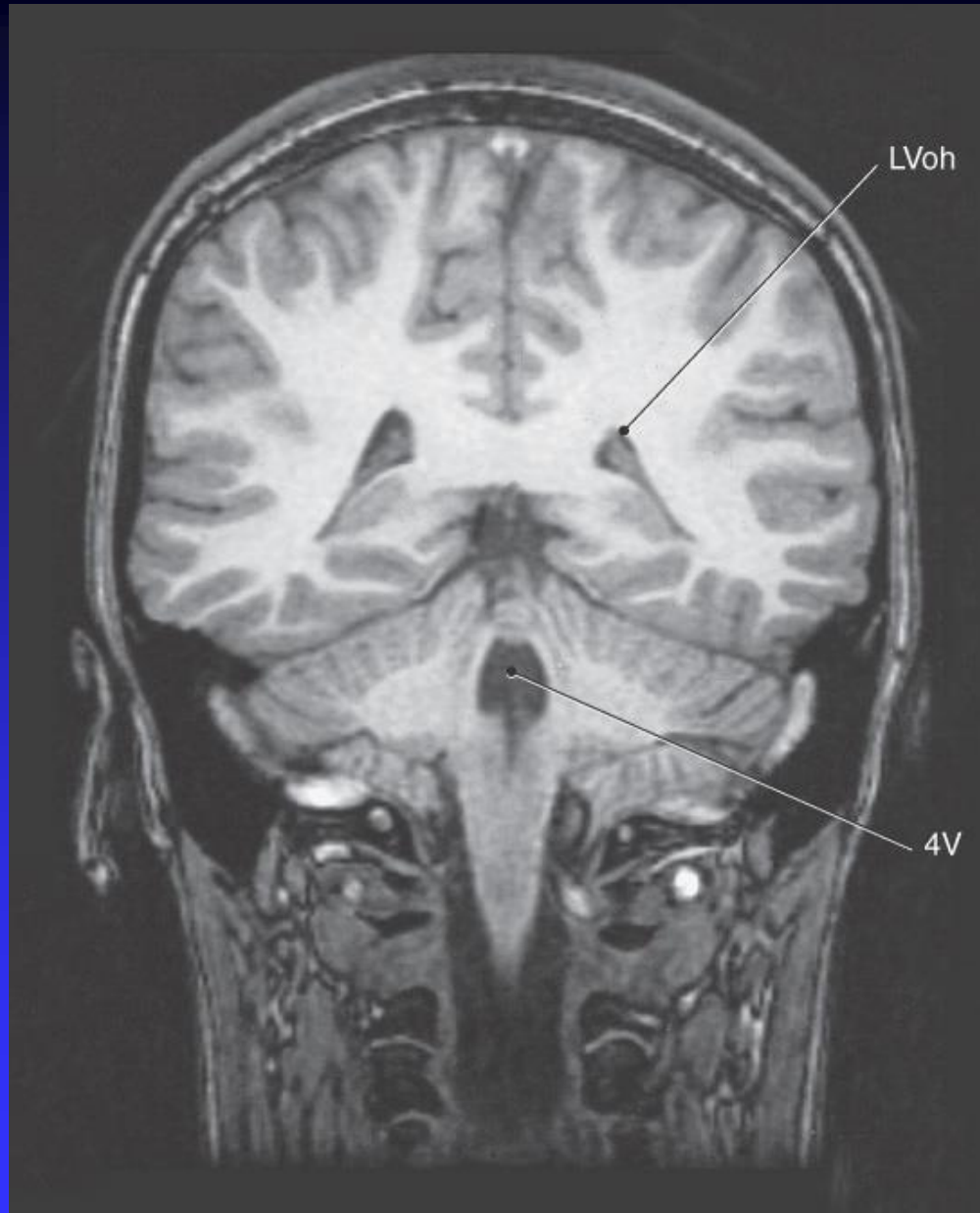


KEY: LVah, lateral ventricle, anterior horn; 3V, third ventricle; Sep, septum pellucidum.



KEY: FMo, Foramen of Monroe; 3V, third ventricle; LVah, lateral ventricle, anterior horn; LVoh, lateral ventricle, occipital horn; chp, choroid plexus.

- Coronal view
- Posterior horn of Lateral Ventricle
- 4th Ventricle

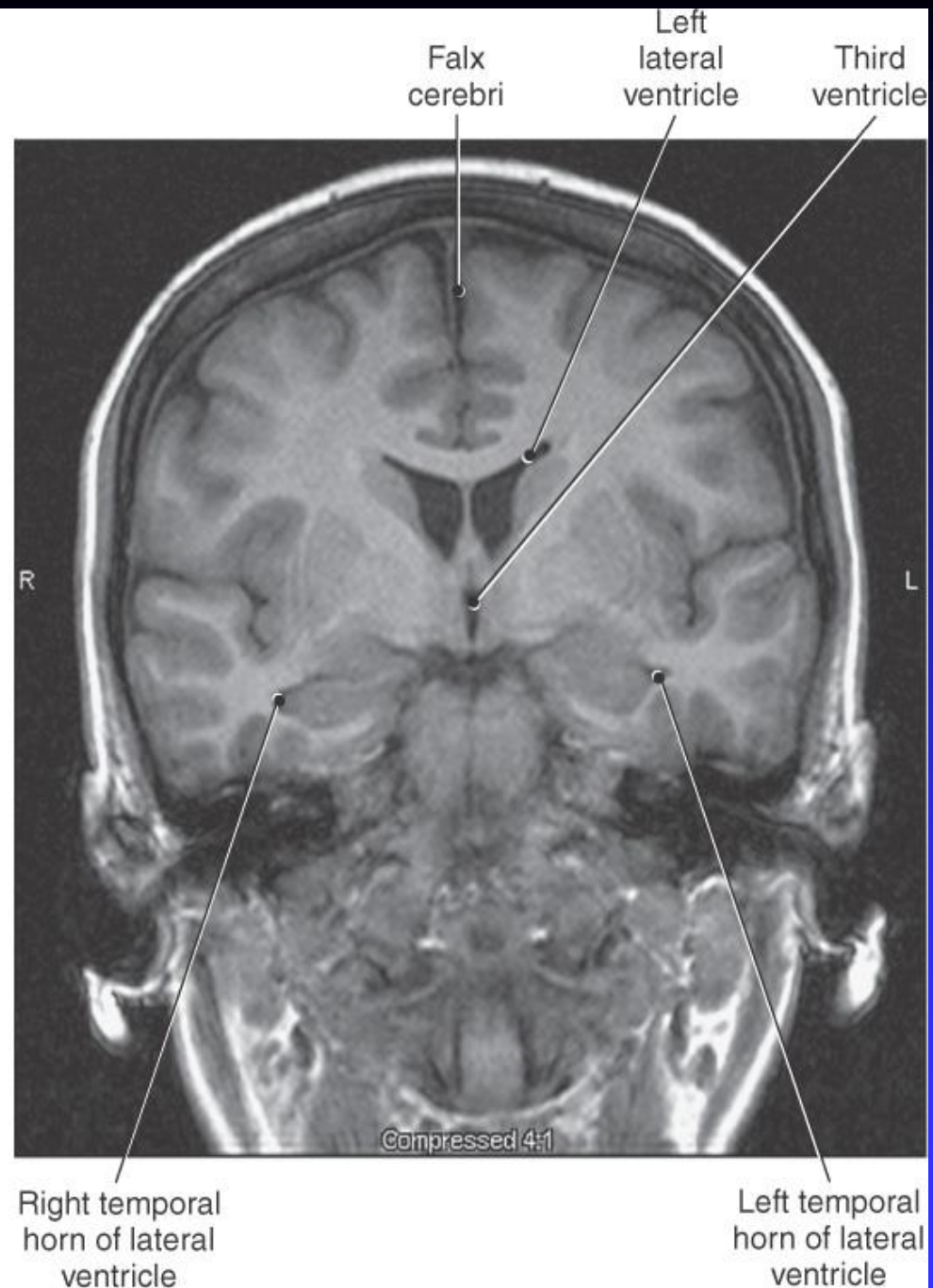
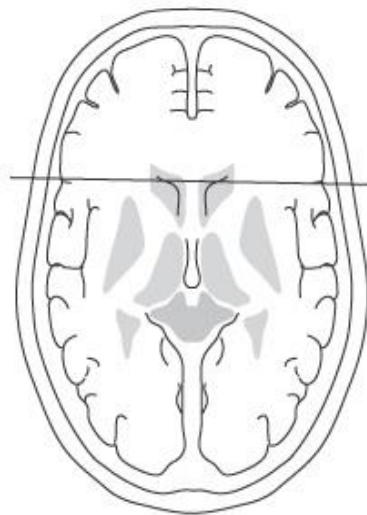
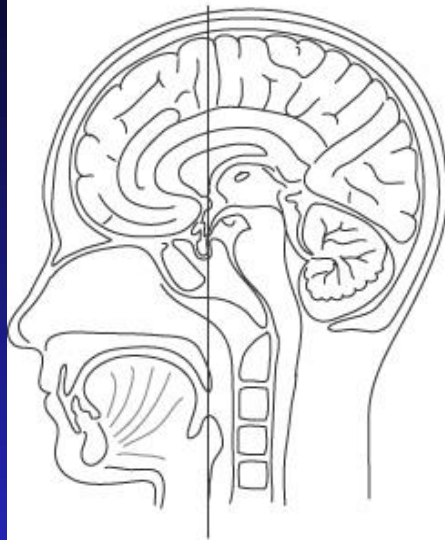


KEY: LVoh, Lateral ventricle, occipital horn; 4V, fourth ventricle.

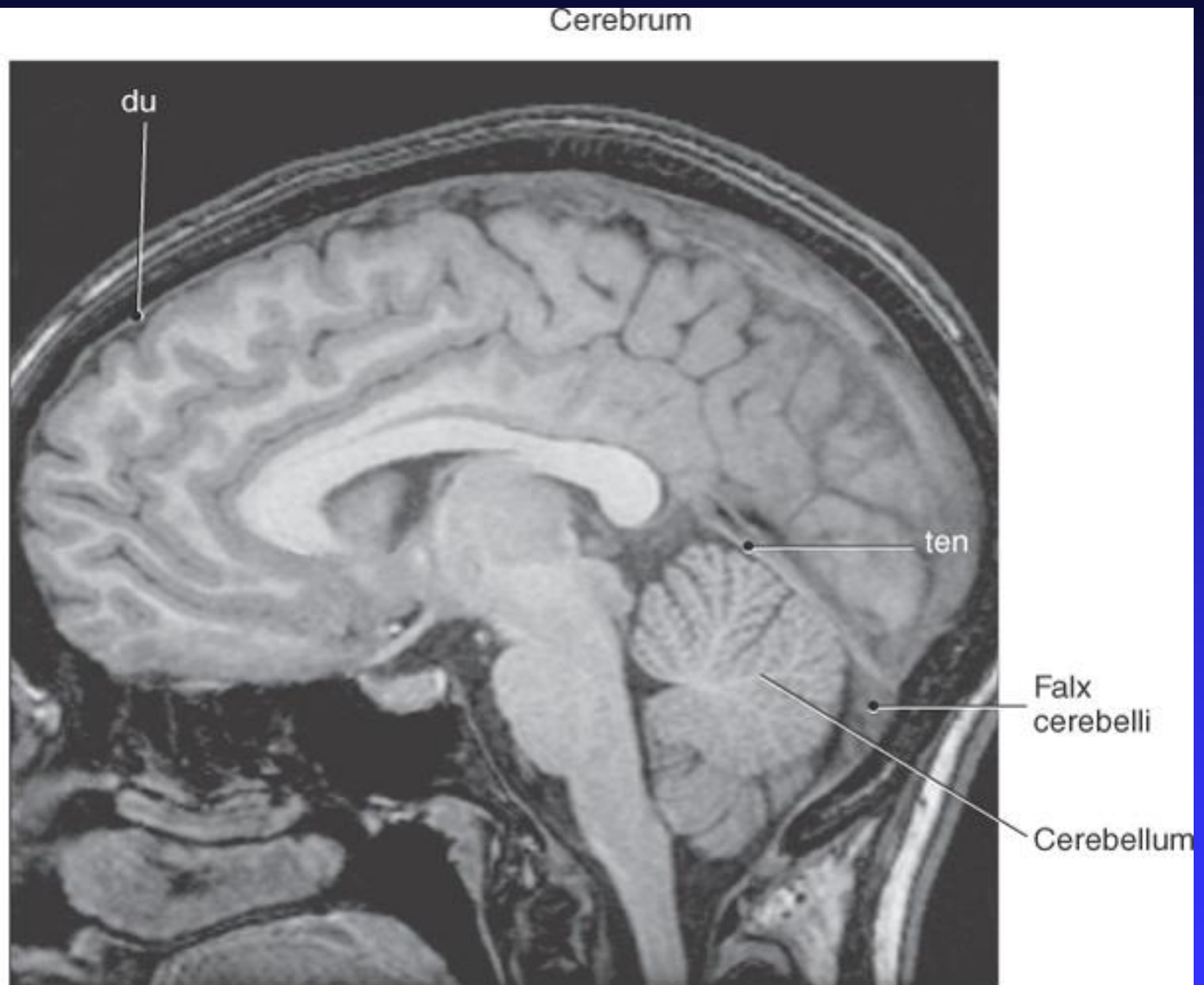
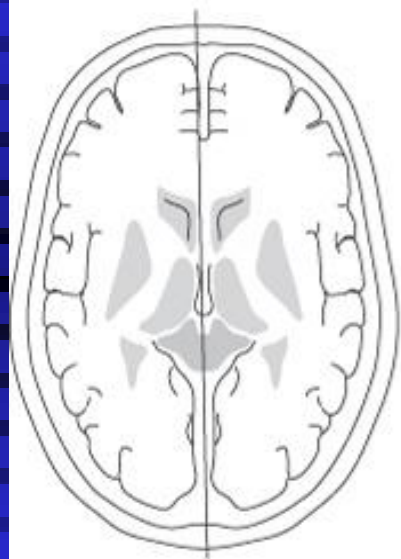
■ Coronal view

■ Lateral ventricle

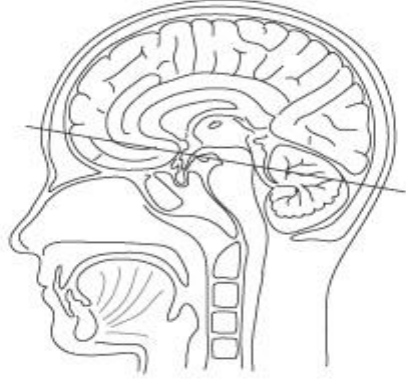
■ 3rd ventricle



3rd And 4th Ventricles



KEY: ten, tentorium cerebelli.



Temporal
horn of
lateral ventricle

Left
frontal
lobe

Left
temporal
lobe

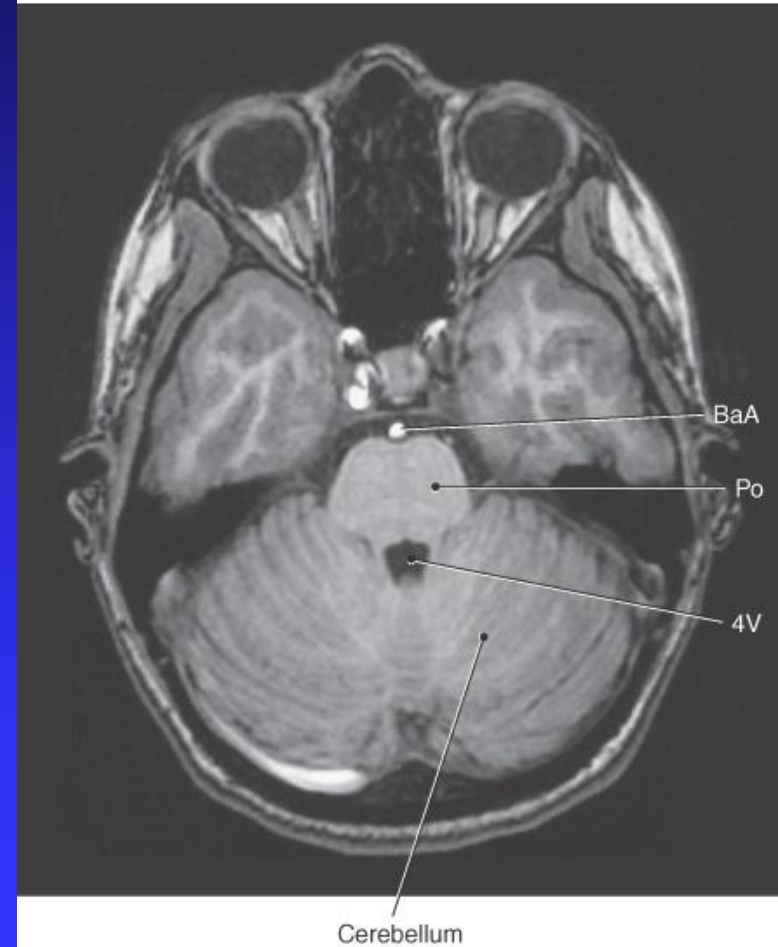
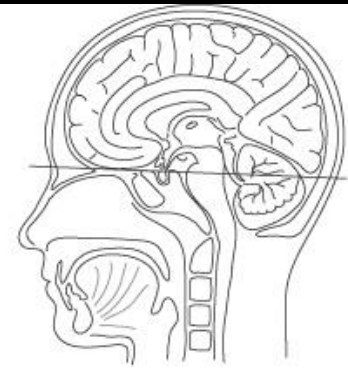


Fourth ventricle

Cerebellum

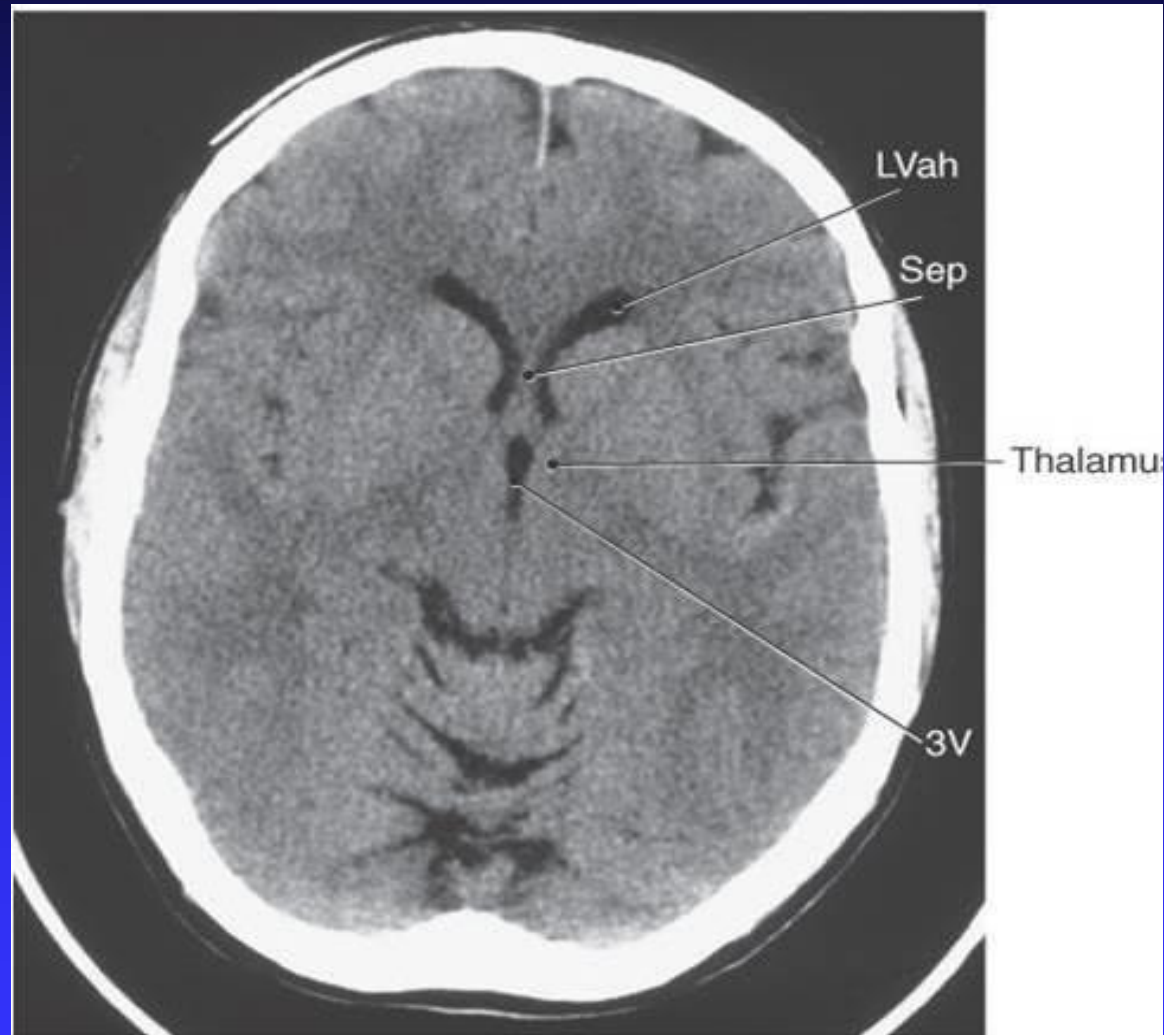
Pars petrosa
of temporal bone

4th v e n t r i c l e



KEY: Po, pons; BaA, basilar artery; 4V, fourth ventricle.

CT of Lateral and 3rd Ventricles



KEY: LVah, lateral ventricle, anterior horn; 3V, third ventricle; Sep, septum pellucidum.

CISTERNS

- CSF Flows Through Subarachnoid Space Around the Brain
- Widened Areas of the Subarachnoid space are called Cisterns

CISTERNS

- Cisterna Magna
- Interpeduncular Cistern
- Pontine Cistern
- Cerebellopontine Angle Cistern
- Ambient Cistern
- Quadrigeminal Cistern
- Suprasellar Cistern

■ CISTERN MAGNA

- ◆ Largest and most inferior

■ INTERPEDUNCULAR

- ◆ Between the Peduncles

■ PONTINE

- ◆ Anterior to Pons

■ CEREBELLOPONTINE ANGLE CISTERN

- ◆ Contains Cranial Nerves V, VII, VIII

■ AMBIENT

- ◆ Connects Interpeduncular and Quadrigeminal (around lateral surface of midbrain)

■ QUADRIGEMINAL (Superior)

- ◆ Superior to Cerebellum near quadrigeminal plates

■ SUPRASELLAR

- ◆ Above Sella (contains optic chiasm and Circle of Willis)

Cisterns

1. Cisterna ambiens

- *quadrigeminal
- *superior

Contains:

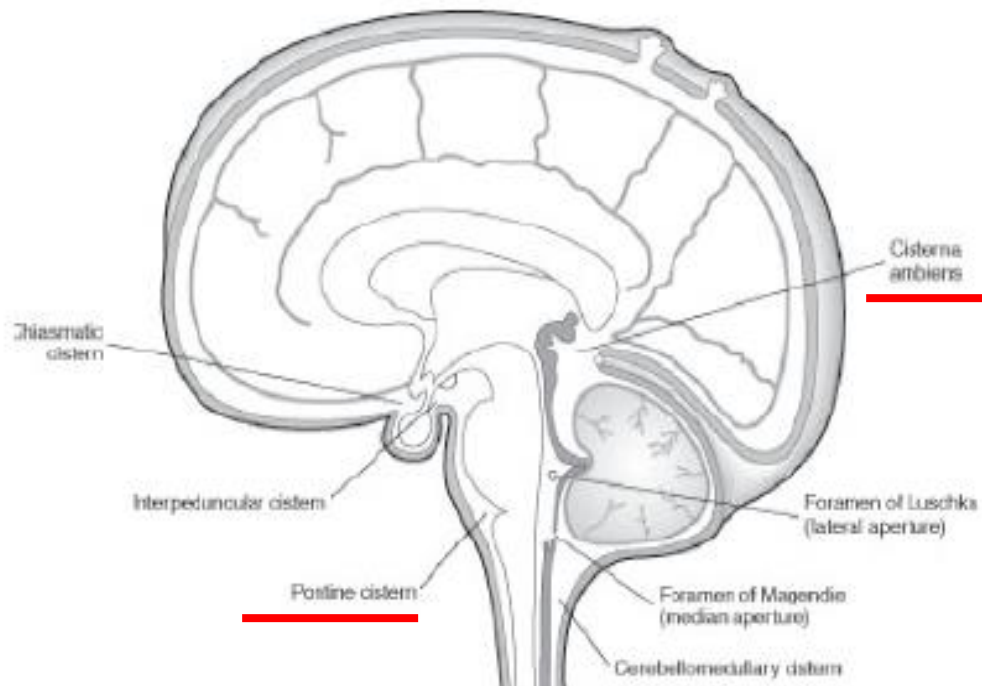
Great cerebral vein

Pineal gland

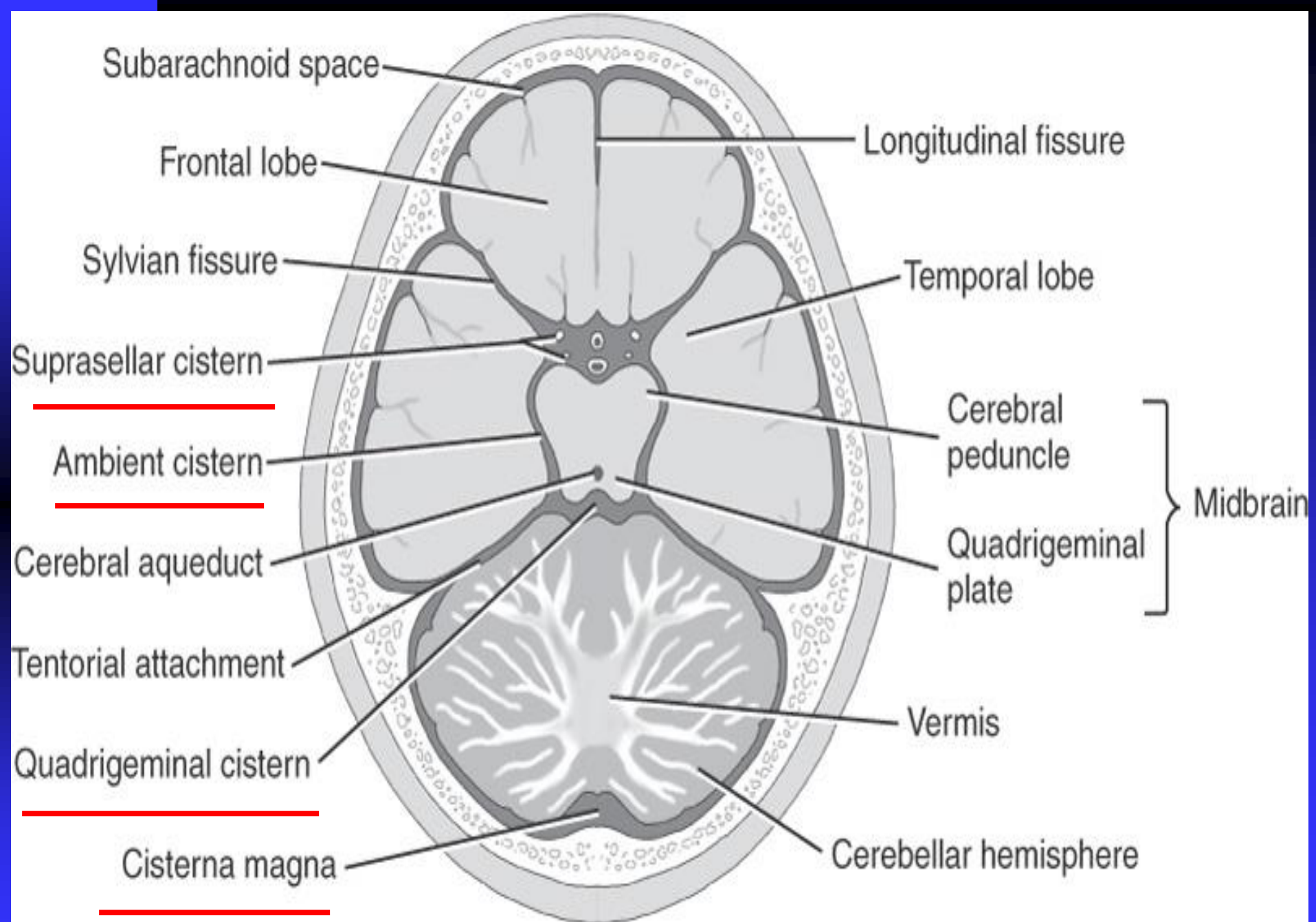
2. Pontine Cistern

3. Cerebello-medullary Cistern

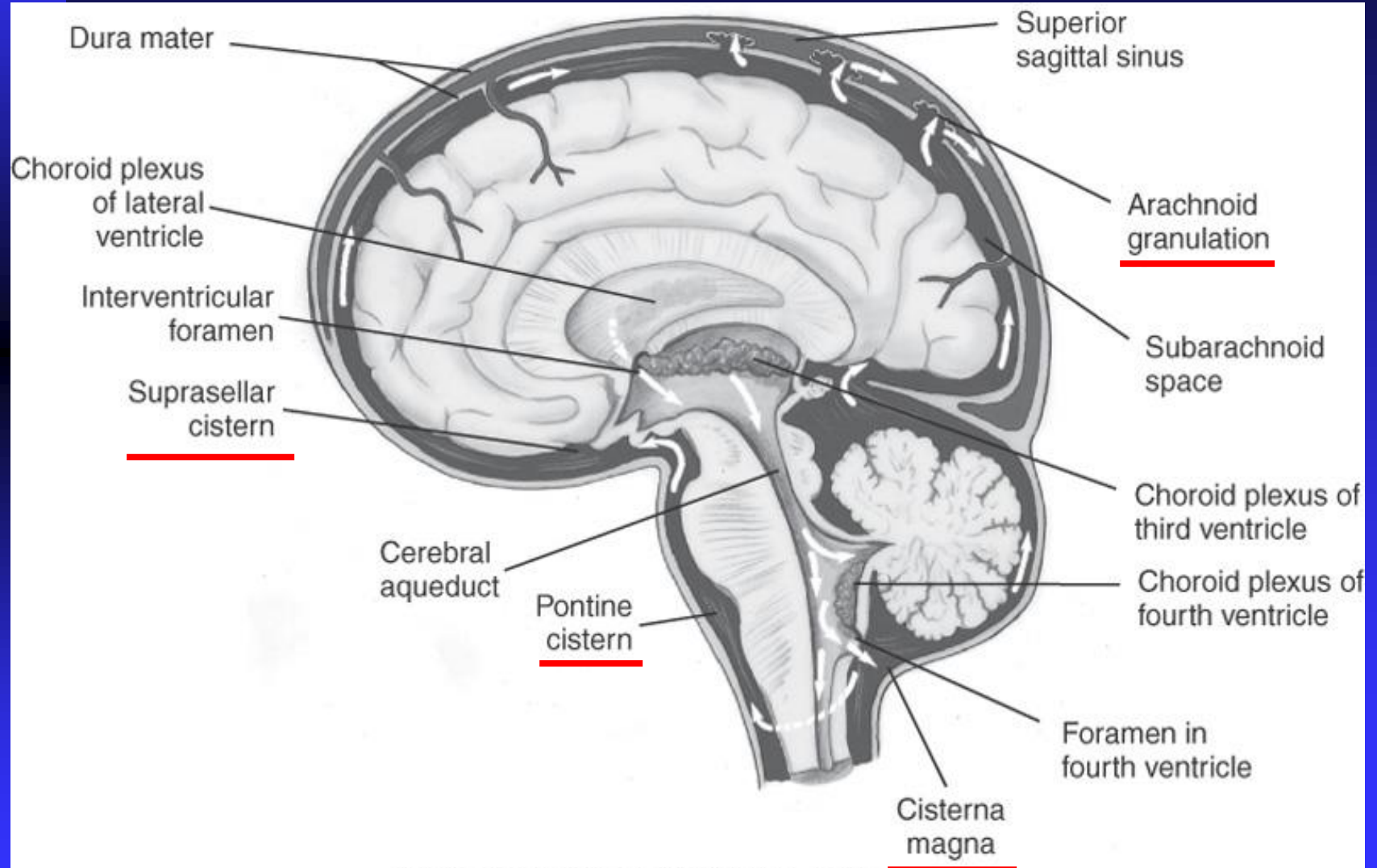
- *cisterna magna



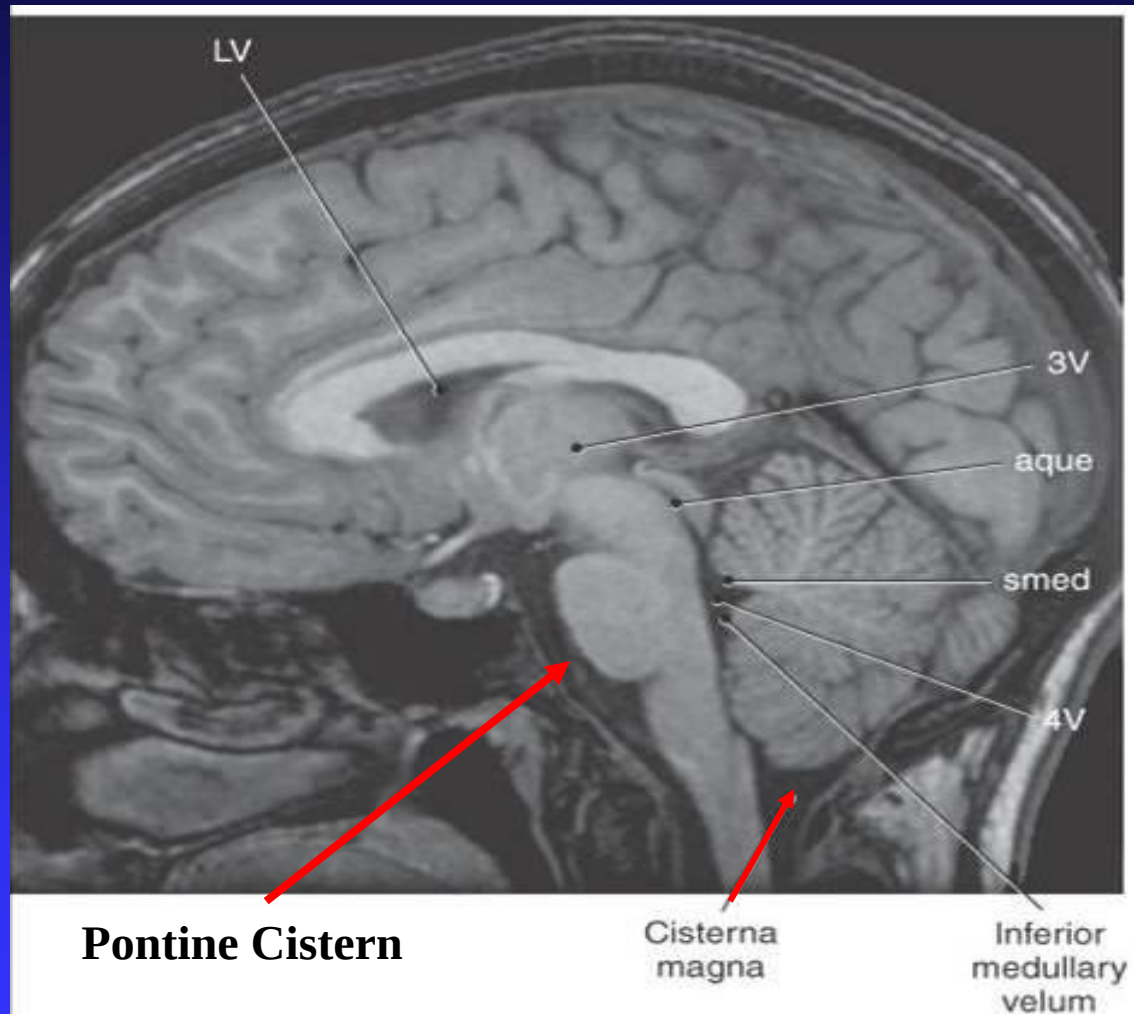
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Flow of CSF Around Brain

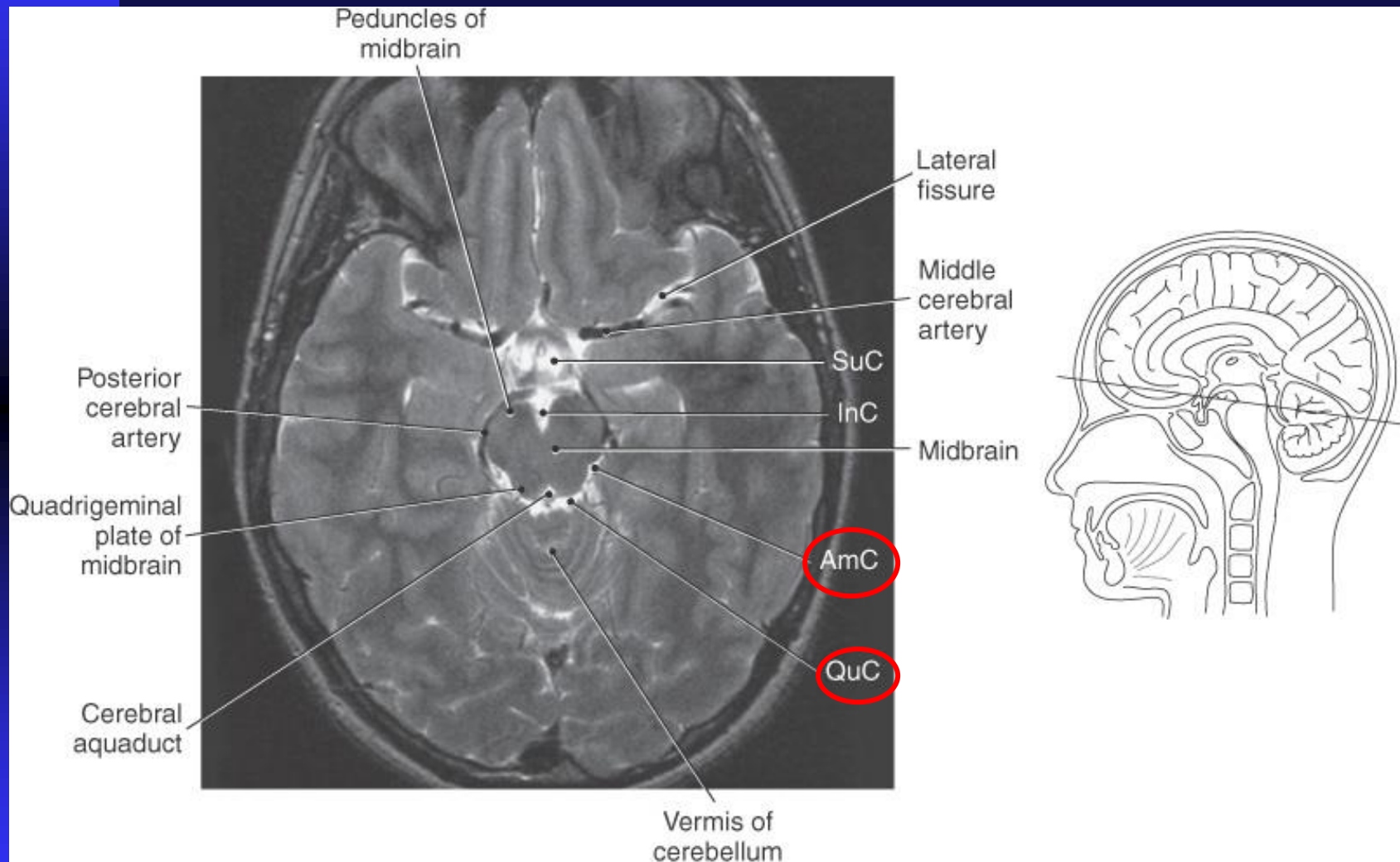


Cisterns

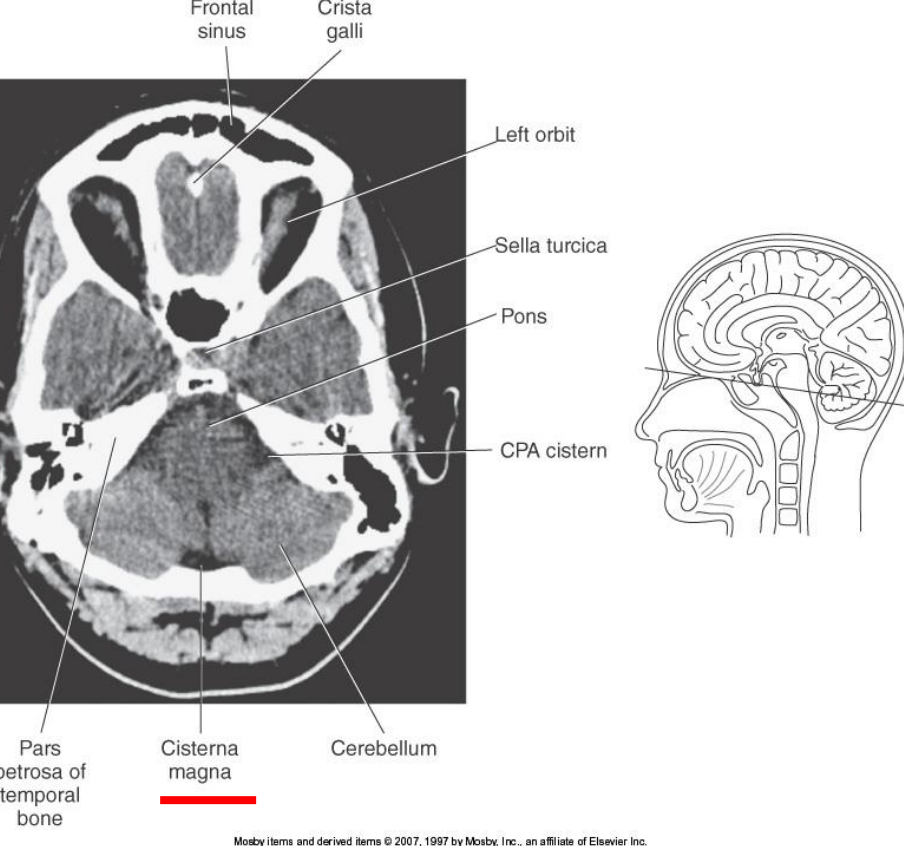


KEY: LV, Lateral ventricle; 3V, third ventricle; **aque**, cerebral aqueduct; **smed**, superior medullary velum; **4V**, fourth ventricle.

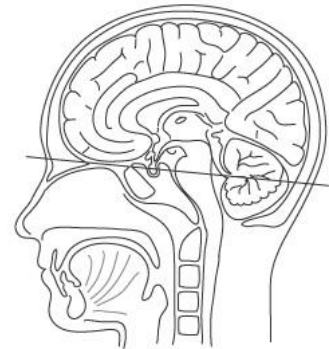
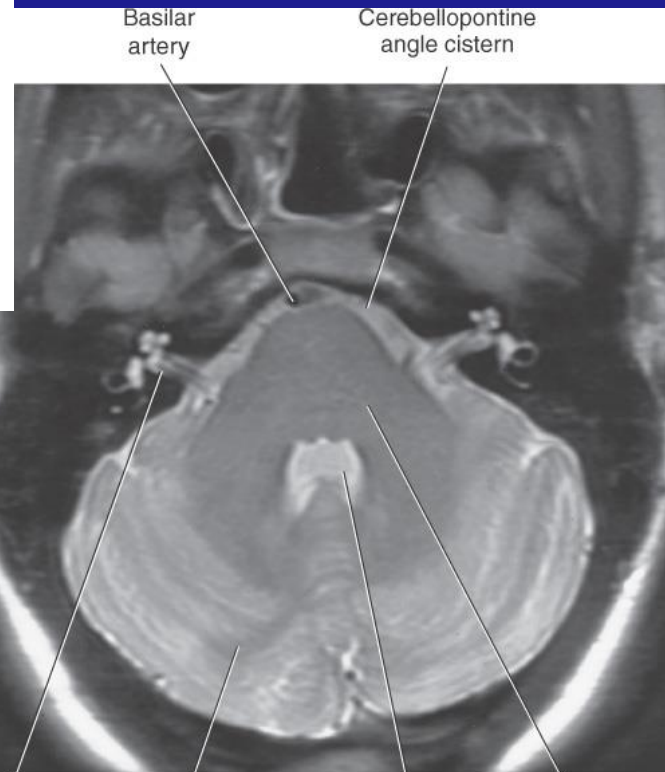
MRI of Some Cisterns



KEY: SuC, Suprasellar cistern; InC, interpeduncular cistern; AmC, ambient cistern; QuC, quadrigeminal cistern.



← CT CISTERNS



MRI PONTINE CISTERN →

VASCULAR SYSTEM

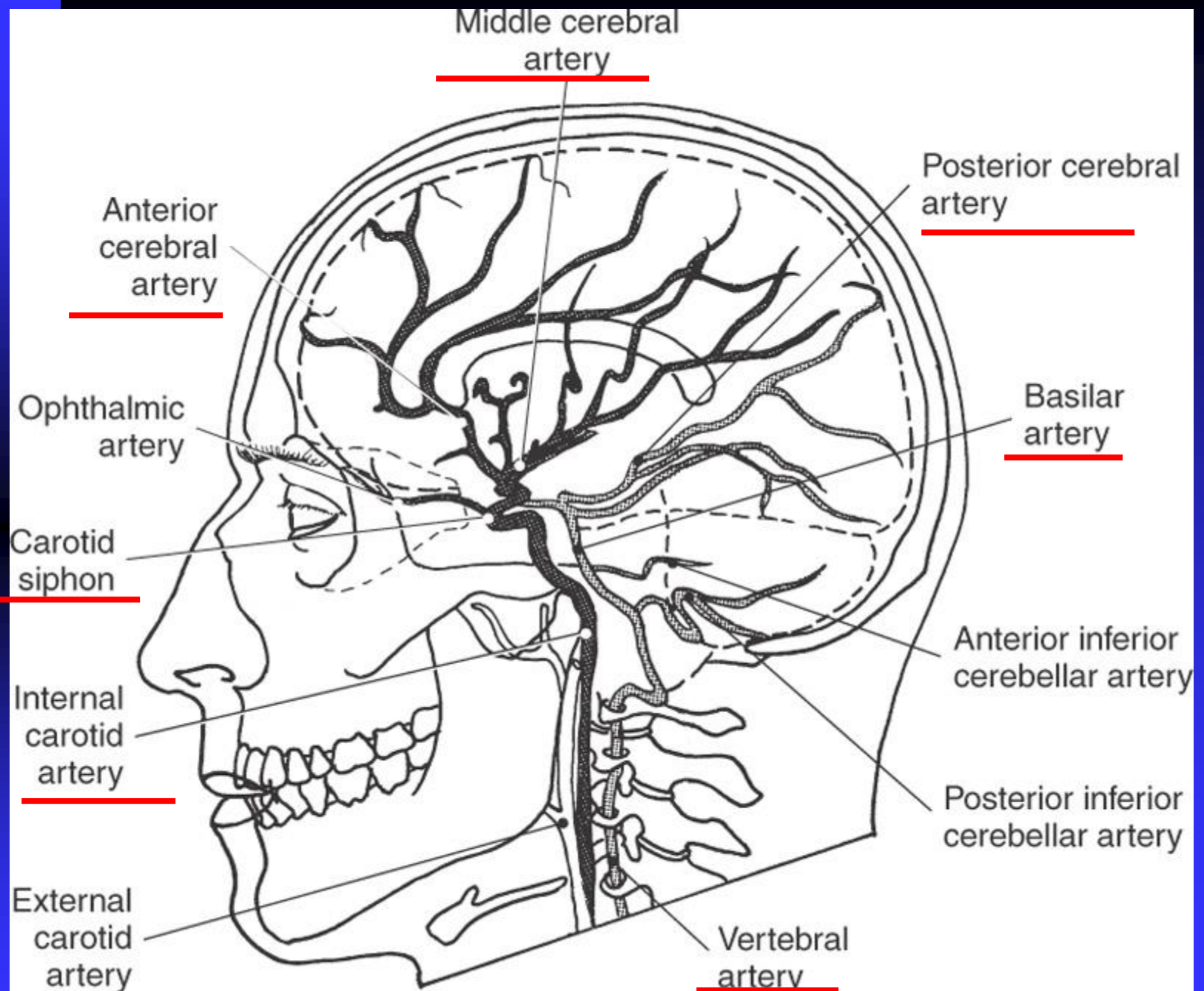
- **CEREBRAL ARTERIES ARE THIN**
 - ◆ Carotids and Verterbrals
- **CEREBRAL VEINS HAVE NO VALVE**
 - ◆ Dural Sinuses and Jugulars
- **BRAIN DOES NOT ALLOW CERTAIN THINGS TO PASS THROUGH**
 - ◆ Known as BLOOD BRAIN BARRIER (BBB)

INTERNAL CAROTID ARTERIES

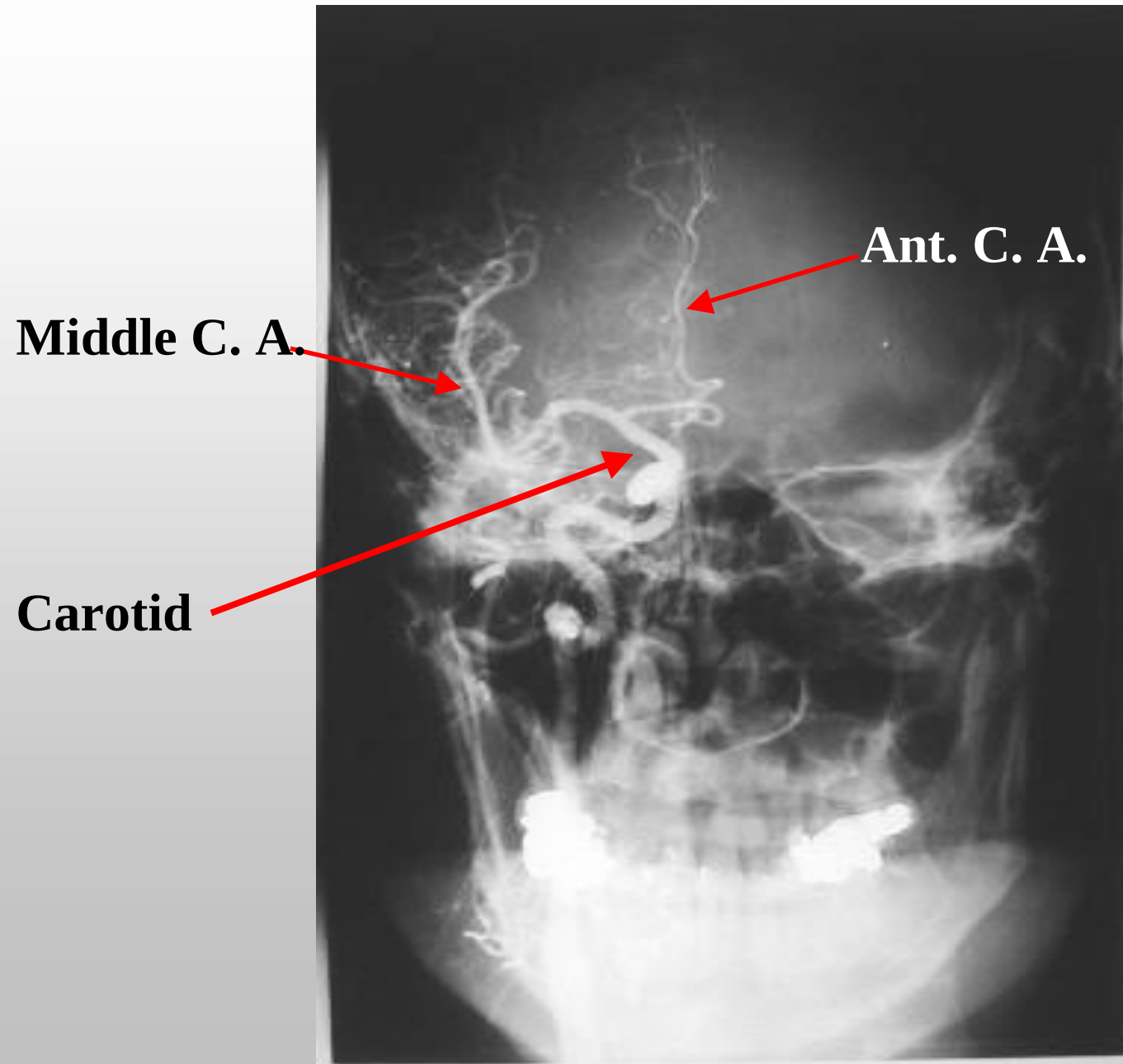
- Arise From Neck
- Forms An S Shape – Carotid Siphon
- Bifurcates Into
 - ◆ Large Middle Cerebral Artery
 - ◆ Small Anterior Cerebral Artery
- Middle Supplies To Lateral Brain
 - ◆ Seen in the lateral or Sylvian Fissure
- Anterior Supplies To Frontal And Middle Brain
 - ◆ Runs along longitudinal fissure
- Communicating Artery is between 2 anterior cerebral arteries

VERTEBRAL ARTERIES

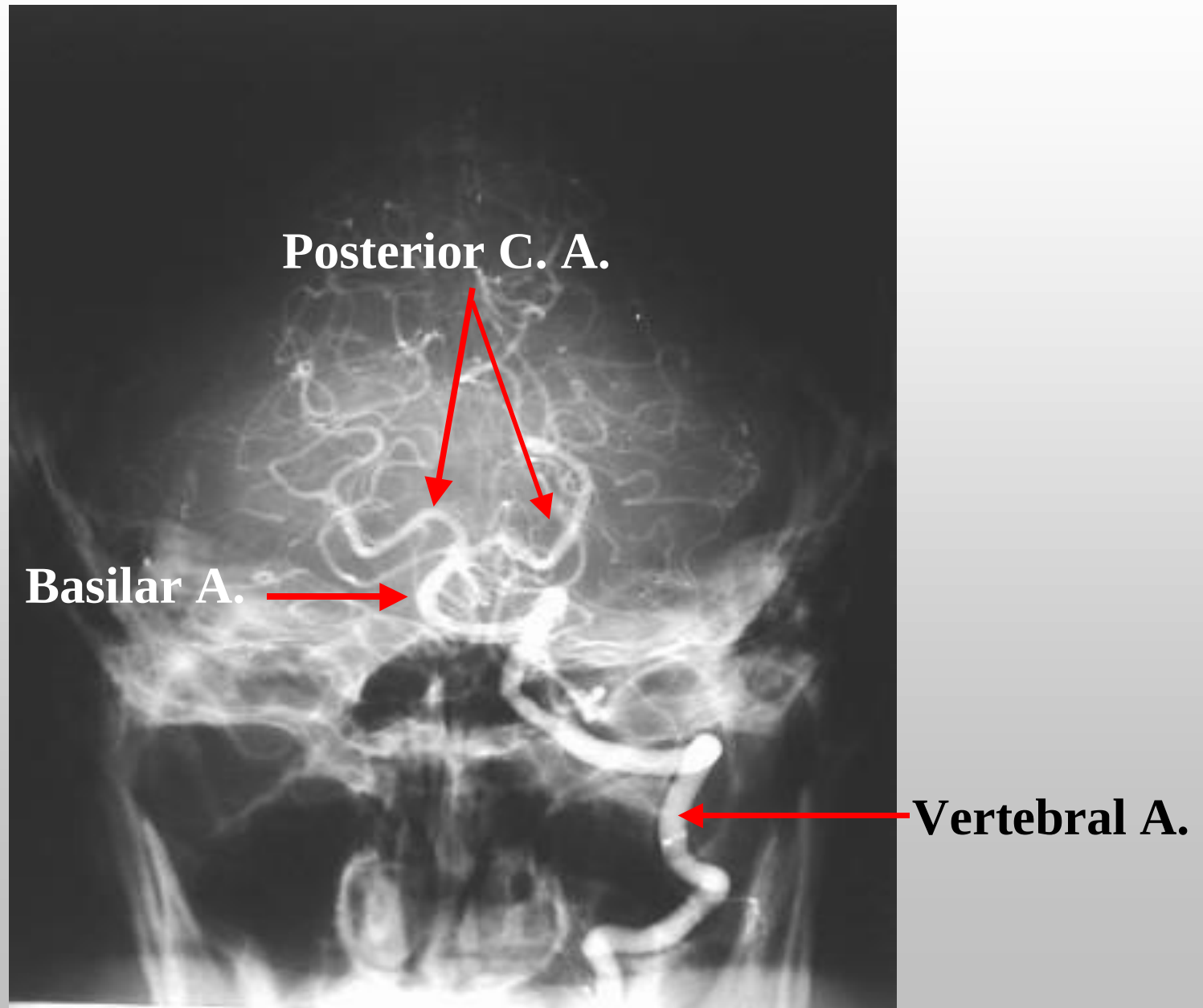
- **Vertebral Arteries (2) start in the Neck**
- **Supply Posterior Brain**
- **Right And Left Vertebral Combine To Form Basilar Artery**
 - ◆ **Runs in Pontine Cistern Anterior to Pons**
- **Basilar Artery**
 - ◆ **Bifurcates into Right and Left Posterior Artery**
 - ◆ **Has other branches**
- **Posterior Communicating Arteries (PCA) (2)**
 - ◆ **PCA's join Posterior Cerebral Arteries and Internal Carotids**



AP Carotid Arterial Phase



AP Vertebral – Arterial Phase

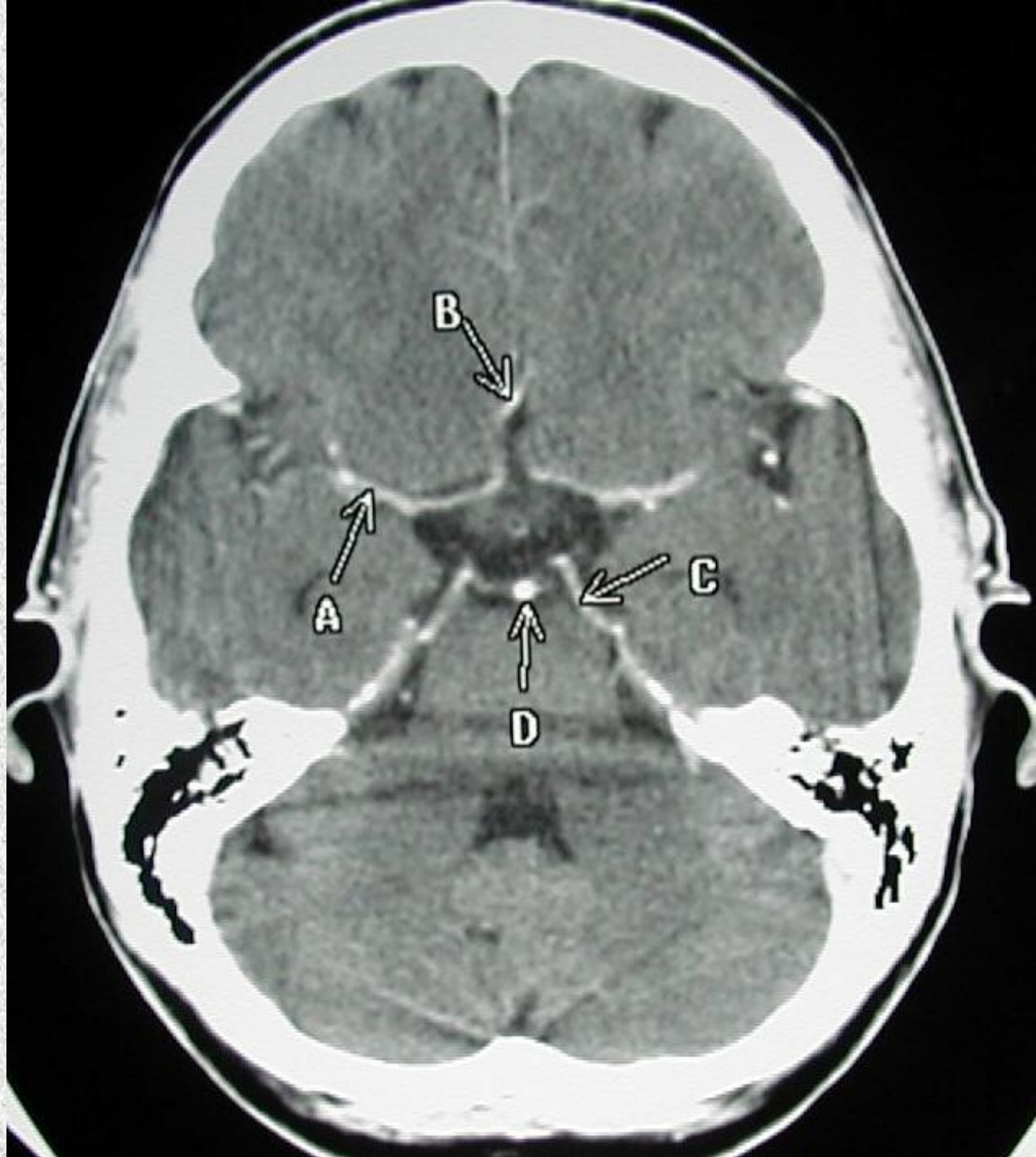


A. Middle C. A.

B. Anterior C.A.

C. Posterior C.A.

D. Basilar Artery



1. 4th Ventricle

2. Basilar Artery



CIRCLE OF WILLIS

Formed By

1. Anterior Cerebral
2. Anterior Communicating
3. Internal Carotid
4. Posterior Cerebral
5. Posterior Communicating Arteries

Arteries of Circle of Willis

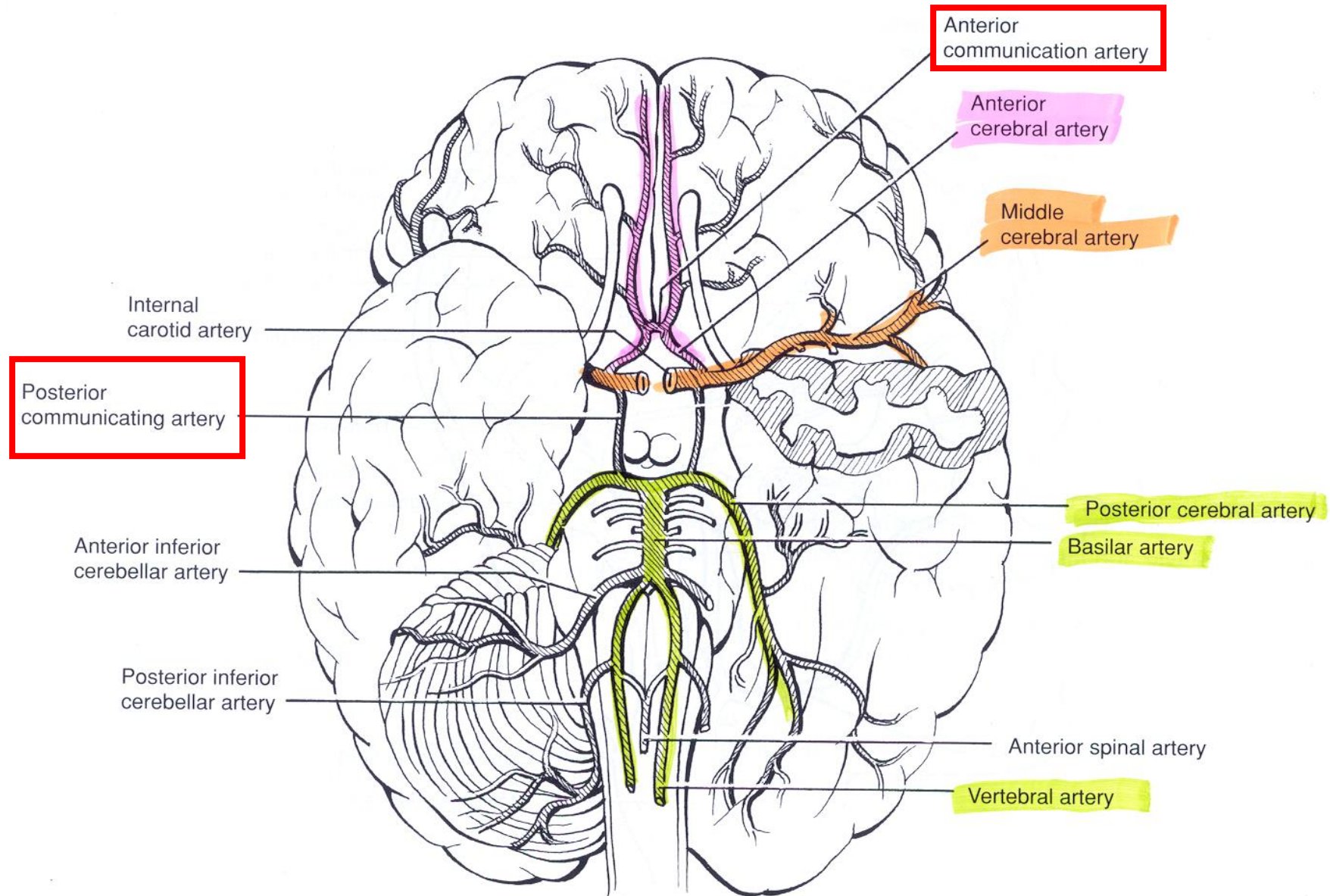
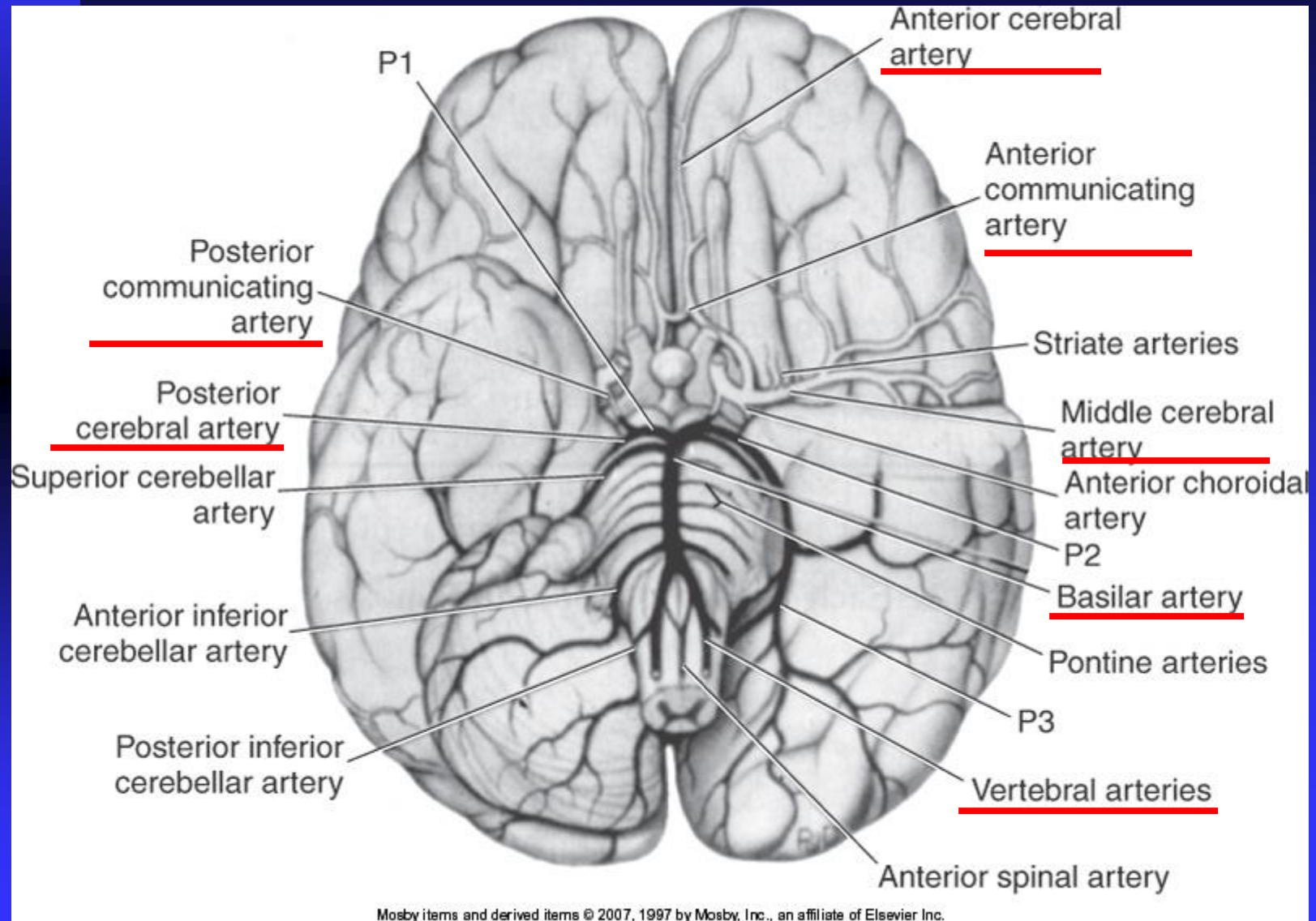
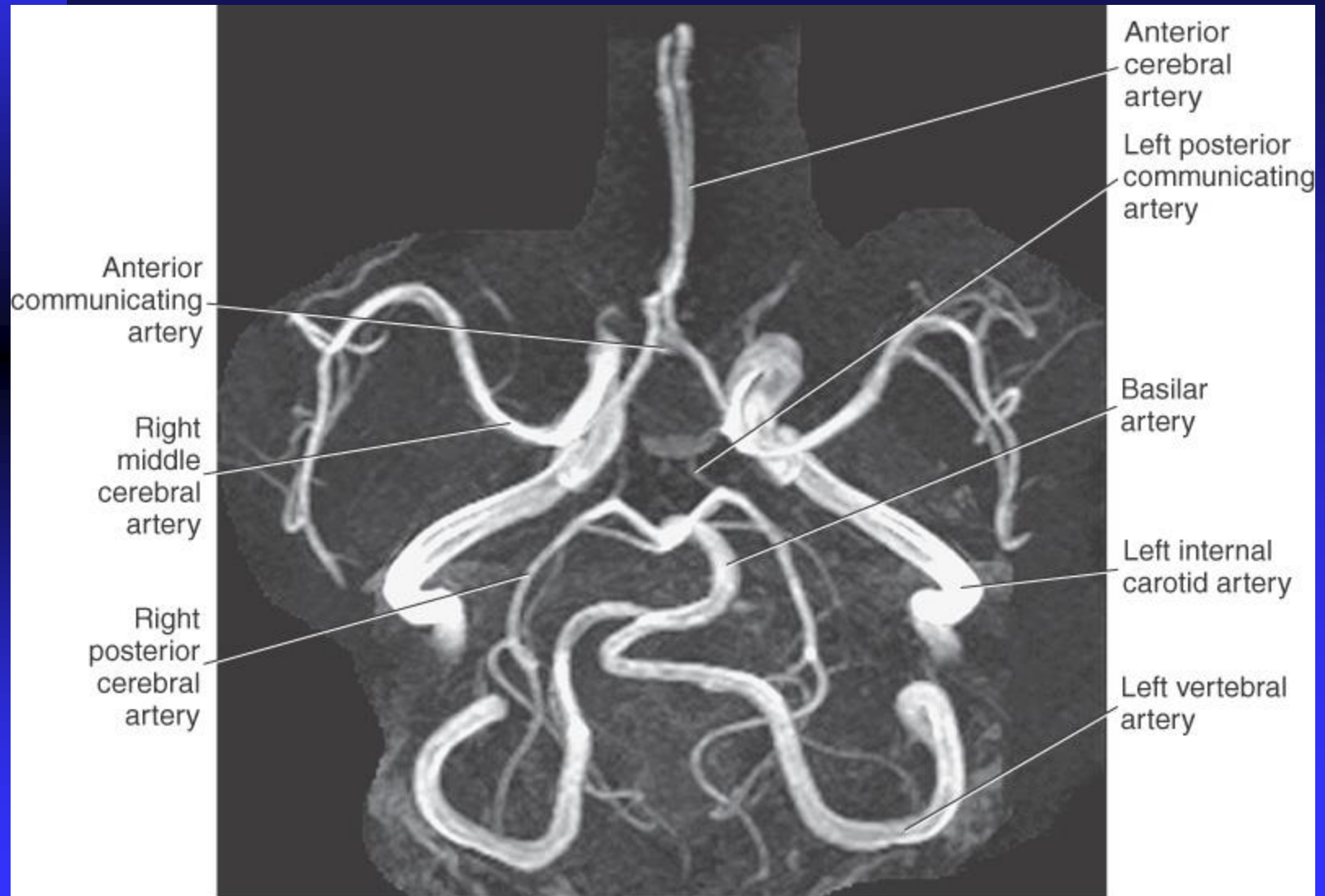


Figure 5-15 Inferior view of the major arteries of the brain.

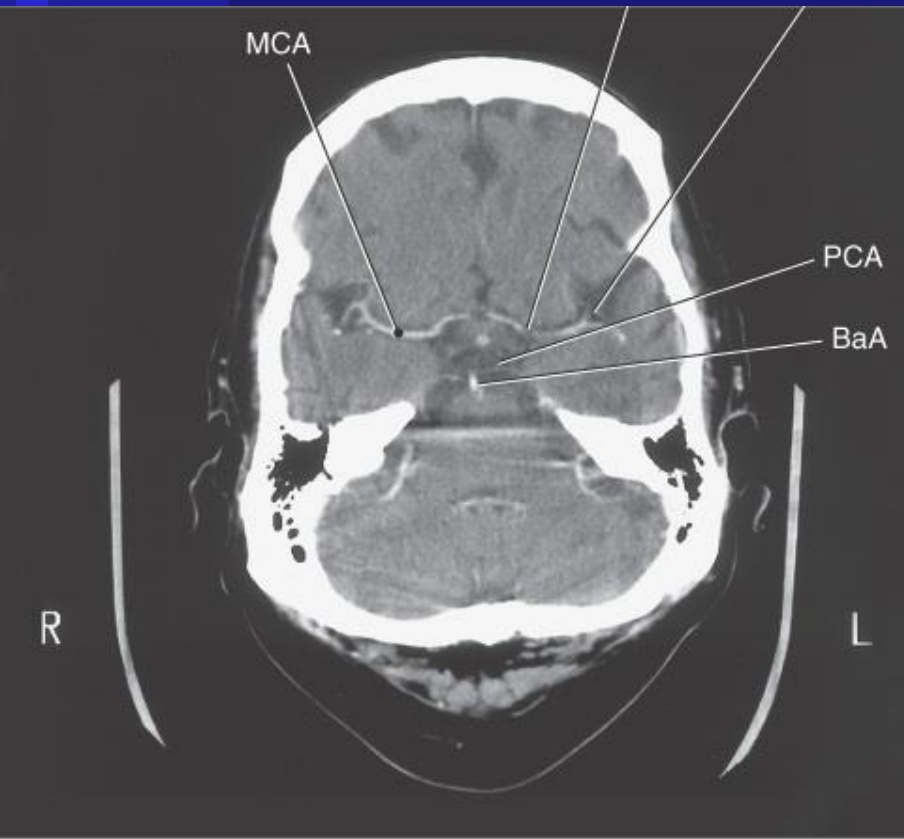
Another View of Circle of Willis



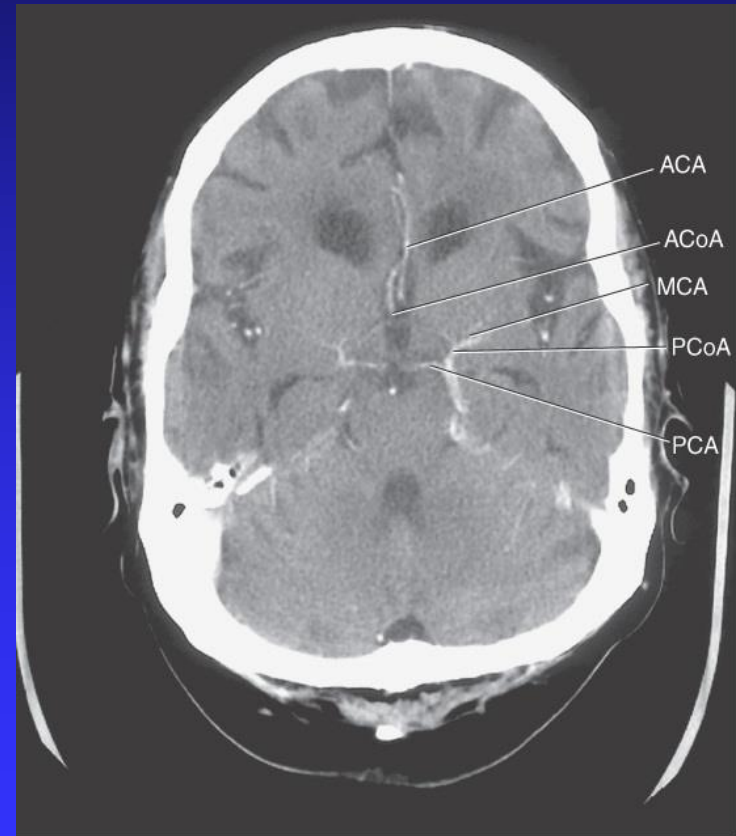
MRI of Circle of Willis



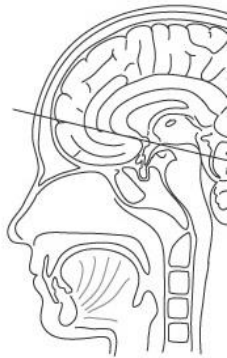
2 View of Cerebral Arteries



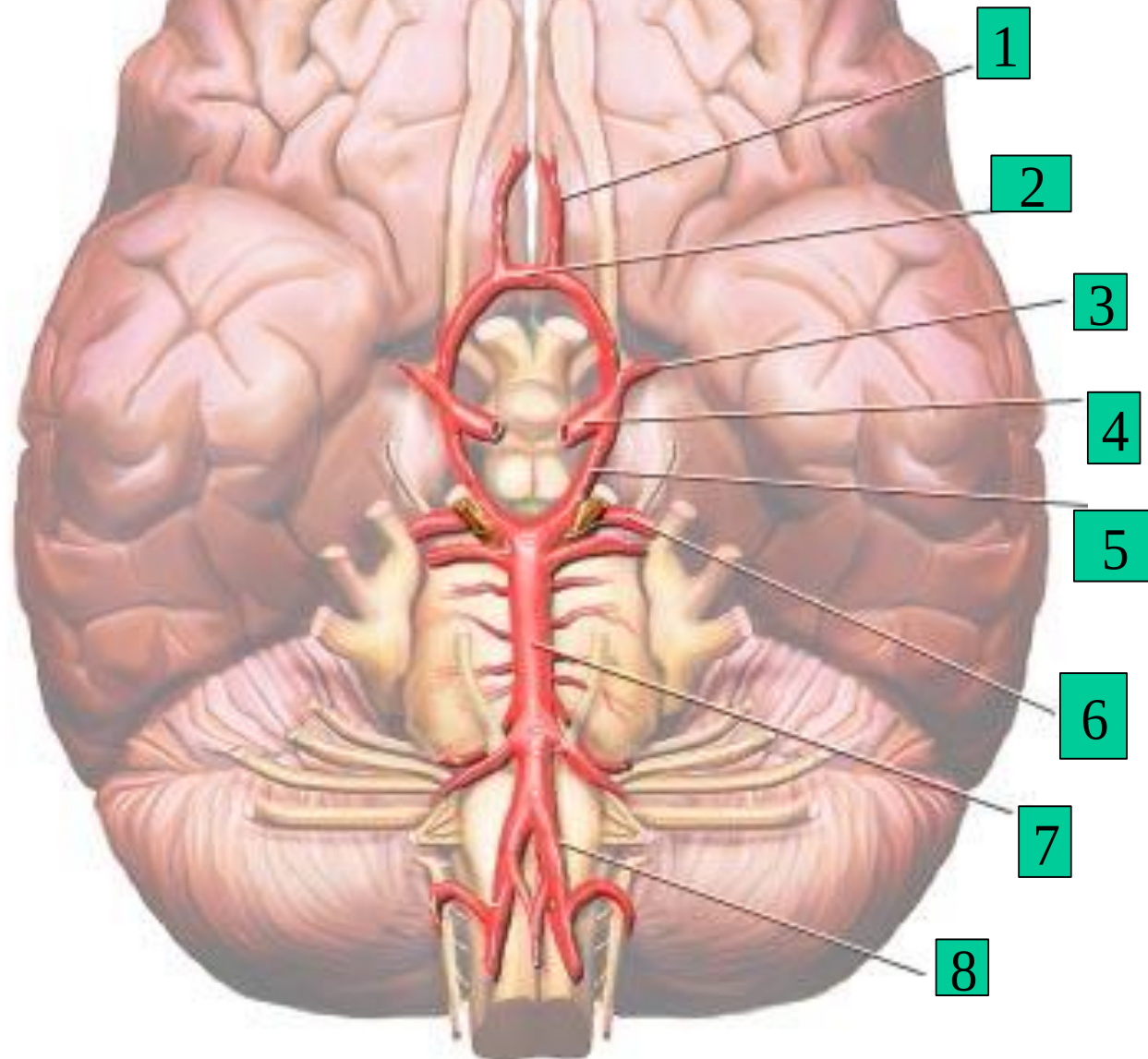
KEY: MCA, Middle cerebral artery; PCA, posterior cerebral artery; BaA, basilar artery.



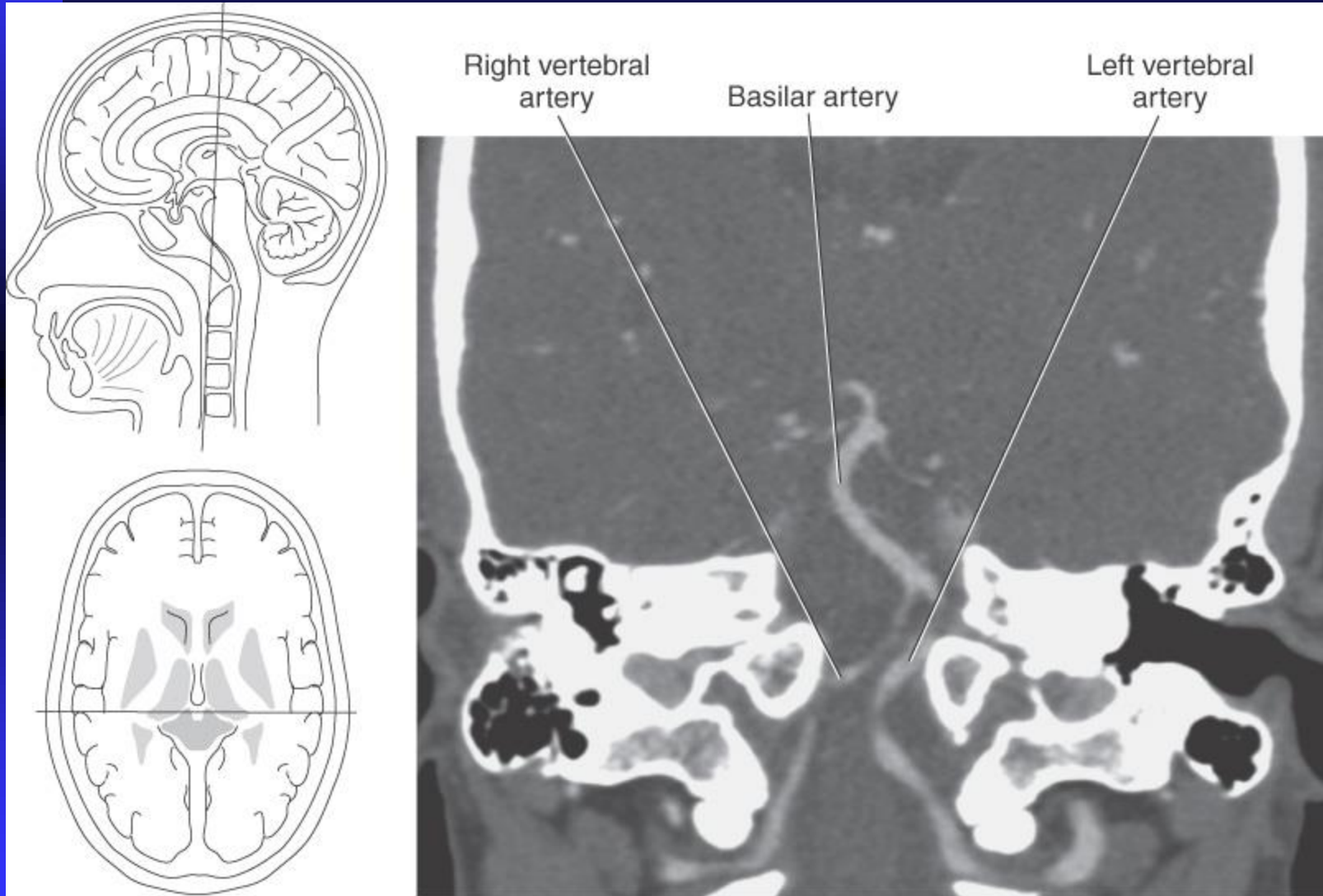
KEY: PCA, Posterior cerebral artery; MCA, middle cerebral artery; ACA, anterior cerebral artery; ACoA, anterior communicating artery; PCoA, posterior communicating artery.



Circle of Willis



CT of Basilar and Vertebrals



VENOUS DRAINAGE

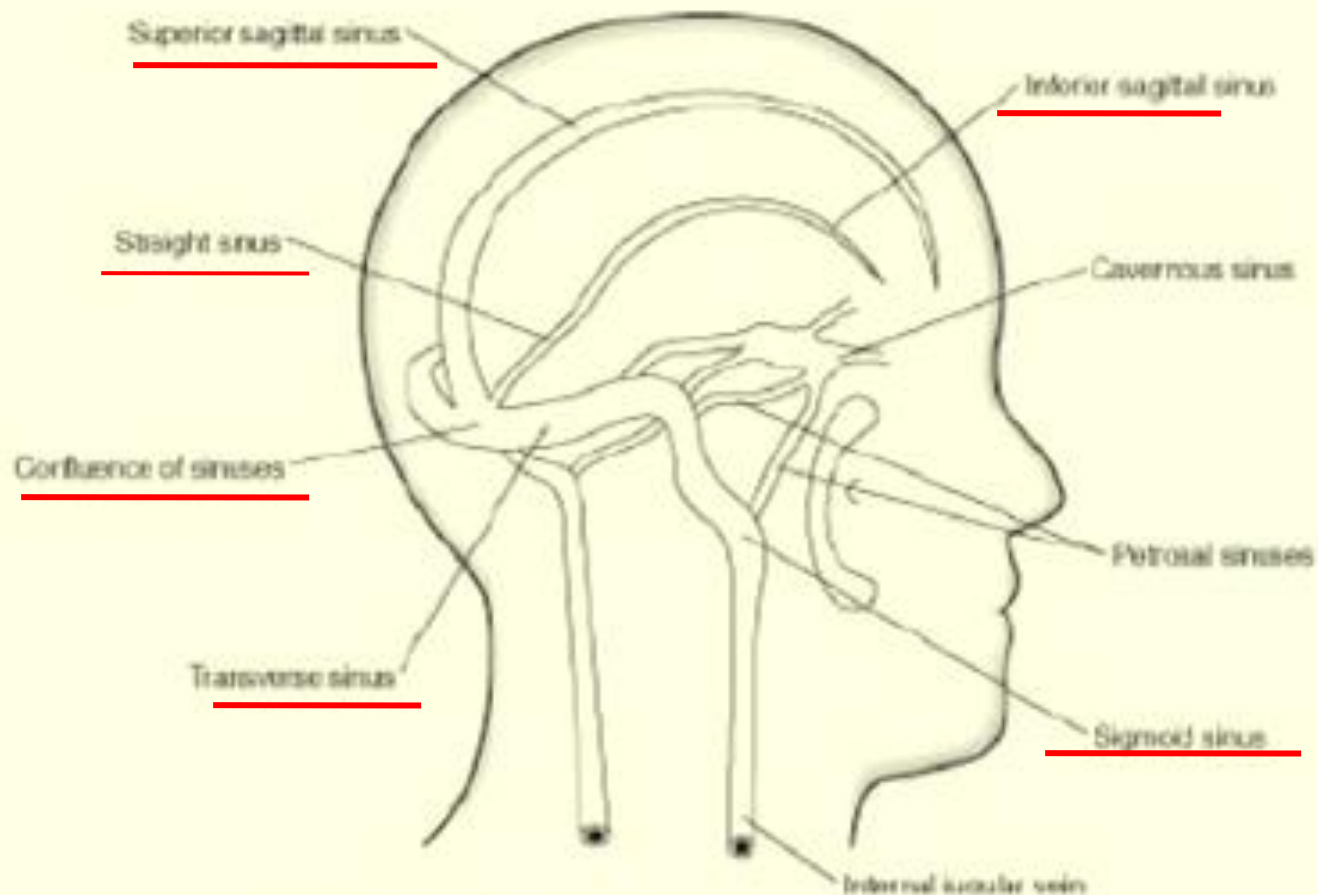
■ Dural Sinuses

- ◆ Large Veins Within The Dura Matter Of The Brain
- ◆ All Veins Of The Head Ultimately Drain Into The Dural Sinuses
- ◆ Then Into The Internal Jugular Vein

DURAL SINUSES

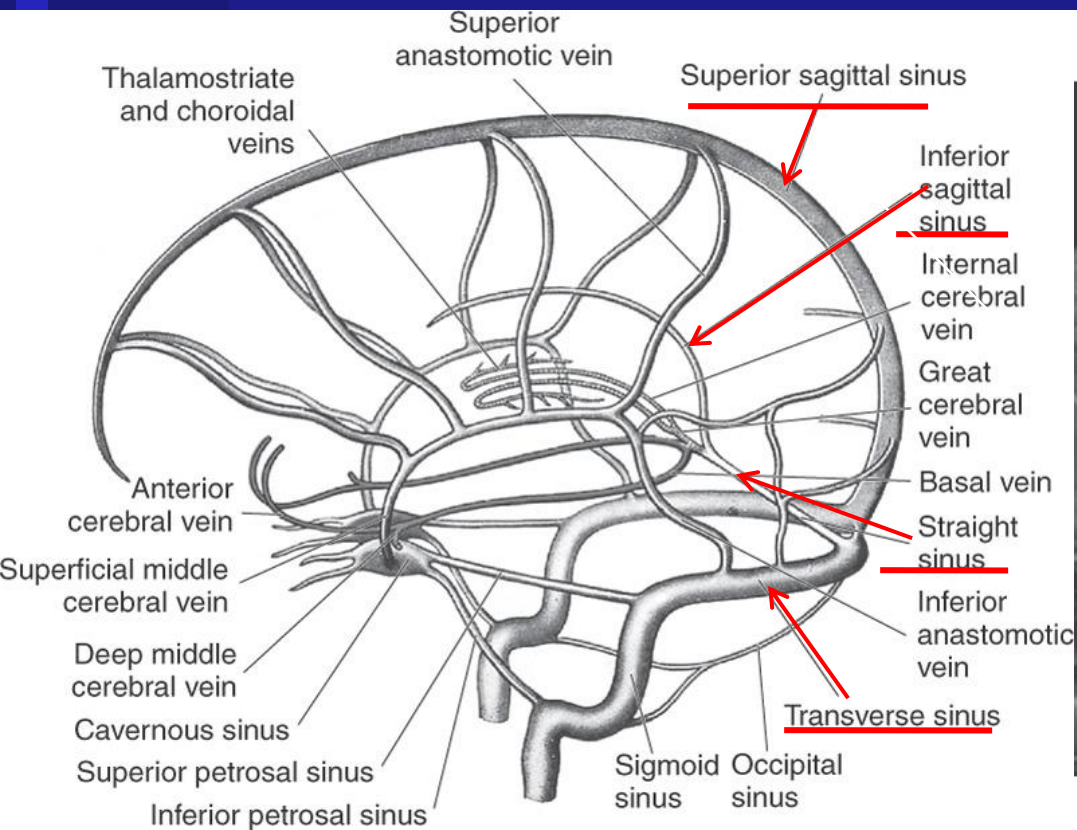
- Superior Sagittal Sinus
- Inferior Sagittal Sinus
- Confluence of sinuses
- Transverse Sinus
- Straight Sinus
- Sigmoid Sinus
- Drain Into Internal Jugular Vein

Dural Sinuses and Veins

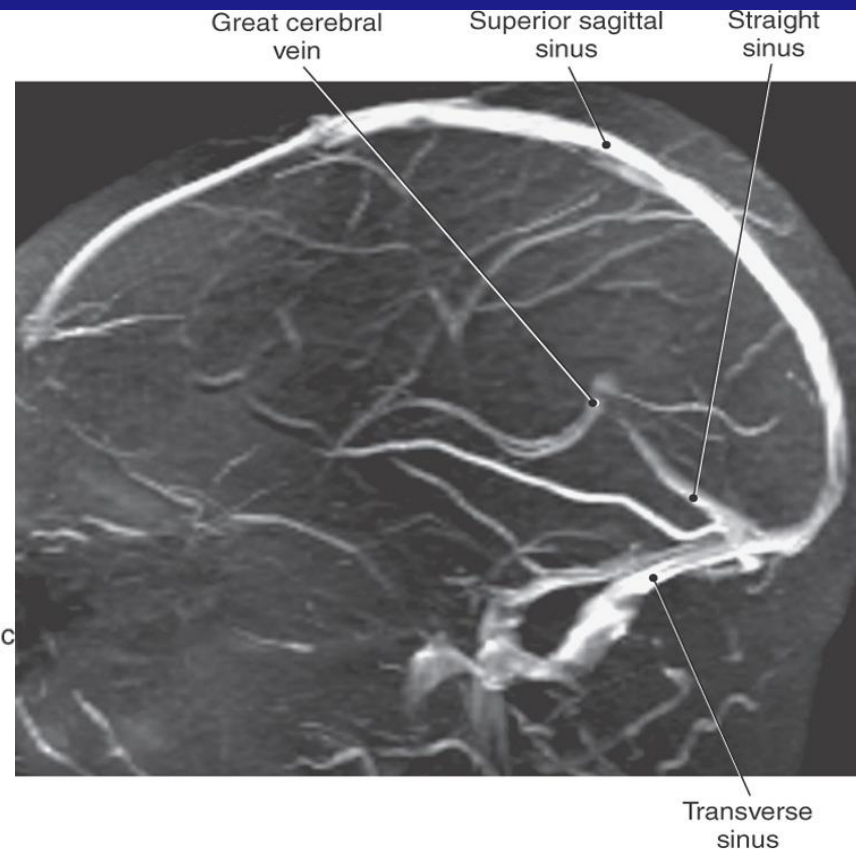


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Veins and Sinuses

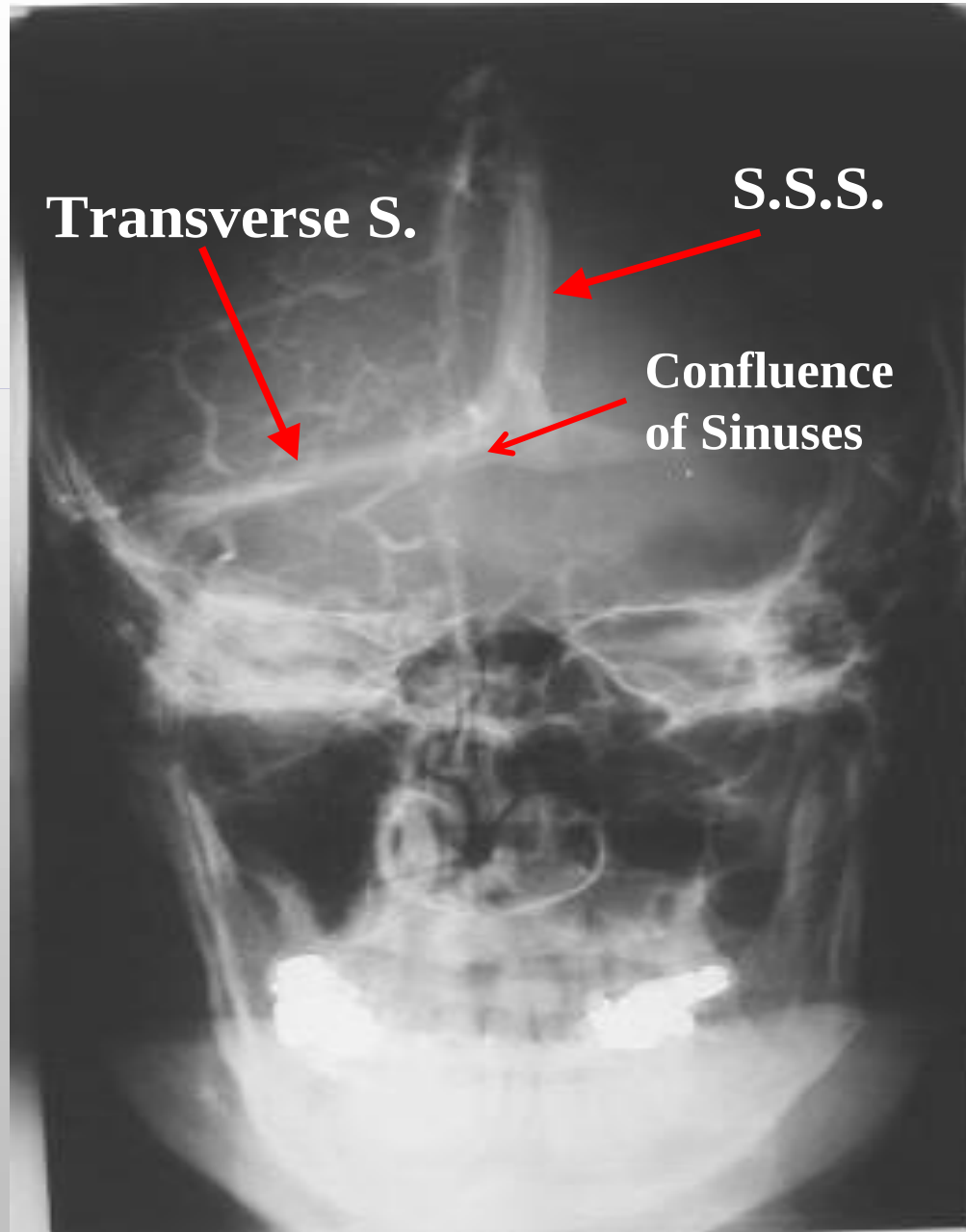


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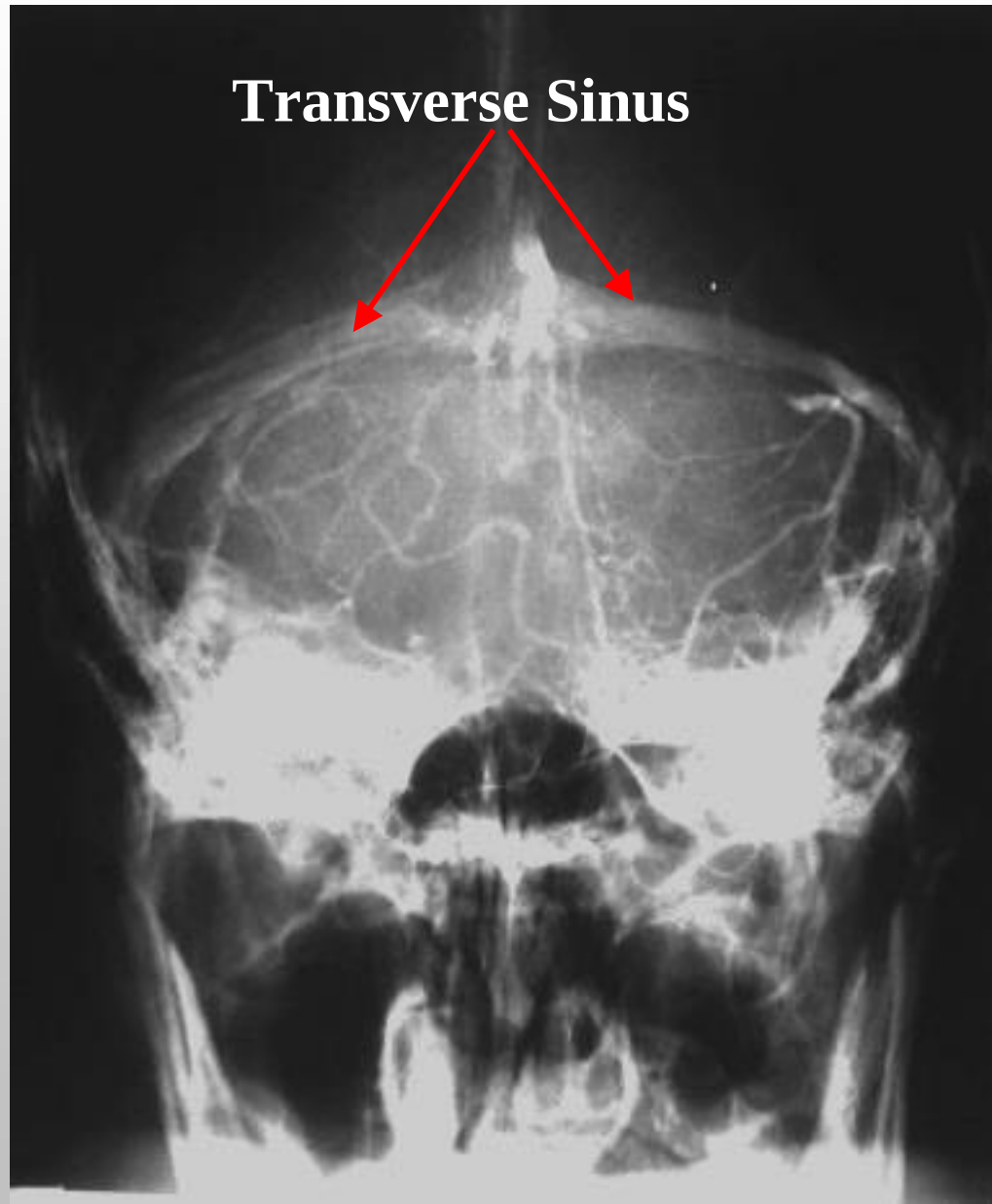


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AP Carotid Venous Phase



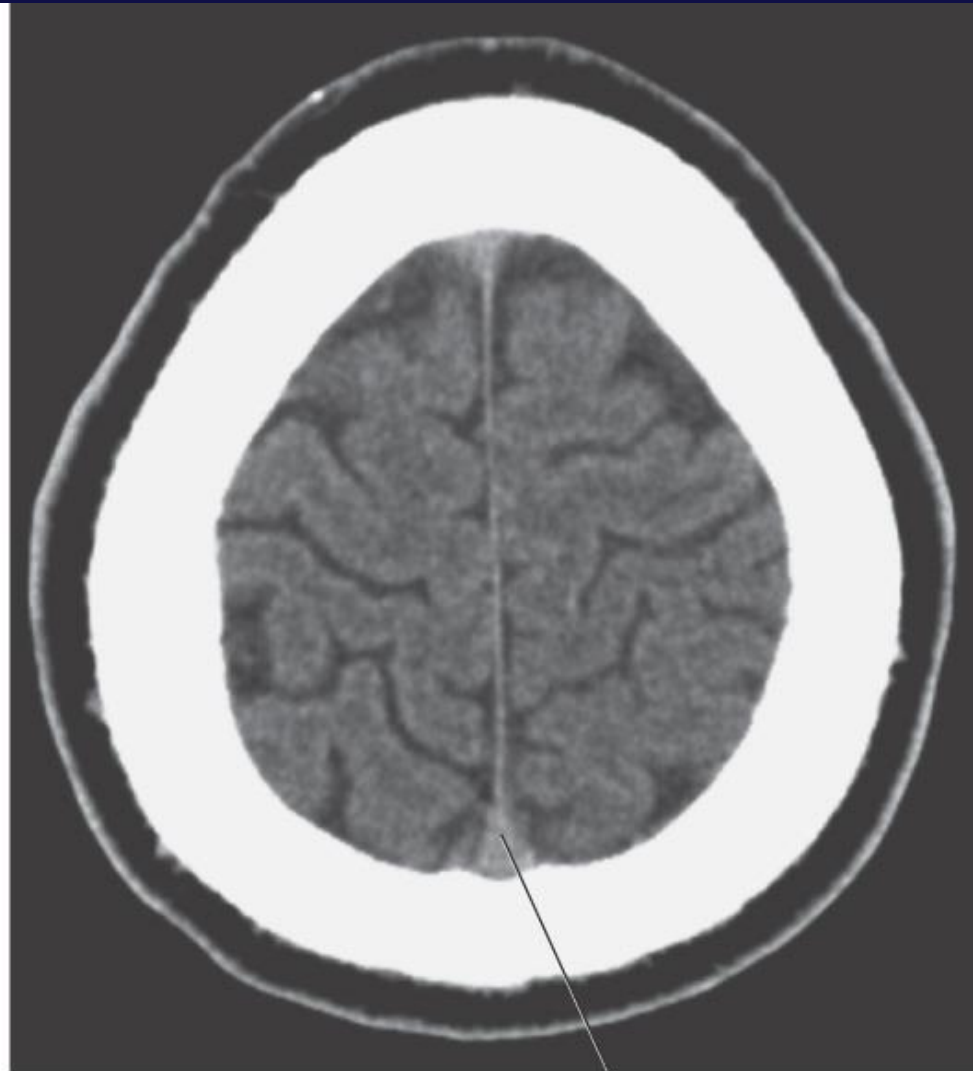
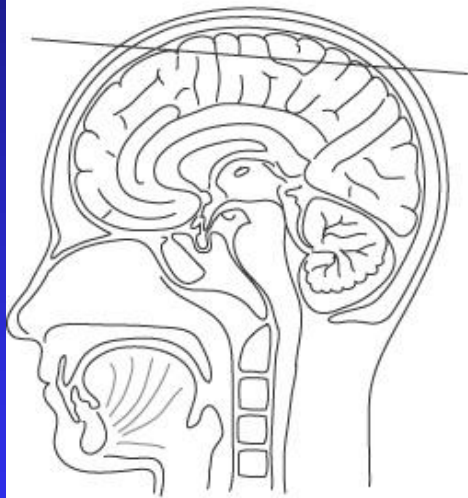
AP Vertebral – Venous Phase



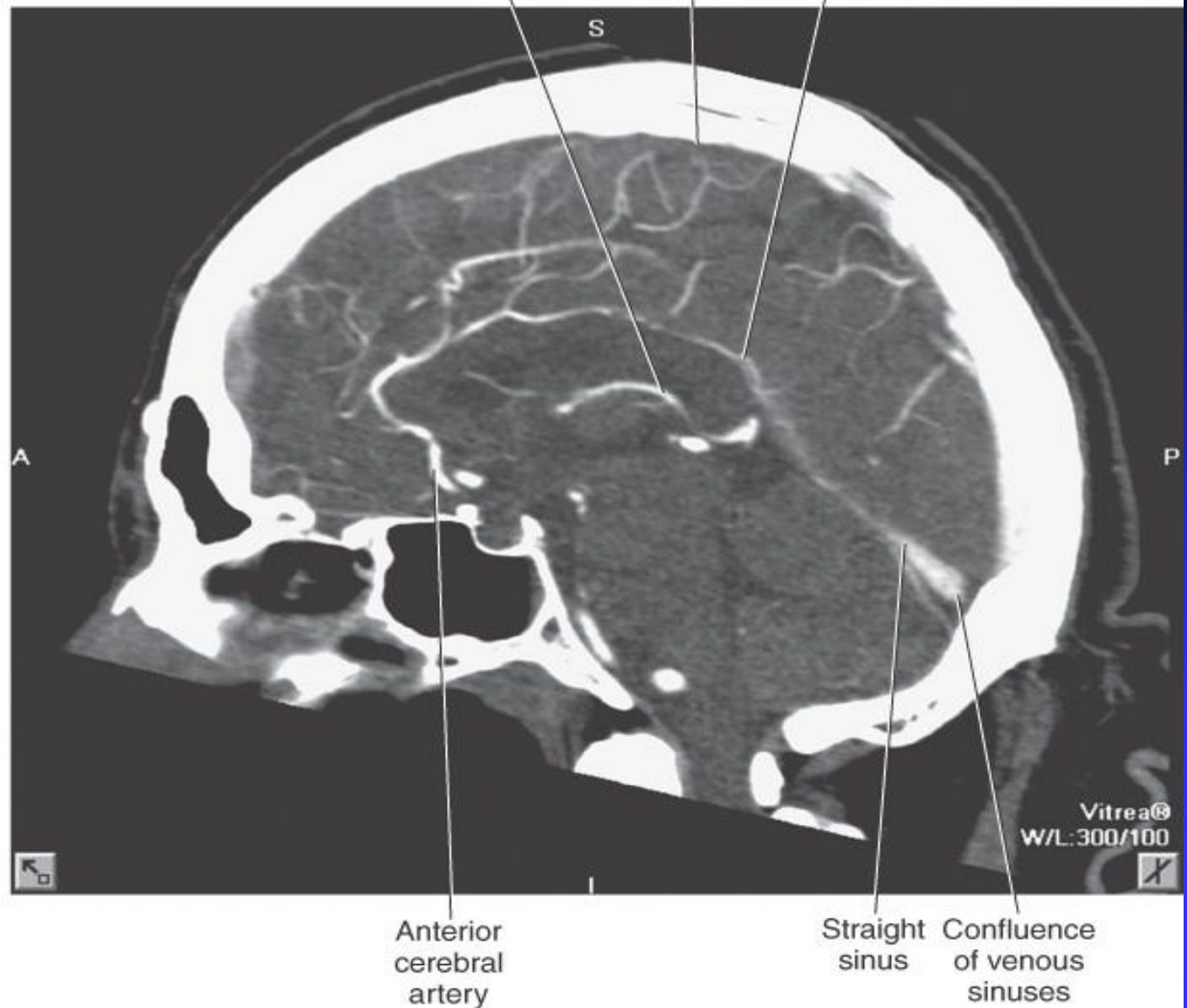
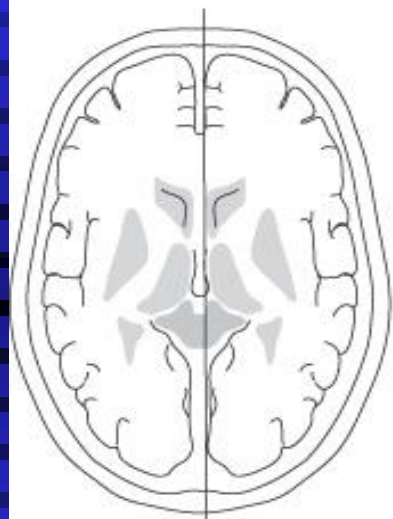
Transverse Sinus



Posterior SSS

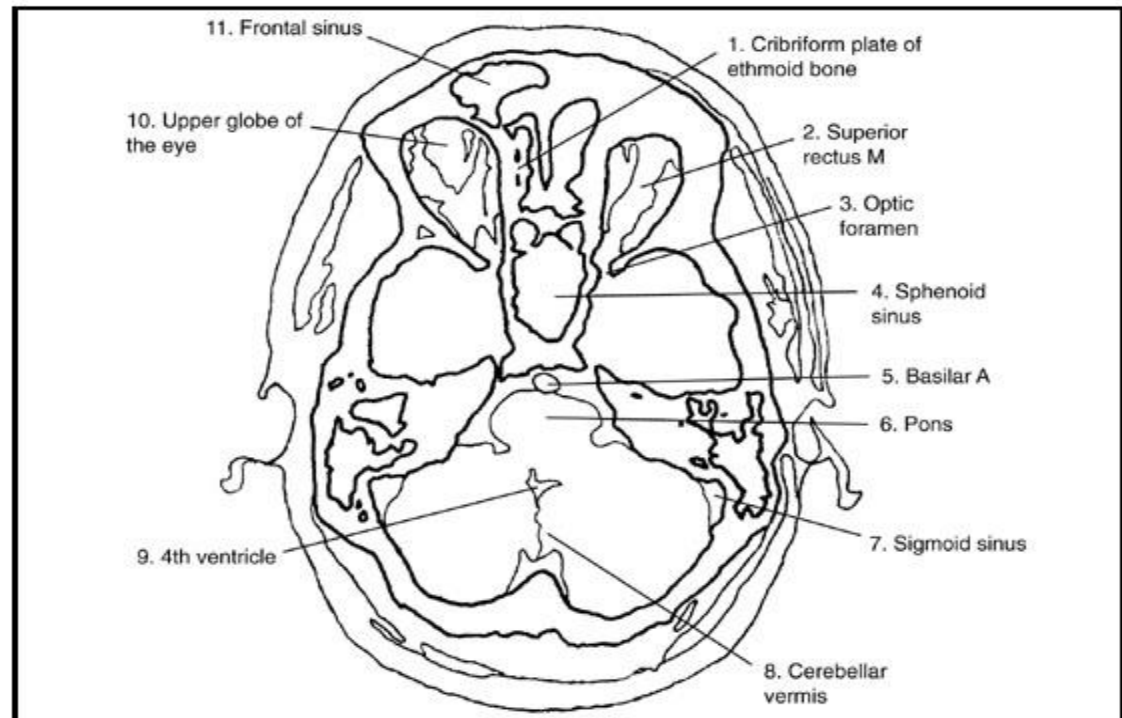
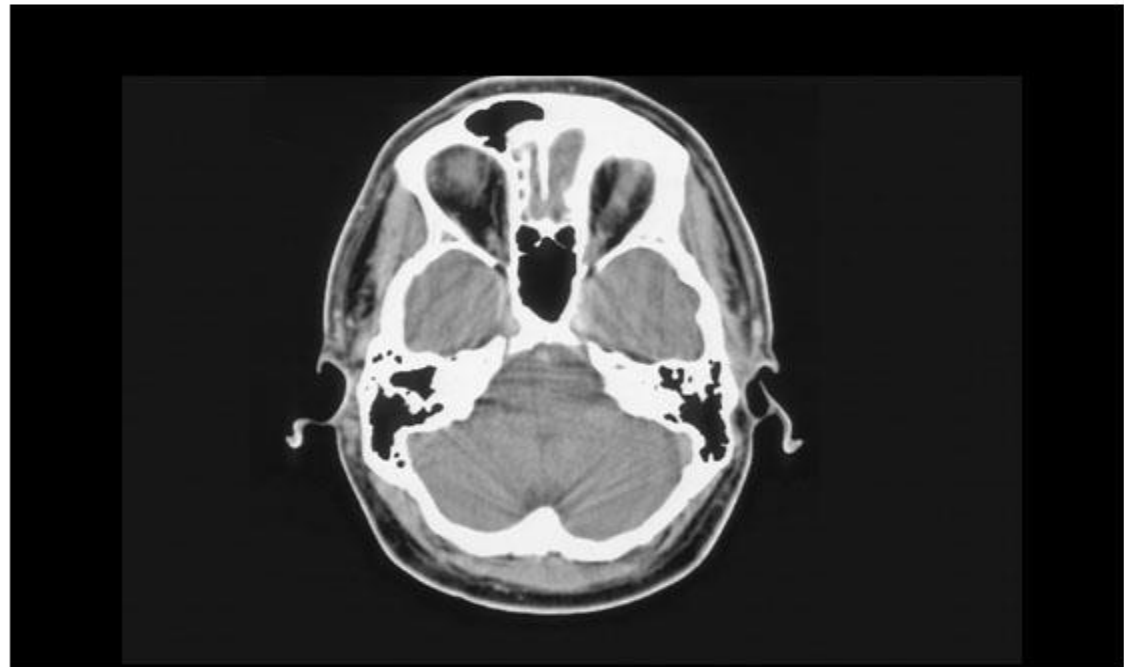


Superior
sagittal sinus



- Frontal Sinus
- Cribriform Plate of Ethmoid
- Sphenoid Sinus
- Basilar Artery
- Pons
- Sigmoid Sinus
- Vermis
- 4th Ventricle

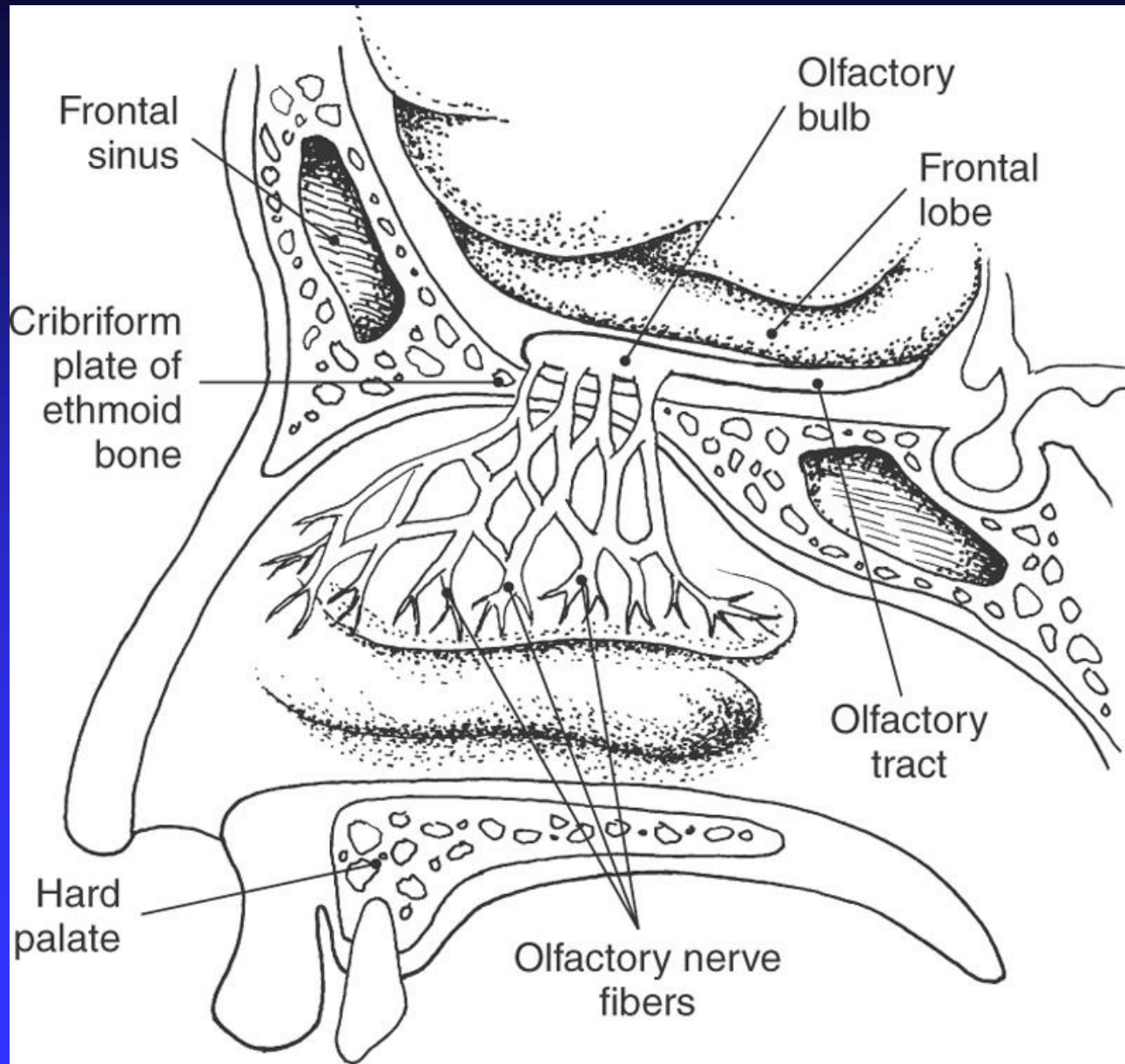
Figure 5-49



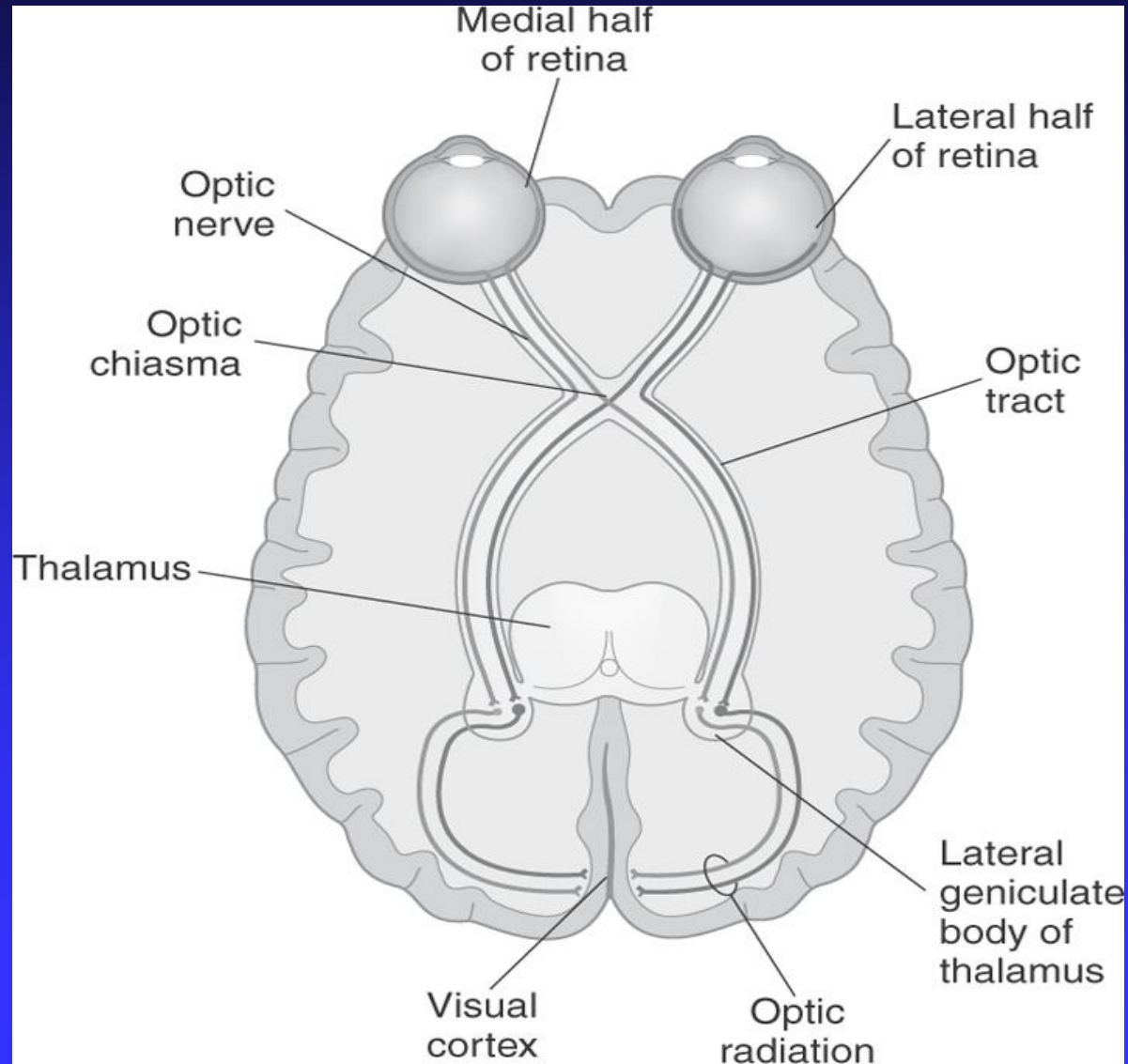
CRANIAL NERVES

■ 1. OLFACTORY	SEN	OLFACTORY FORAMEN
■ 2. OPTIC	SEN	OPTIC FORAMEN
■ 3. OCULOMOTOR	MOTOR	SUP. ORBITAL FISSURE (SOF)
■ 4. TROCHLEAR	MOTOR	SOF
■ 5. TRIGEMINAL		
■ A. OPHTHALMIC	SEN	SOF
■ B. MAXILLARY	SEN	ROTUNDUM
■ S. MANDIBULAR	MIXED	OVALE
■ 6. ABDUCENS	MOTOR	SOF
■ 7. FACIAL	MIXED	IAC
■ 8. VESTIBULOCOCHLEAR	SEN	IAC
■ 9. GLOSSOPHARYNGEAL	MIXED	JUGULAR FORAMEN
■ 10. VAGUS	MIXED	JUGULAR FORAMEN
■ 11. ACCESSORY	MOTOR	JUGULAR FORAMEN
■ 12. HYPOGLOSSAL	MOTOR	HYPOGLOSSAL CANAL

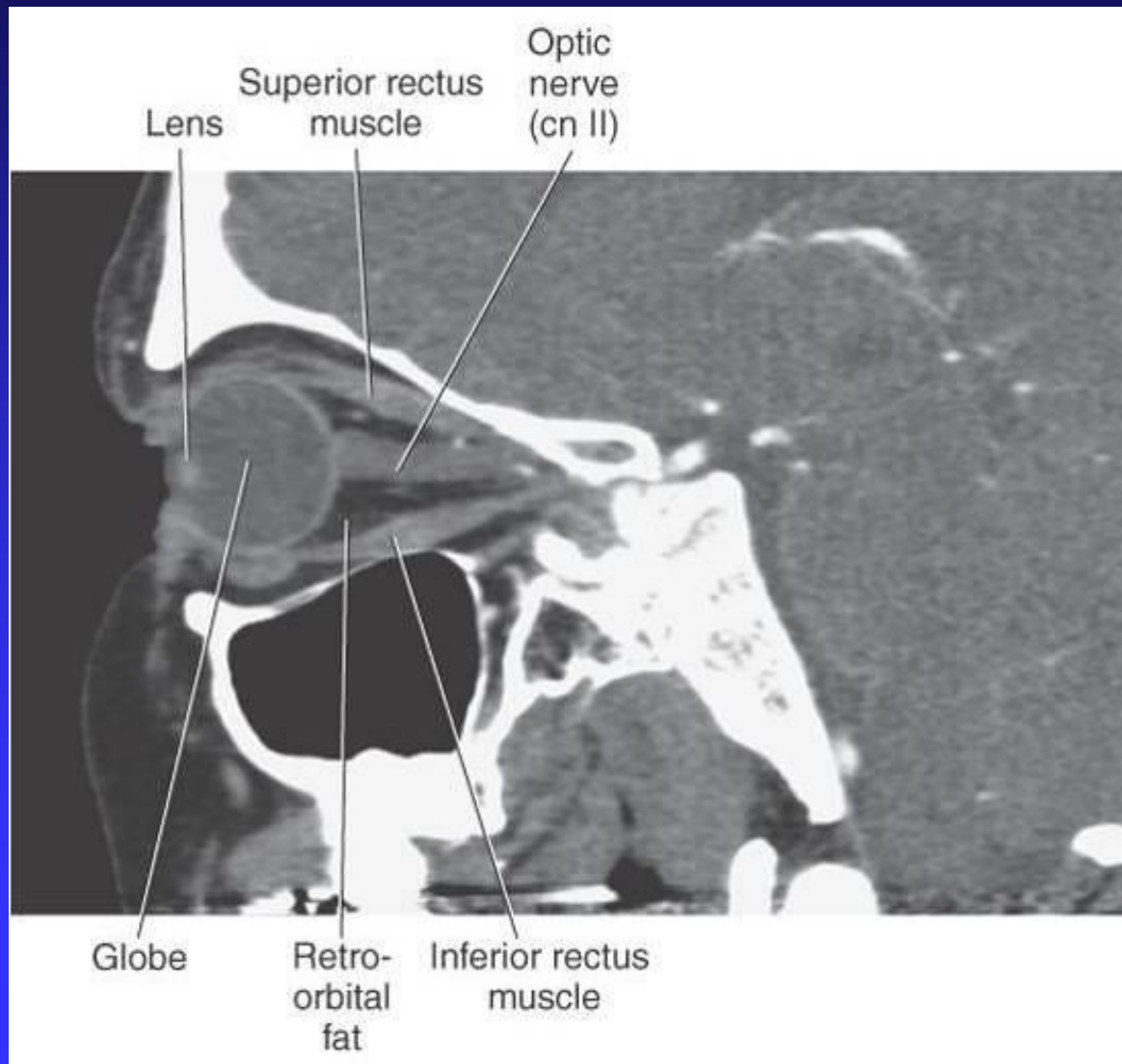
1st Crainial Nerve - Olfactory



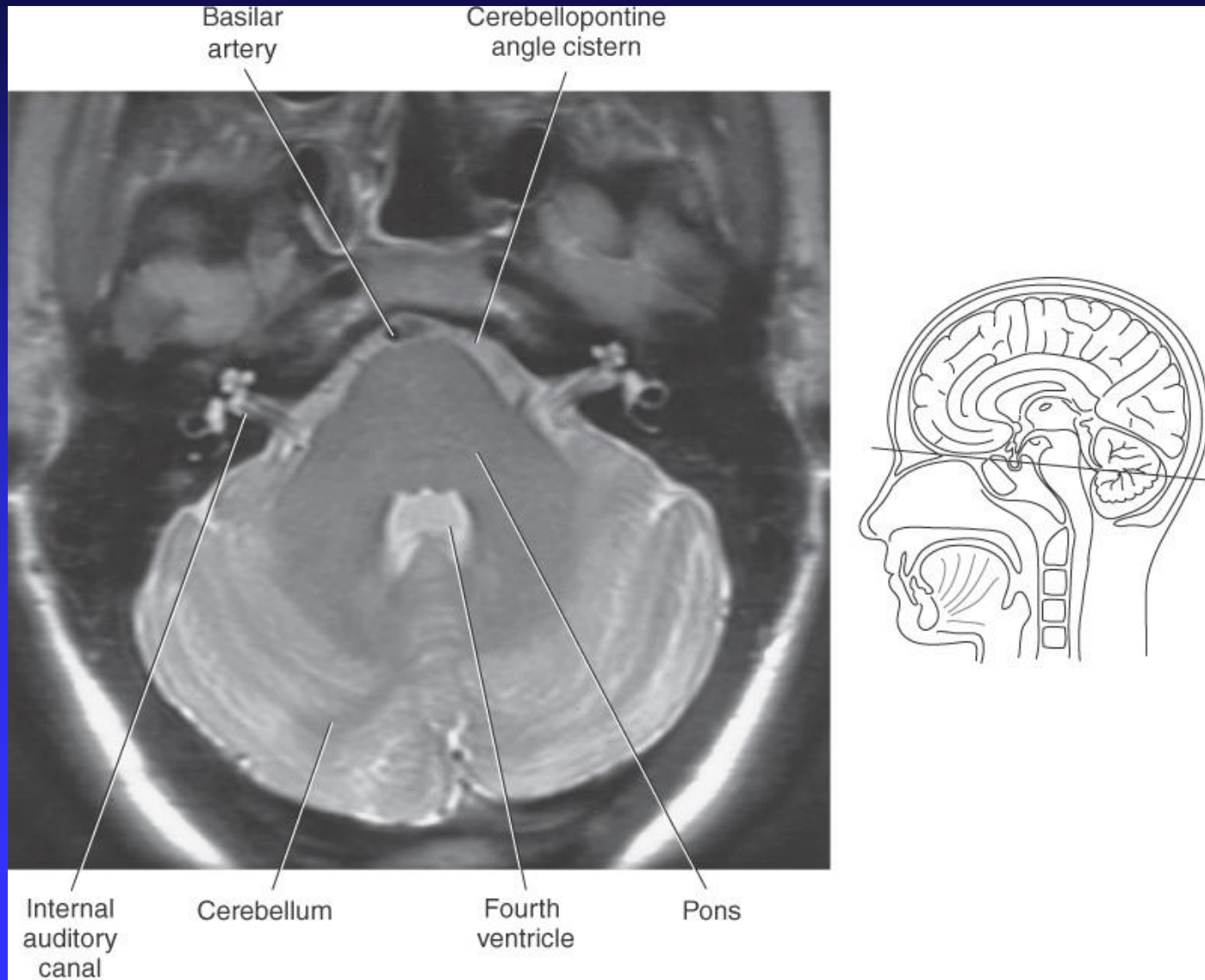
Optic Nerve and Chiasma



2nd Cranial Nerve and Muscles



VIII CRANIAL NERVE



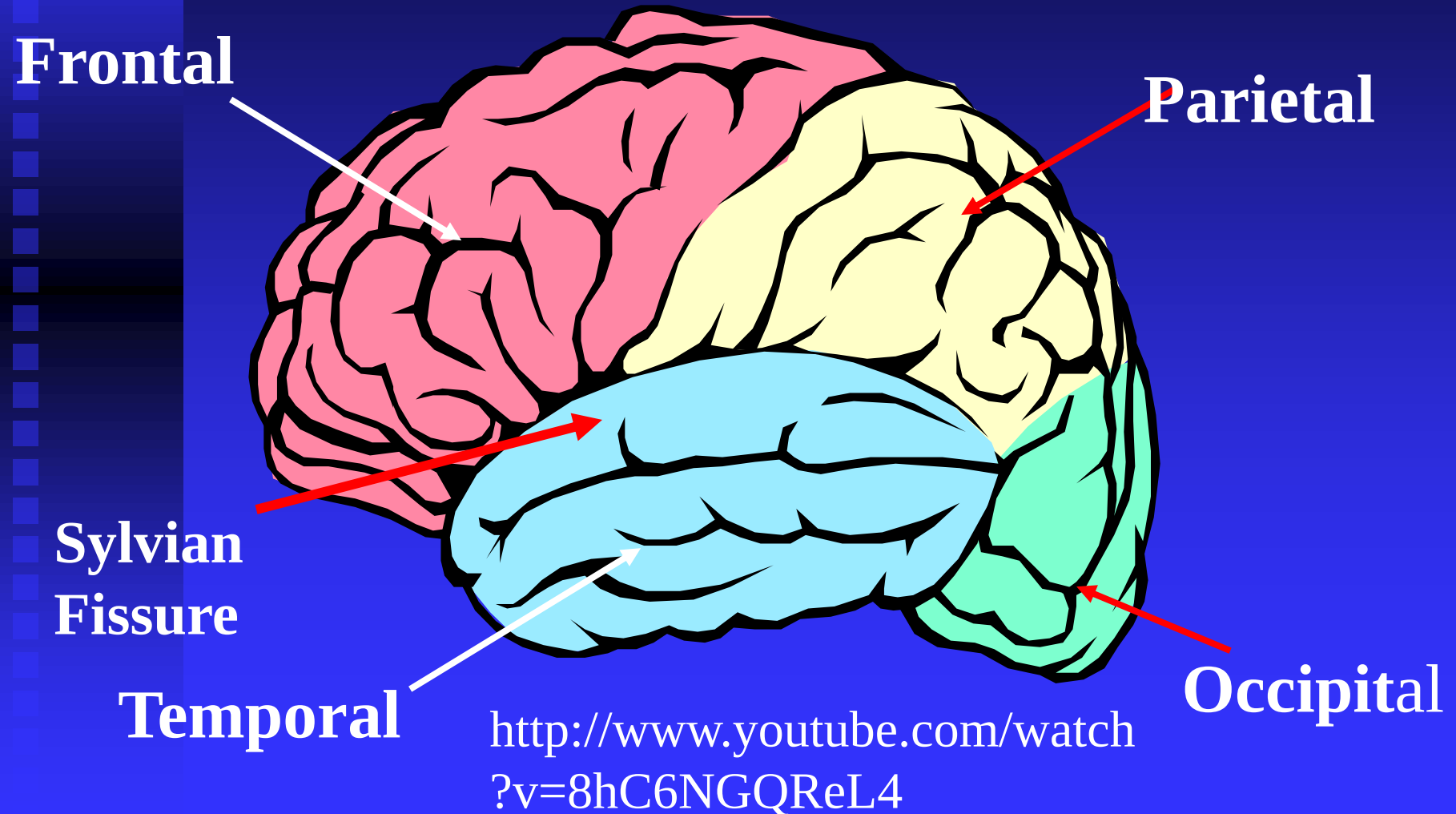
Nerves of Note

- 1st Cranial Nerve - Olfactory
 - ◆ degrades with age and trauma
- 2nd Cranial Nerve - Optic
 - ◆ Can have tumors and be affected by pituitary
- 5th Cranial Nerve - Trigeminal
 - ◆ Tic douloureux – severe facial pain
- 7th Cranial Nerve – Facial nerve
 - ◆ Bell's Palsy –Facial paralysis
- 8th Cranial Nerve - Vestibulocochlear
 - ◆ Degrades with age and trauma and tumors
- 10th Cranial Nerve Vagus
 - ◆ Vasovagal reaction from stress or stimulation

CEREBRUM

- Largest Part Of Brain
- Left And Right Hemispheres
- Gray Matter On Surface
- White Matter Inner Part

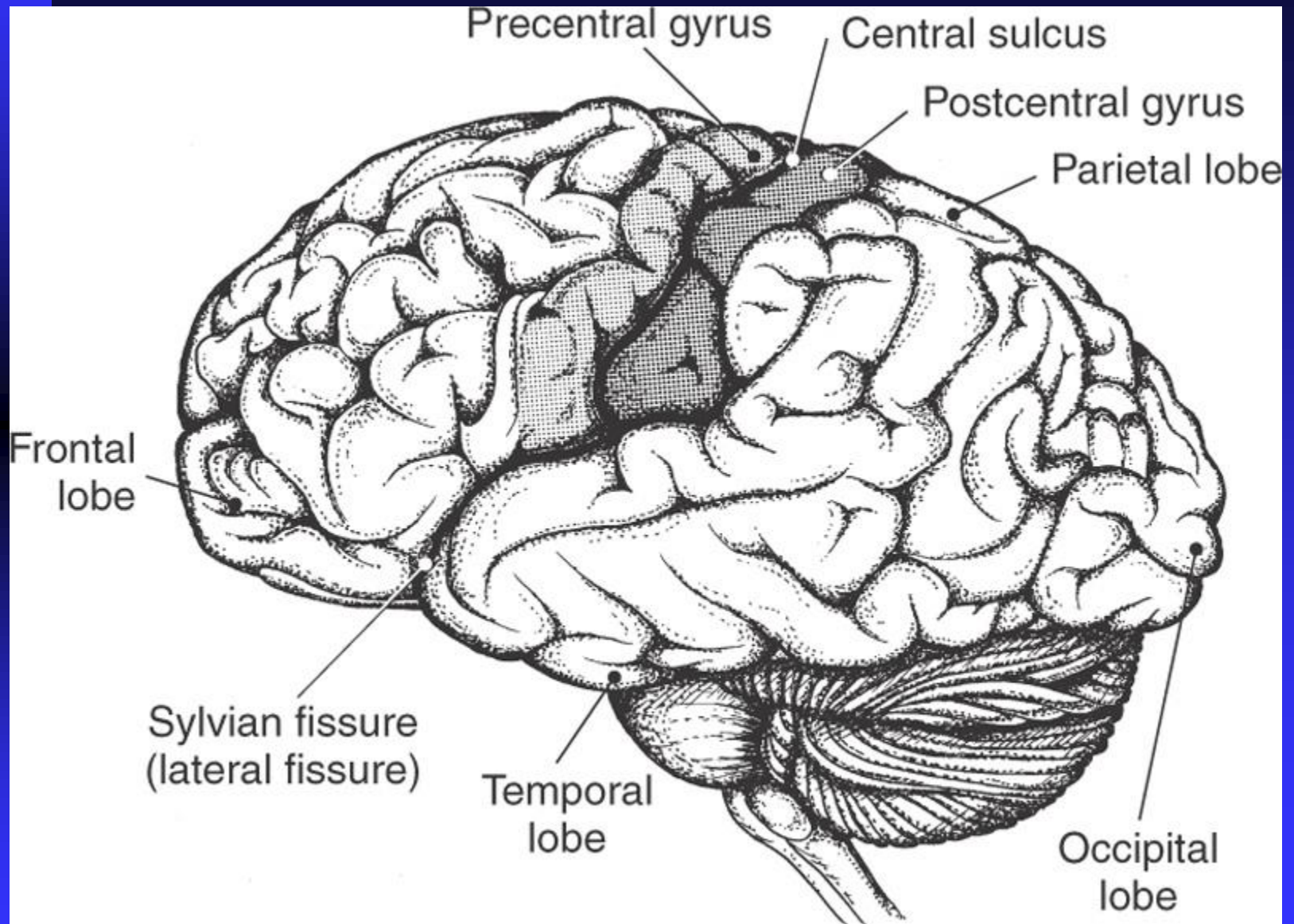
4 Lobes of the Brain



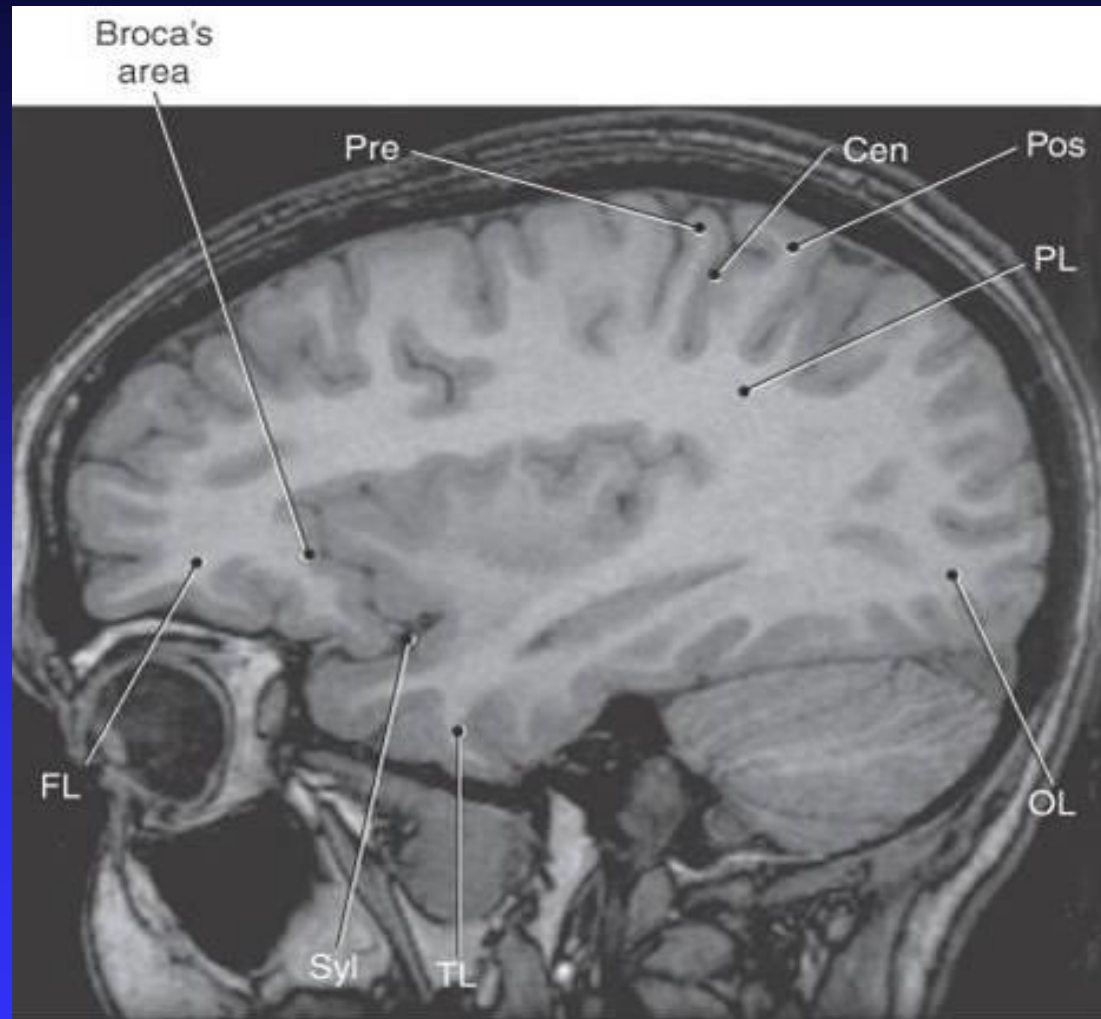
FOLDS OF THE BRAIN

- Gyri: Raised portion of folds
- Sulci : Shallow Depressions
- Fissure: Deeper Depressions
- Main Sulci Seen on CT and MRI:
 - ◆ Central Sulcus
 - ◆ Divides Frontal and Parietal lobes
 - Pre central gyrus – Motor
 - Post central gyrus – Sensory
 - ◆ Longitudinal Fissure
 - ◆ Separates Right and Left Hemispheres
 - ◆ Lateral or Sylvian Fissure or Lateral Sulcus
 - ◆ Separates Frontal and Parietal from Temporal

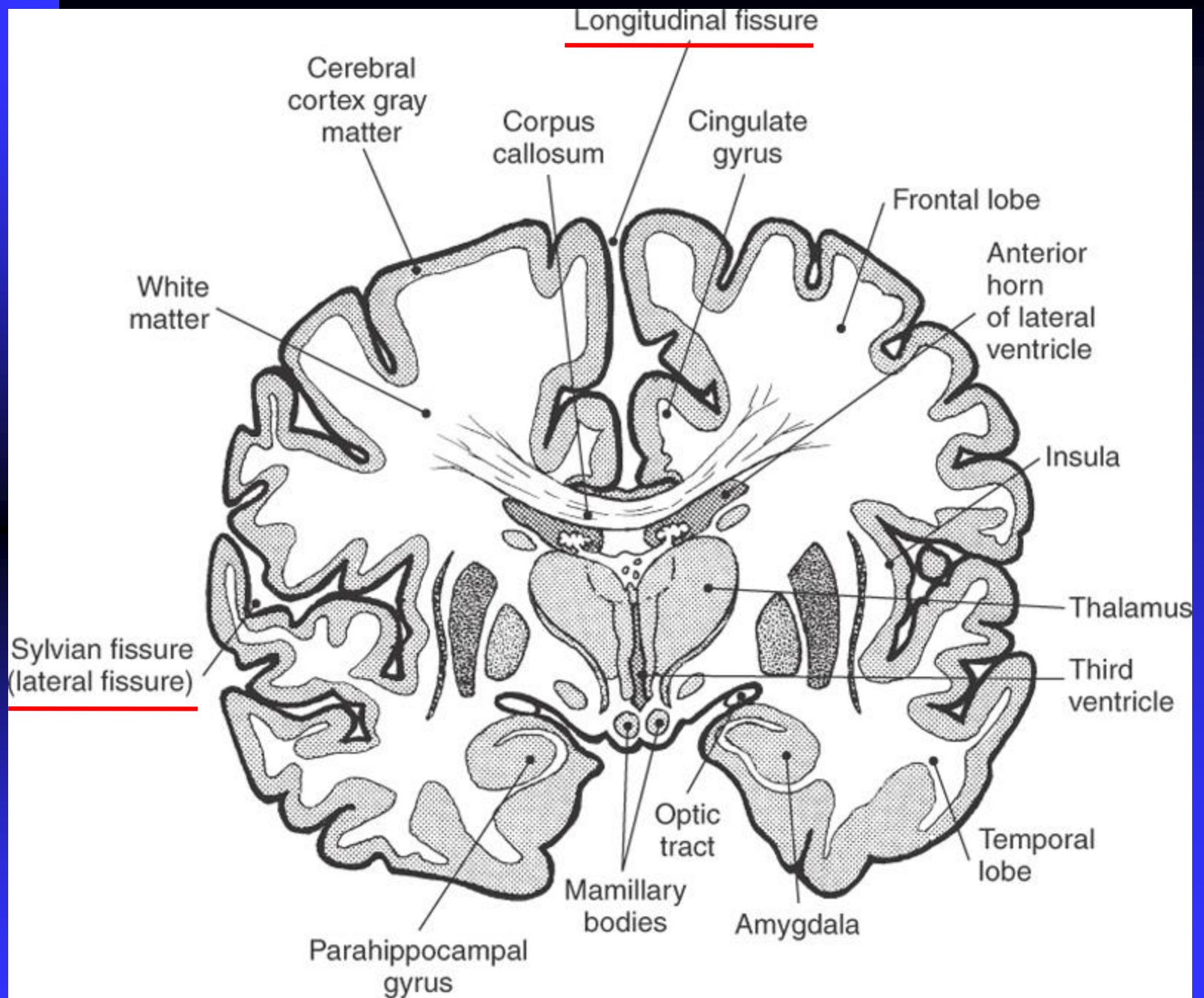
Fissure and Sulcus



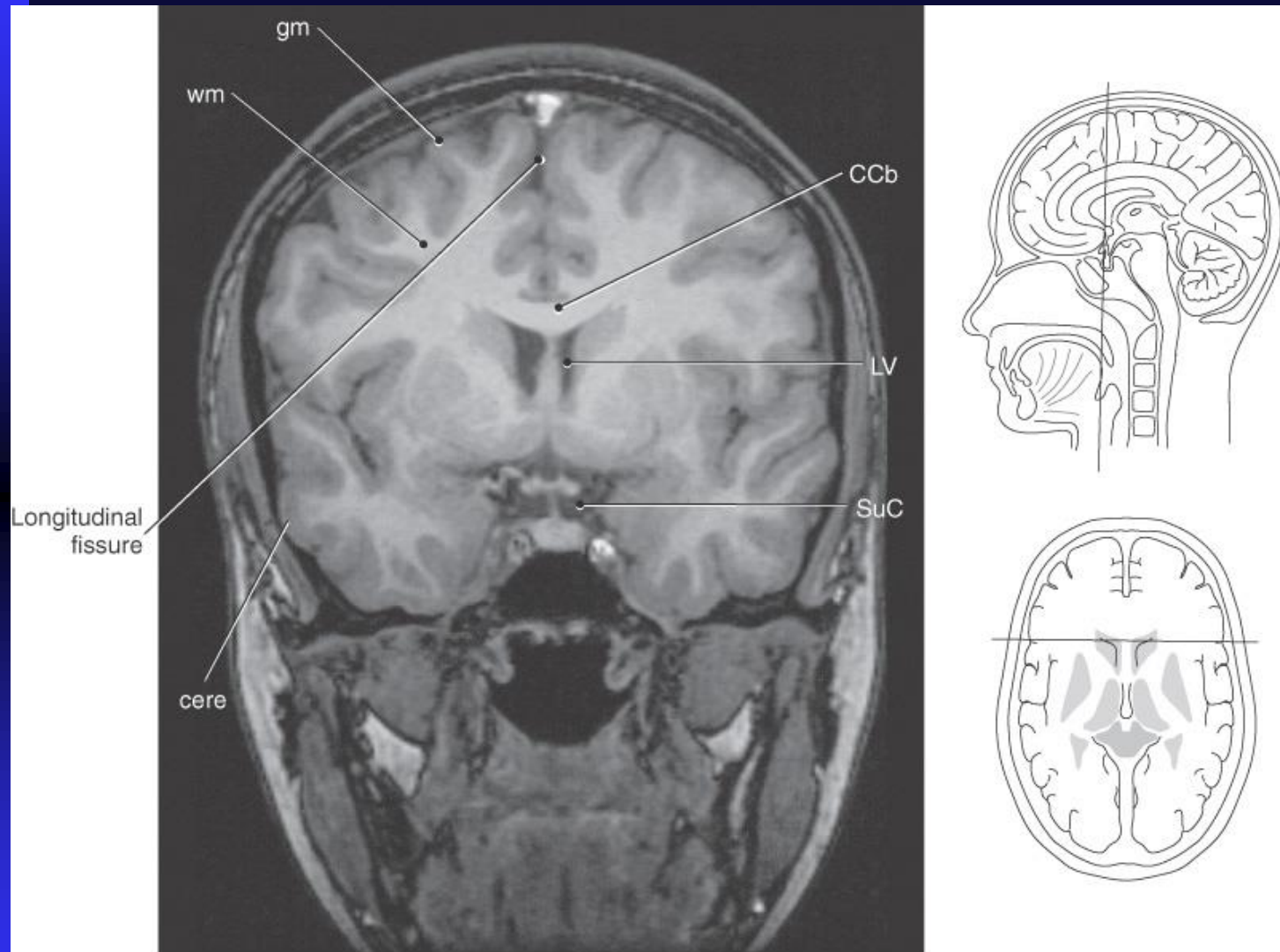
MRI of Central and Lateral Sulci



KEY: **Pre**, Precentral gyrus; **Cen**, central sulcus; **Pos**, postcentral gyrus; **PL**, parietal lobe; **OL**, occipital lobe; **TL**, temporal lobe; **Syl**, Sylvian fissure; **FL**, frontal lobe.



Fissures in MRI



KEY: wm, white matter; gm, gray matter; CCb, corpus callosum, body; LV, lateral ventricle; SuC, suprasellar cistern.

GRAY AND WHITE MATER

- Gray On Surface
- White Inside
- Gray Matter: Neuron Cells
- White Matter: Myelinated Axons

CEREBRAL CORTEX

- Gray Matter
- Receives Sensory Input
- Gives Instructions To Muscles.

White mater

- **Forms Transmission Pathways between Hemispheres**
- **Corpus Callosum**
 - ◆ **Largest and Most Dense Bundle of white mater**
- **Connects Left And Right Cerebrum**
- **Forms Roof Of Lateral Ventricles**
- **Visible on MRI as Bright area Midline**

WHITE MATTER FIBER

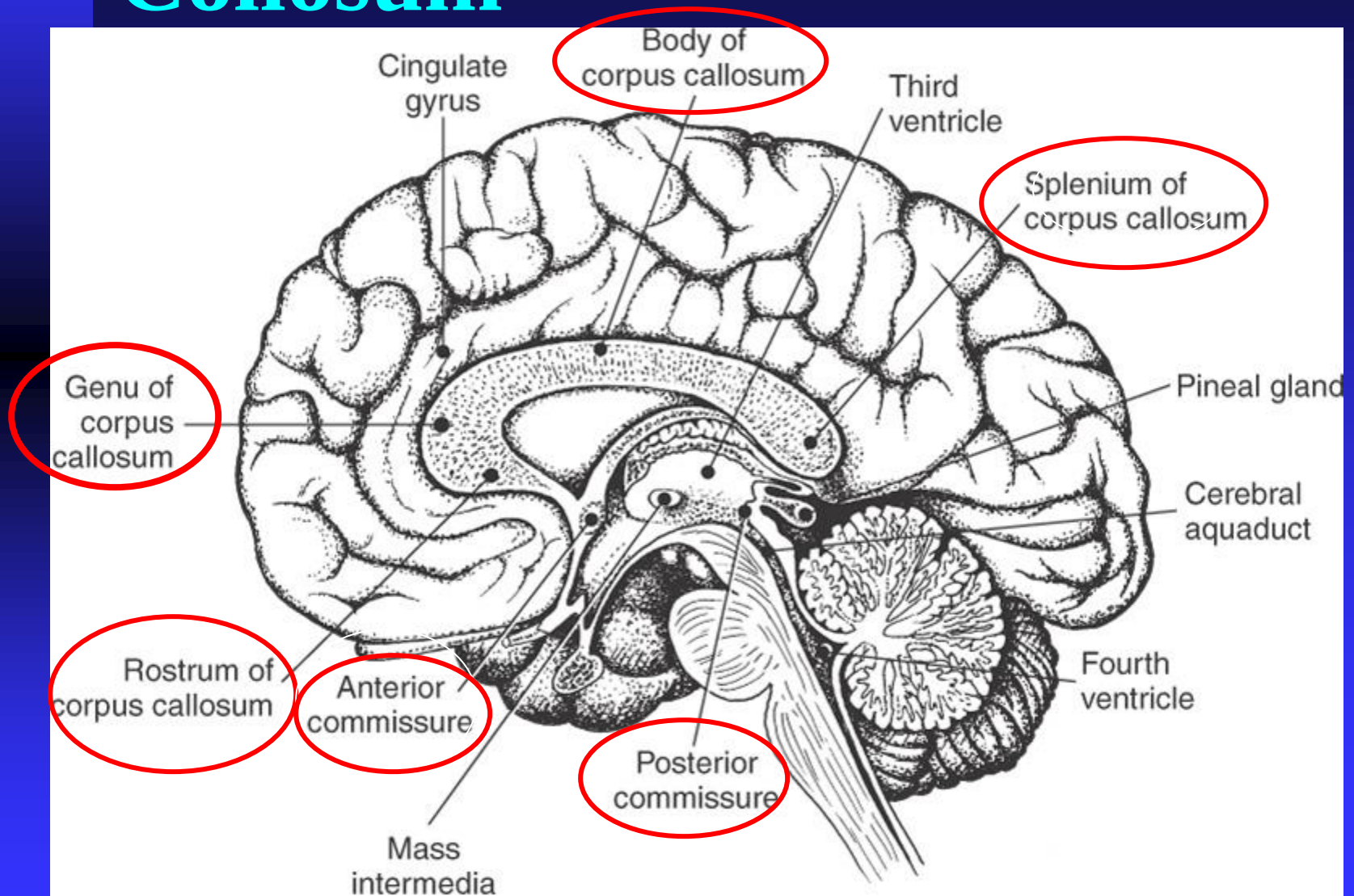
■ Anterior Commissure

- ◆ Connects The Temporal Lobe
- ◆ Anterior to 3rd ventricle

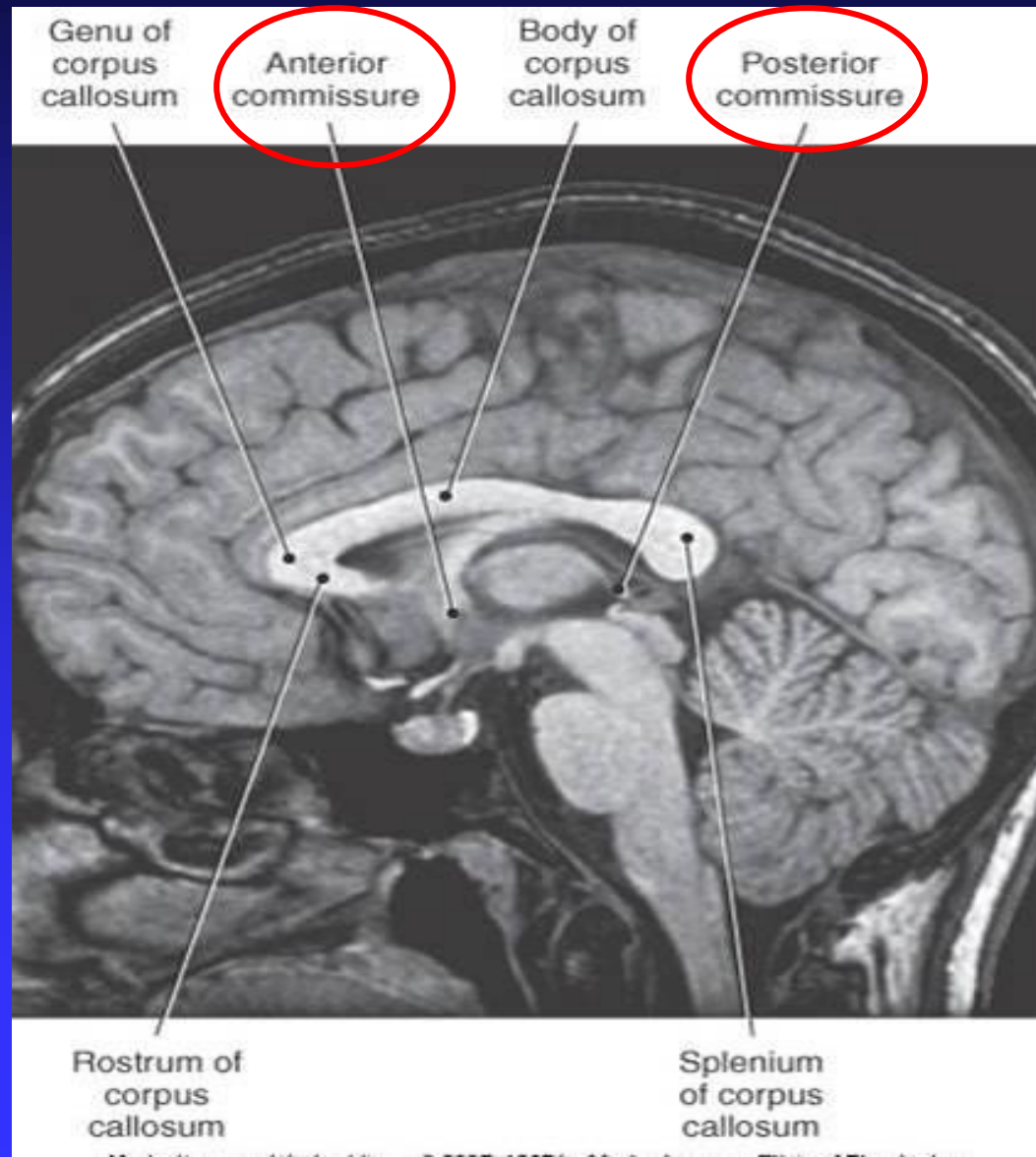
■ Posterior Commissure

- ◆ Posterior to 3rd Ventricle
- ◆ For Pupillary Light Reflexes

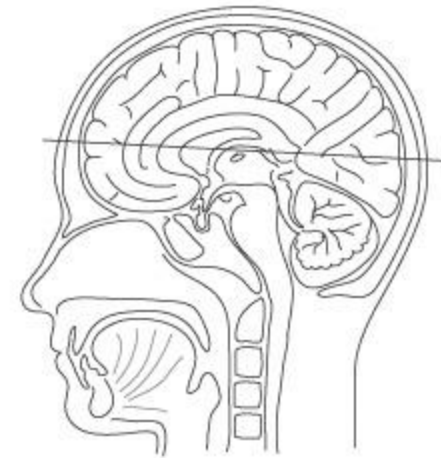
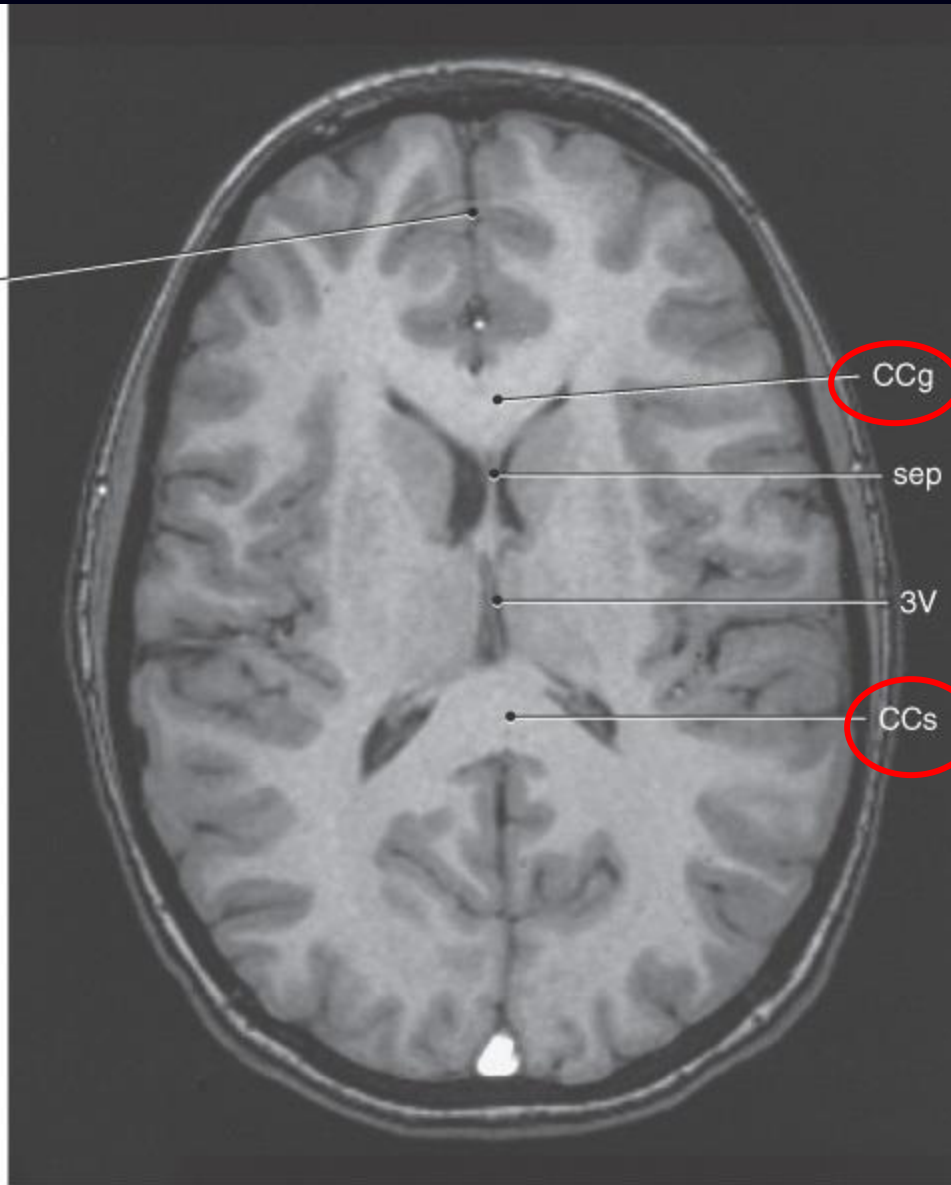
Cerebral Cortex and Corpus Collosum



Corpus Callosum & Commissures



Longitudinal
fissure



KEY: **CCg**, Corpus callosum, genu; **sep**, septum pellucidum; **3V**, third ventricle; **CCs**, corpus callosum, splenium.

CEREBRAL LOBES

■ Frontal

- ◆ Personality and Judgement
- ◆ Broca's area for speech

■ Parietal

- ◆ Touch, temperature, taste, and pain

■ Temporal

- ◆ Hearing

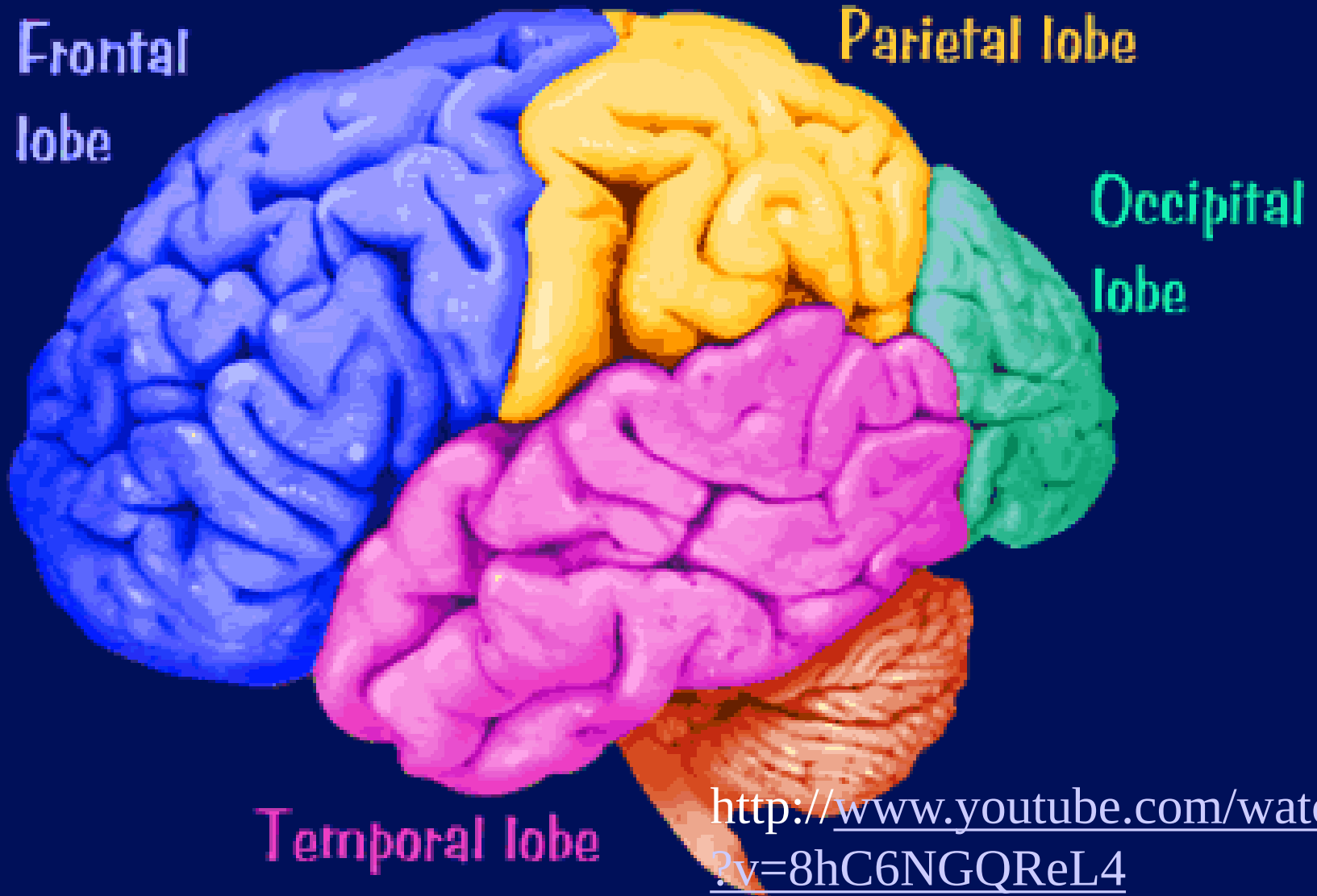
■ Occipital

- ◆ Vision

■ Insula or Island of Reil

- ◆ Hidden lobe for motor and sensory of viscera

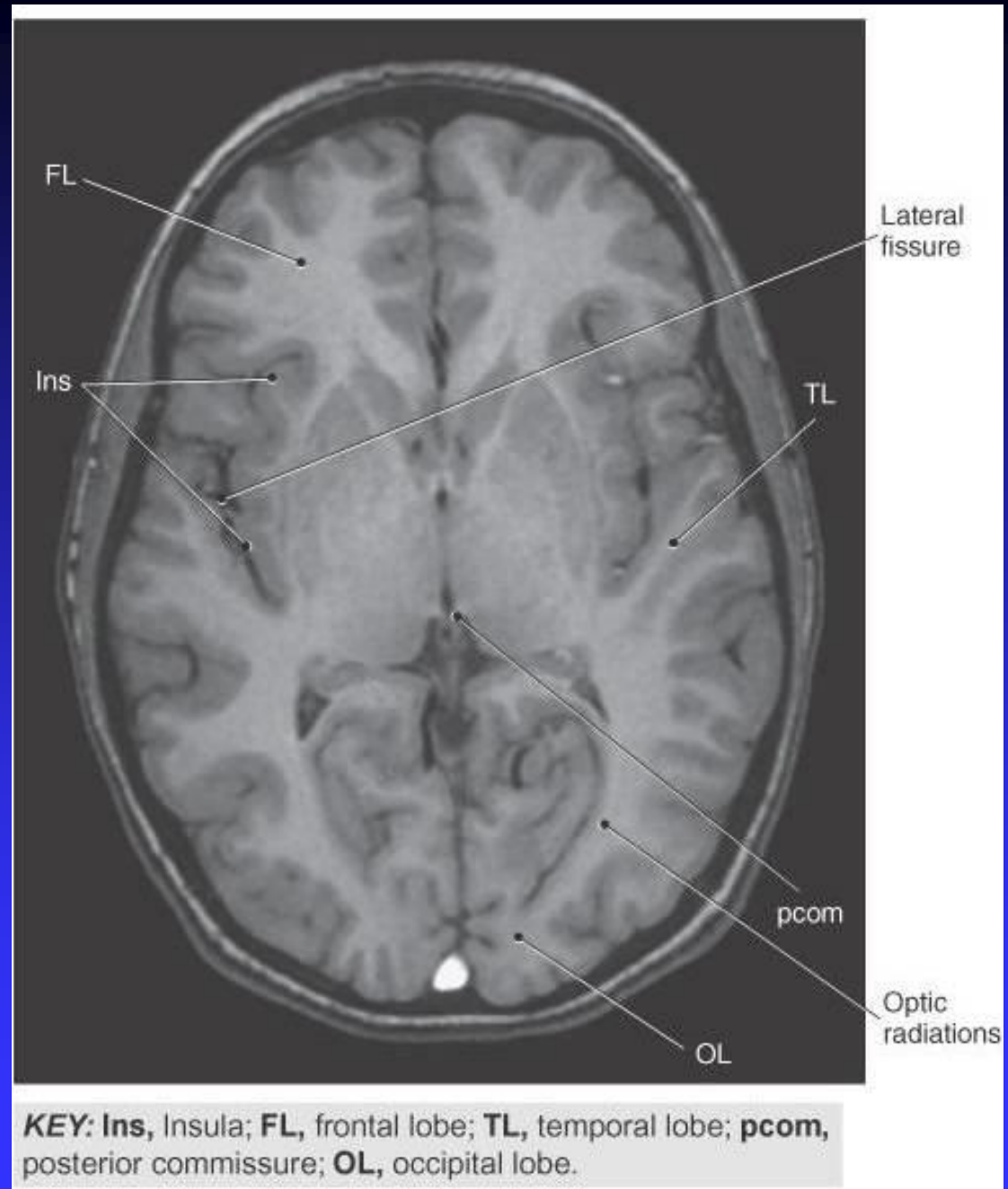
Lobes of Brain



<http://www.youtube.com/watch?v=8hC6NGQReL4>

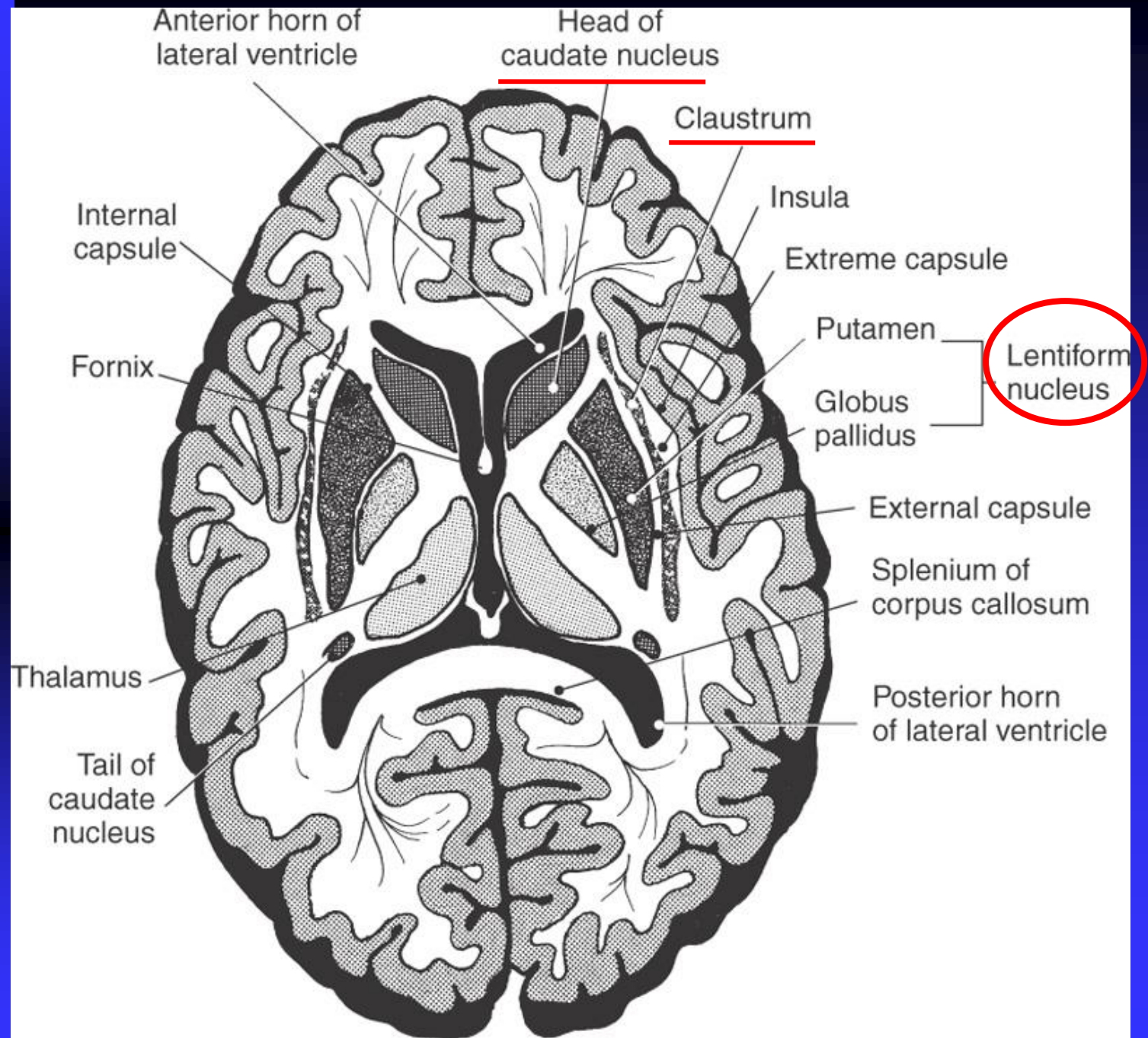
Lobes & Fissures

- Frontal
 - Temporal
 - Occipital
 - Insula
-
- Lateral Fissure
 - Longitudinal Fissure

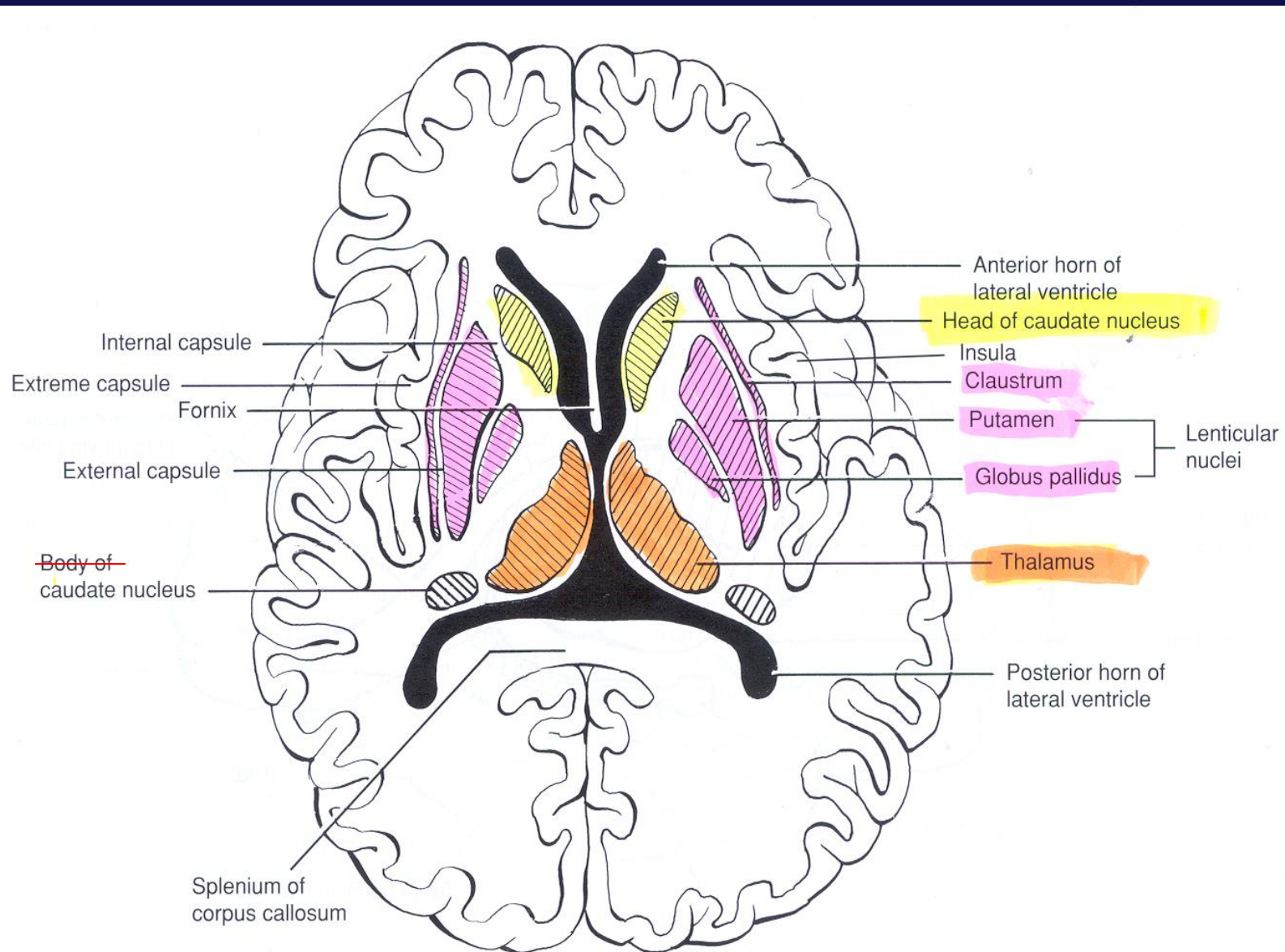


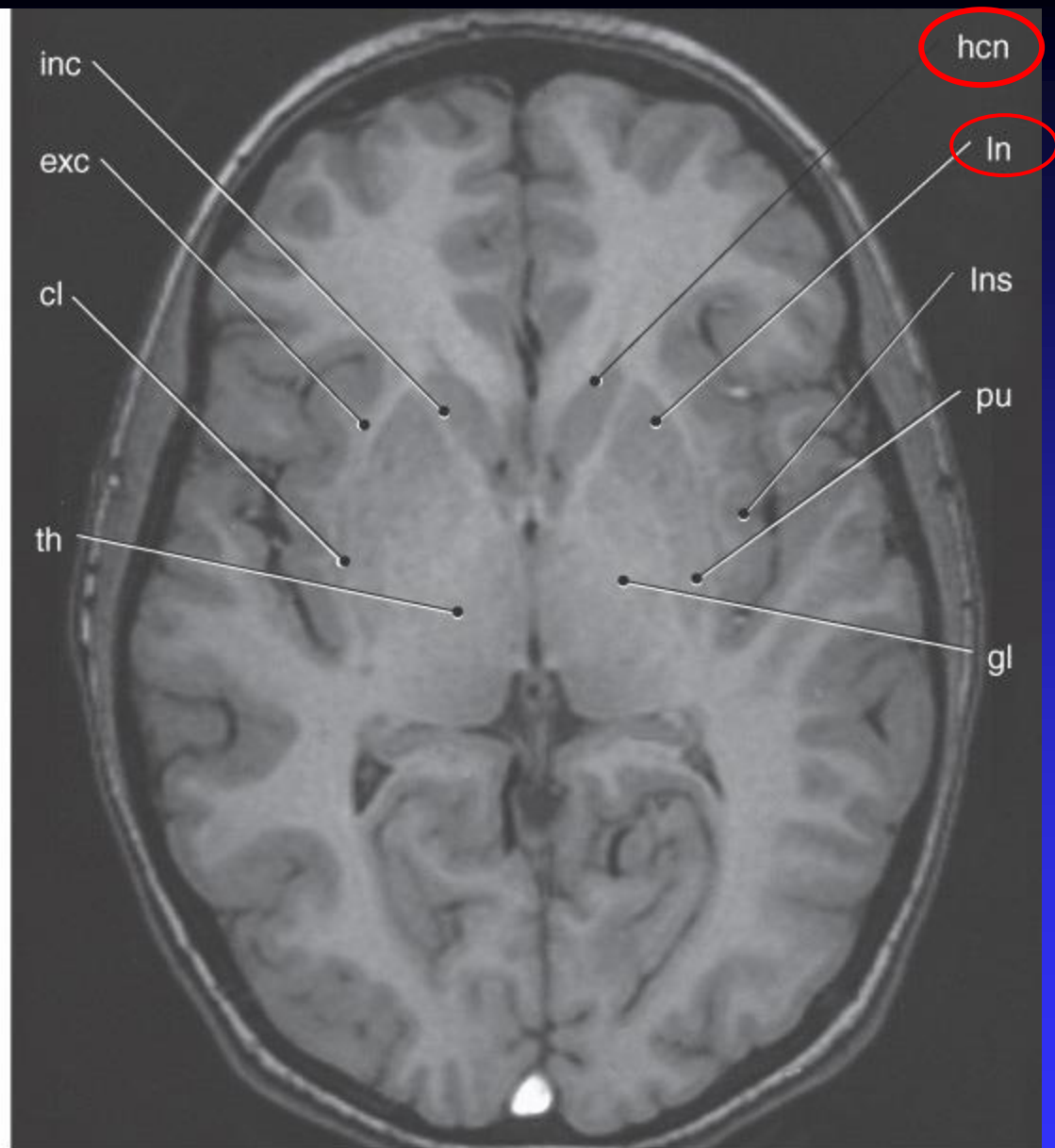
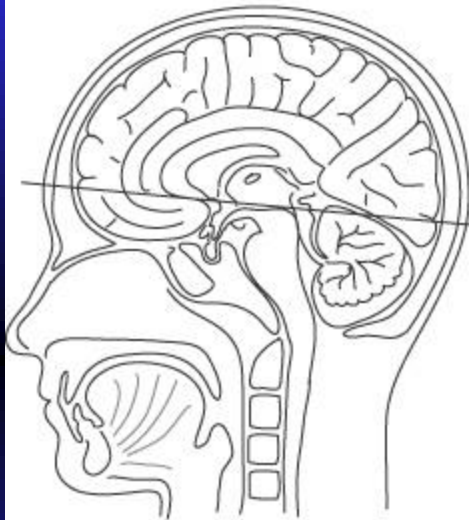
BASAL NUCLEI OR GANGLIA

- Gray Matter Deep With In The White Matter
- Plans and Programs Muscular Movement
- **Caudate Nucleus**
 - ◆ Parallel To Lateral Ventricles
 - ◆ Head of Caudate Indents Frontal Horns Of Lateral Ventricles
- Lentiform Nucleus
 - ◆ Putamen
 - ◆ Globus Pallidus
- **Clastrum**
 - ◆ Thin Outer Most Layer



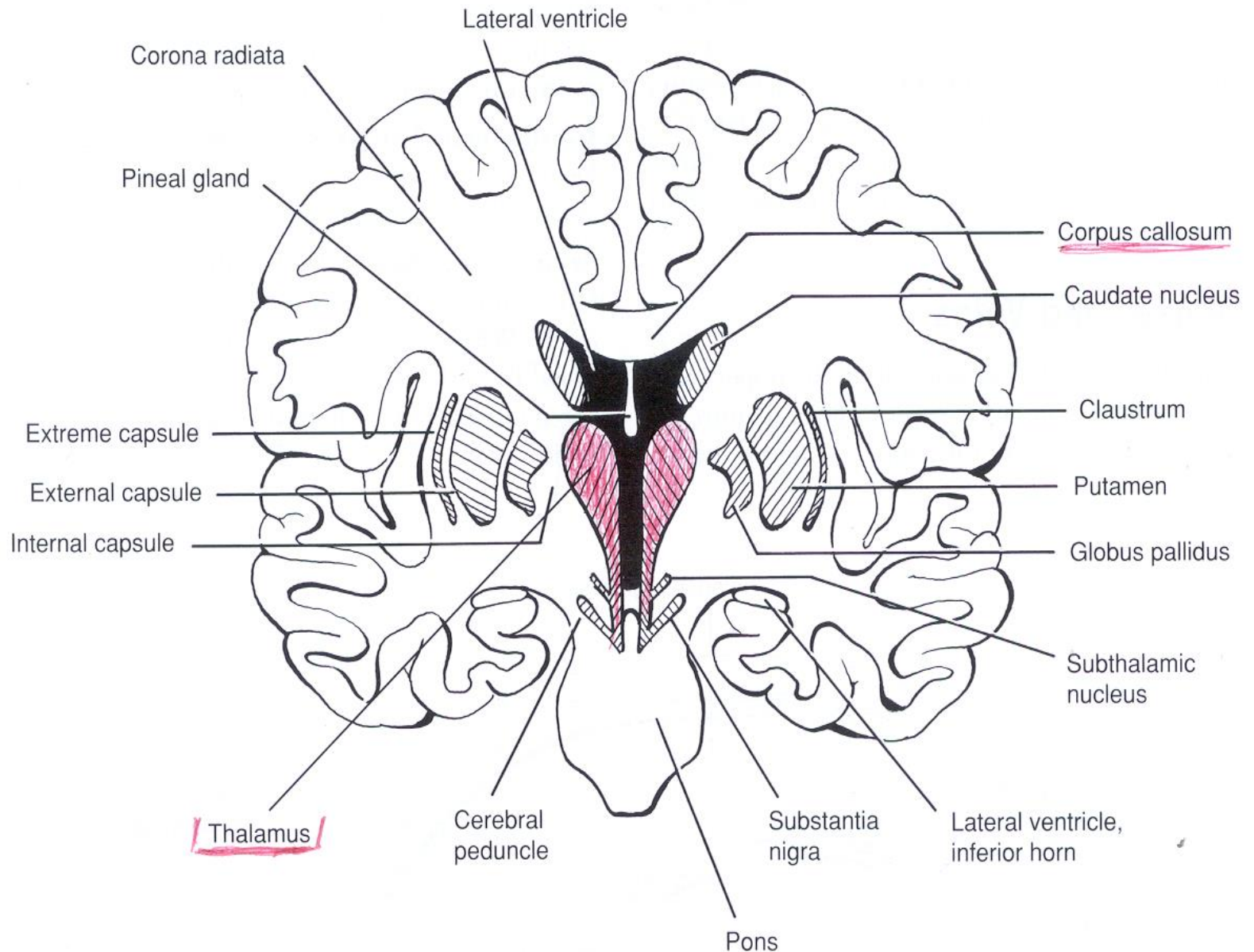
Corpus Callosum & Basal Ganglia



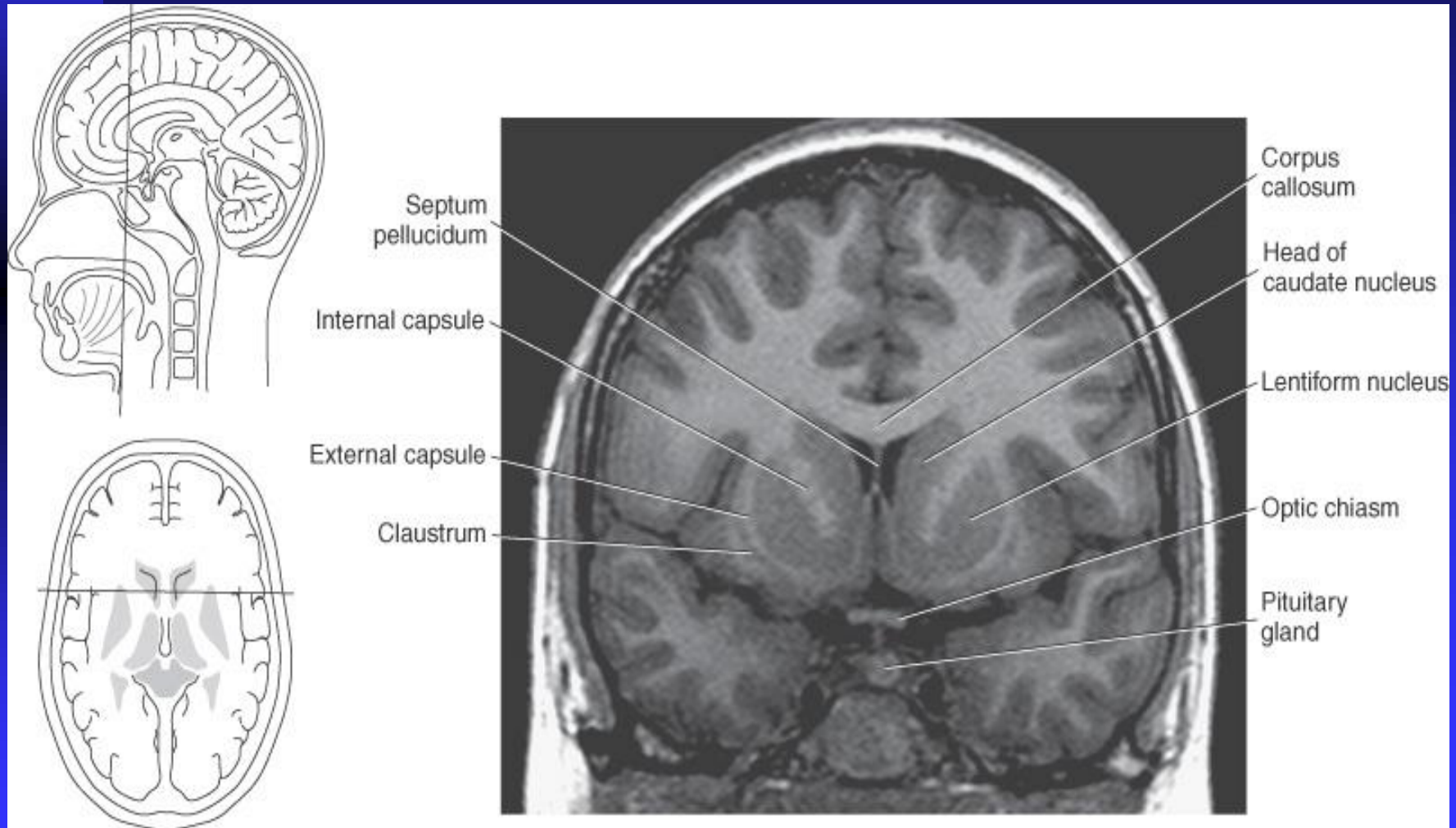


KEY: **inc**, Internal capsule; **exc**, external capsule; **cl**, claustrum; **th**, thalamus; **hcn**, head of caudate nucleus; **In**, lentiform nucleus; **Ins**, insula; **pu**, putamen; **gl**, globus pallidus.

Coronal View of Brain



Corpus Callosum & Caudate Nucleus & Lentiform Nucleus



Diencephalon

■ Three Parts

- ◆ Thalamus
- ◆ Hypothalamus
- ◆ Epithalamus

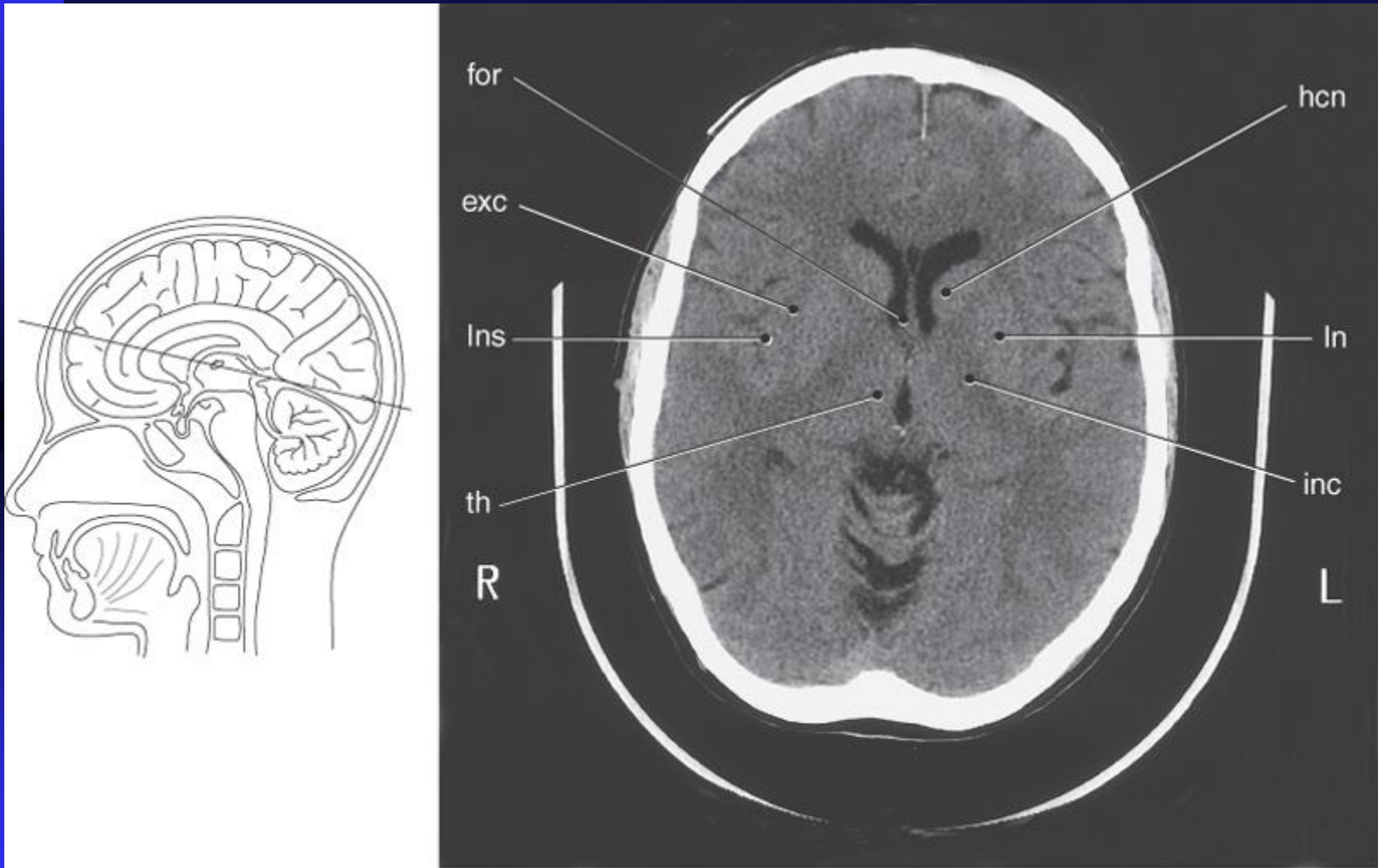
THALAMUS

- **Big Oval Mass Of Gray Matter**
- **Forms Part Of The Wall Of The Third Ventricle**
- **Mass Intermedia –connective tissue through the third ventricle**
- **Relay Station For All Sensory Stimuli Except Olfactory**

Hypothalamus

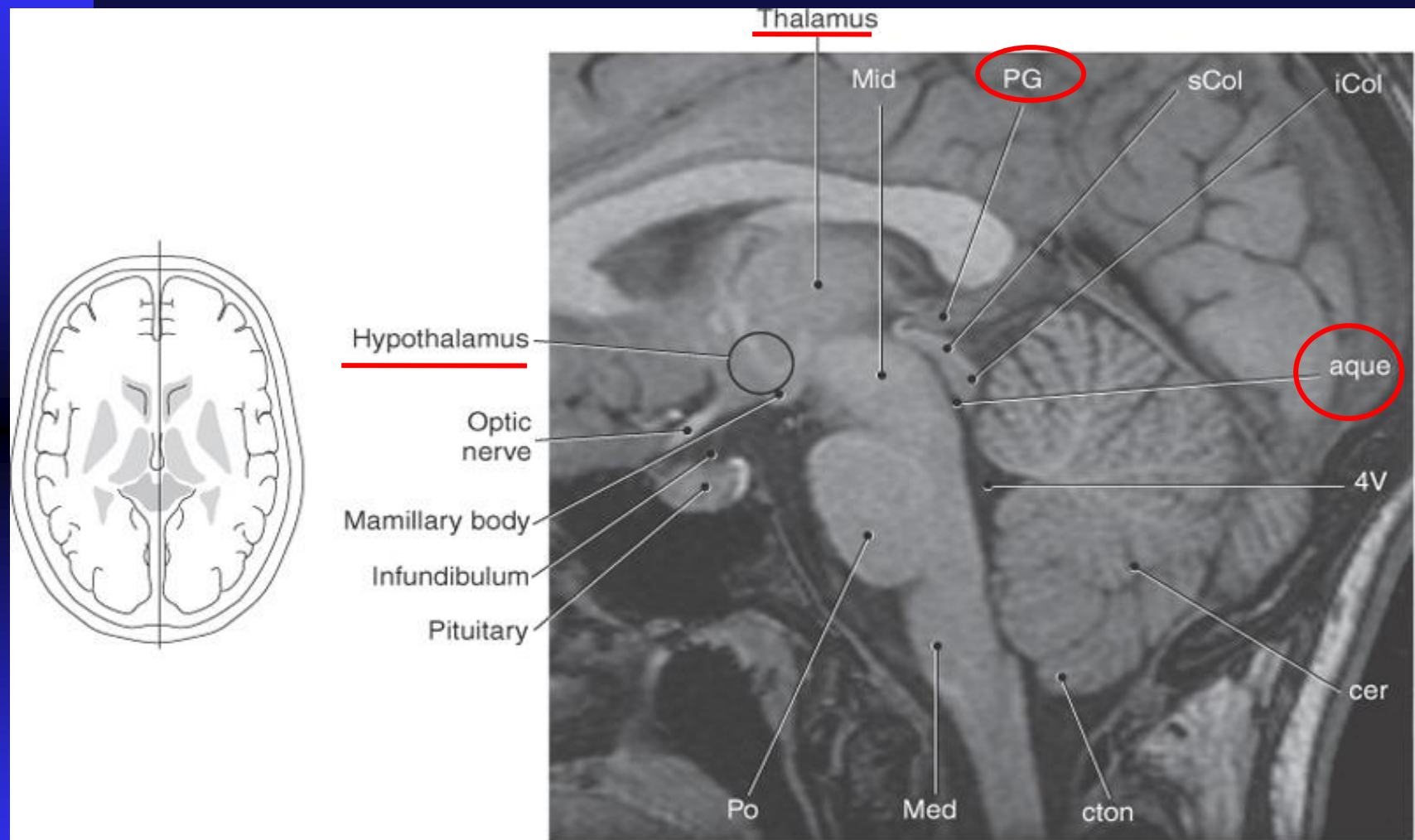
- **Forms floor of third ventricle**
- **Includes**
 - ◆ **Optic chiasm**
 - ◆ **Infundibulum**
 - ◆ **Pituitary Gland**
- **Activities**
 - ◆ **Maintains homeostasis with control of temp, appetite, sex drive and sleep patterns**

Thalamus



KEY: for, Fornix; exc, external capsule; Ins, insula; th, thalamus; hcn, head of caudate nucleus; In, lentiform nucleus; inc, internal capsule.

Thalamus and Hypothalamus



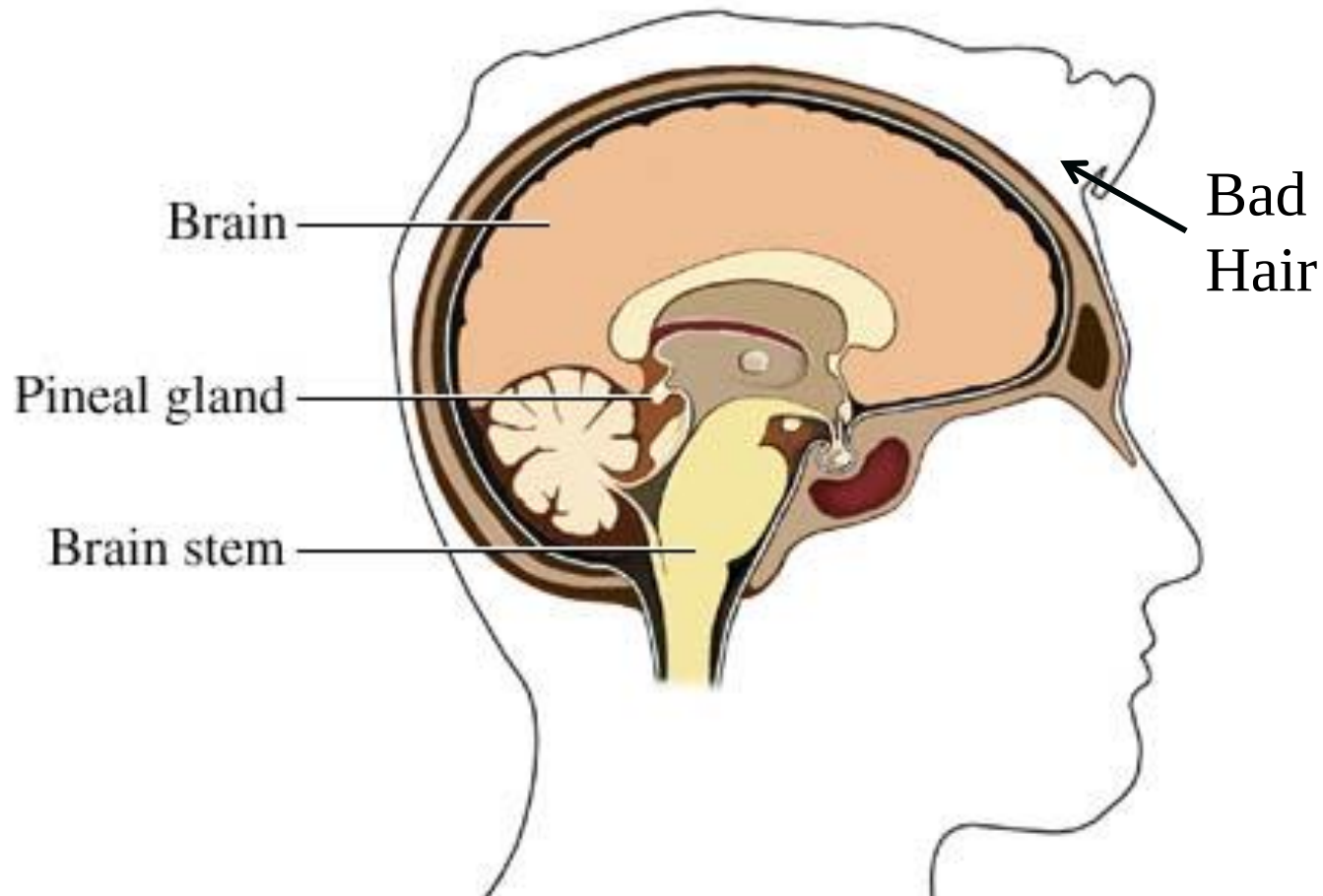
KEY: Mid, Midbrain; PG, pineal gland; sCol, superior colliculi; iCol, inferior colliculi; aque, cerebral aqueduct; 4V, fourth ventricle; cer, cerebellum; cton, cerebellar tonsils; Med, medulla oblongata; Po, pons.

Epithalamus

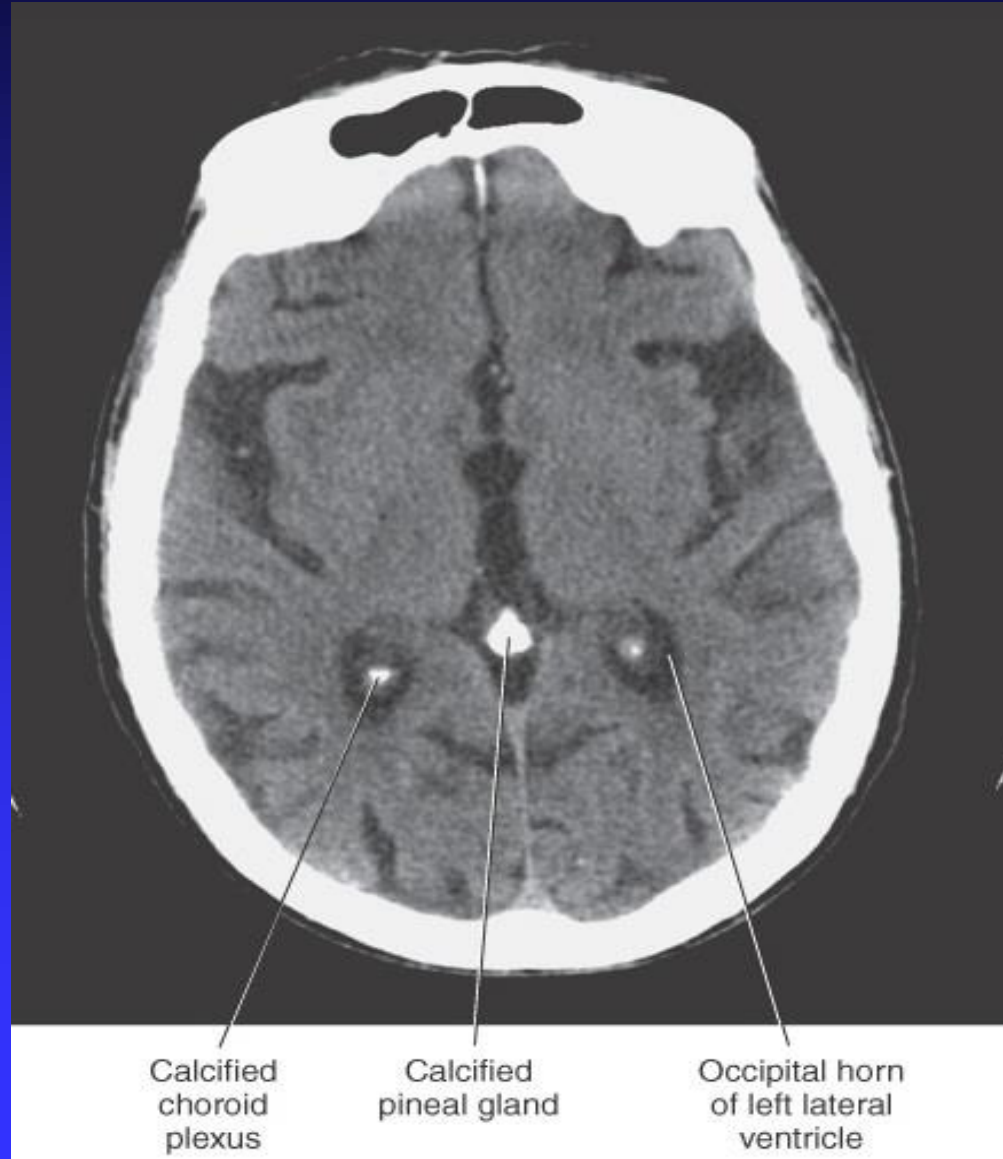
■ Pineal Gland

- ◆ Posterior to third ventricle
- ◆ Often calcifies
- ◆ Surrounded by superior cistern
- ◆ Endocrine gland for melatonin

PINEAL GLAND



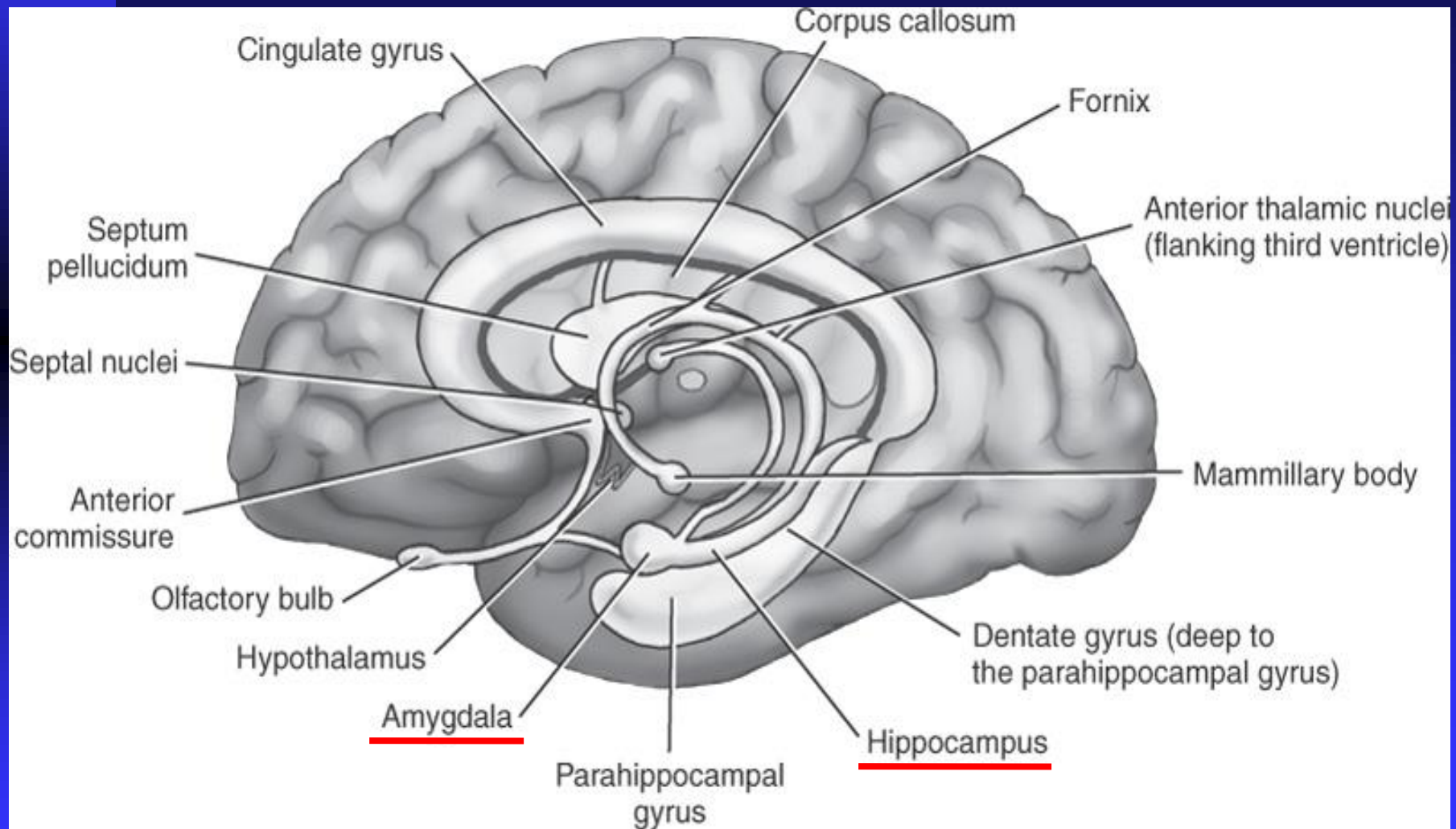
Calcified Pineal Gland



LIMBIC SYSTEM

- Fiber Tract on Medial Surface of Temporal Lobes
- Deals With Behavior
 - ◆ **Hippocampus**
 - ◆ Short term memory to long term
 - ◆ **Amygdala**
 - ◆ Olfactory reflexes and aggressive sexual behavior
 - ◆ Fornix
 - ◆ Olfactory Bulb
 - ◆ Mammillary Bodies

LIMBIC SYSTEM



Parahippocampal Gyrus

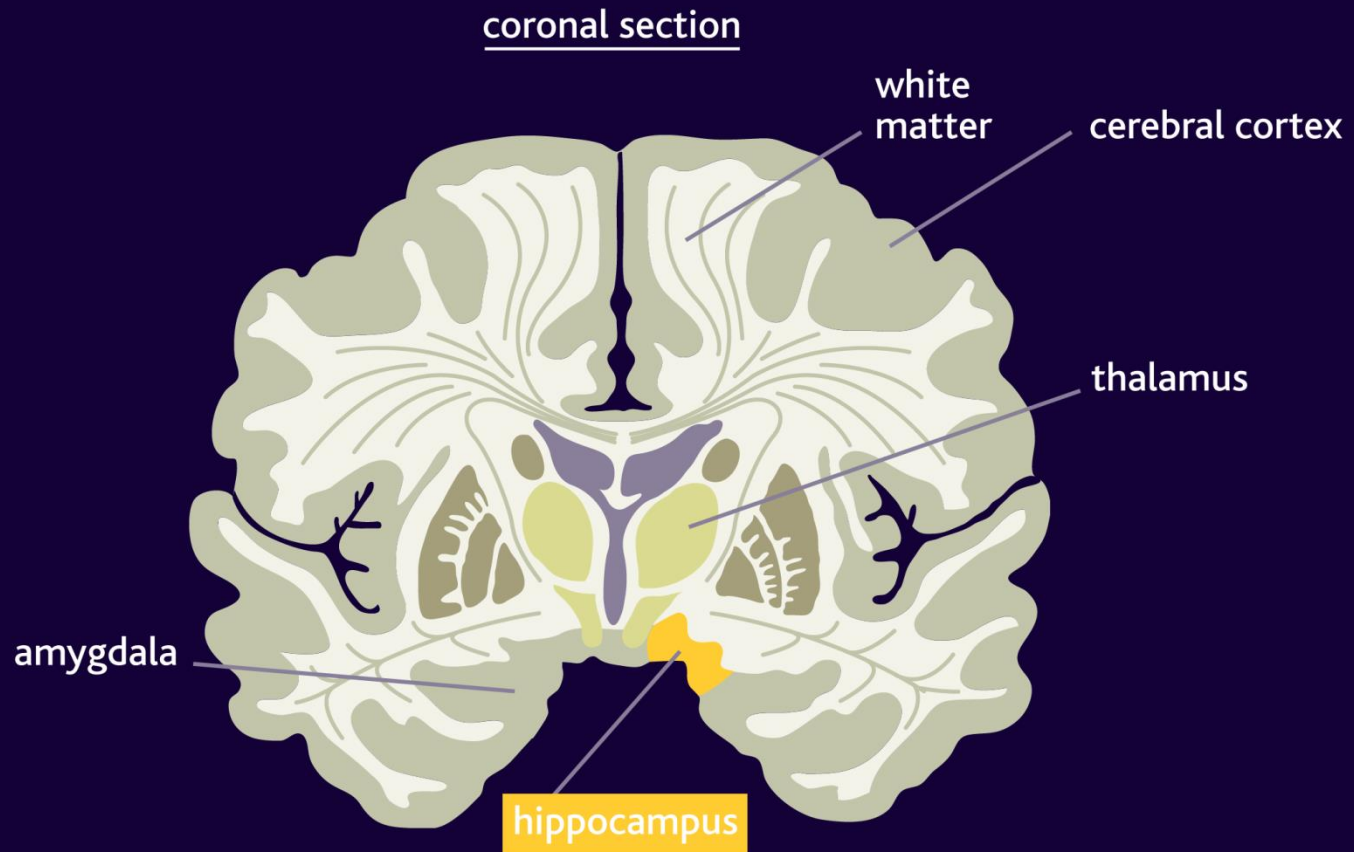
- Medial inrolled border of the Temporal Lobe
- In Coronal Plane it is Seahorse shaped
- Contains
 - ◆ Hippocampus
 - ◆ Amygdala

Amygdala and Hippocampus



KEY: Amy, Amygdala; OpT, optic tract; Hip, hippocampus; mb, mamillary body.

Gray and White Matter



BRAIN STEM

■ Consists of :

- ◆ Mid Brain

- ◆ Pons

- ◆ Medulla Oblongata

- ◆ Tegmentum

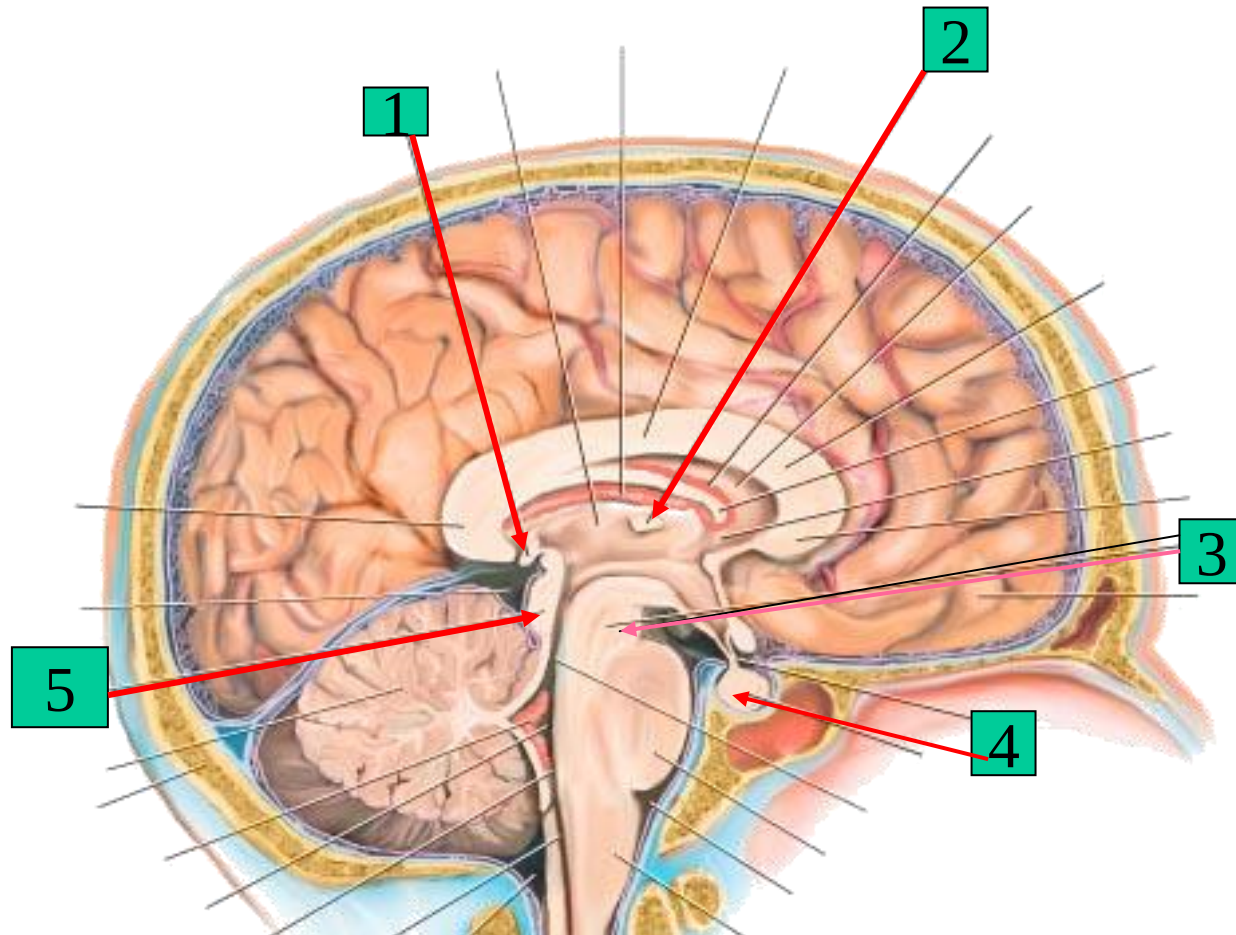
- ◆ Located in Central Portion of Brain Stem and Common to all 3 parts

- ◆ Basic functions of respiration, cardiovascular activity consciousness and complex motor activity

MIDBRAIN

- Above The Pon
 - Many Fiber Tracts
 - Has A Stalk – Peduncle
 - Has A Plate – Inferior And Superior
 - Colliculi- Quadrigeminal Plate
-
- Peduncle Has Dark Pigment – Substantia Nigra
 - Red Nucleus – Near Superior Colliculi, Relay Station

Thalamus and Midbrain

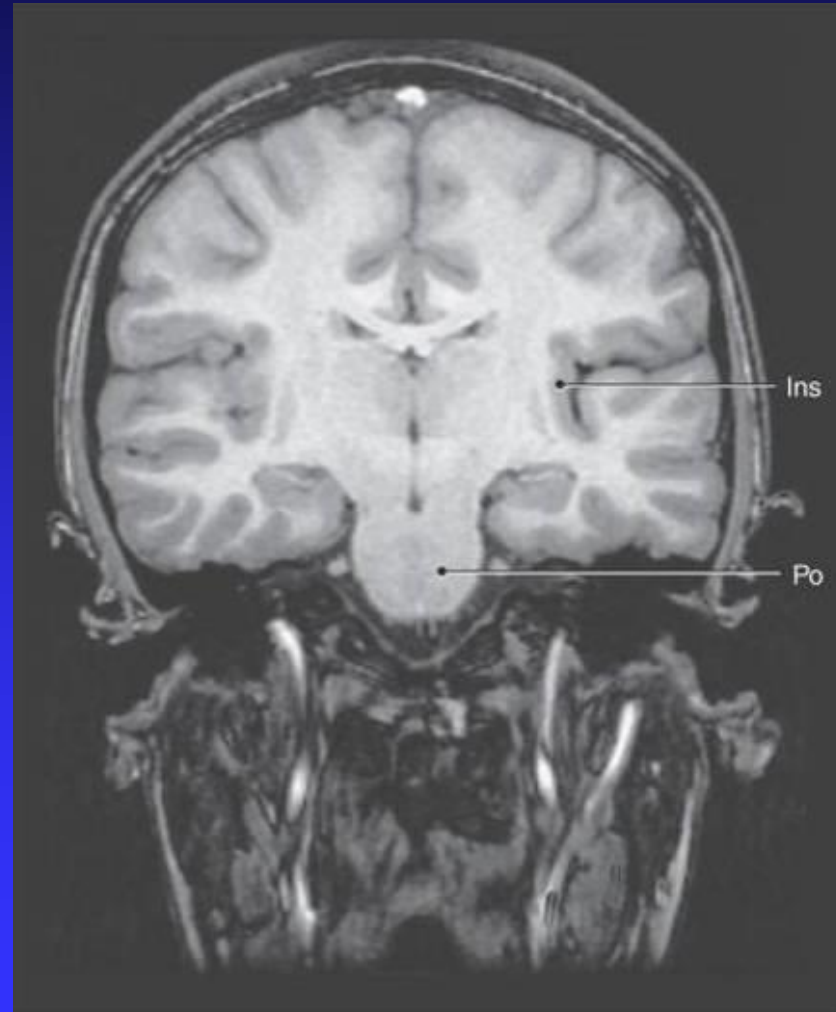
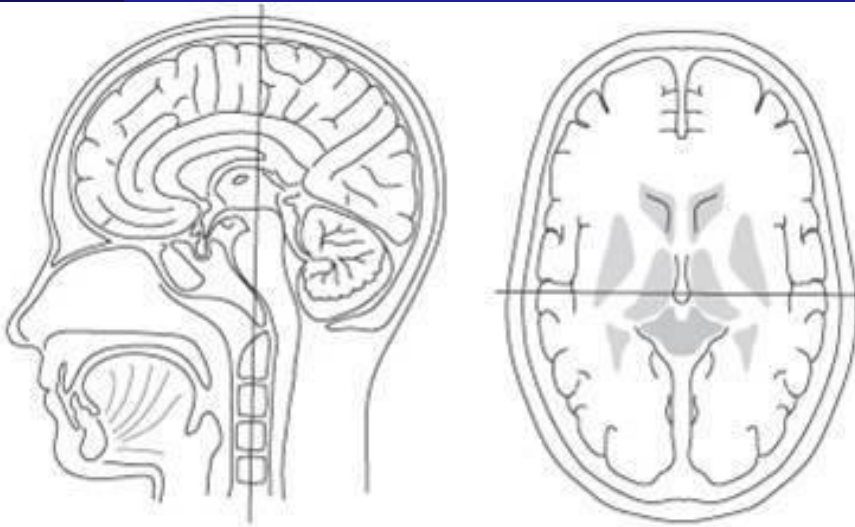


- | | |
|----------------------------------|------------------------|
| 1. Pineal Gland | 4. Pituitary Gland |
| 2. Intermediate Mass of Thalamus | 5. Quadrigeminal Plate |
| 3. Peduncles | |

PONS

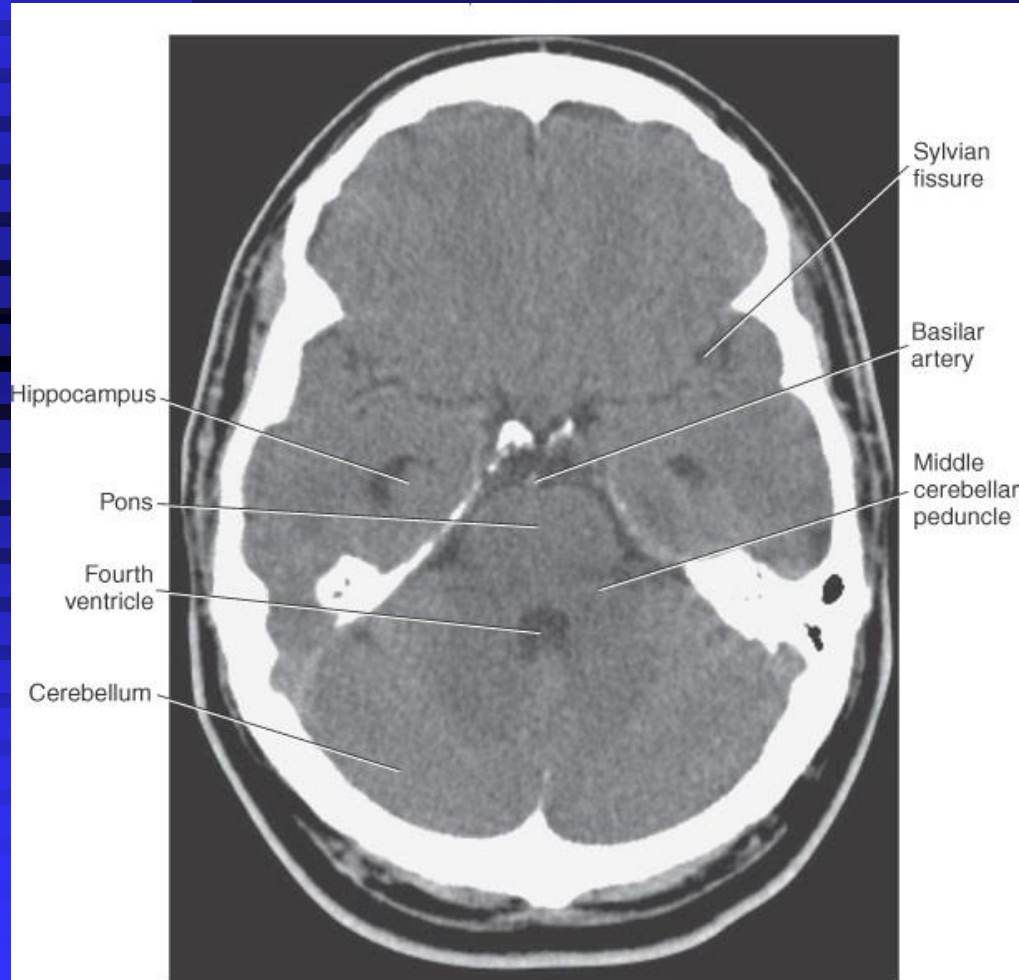
- Large Oval Shaped
- Projects Anteriorly
- Relays Signals Between Spinal Cord And Cerebral Cortices
- Pon Means Bridge

Brain Stem --Pons

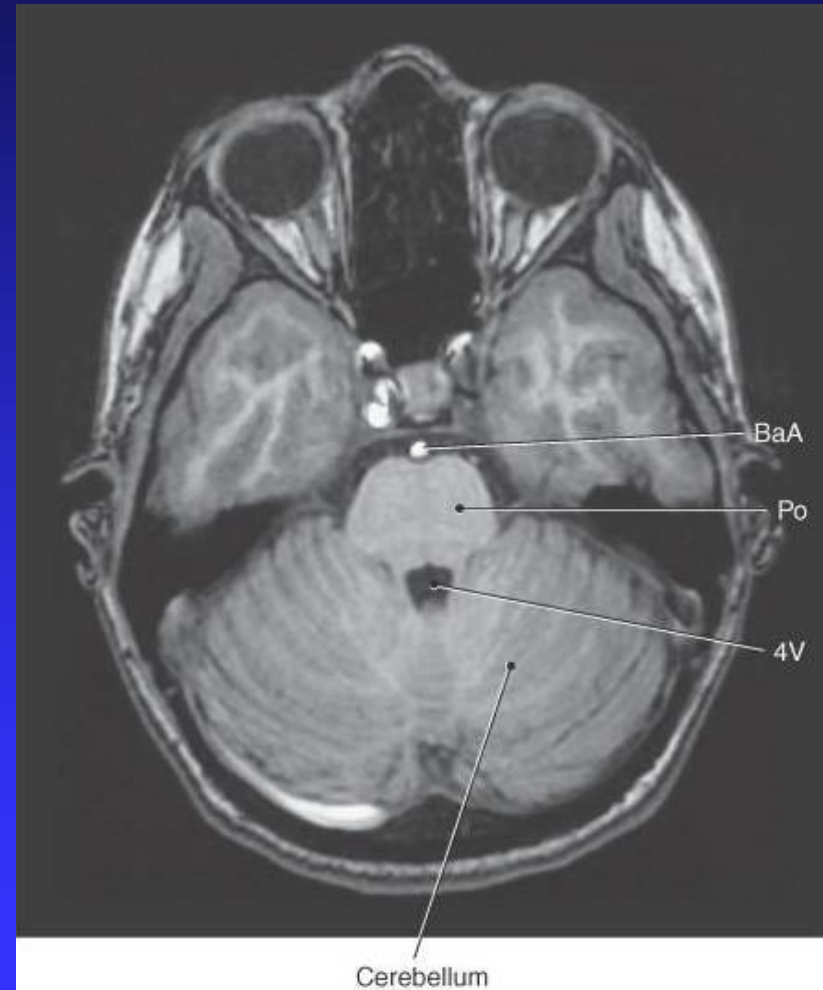


KEY: Ins, Insula; Po, pons.

Pons and 4th Ventricle



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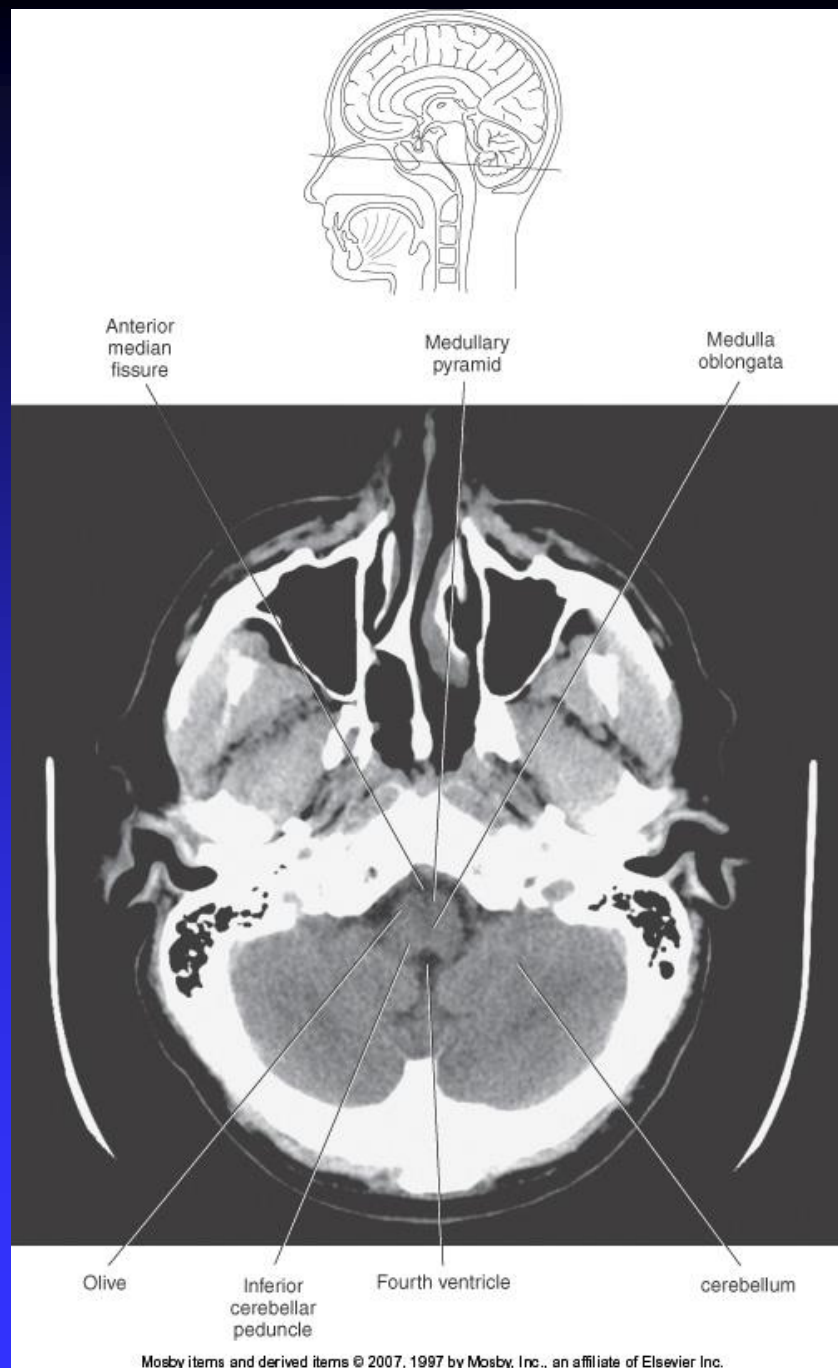
KEY: Po, pons; BaA, basilar artery; 4V, fourth ventricle.

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MEDULLA OBLANGATA

- **Extension Of Pons**
- **Has Fiber Tracts Between Brain And Spinal Cord**
- **Has Vital Center For Internal Activity Of Our Body**

MEDULLA OBLONGATA



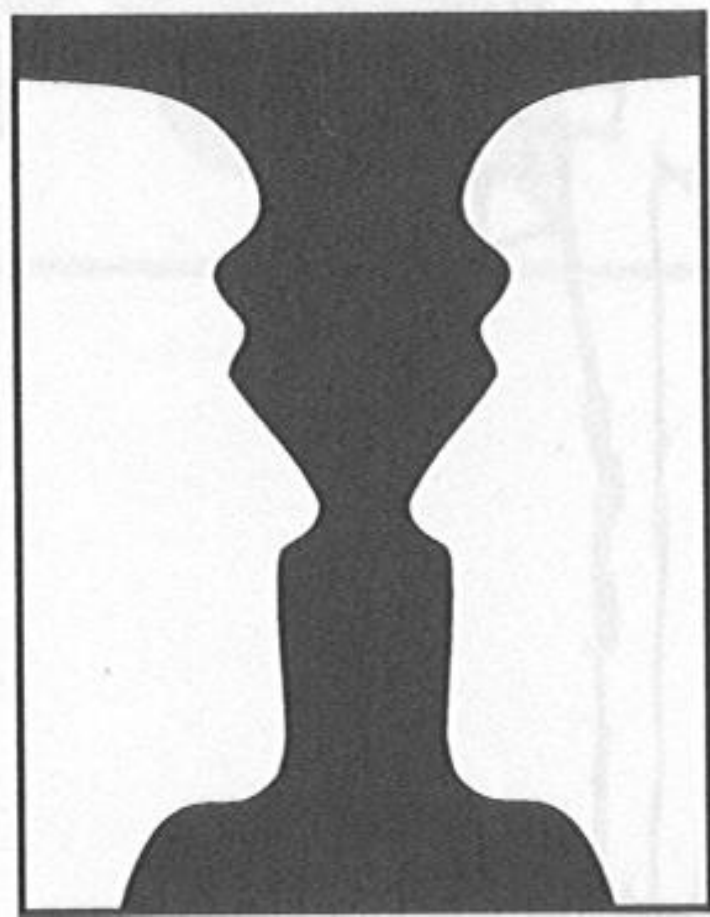
CEREBELLUM

- **Cauliflower Appearance**
- **Little Brain**
- **Vermis: Connects The Two Cerebellar Parts**
- **Tonsils: Inferior Part Of The Cerebellum**
- **Arnold-Chiari Malformation or tonsillar herniation**
 - ◆ **Brainstem and Cerebellum through the foramen magnum**

Cerebellum



KEY: Mid, Midbrain; ten, tentorium cerebelli; cer, cerebellum; 4V, fourth ventricle; cton, cerebellar tonsils.



I'd like to kiss you dear,
but this vase keeps getting
in the way.

Sagittal Plane MRI



Globe

Optic Nerve

**Super & Inferior
Rectus muscles**

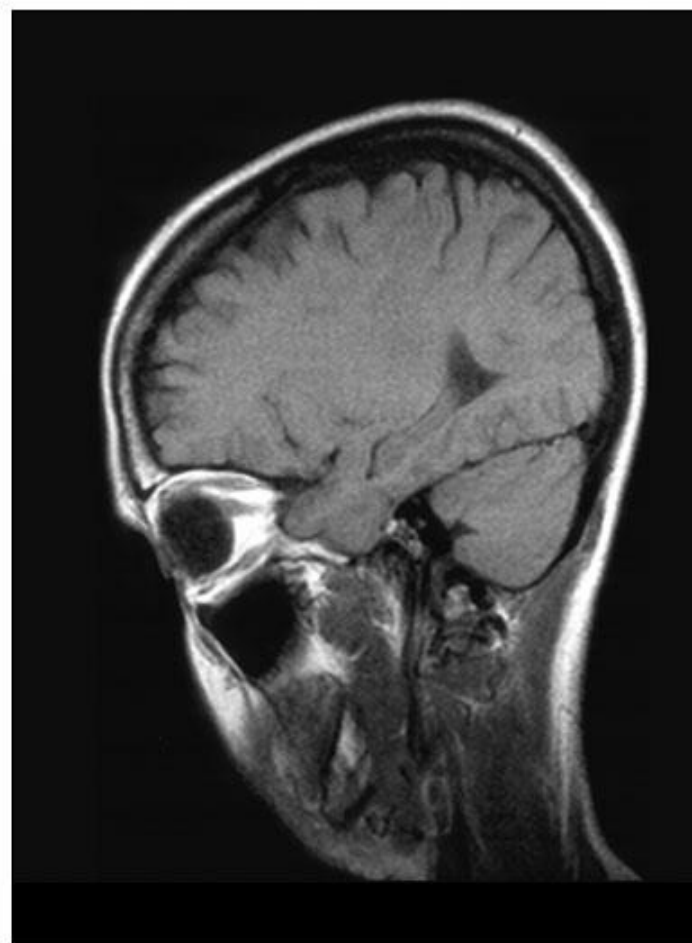
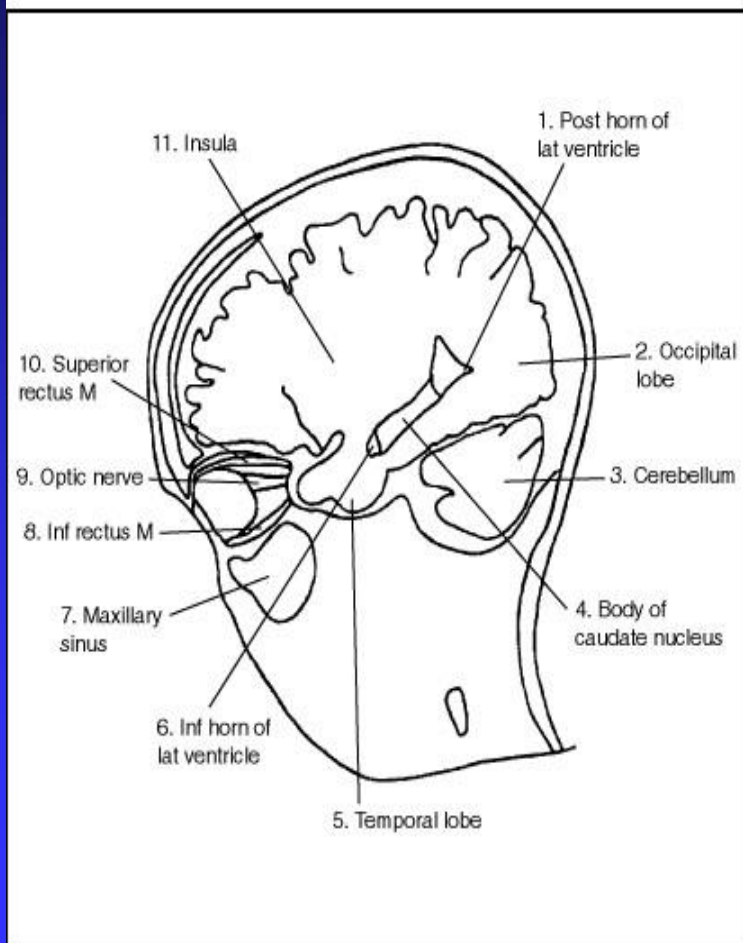
Ventricles:

Posterior Horn

Inferior Horn

Cerebellum

Figure 5-22



Slightly off Midline

- Frontal & Ethmoid Sinuses

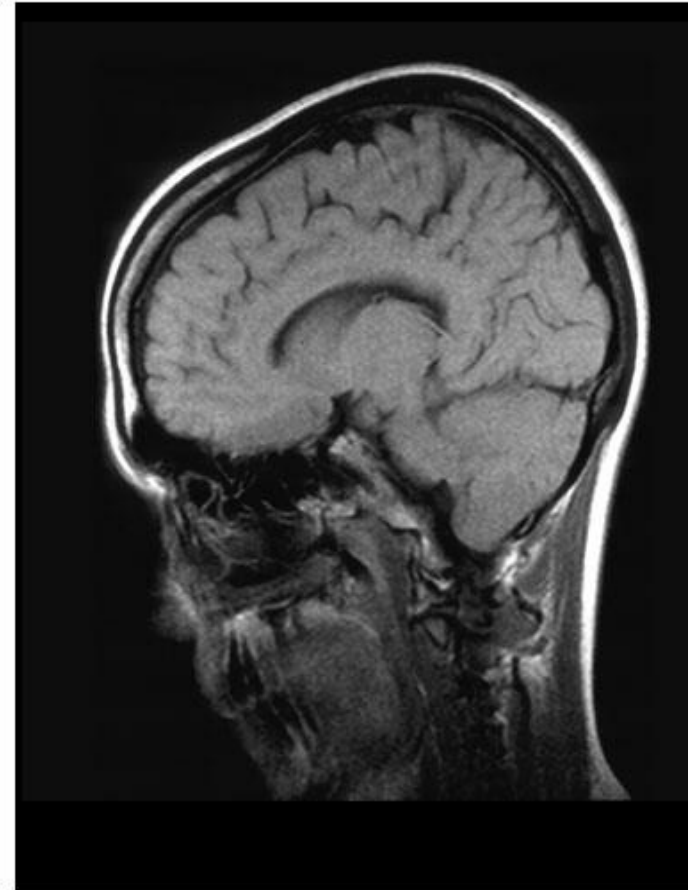
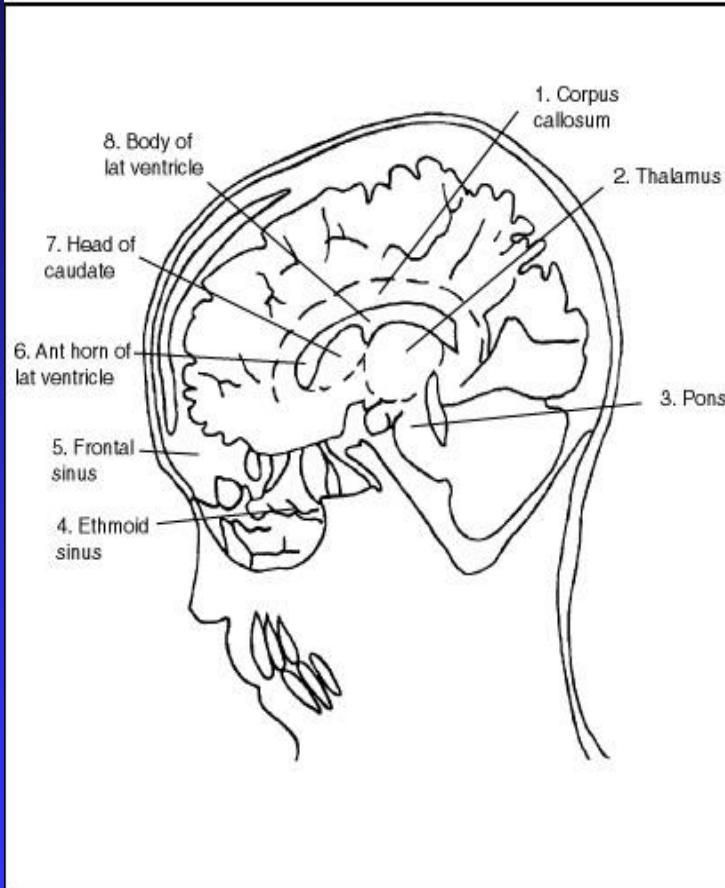
- Lateral Ventricle

- Corpus Callosum

- Head of Caudate Nucleus

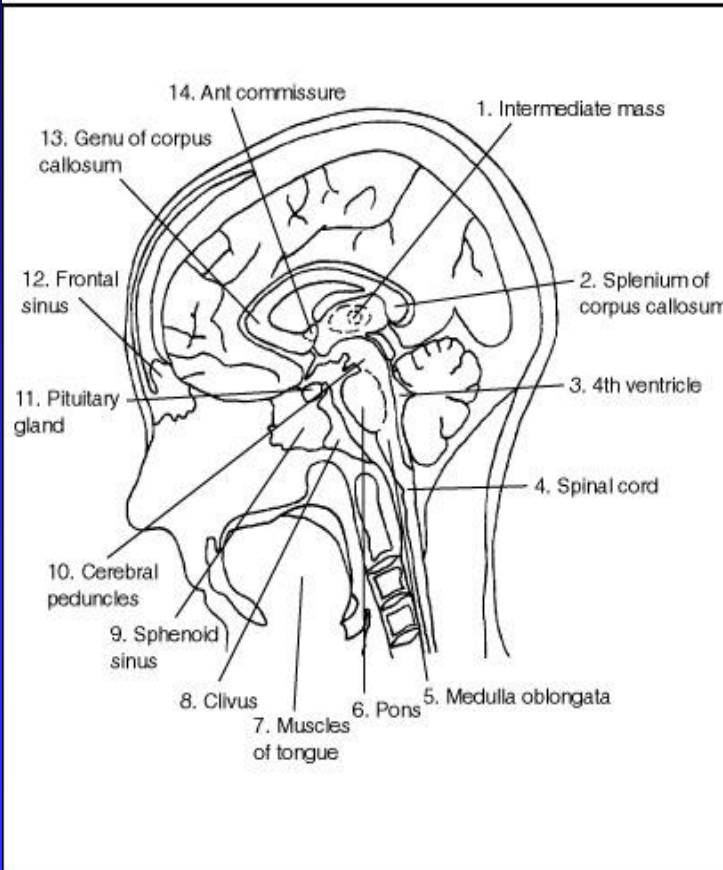
- Thalamus

Figure 5-24



- Corpus Callosum
- Pituitary Gland
- Sphenoid sinus
- Pons
- Medulla Oblongata
- 4th Ventricle

Figure 5-25

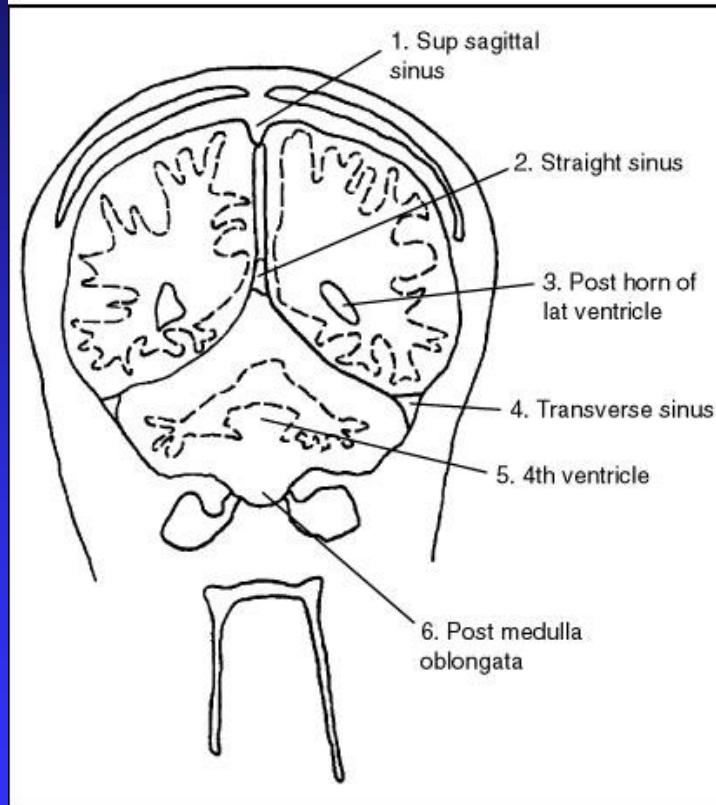


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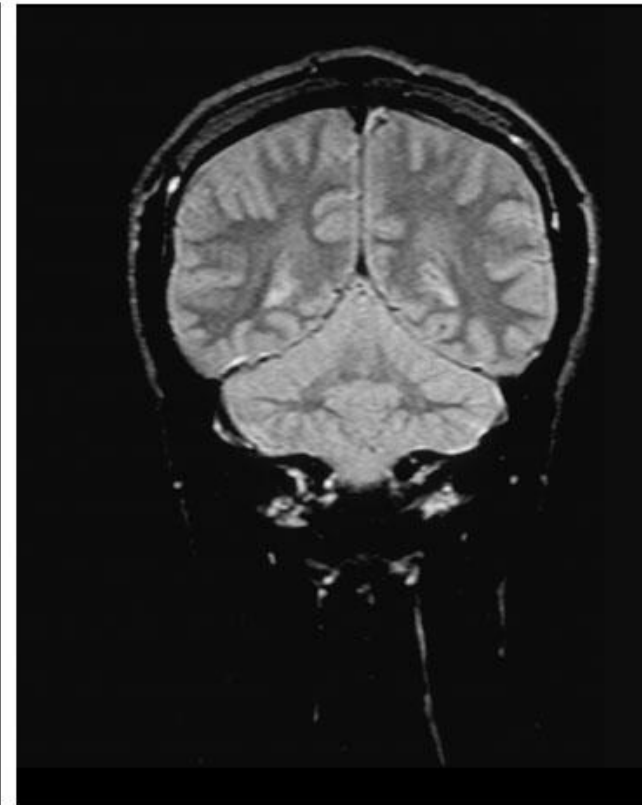


- Superior Sagittal S.
- Straight S.
- Transverse S
- Gray & White Matter
- Posterior Horn of Lateral Vent.

Figure 5-29



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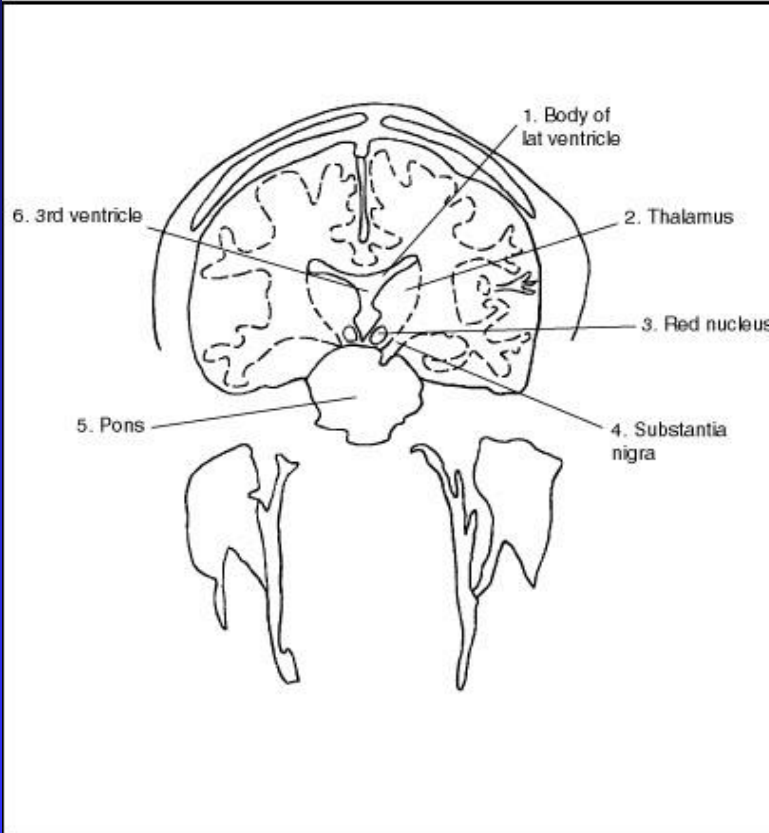
■ Lateral
Ventricles

■ 3rd
Ventricle

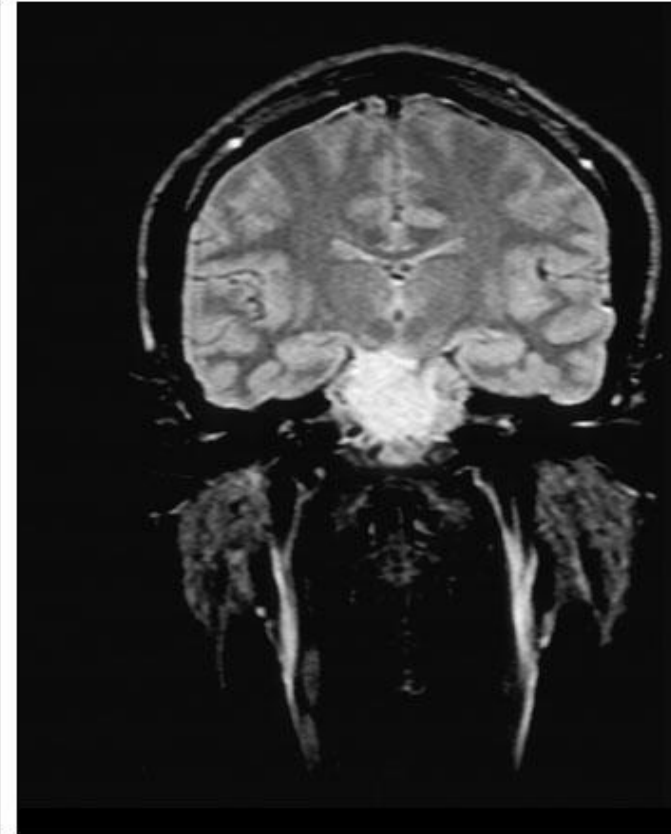
■ Thalamus

■ Pons

Figure 5-34



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- Sphenoid Sinus

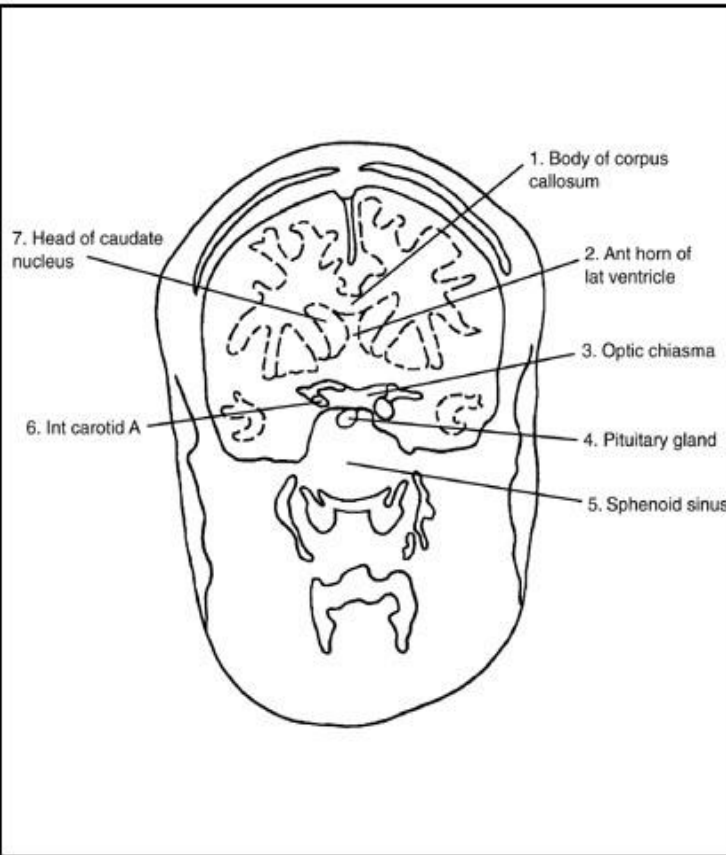
- Pituitary

- Head of Caudate Nucleus

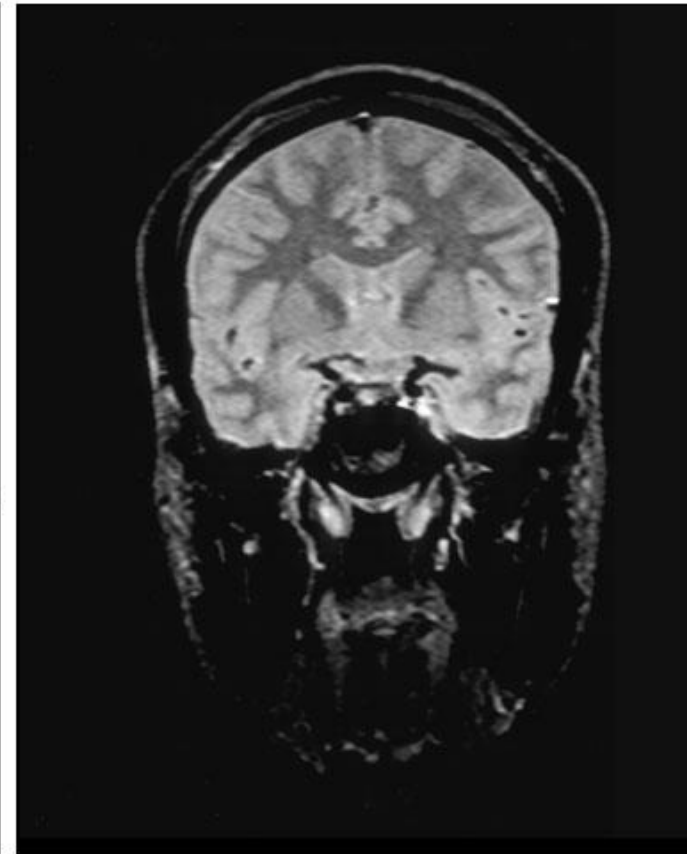
- Optic Chiasm

- Body of Corpus Callosum

Figure 5-38



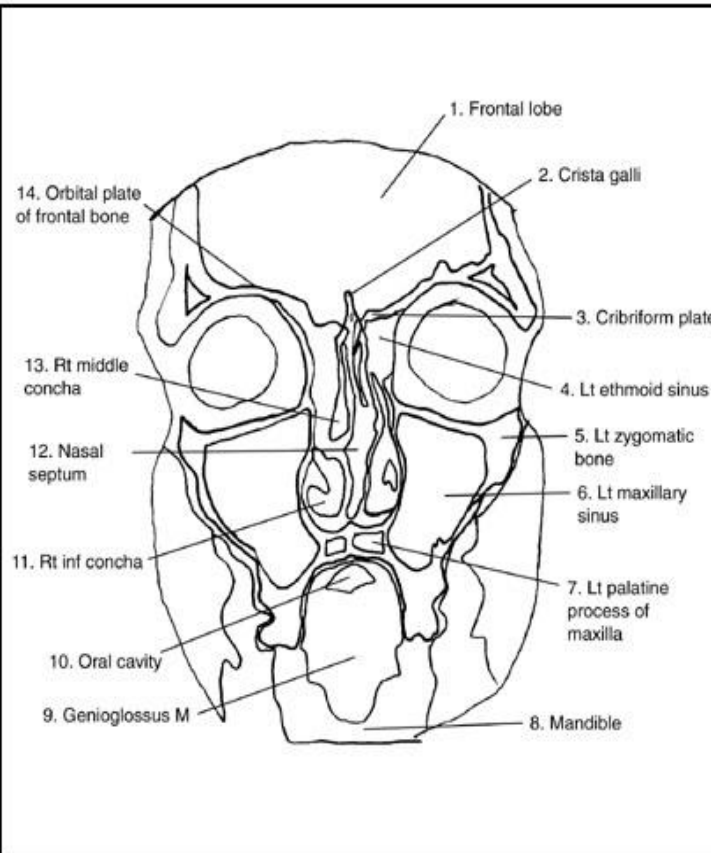
© 2001 Lippincott Williams & Wilkins



What Modality?

- Crista Galli
- Ethmoid sinus
- Maxillary sinus
- Palatine bone
- Nasal Concha
- Tongue

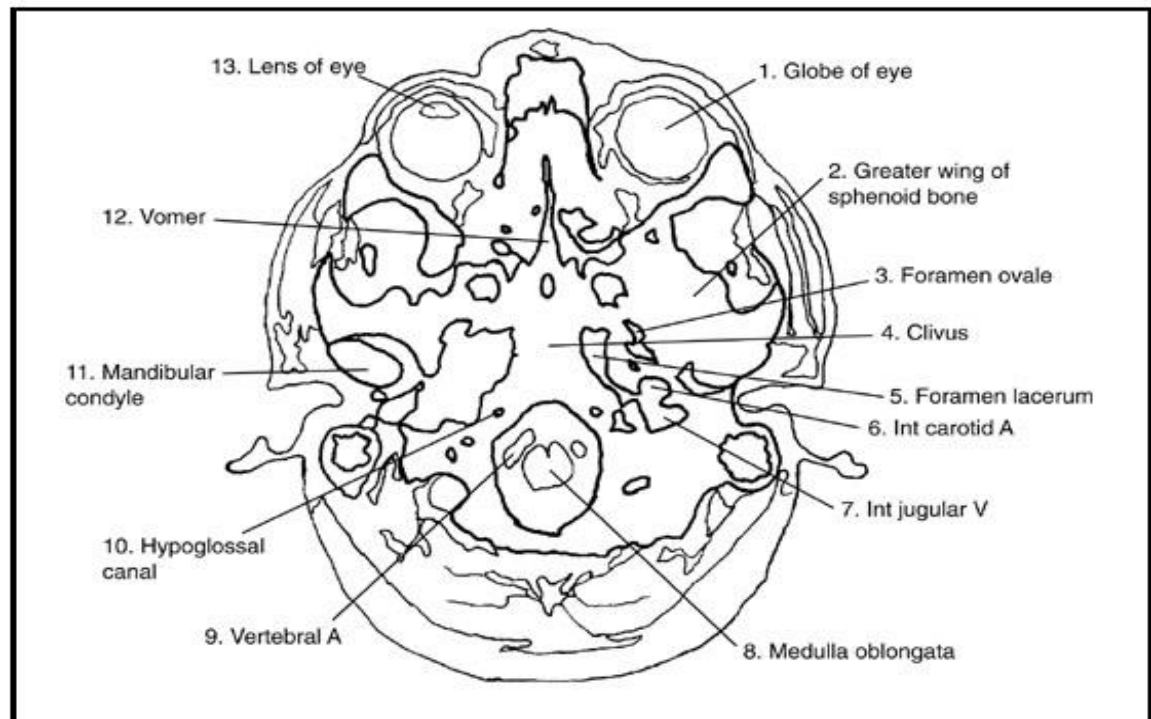
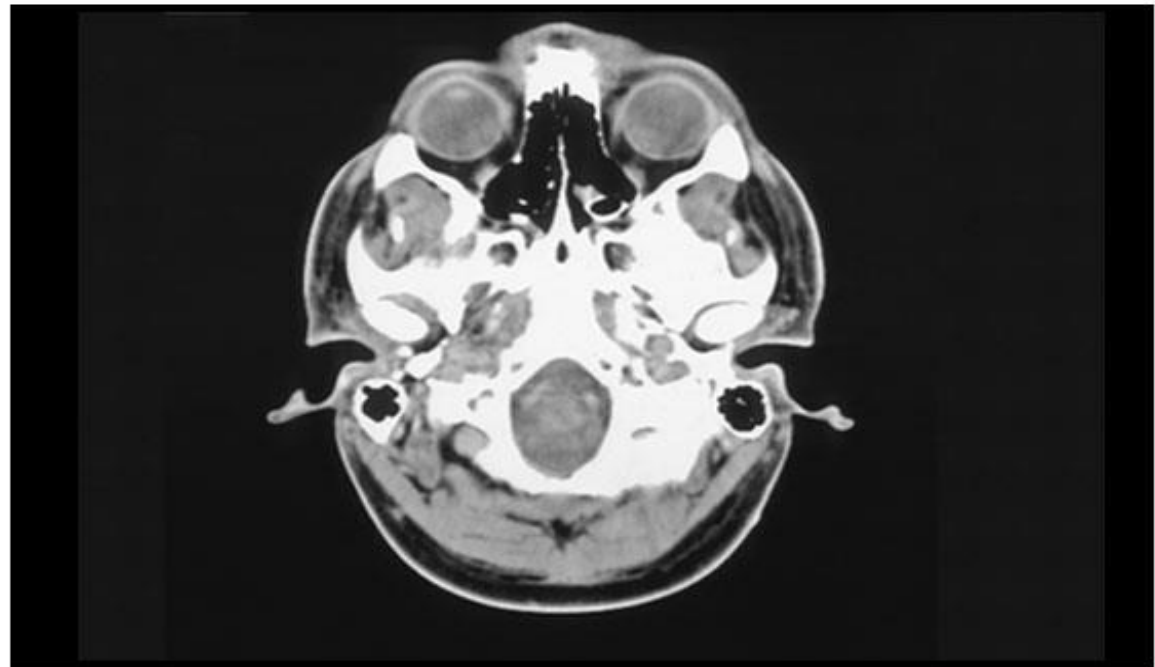
Figure 5-46



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Figure 5-47



■ Vomer

■ Greater wing of Sphenoid

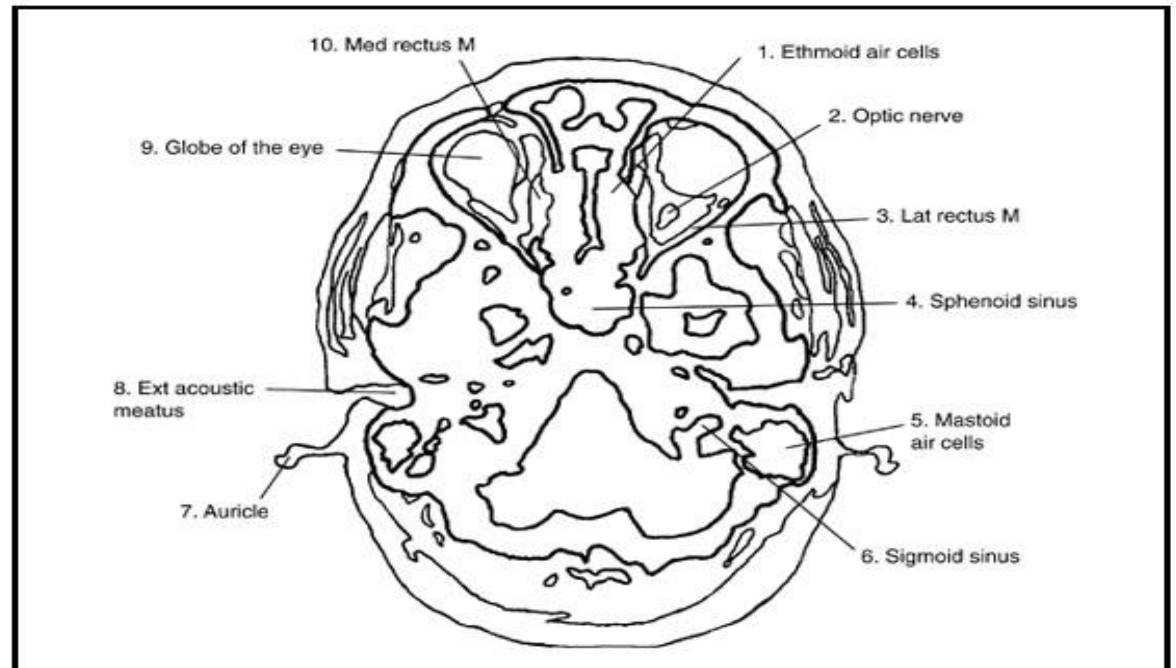
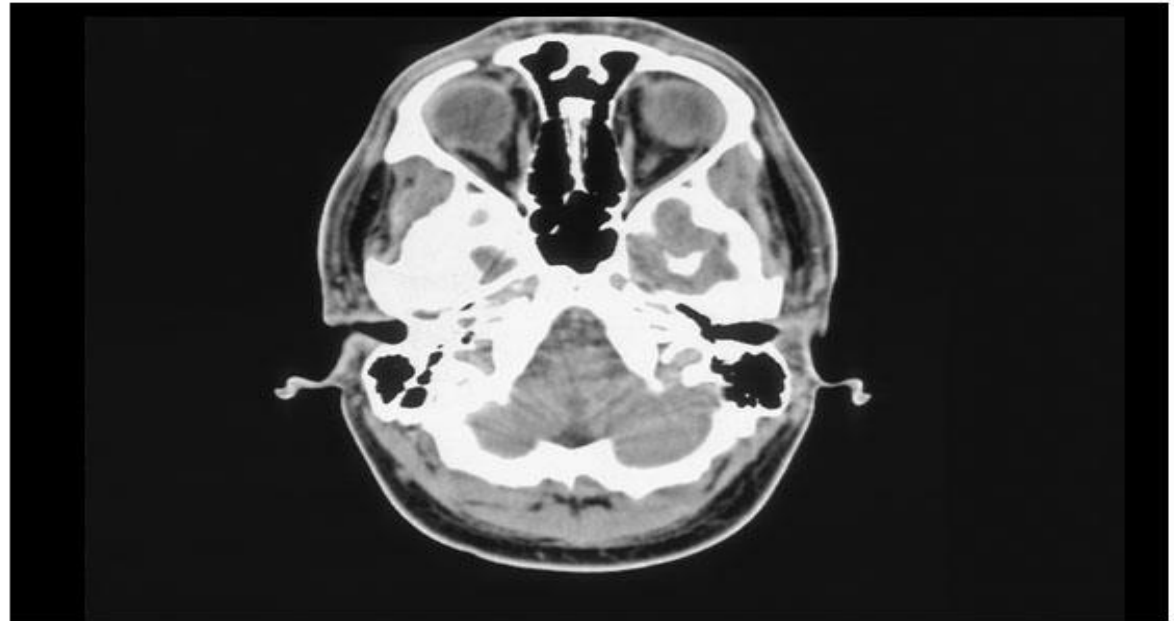
■ Mandibular Condyle

■ Vertebral Artery

■ Medulla Oblongata

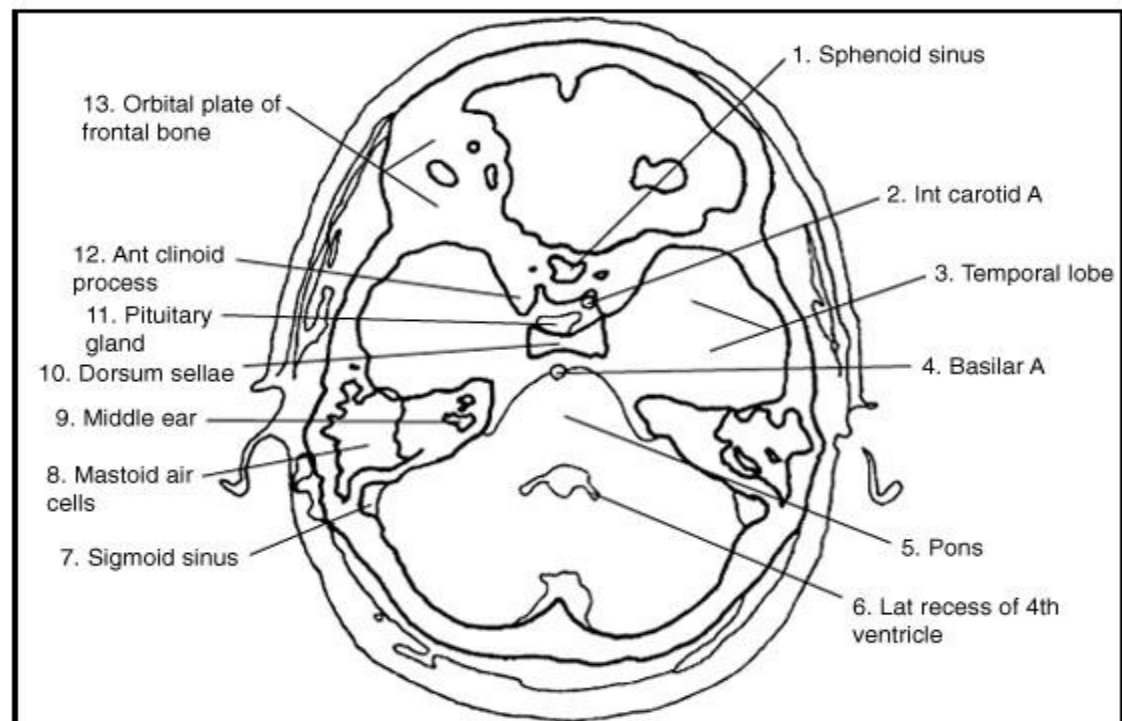
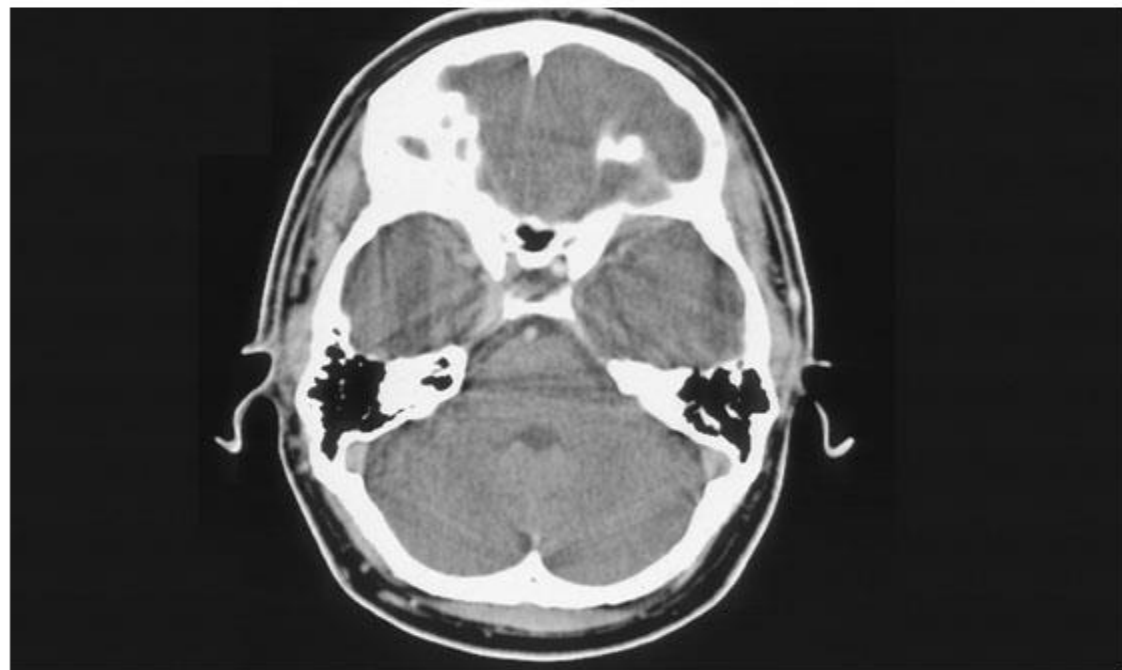
- Ethmoid Air Cells
- Sphenoid Sinus
- Mastoid
- Ext. Auditory Canal
- What Else?

Figure 5-48



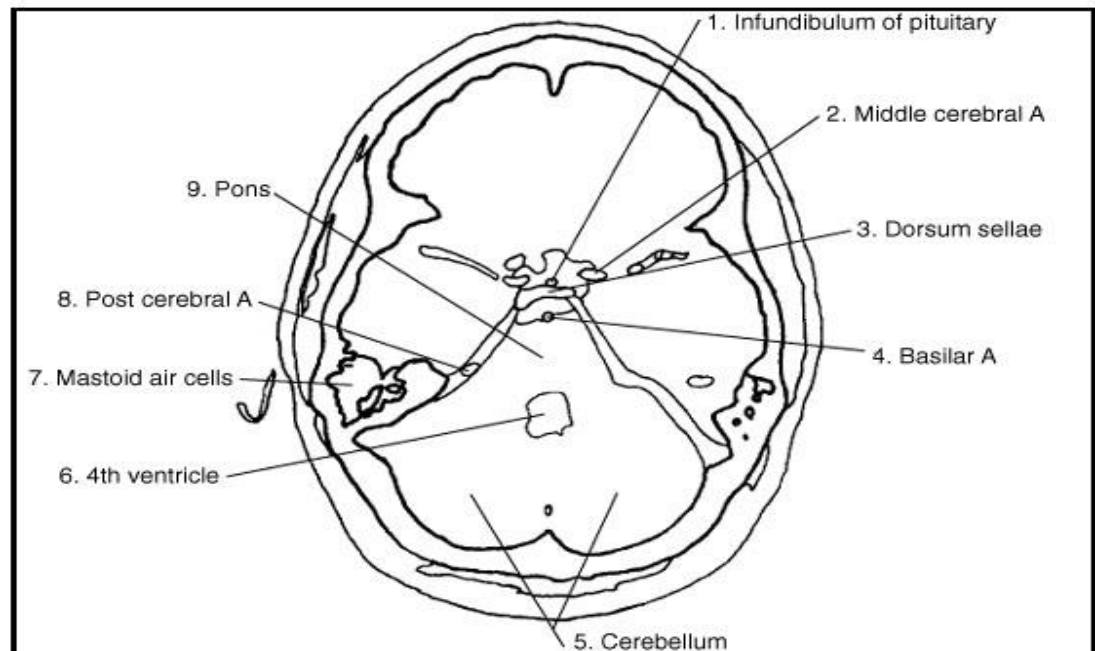
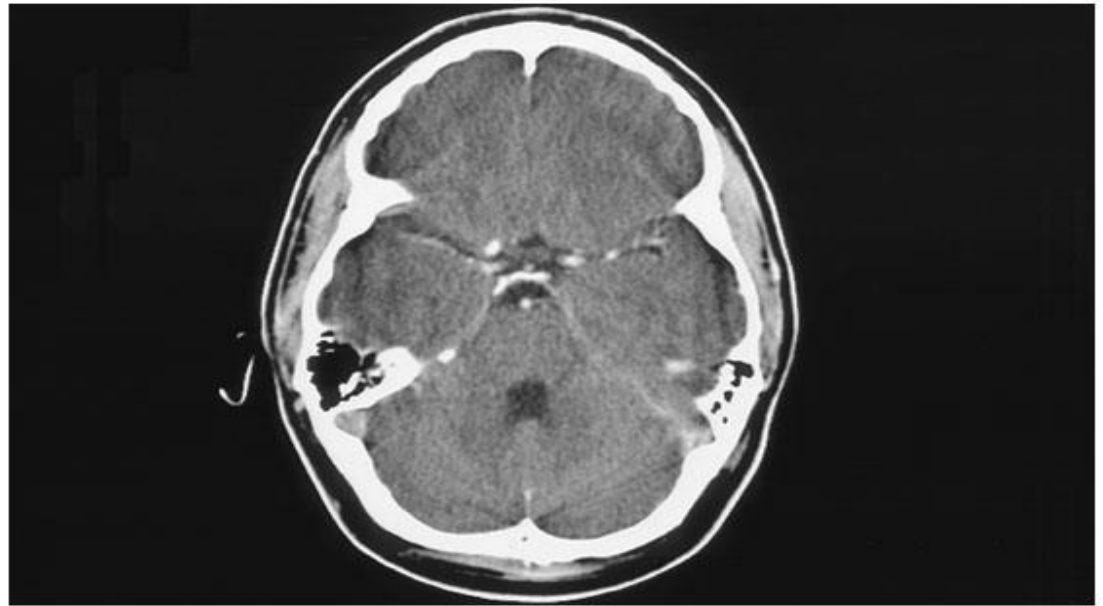
- Frontal Plate
- Sphenoid Sinus
- Internal Carotid Artery
- Basilar
- Pons
- 4th Ventricle
- Sella & Pituitary
- Middle Ear

Figure 5-50



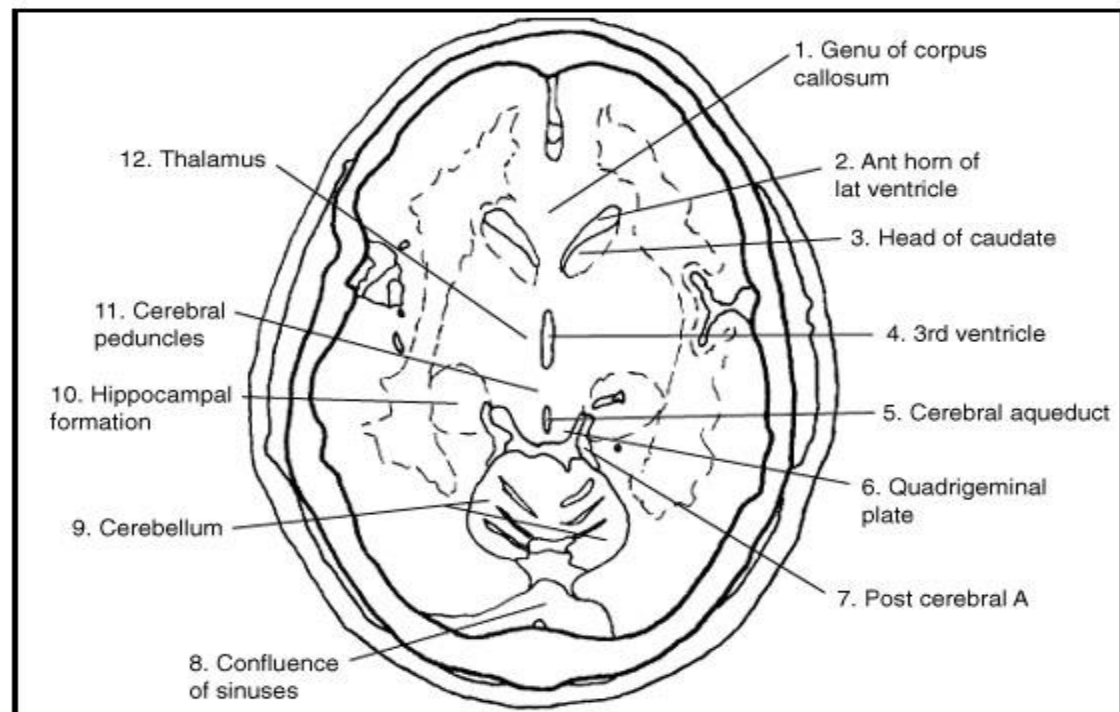
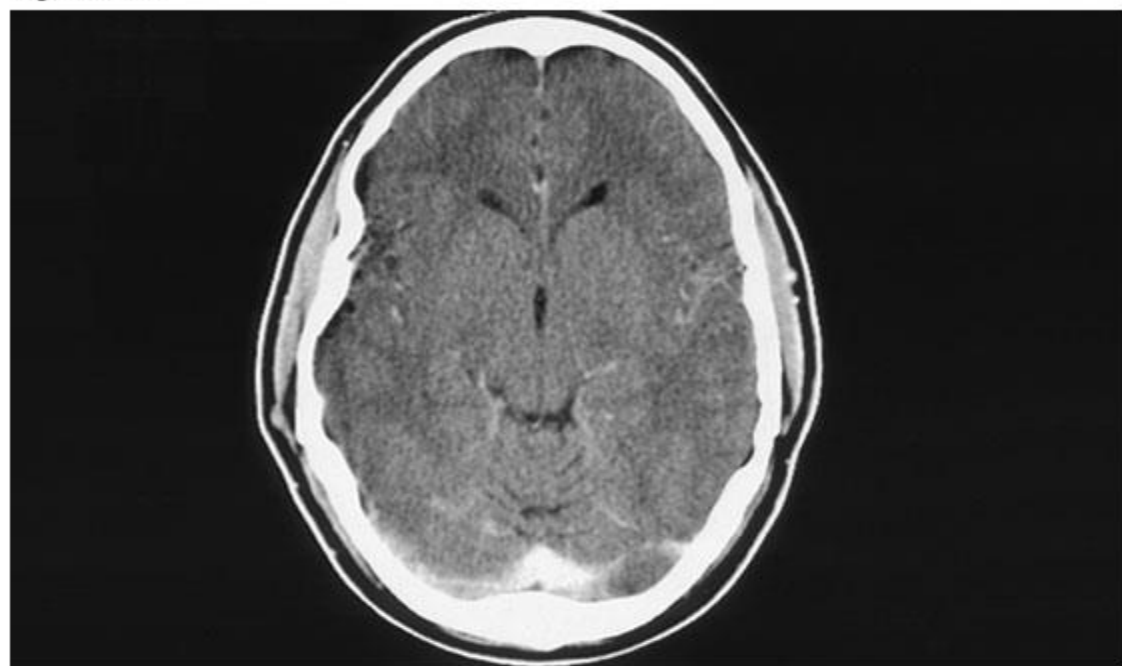
- Infundibulum
- Middle C. A.
- Dorsum Sella
- Basilar Artery
- Posterior C. A.
- 4th Ventricle & Tentorium
- Pons

Figure 5-51



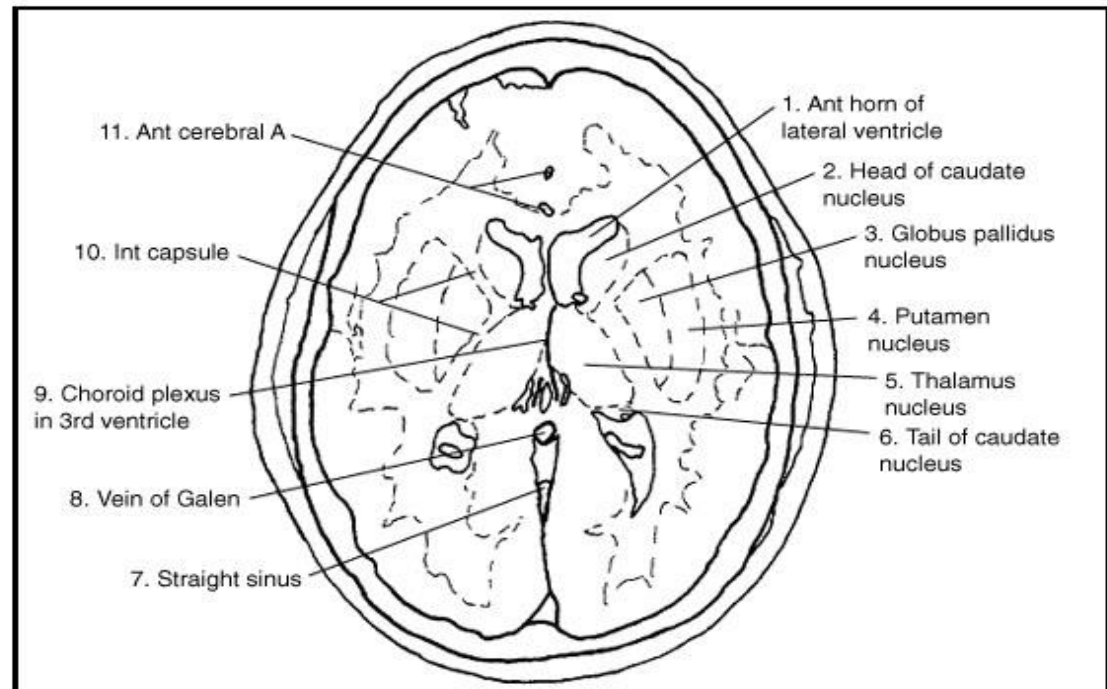
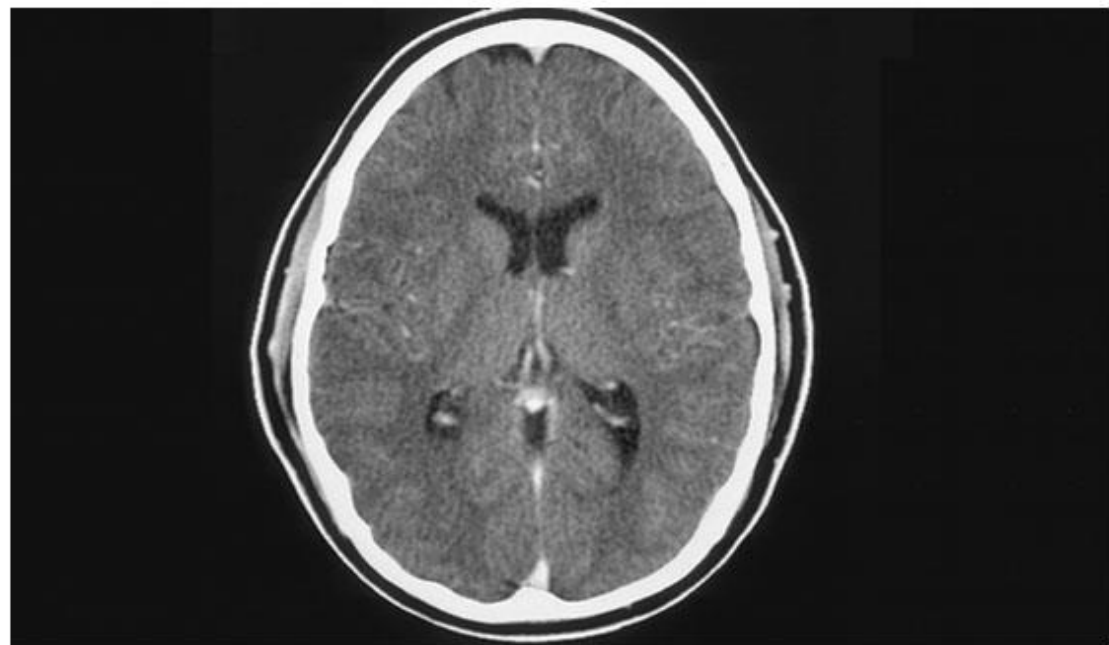
- Genu of Corpus callosum
- Lat. Ventricle
- Head of Caudate Nucleus
- 3rd Ventricle
- Post. C. A.
- Confluence of Sinuses
- Thalamus

Figure 5-53



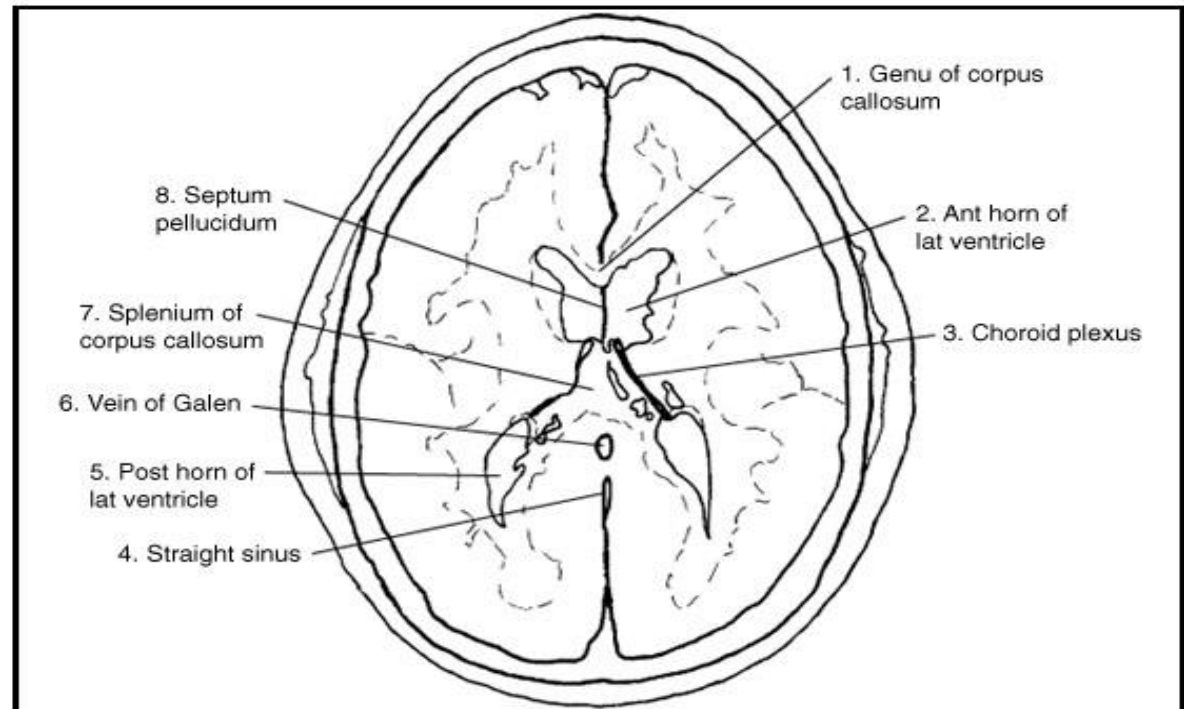
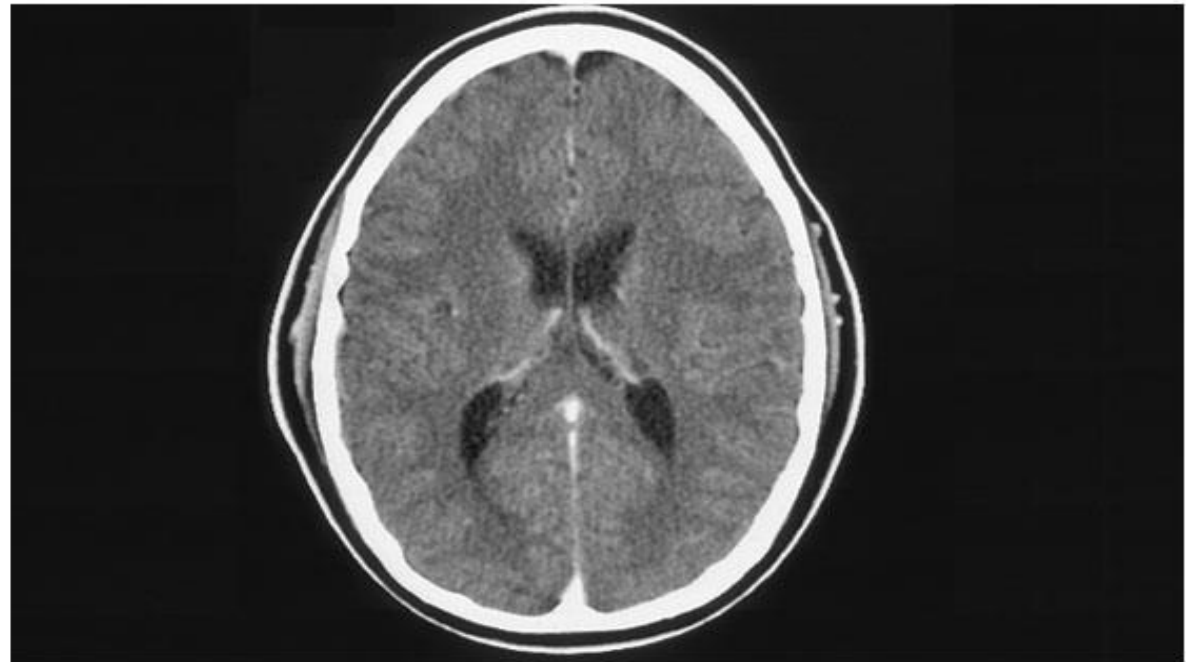
- Ant. Cerebral A.
- Head of Caudate N.
- Lateral Ventricles
- Thalamus
- Tail of Caudate Nucleus
- Straight Sinus & Vein of Galen

Figure 5-55



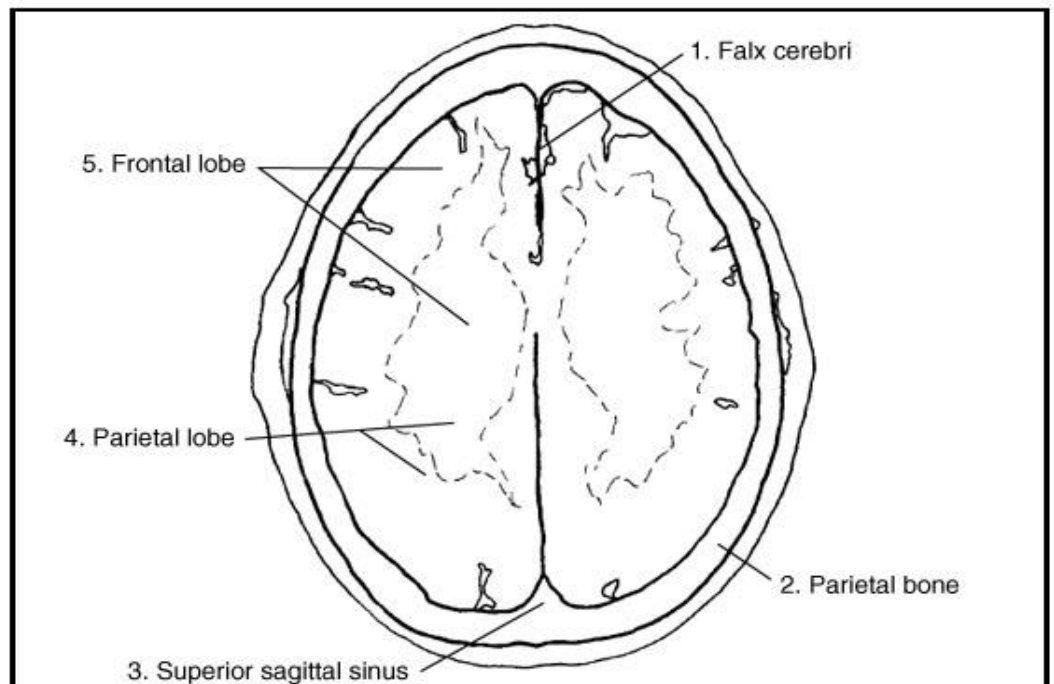
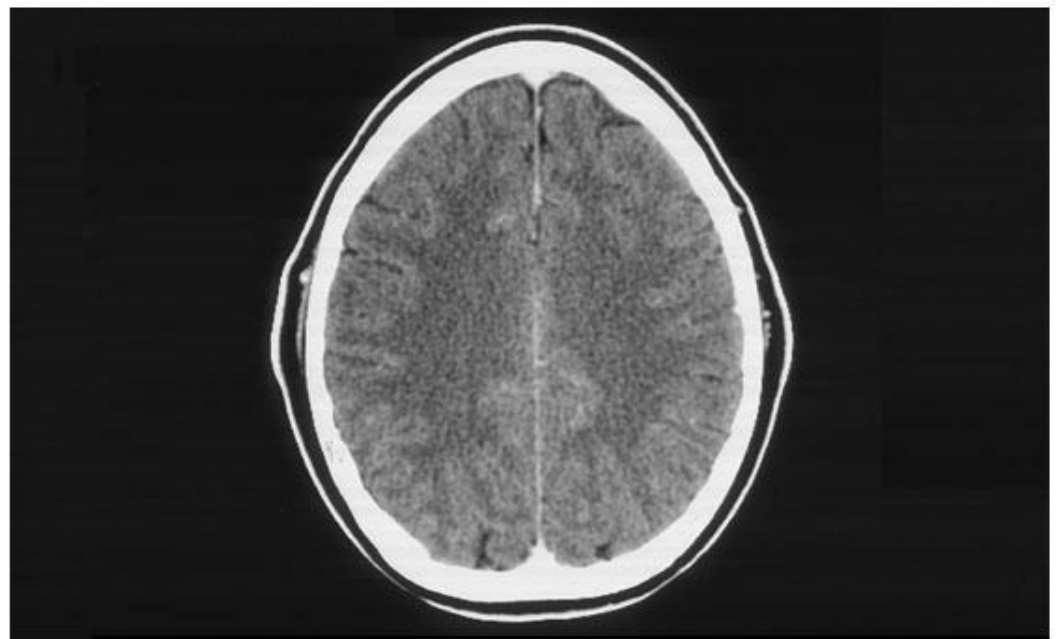
- Genu of C. C.
- Ant. Horn of Lat. Ventricles
- Choroid Plexus
- Straight Sinus
- Post Horn of Lat. Ventricle
- Vein of Galen
- Splenium of C.C.
- Septum Pellucidum

Figure 5-56



- Falx Cerebri
- Frontal Lobe
- Parietal Lobe
- Superior Sagittal Sinus
- Sulci
- Gyri

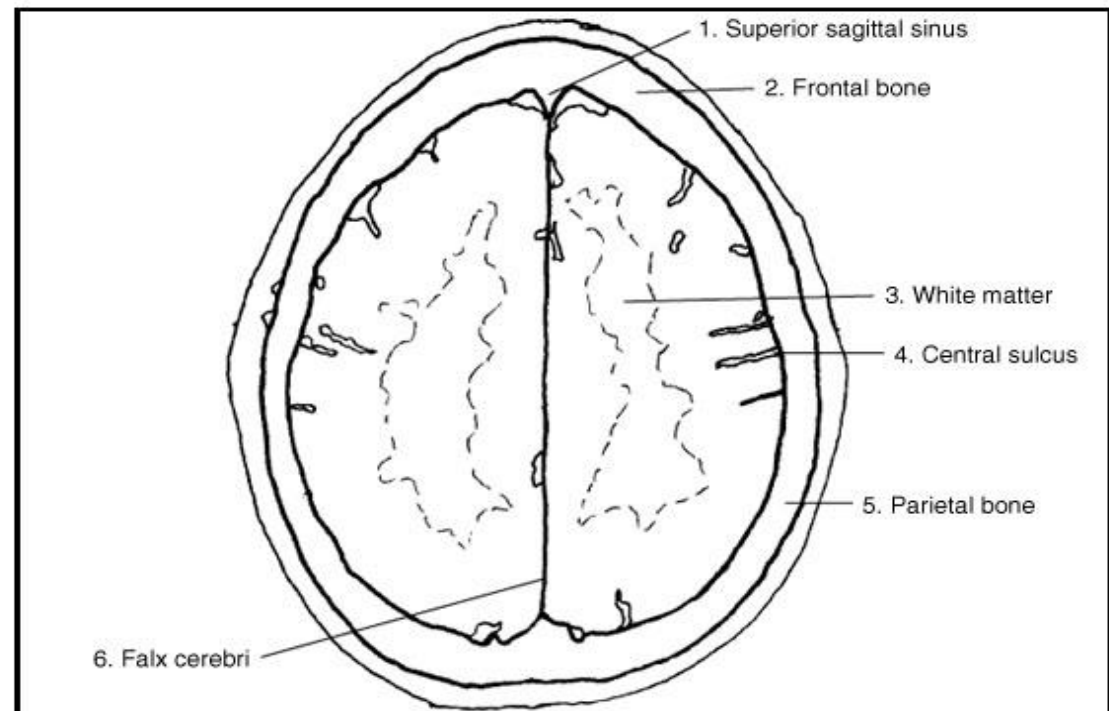
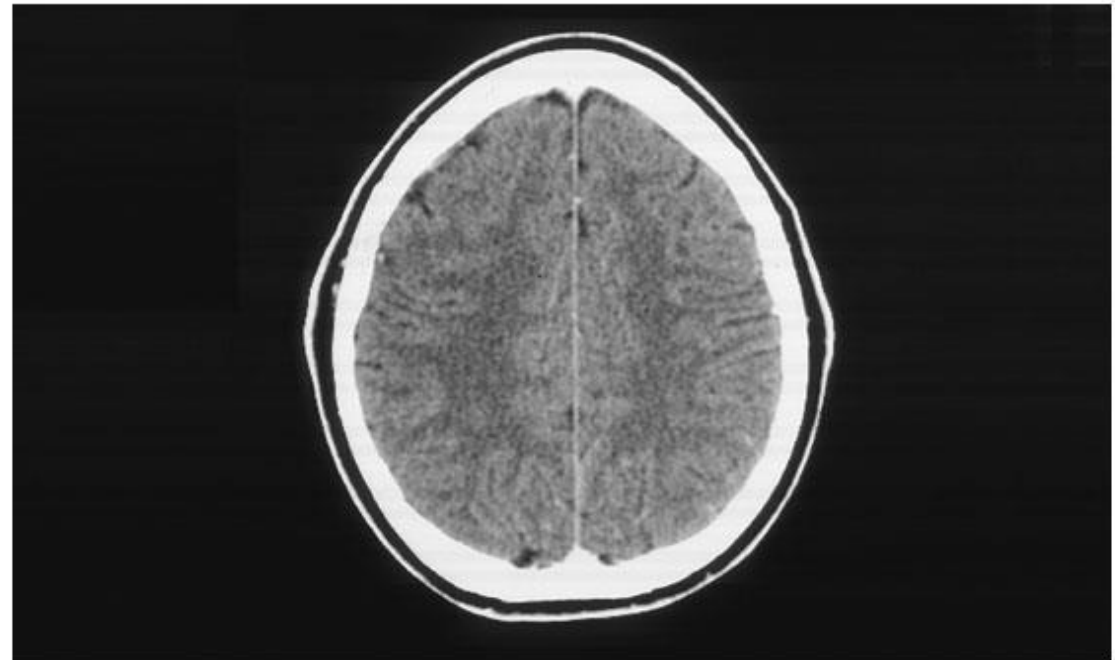
Figure 5-58



Falx in Long. Fissure

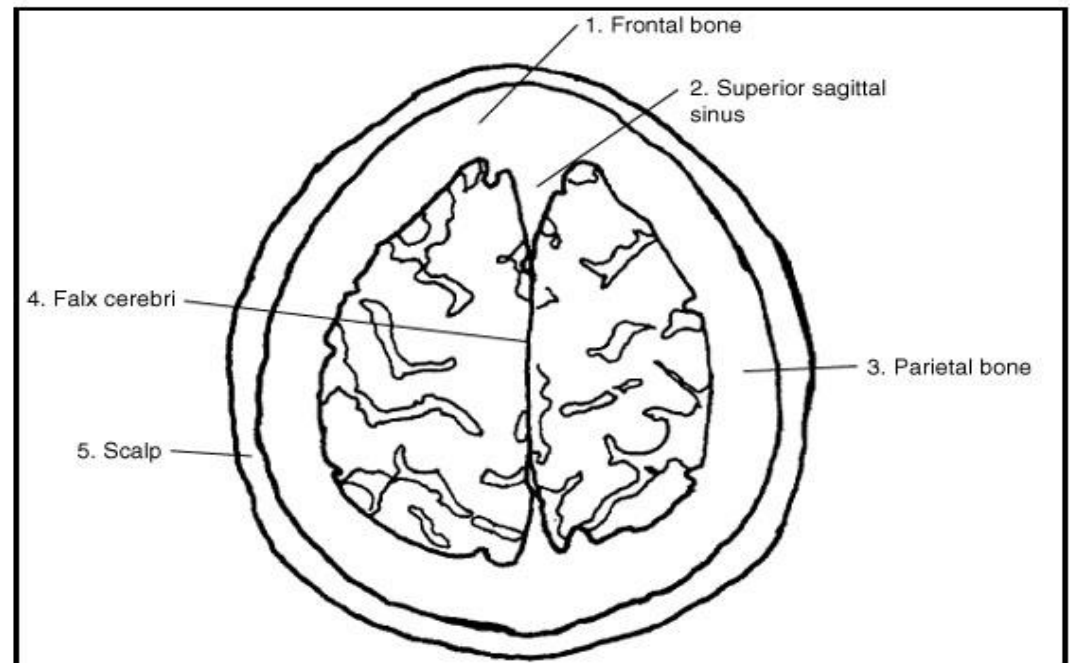
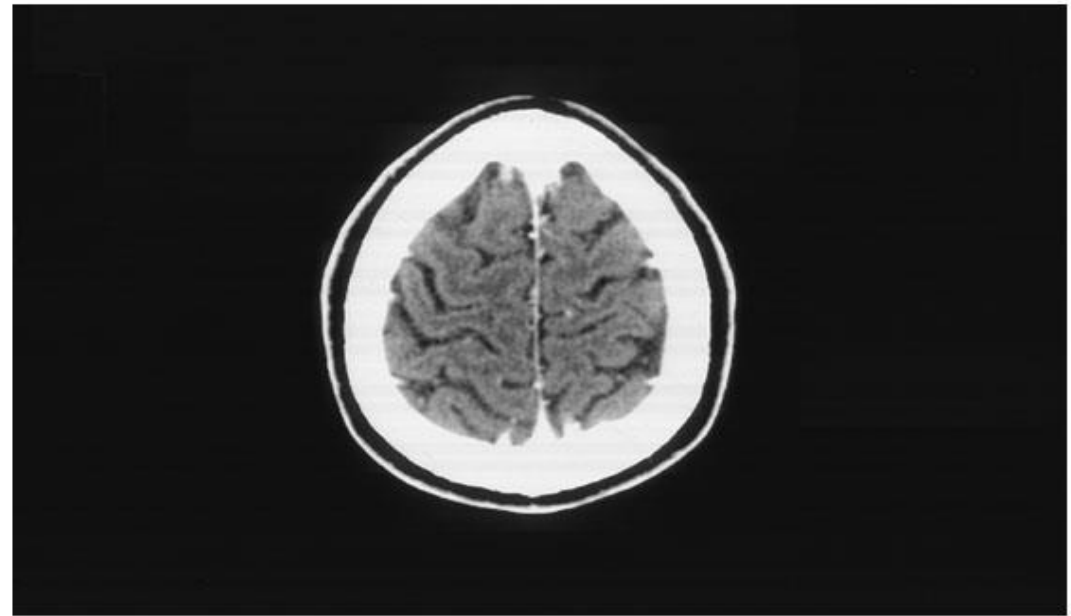
SSS

Figure 5-59



■ Top of Head

Figure 5-62



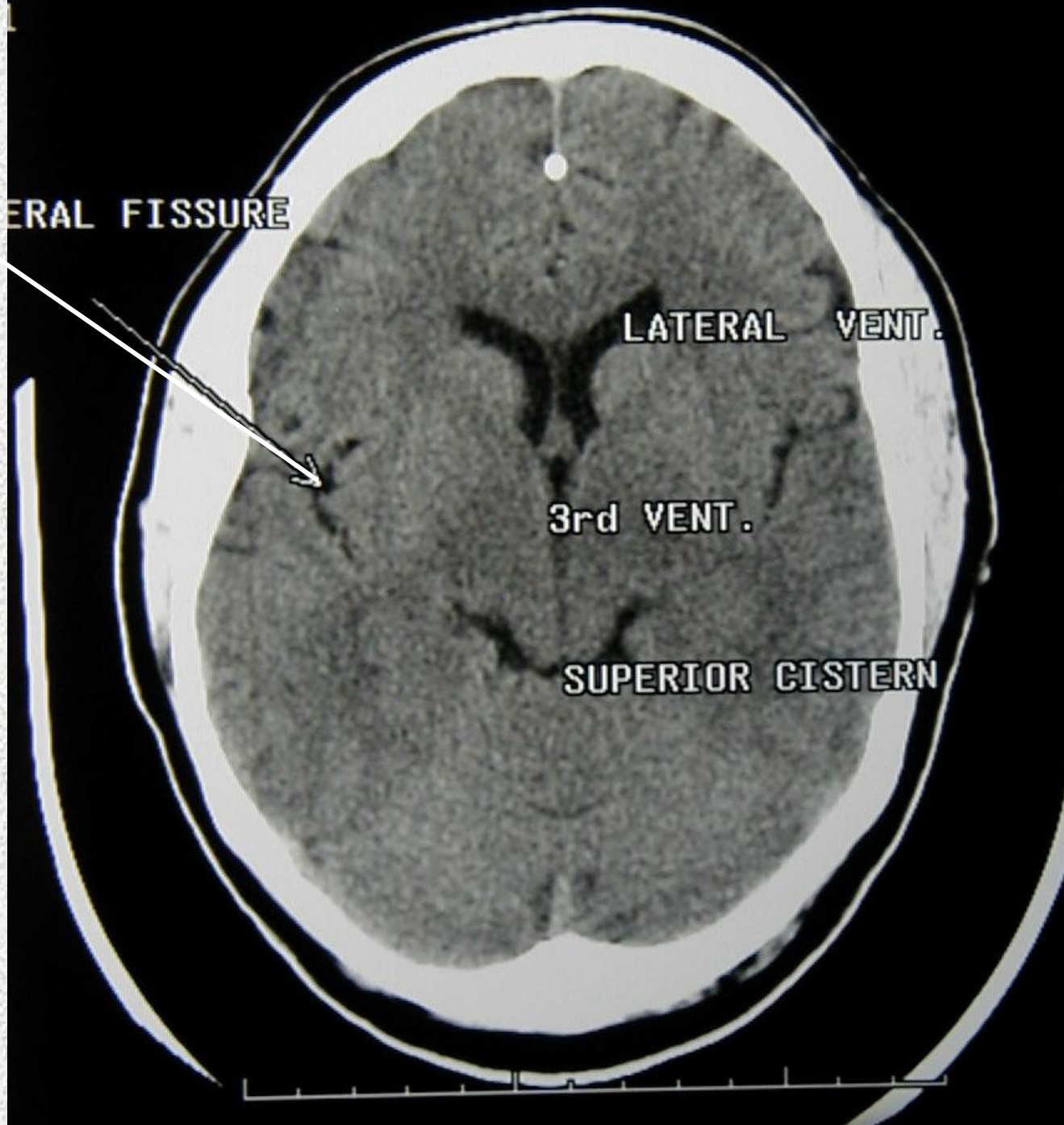
Lateral Fissure

ERAL FISSURE

LATERAL VENT.

3rd VENT.

SUPERIOR CISTERN



A. Lateral Vent.

B. Thalamus

C. 3rd Vent.

D. Calcified Pineal

E. Superior Cistern



A. 4th Vent

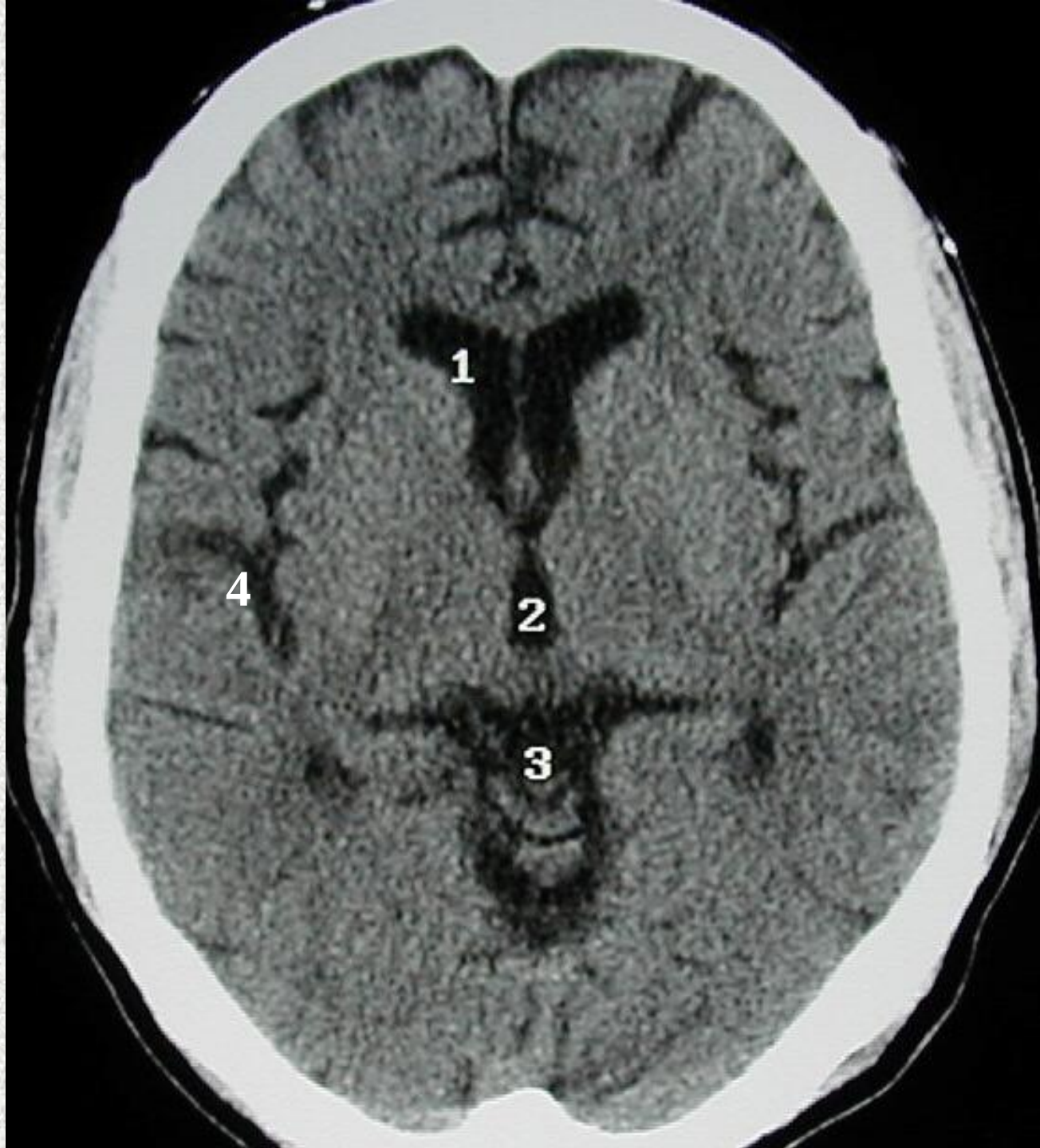
B. Basilar Art.

C. Sella Turcia

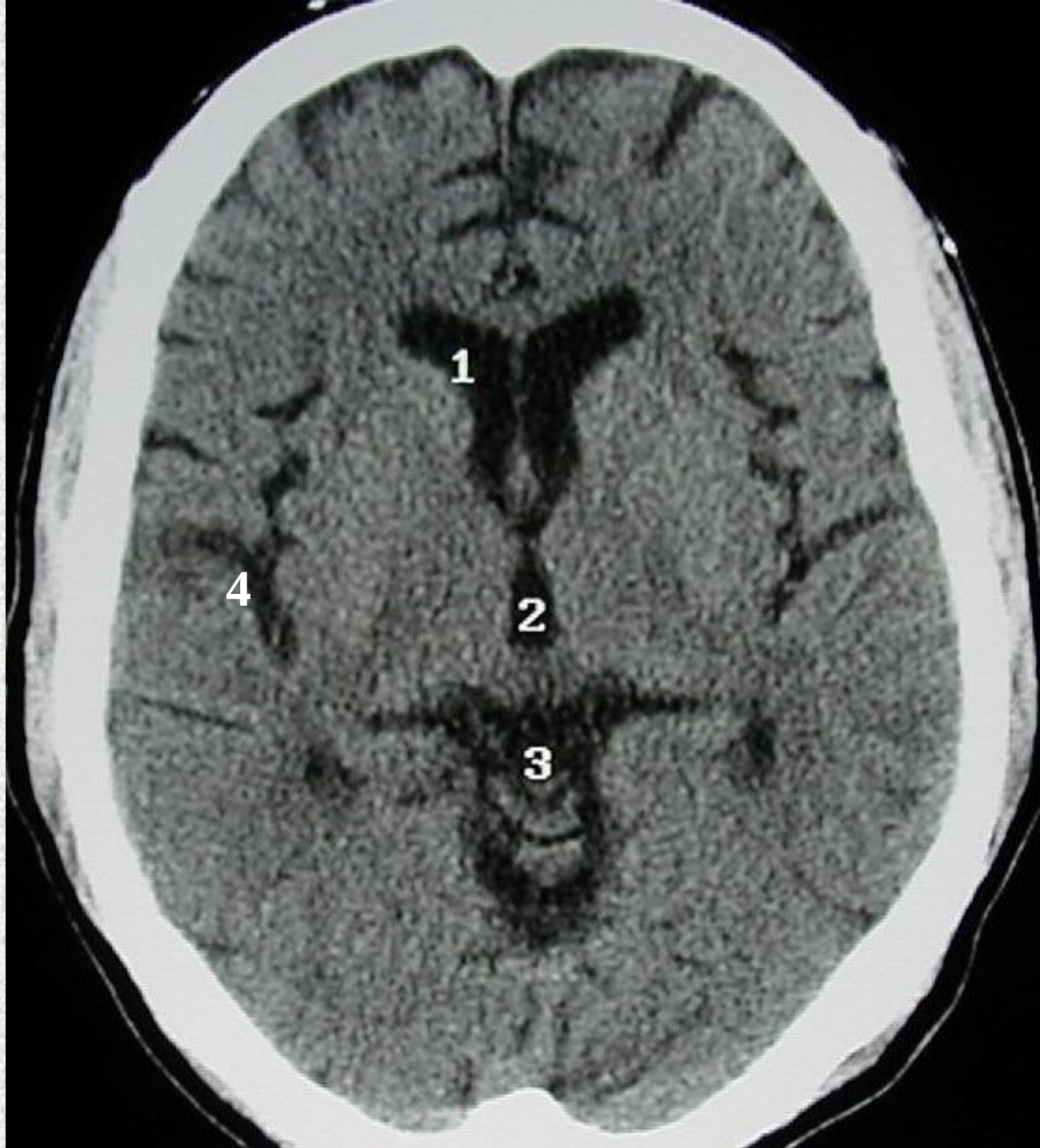
D. Temporal Lobe



- 1. Lateral Vent**
- 2. 3rd Vent.**
- 3. Superior cistern**
- 4. Lateral Fissure**



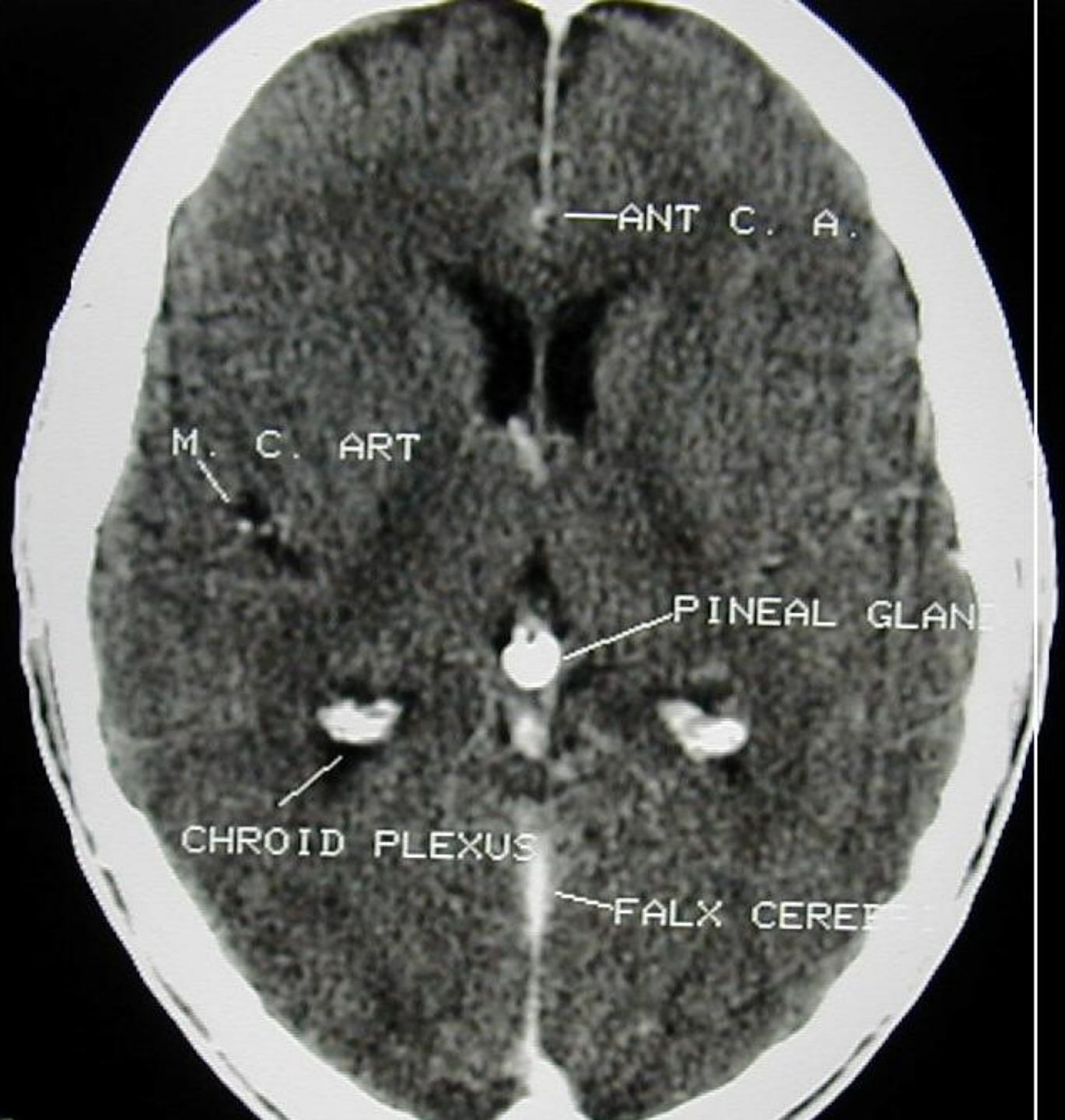
- 1. Lateral Vent**
- 2. 3rd Vent.**
- 3. Superior
cistern**
- 4. Lateral Fissure**



BONUS:

1. Choroid Plexus

2. Calcified Pineal



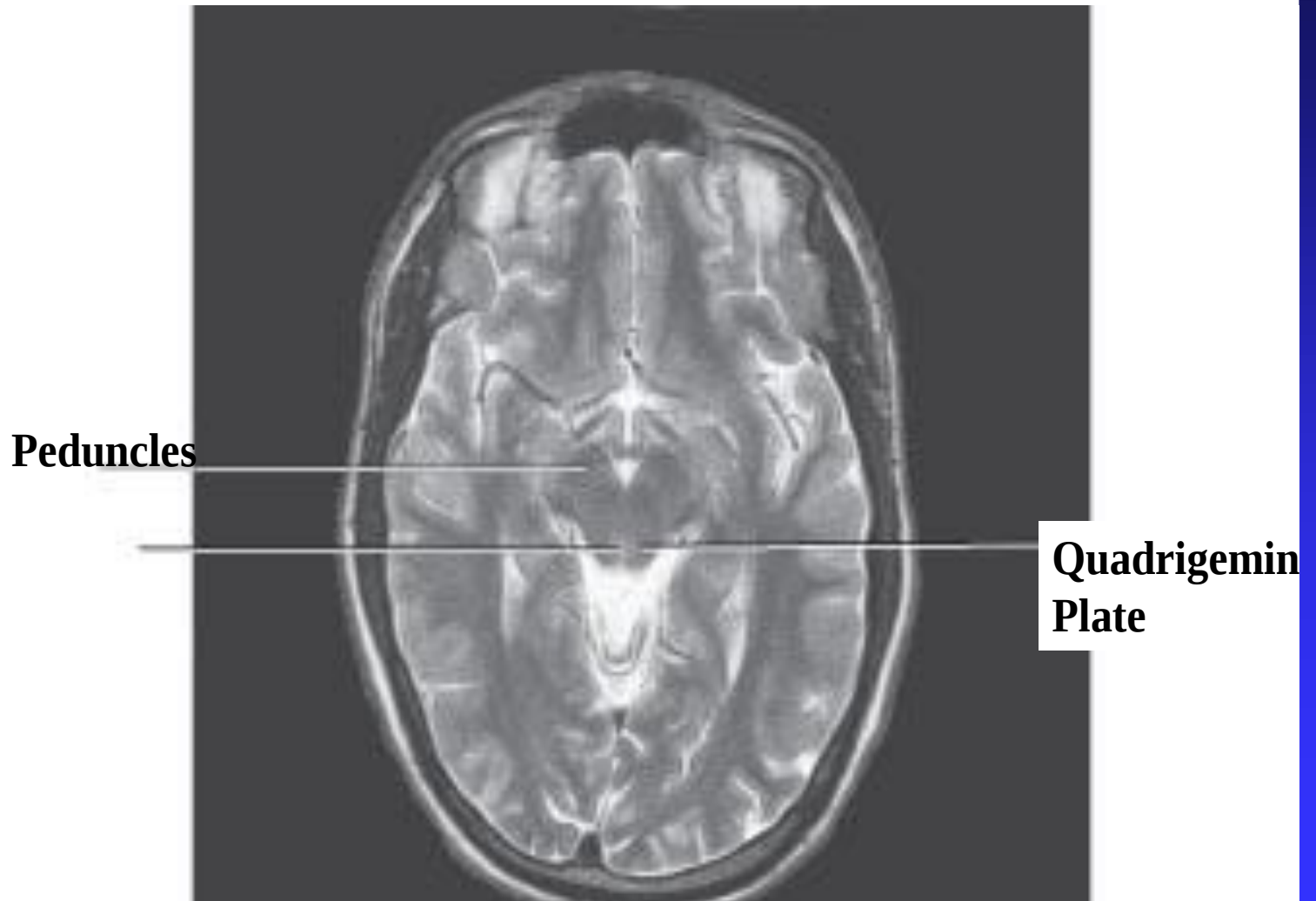
A= Lateral Vent.

**B. Calcified
Choroid Plexus**

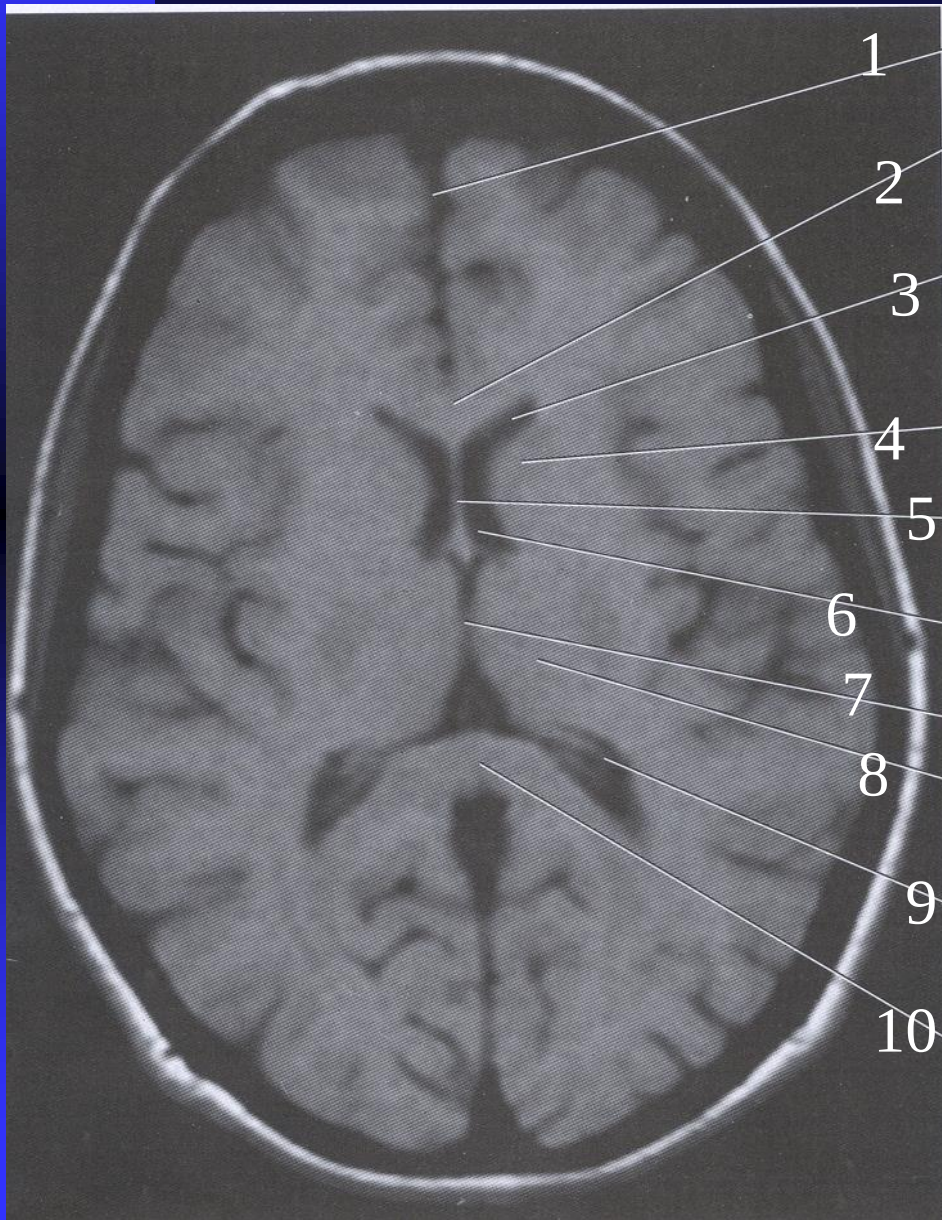
C. Falx



Mid-Brain Structures



MRI of MidBrain



1. Long. Fissure

2. Corpus C.

3. Lat Ventricle

4. Caudate Nucleus

5. Septum
Pellucidum

6. Body of Lat. V.

7. 3rd Ventricle

8. Thalamus

9. Post. of Lat .V.

10 Splenium of C.
C.

MRI T2

Genu of
C.C.

Lat . Vent

Occipital
Lobe



Septum
Pellucidum

Splenium of
C.C.

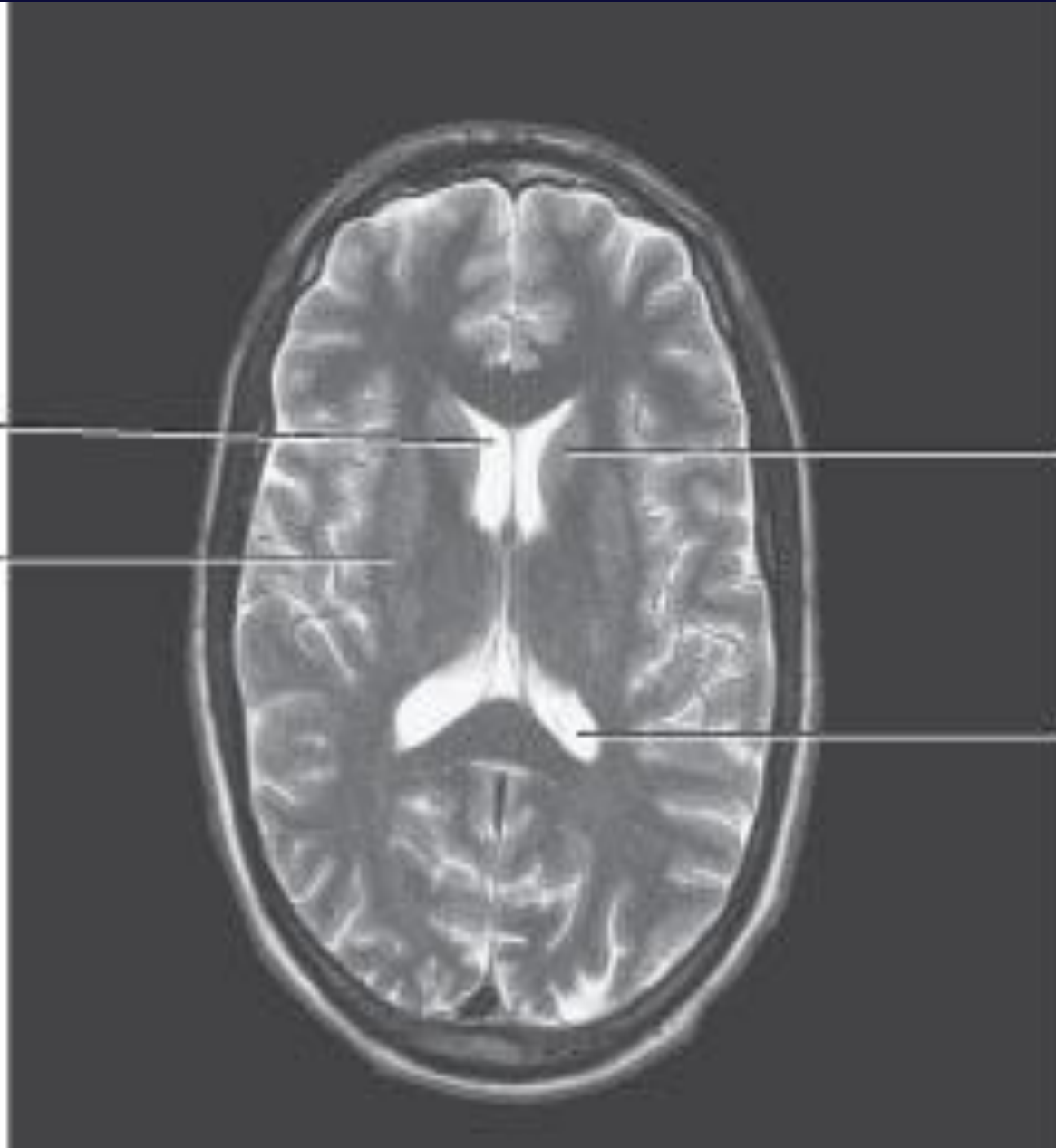
MRI T2

Lat.
Ventricle

Basal
Ganglia

Head of
Caudate
Nucleus

Lateral
Vent



MRI T2

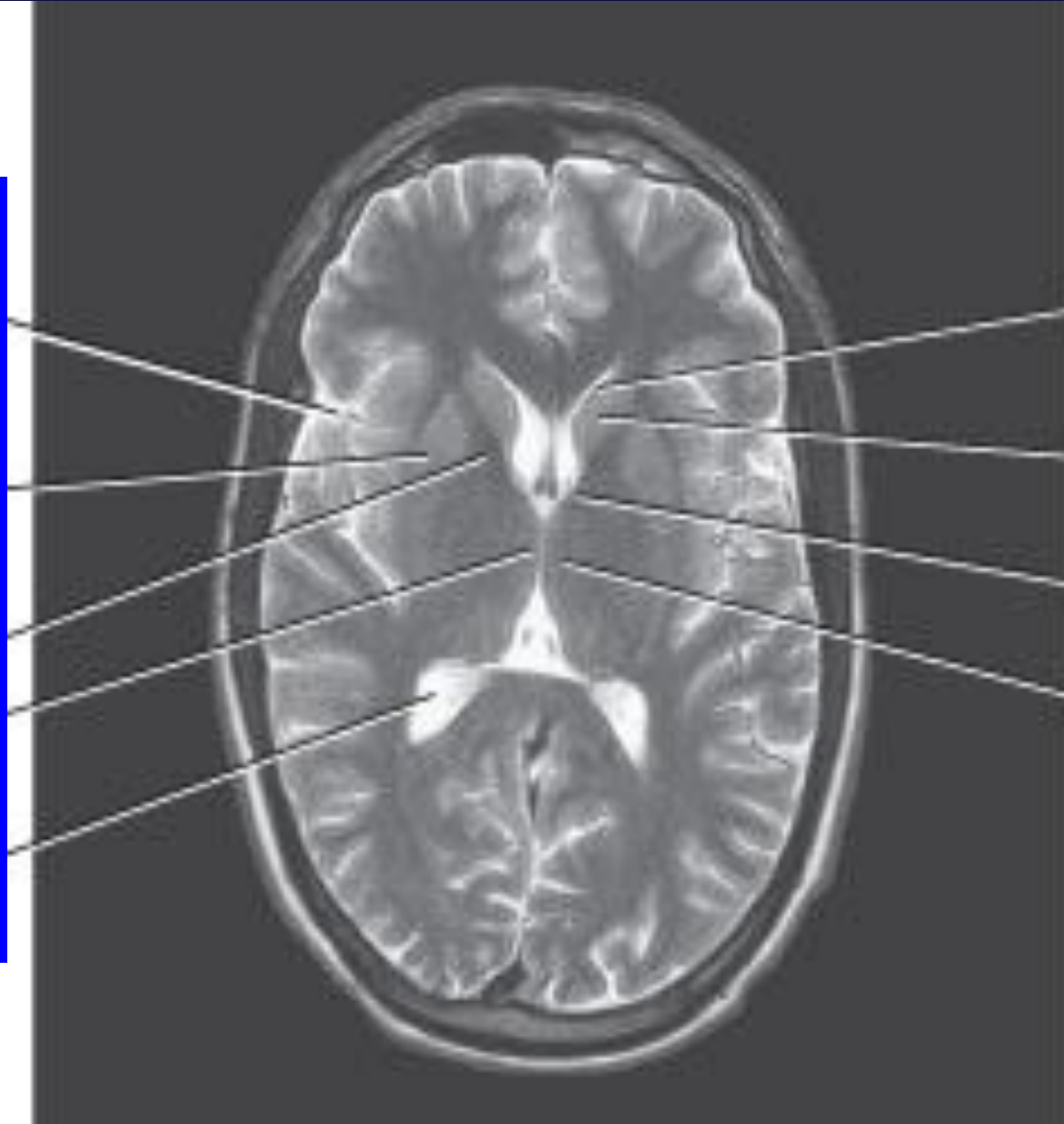
Lat.
Fissure

Basal
Ganglia

Internal
Capsule

3rd Vent.

Lateral
Vent



Lat Vent.

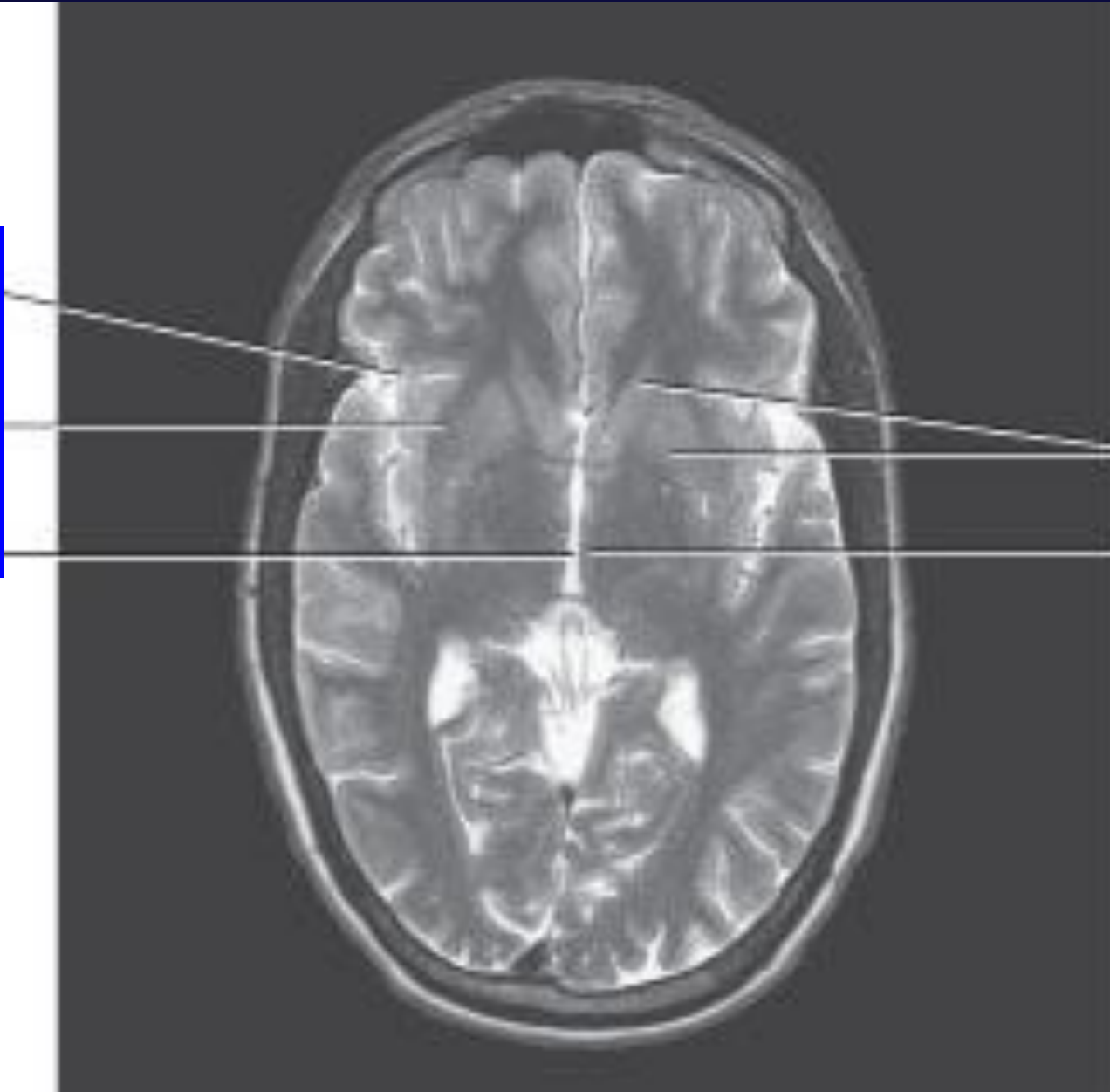
Head of
Caudate
Nucleus

Thalamus

MRI T2

Sylvian
Fissure

3rd Vent.



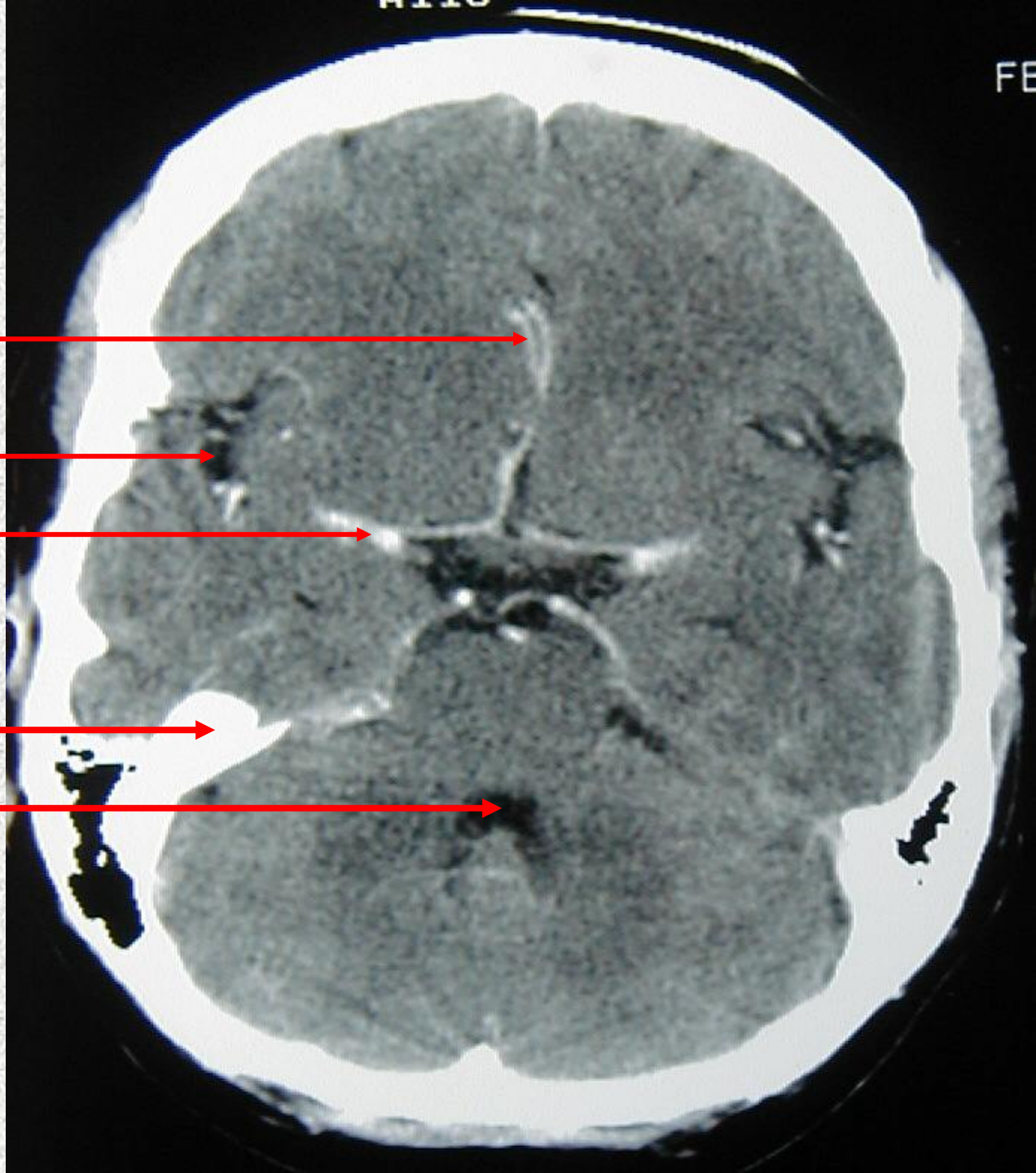
Basal
Ganglia

Thalamus

Quiz

Image 1

- 1 →
- 2 →
- 3 →
- 4 →
- 5 →



Quiz Image 2

1.

2.

3.

4.

