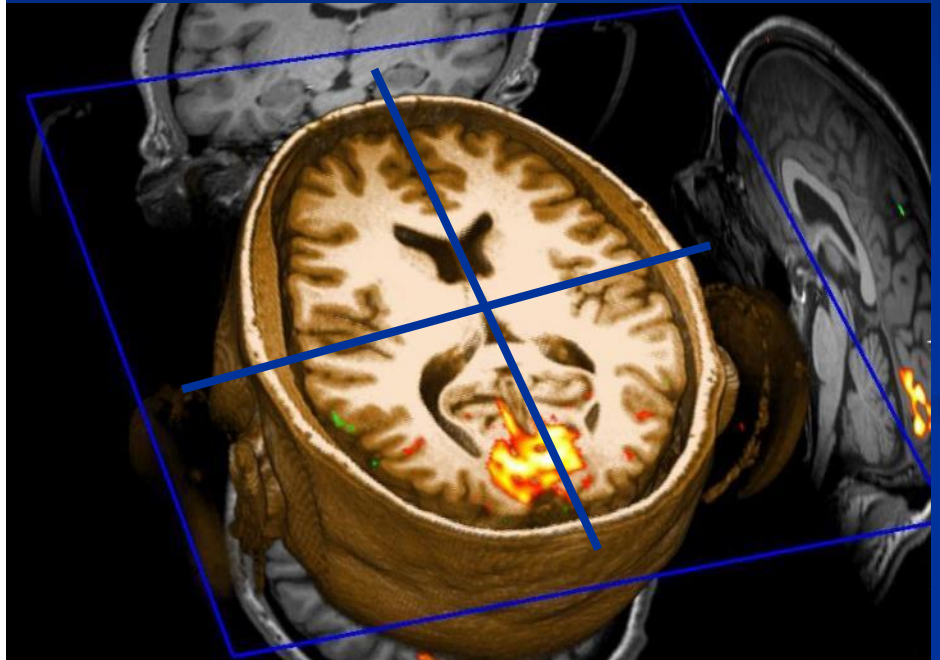
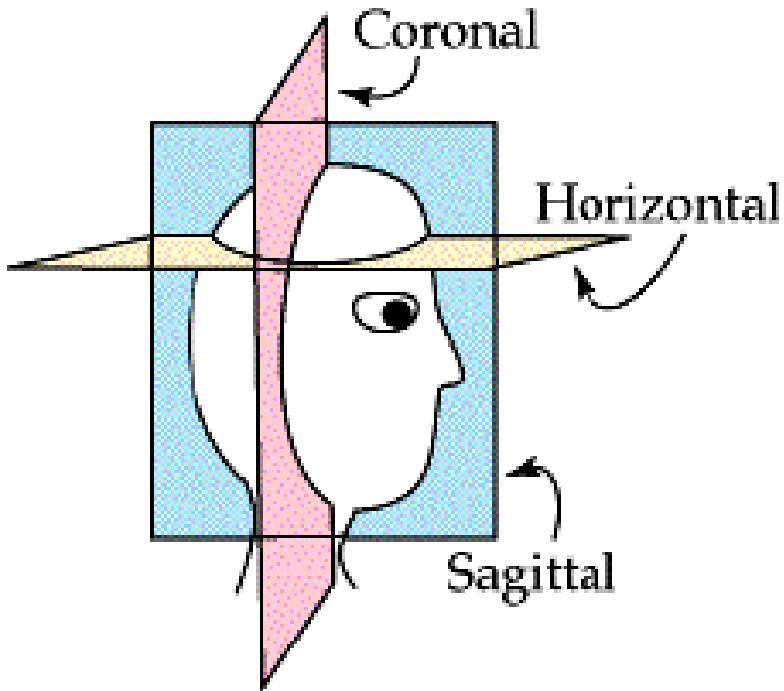


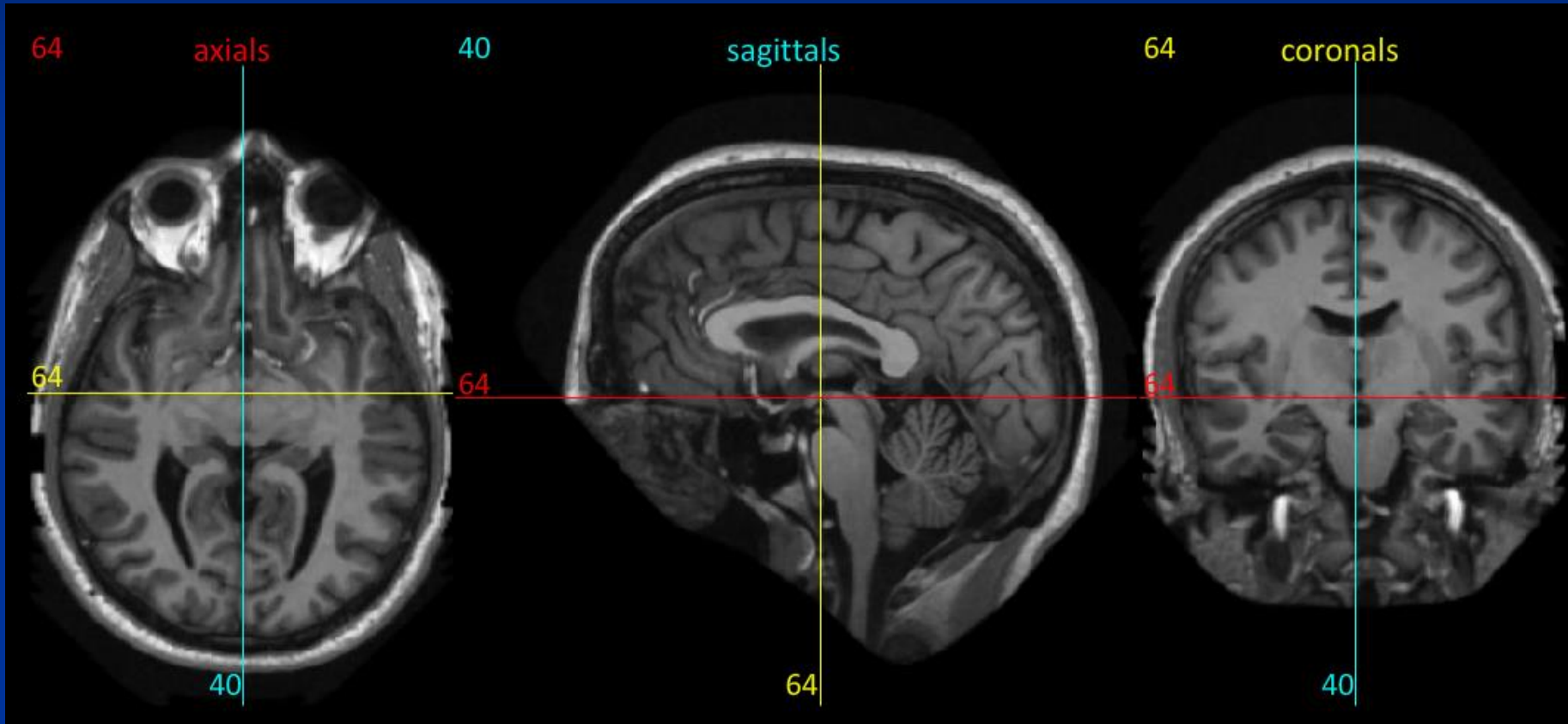
# Radiology of cerebral hemispheres & Blood circulation



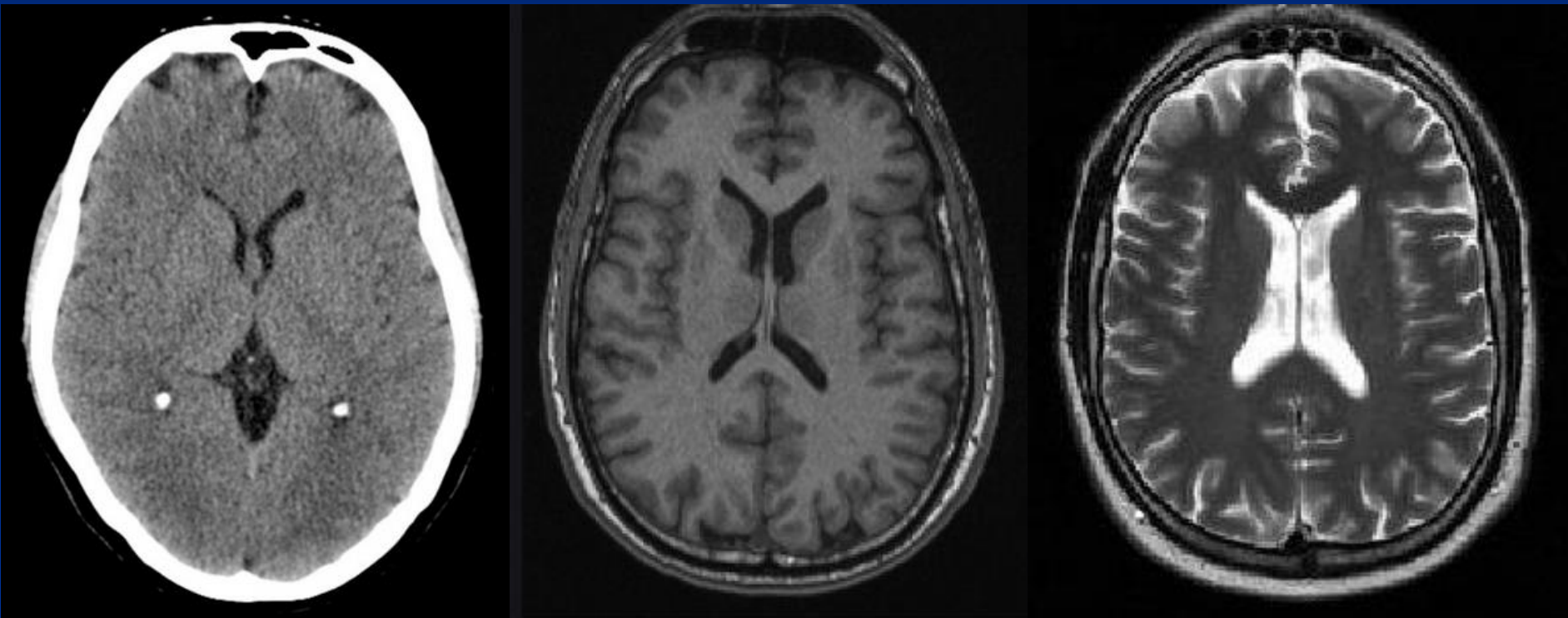
# Anatomical planes:



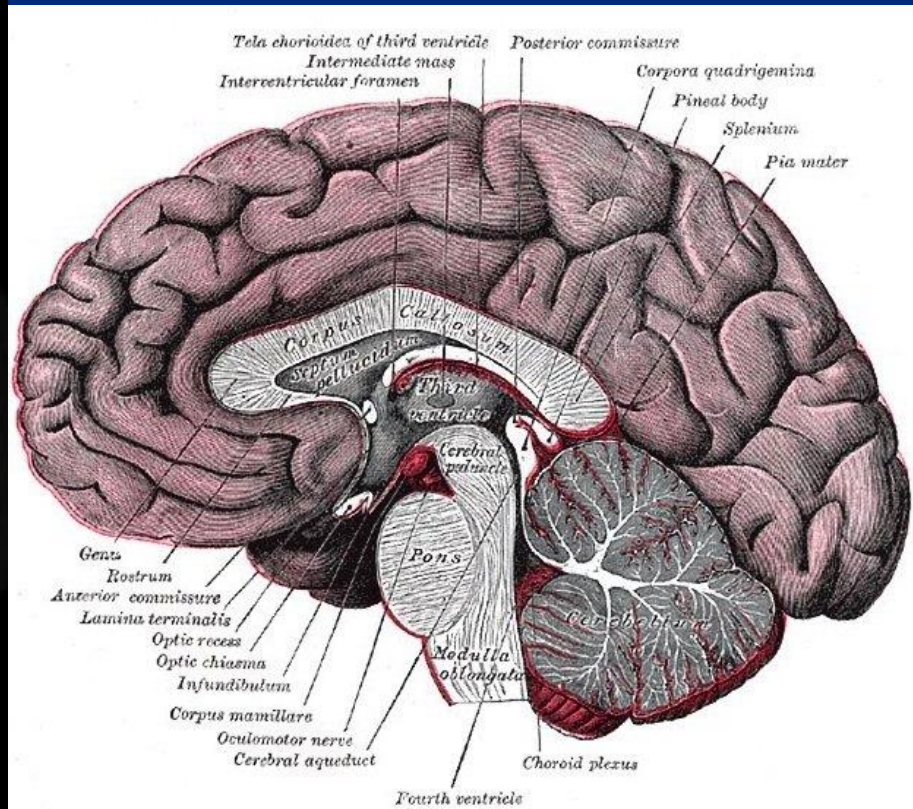
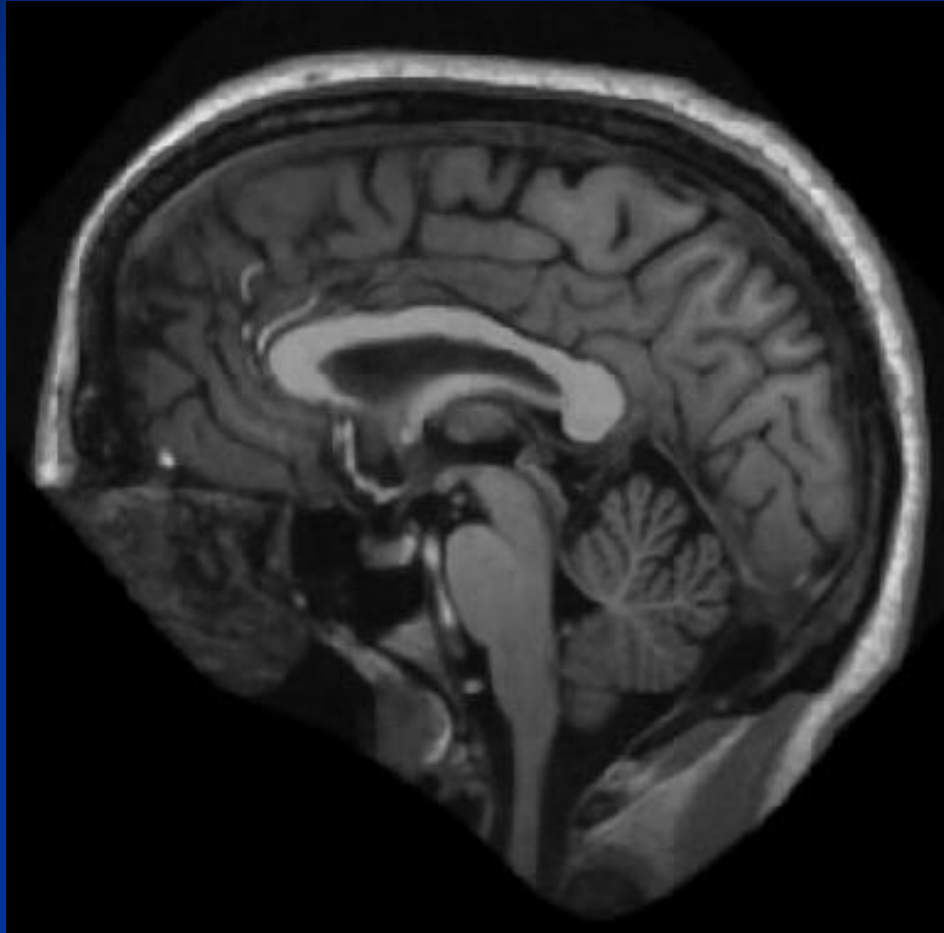
# Anatomical planes:



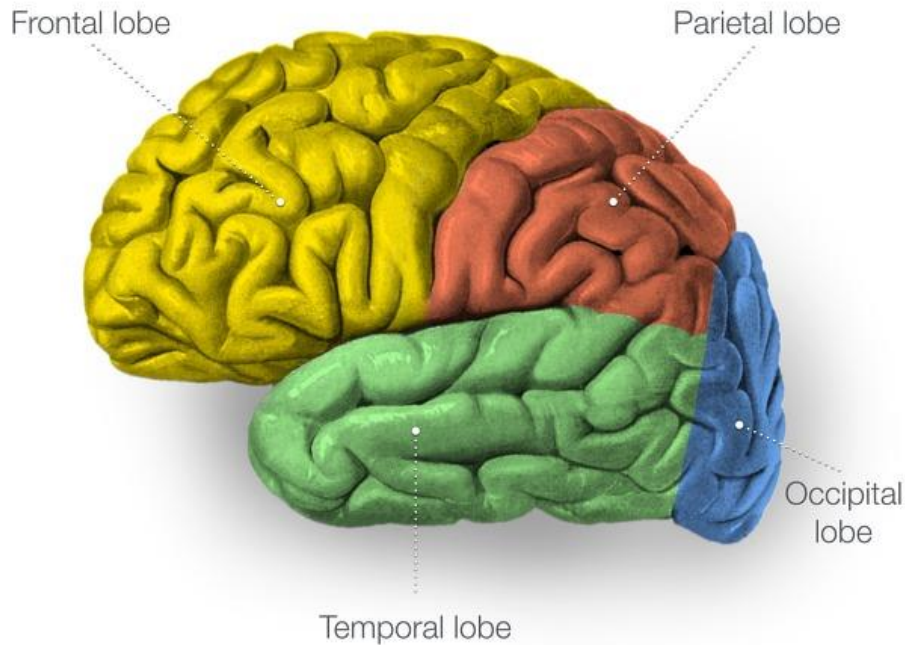
# CT vs MRI



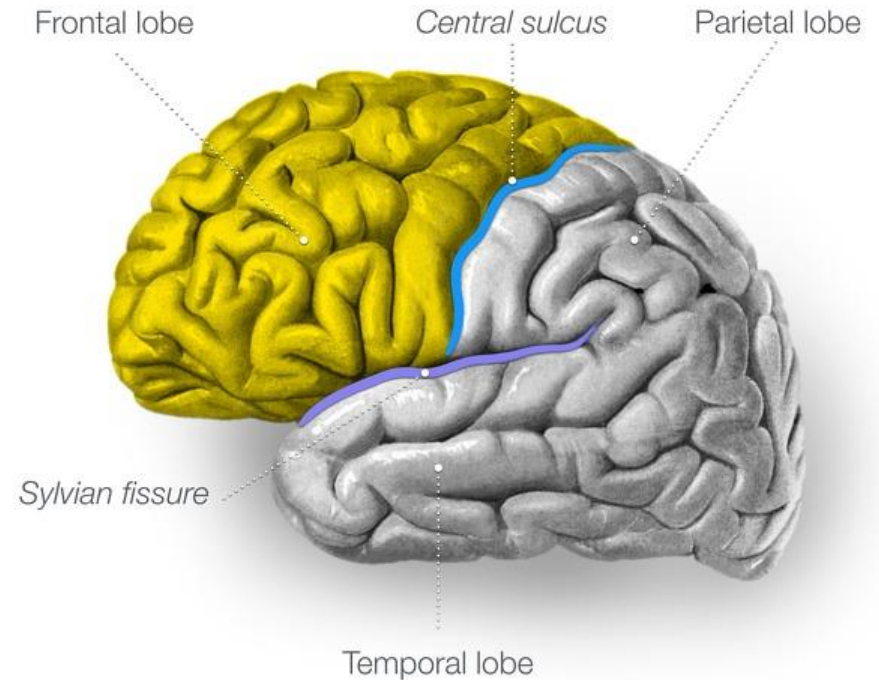
# Parts of the Brain:



# Cerebral hemisphere:



## Frontal lobe



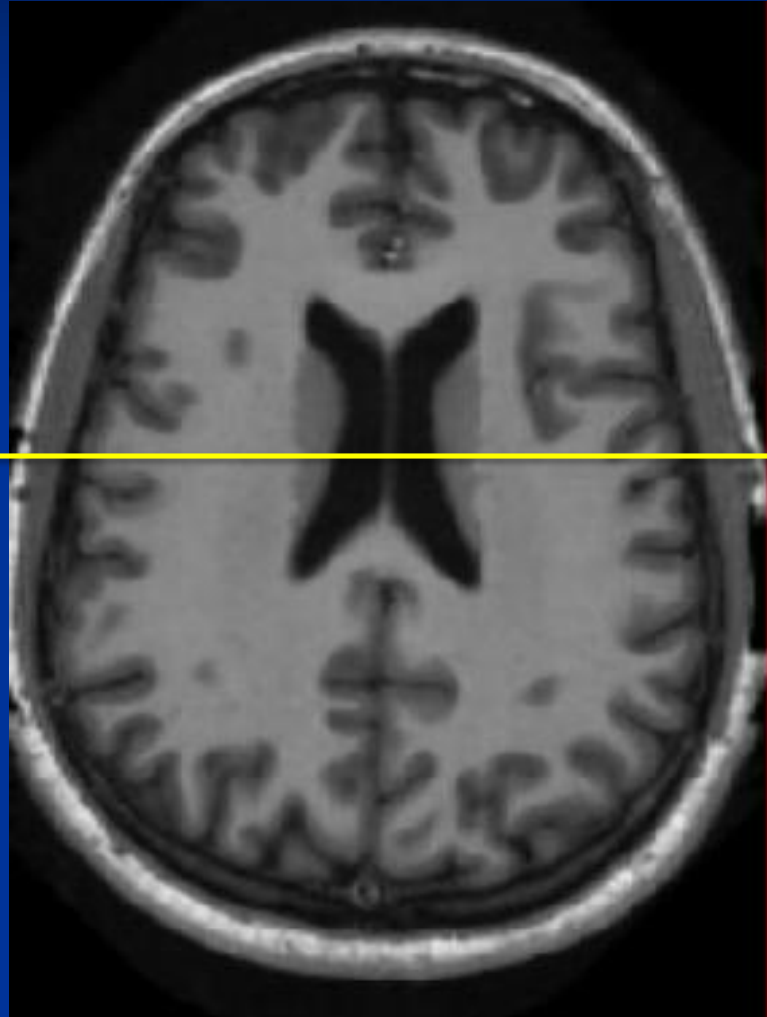
Adapted from illustration from "Sobotta's Textbook and Atlas of Human Anatomy" 1908, now in the public domain.

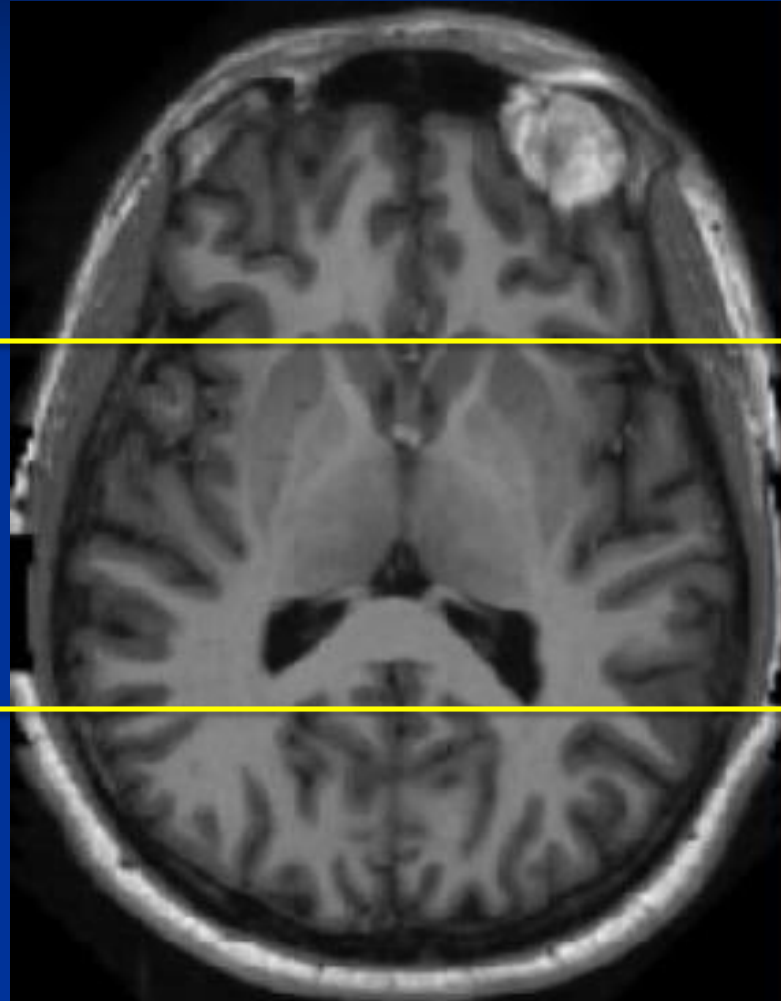
Adapted from illustration from "Sobotta's Textbook and Atlas of Human Anatomy" 1908, now in the public domain.

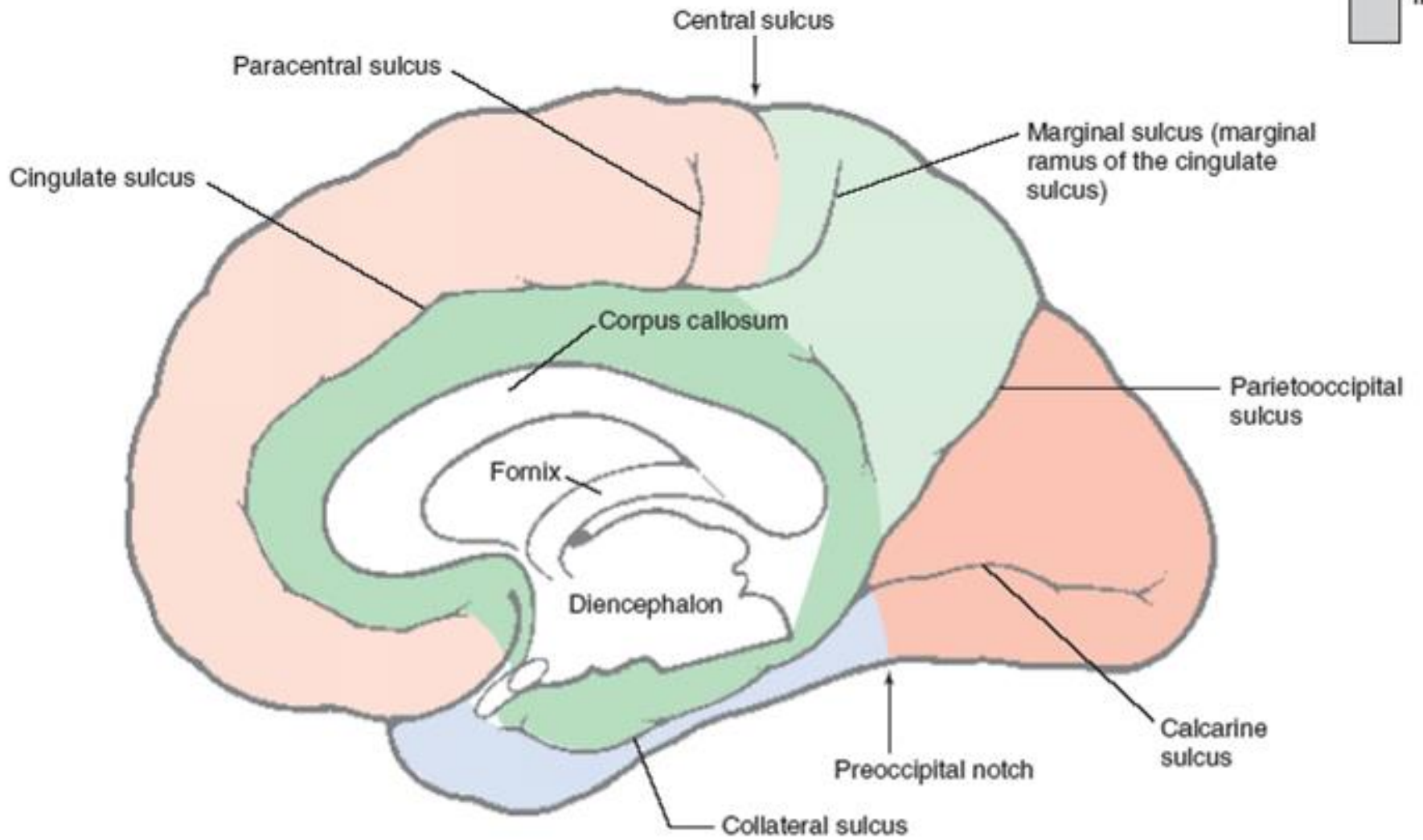


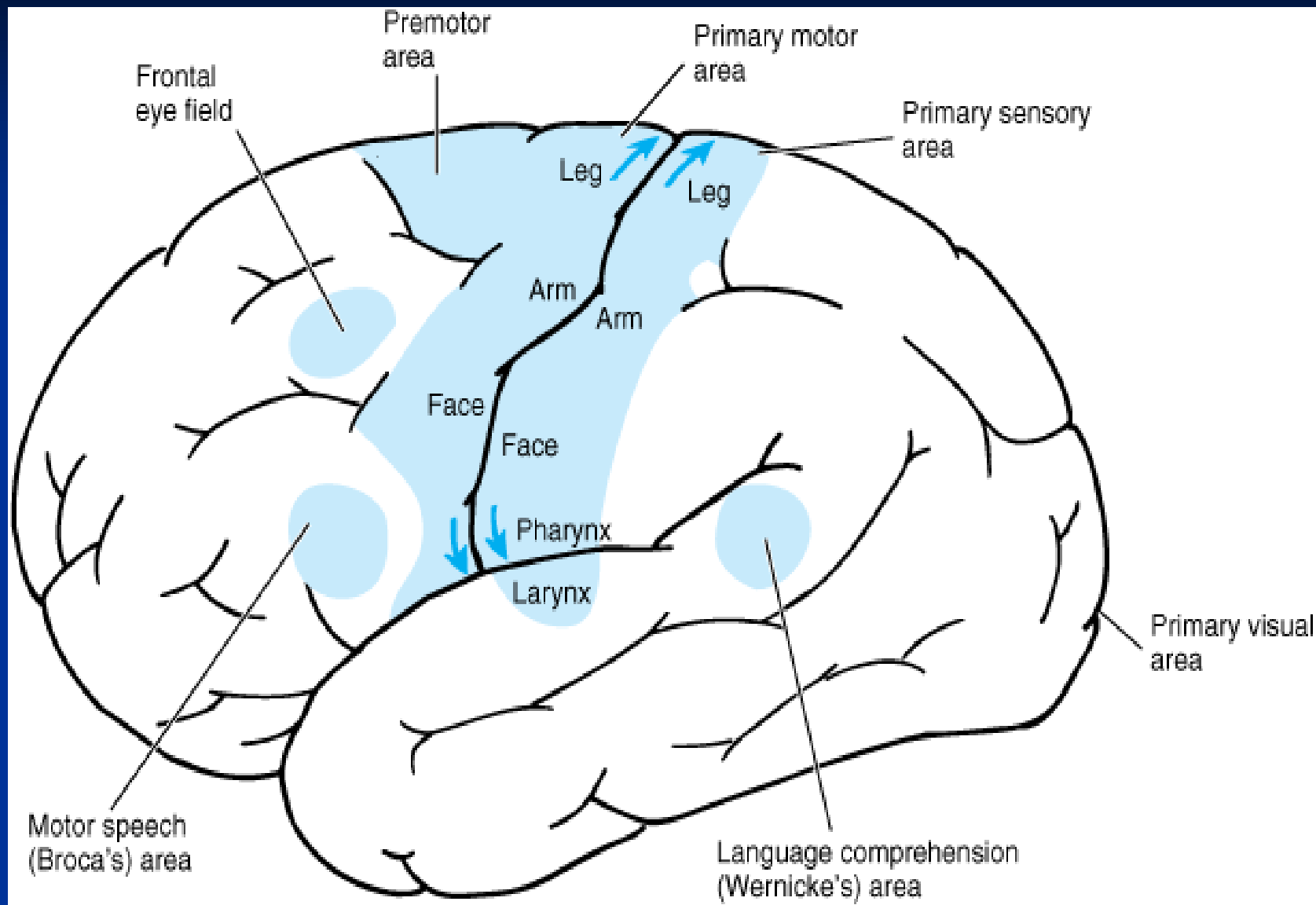


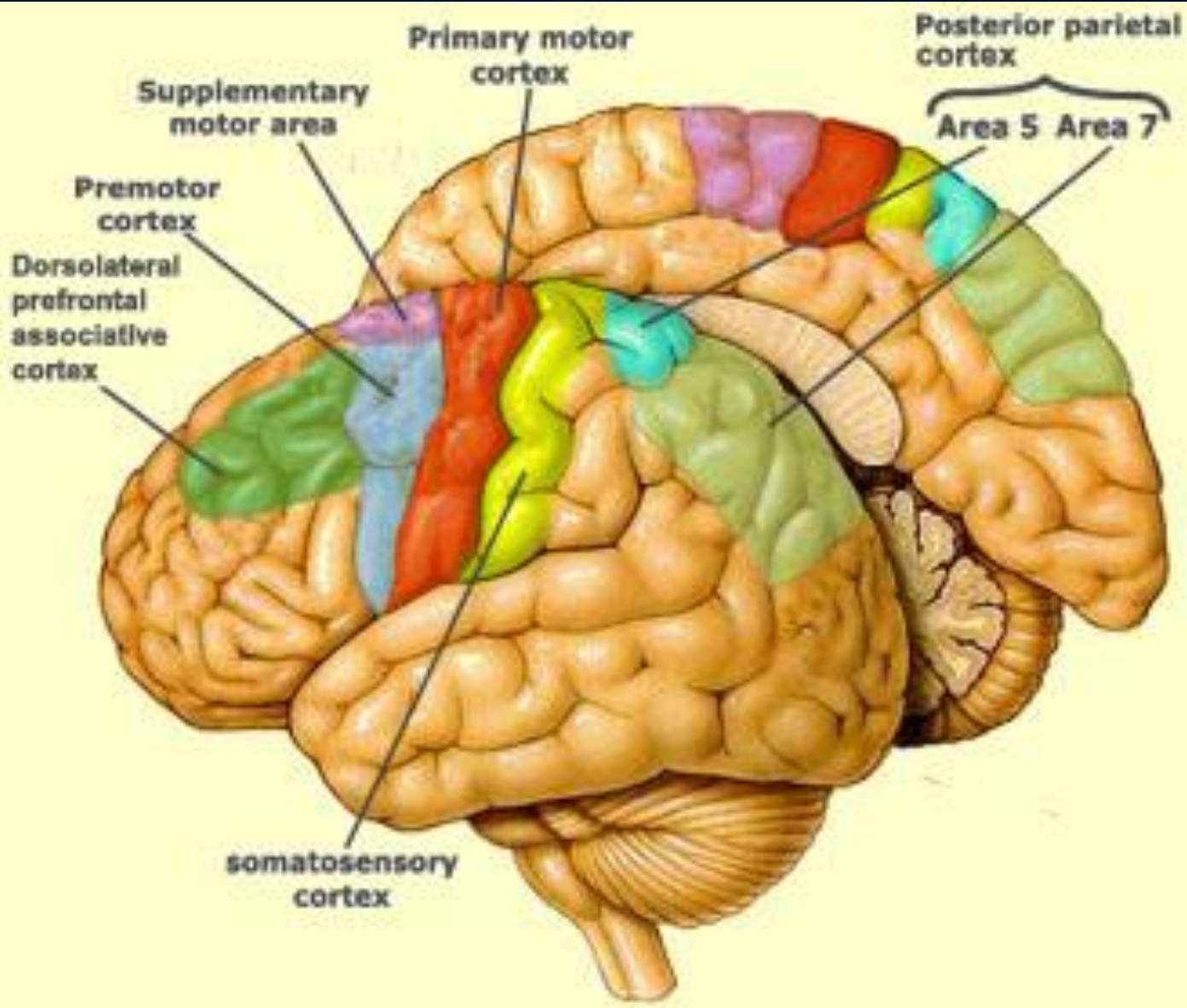


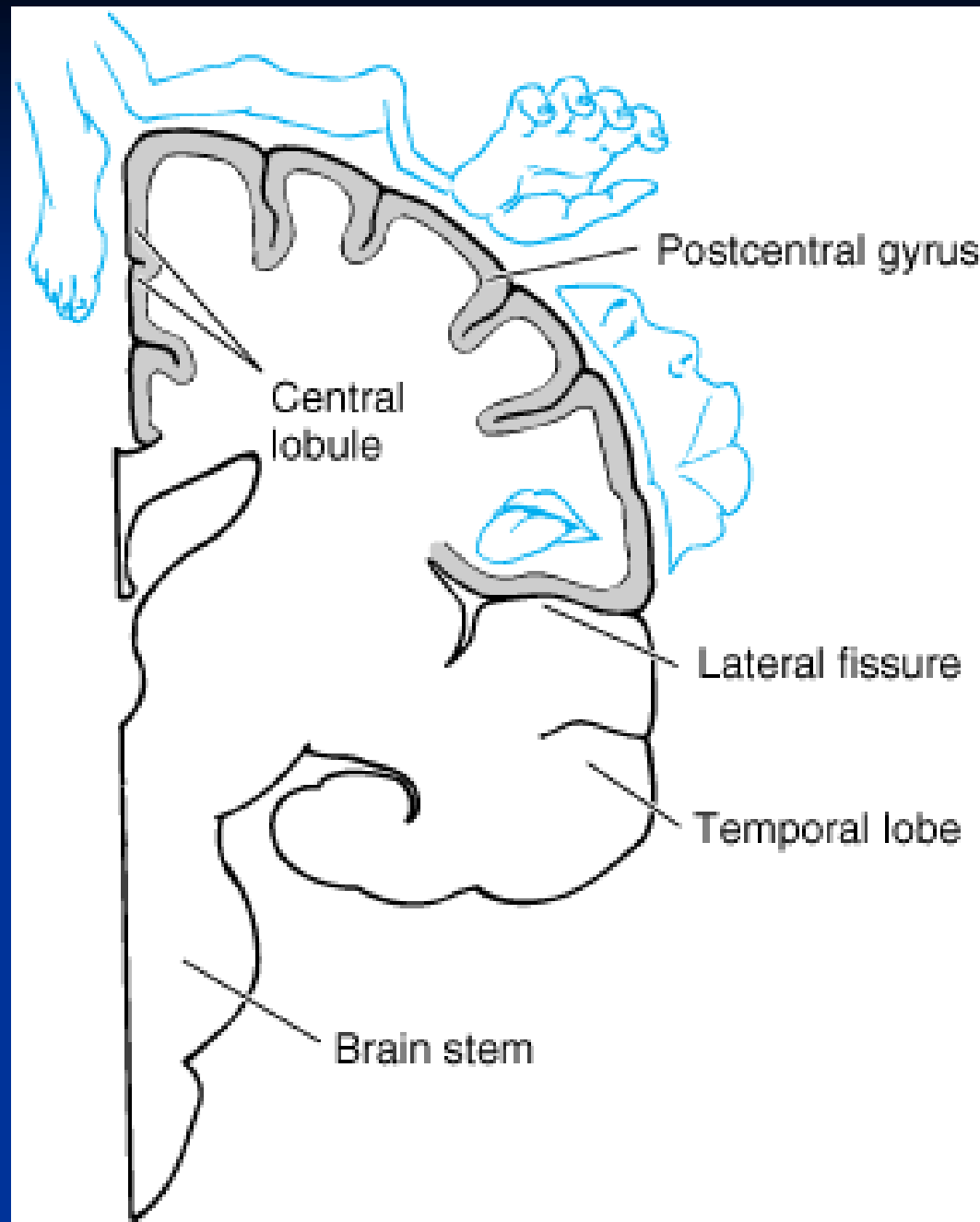






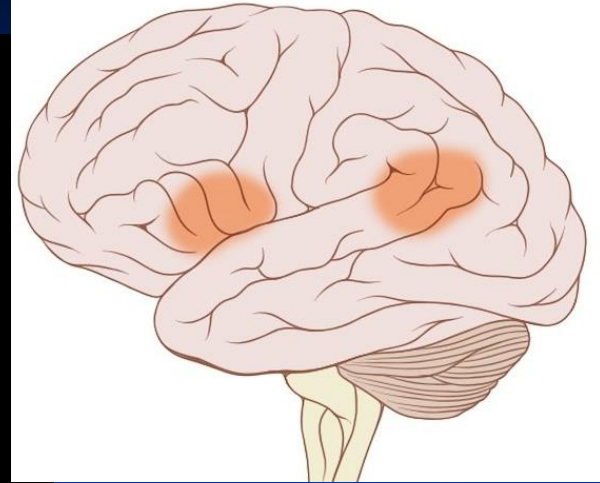






Broca  
(Brodmann area 44)

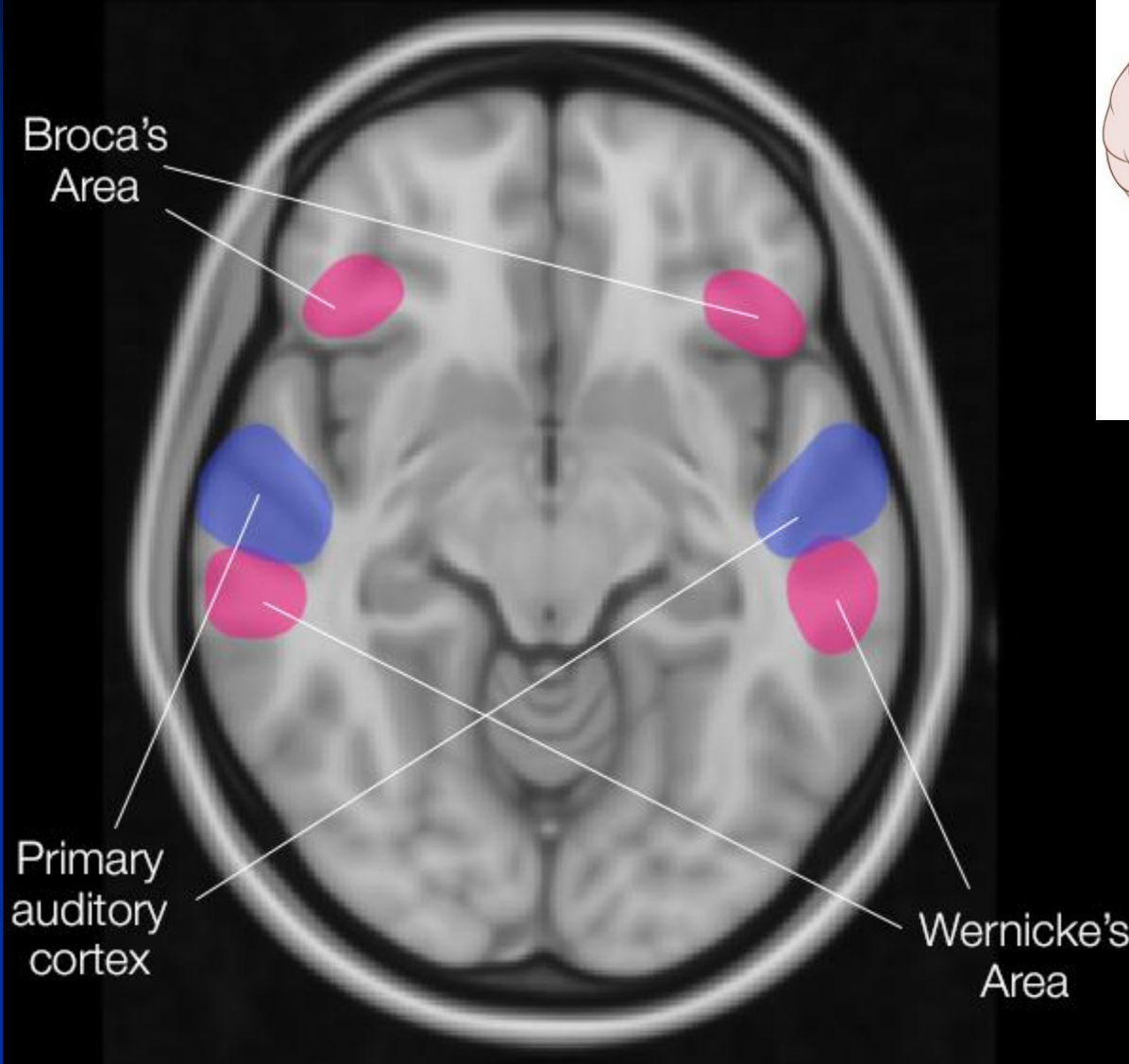
Wernicke  
(Brodmann area 22)



Broca's  
Area

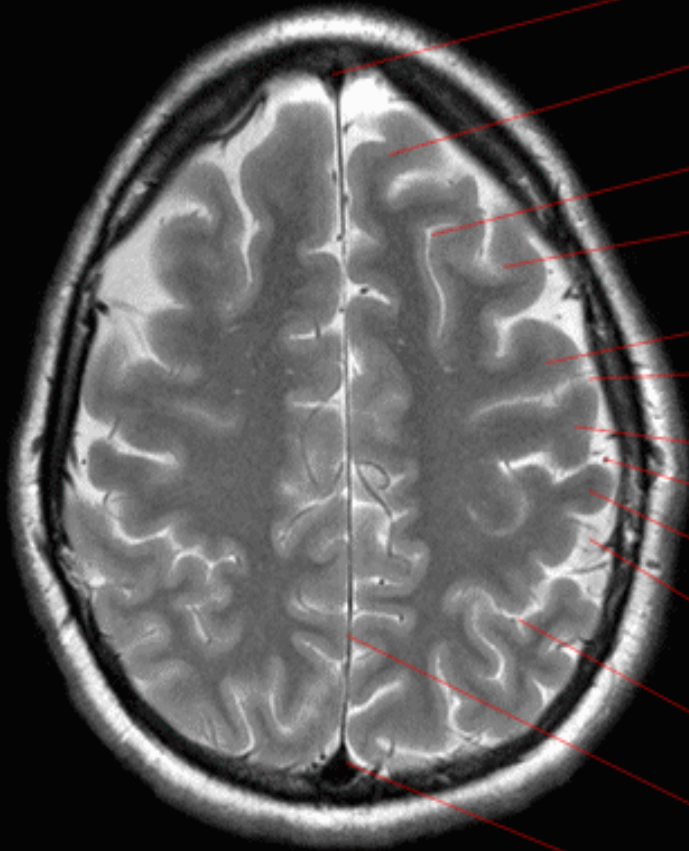
Primary  
auditory  
cortex

Wernicke's  
Area





# Brain Axial T2



Precentral sulcus

Precentral gyrus



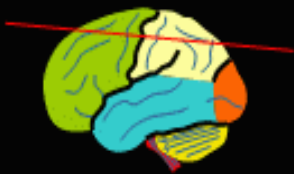
Postcentral gyrus

Postcentral sulcus

Intraparietal sulcus

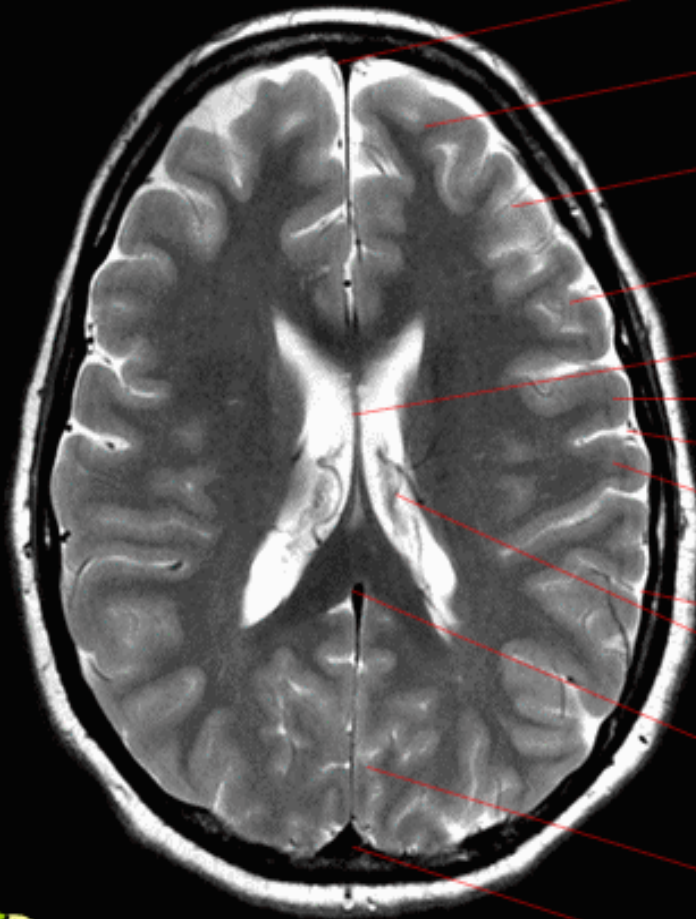
Interhemispheric fissure

Superior sagittal sinus



# Brain

## Axial T2



[Redacted]

Superior frontal gyrus

Middle frontal gyrus

Inferior frontal gyrus

[Redacted]

Precentral gyrus

Central sulcus

Postcentral gyrus

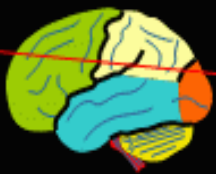
Lateral sulcus

[Redacted]

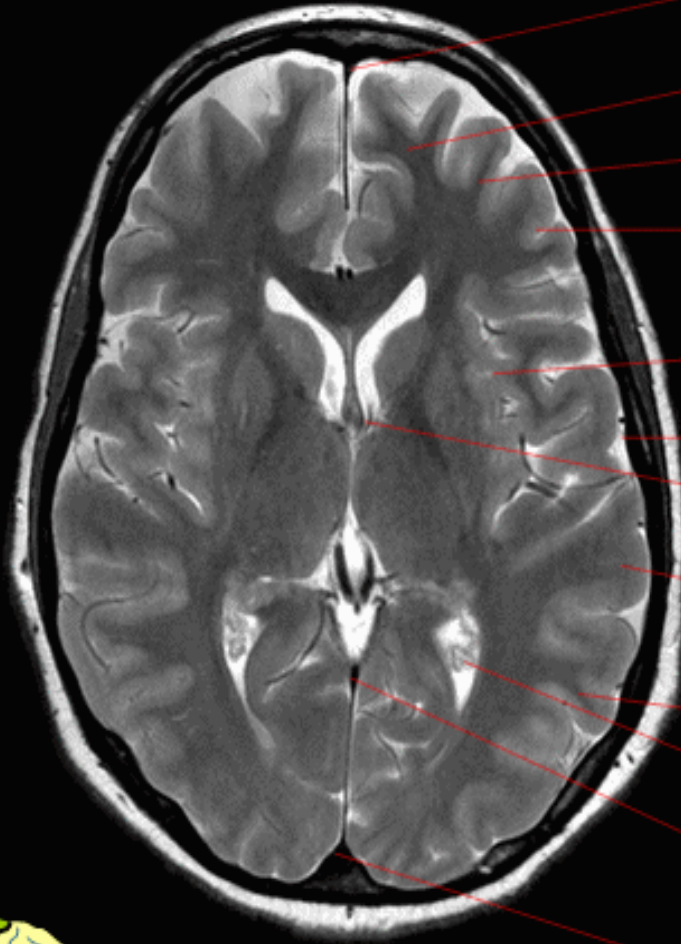
[Redacted]

Parietooccipital sulcus

[Redacted]



# Brain Axial T2



Superior sagittal sinus

Superior frontal gyrus

Middle frontal gyrus

Inferior frontal gyrus



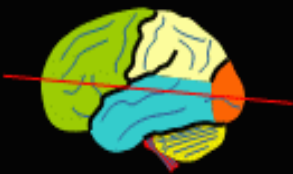
Superior temporal gyrus

Middle temporal gyrus

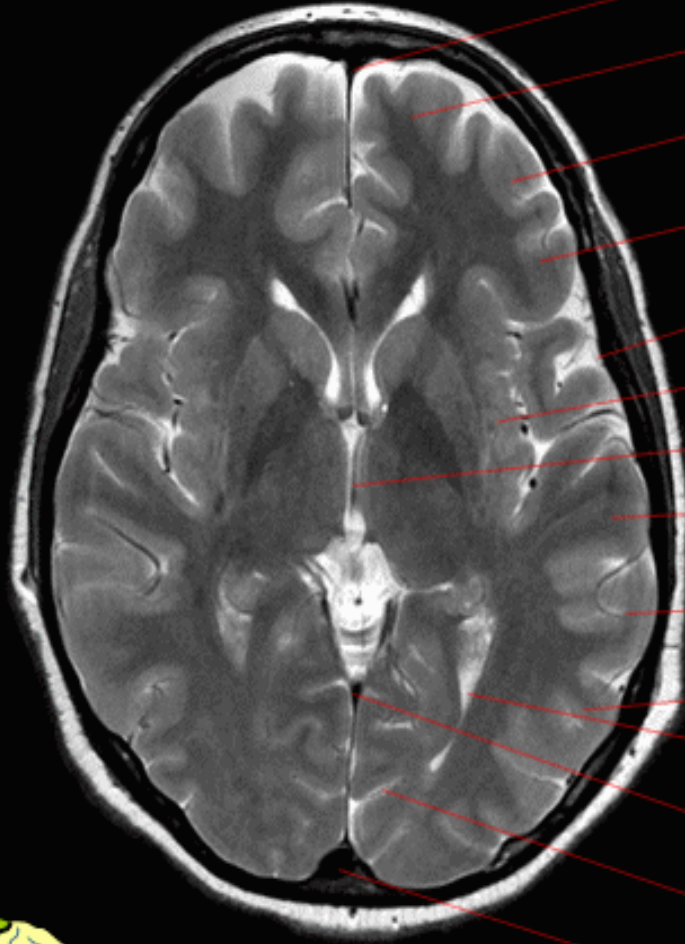
Choroid plexus

Straight sinus

Superior sagittal sinus



# Brain Axial T2



Superior sagittal sinus

Superior frontal gyrus

Middle frontal gyrus



Middle temporal gyrus

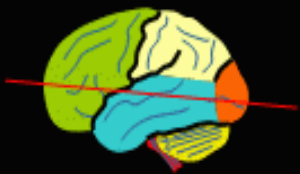
Inferior temporal gyrus



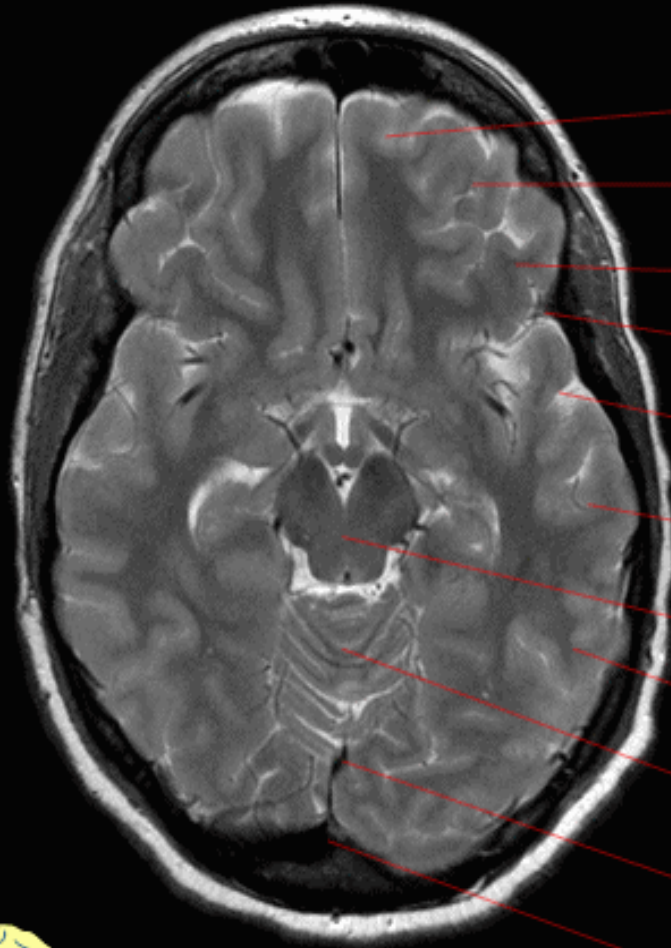
Straight sinus

Calcarine sulcus

Superior sagittal sinus



# Brain Axial T2



Superior frontal gyrus

Middle frontal gyrus

Inferior frontal gyrus

Lateral sulcus

Superior temporal gyrus

Middle temporal gyrus

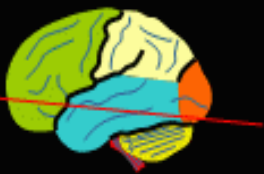
Midbrain

Inferior temporal gyrus

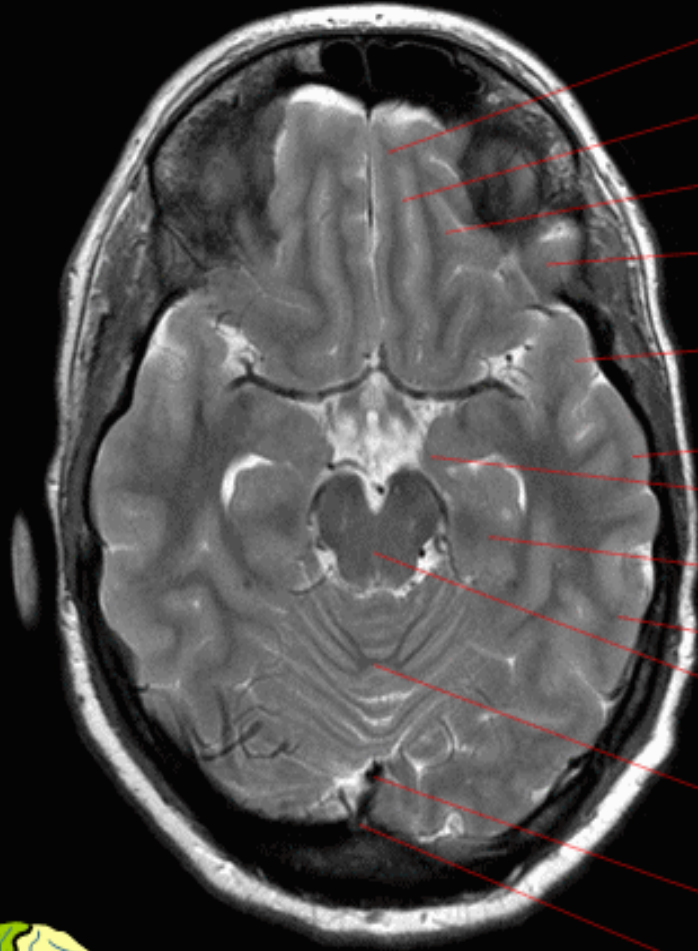
Vermis

Straight sinus

Superior sagittal sinus



# Brain Axial T2



Gyrus rectus

Olfactory sulcus

Orbital gyrus

Inferior frontal gyrus

Superior temporal gyrus

Middle temporal gyrus

Uncus

Parahippocampal gyrus

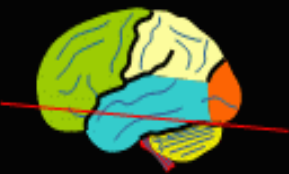
Inferior temporal gyrus

Midbrain

Vermis

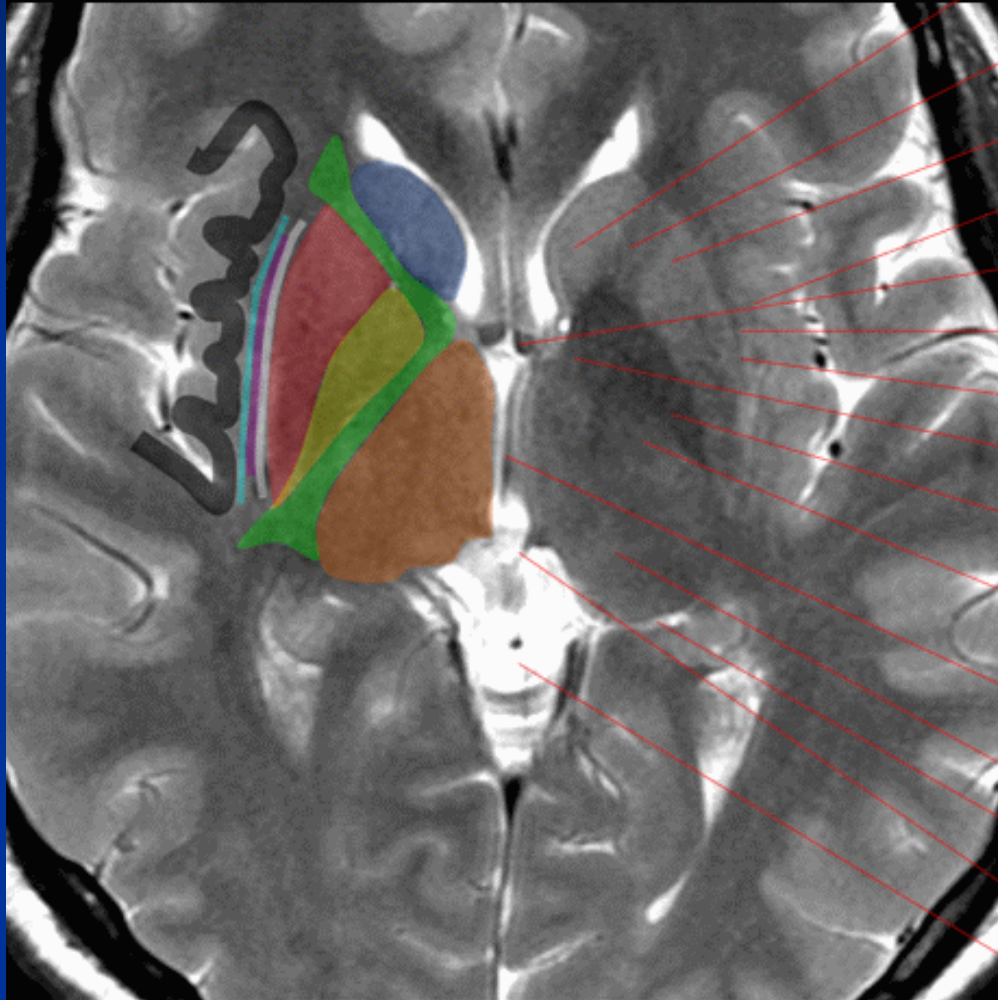
Straight sinus

Superior sagittal sinus



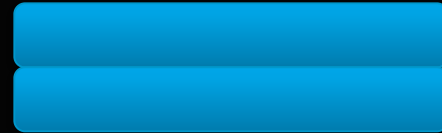
# Brain

## Axial T2



Caudate nucleus

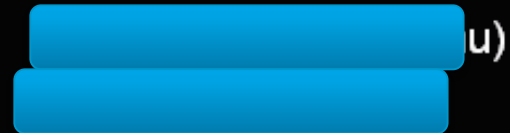
Internal capsule  
(anterior limb)



Column of fornix

Clastrum

External capsule



Internal capsule  
(posterior limb)

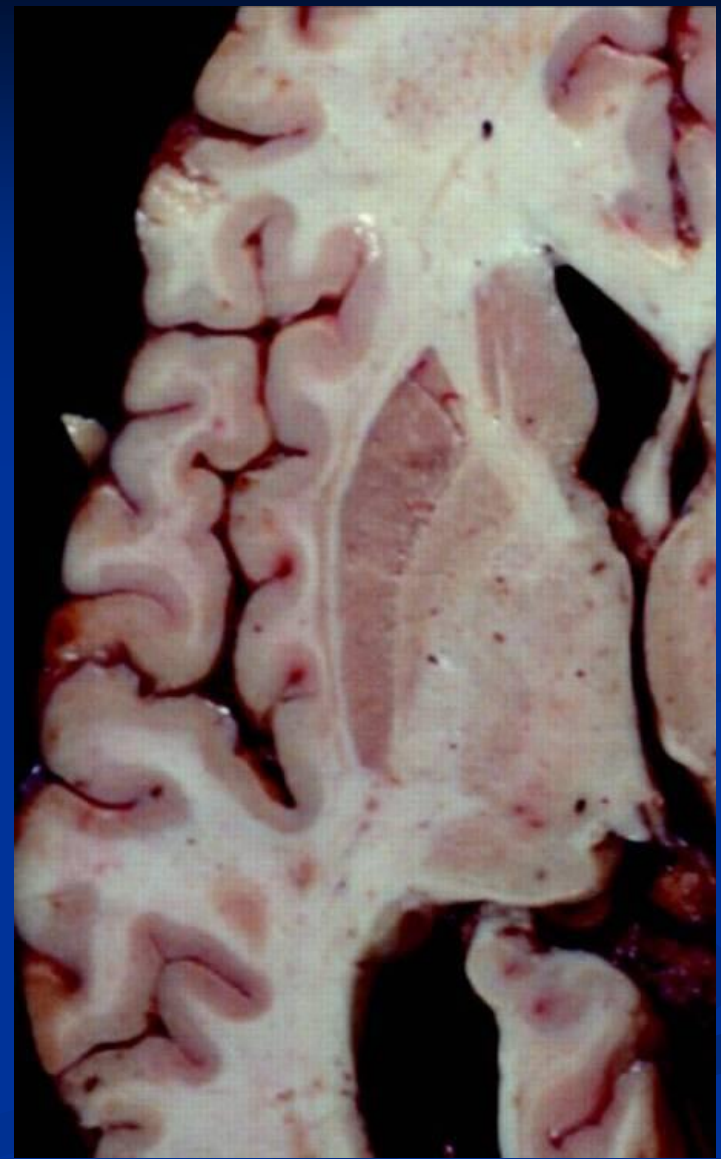
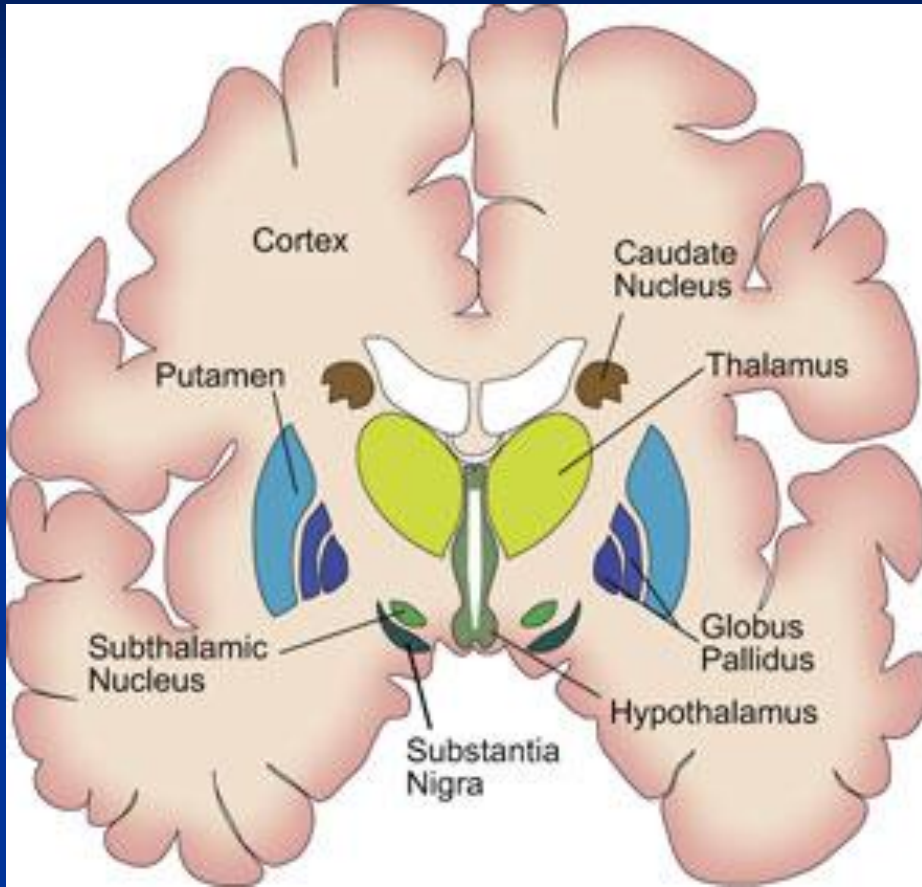
Third ventricle



Retropulvinar cistern

Posterior commissure

Quadrigeminal cistern





# Brain Sagittal T1



Superior sagittal sinus



Precuneus

 fissure

Cuneus

Calcarine sulcus

Lingual gyrus

Straight sinus

Cerebellum

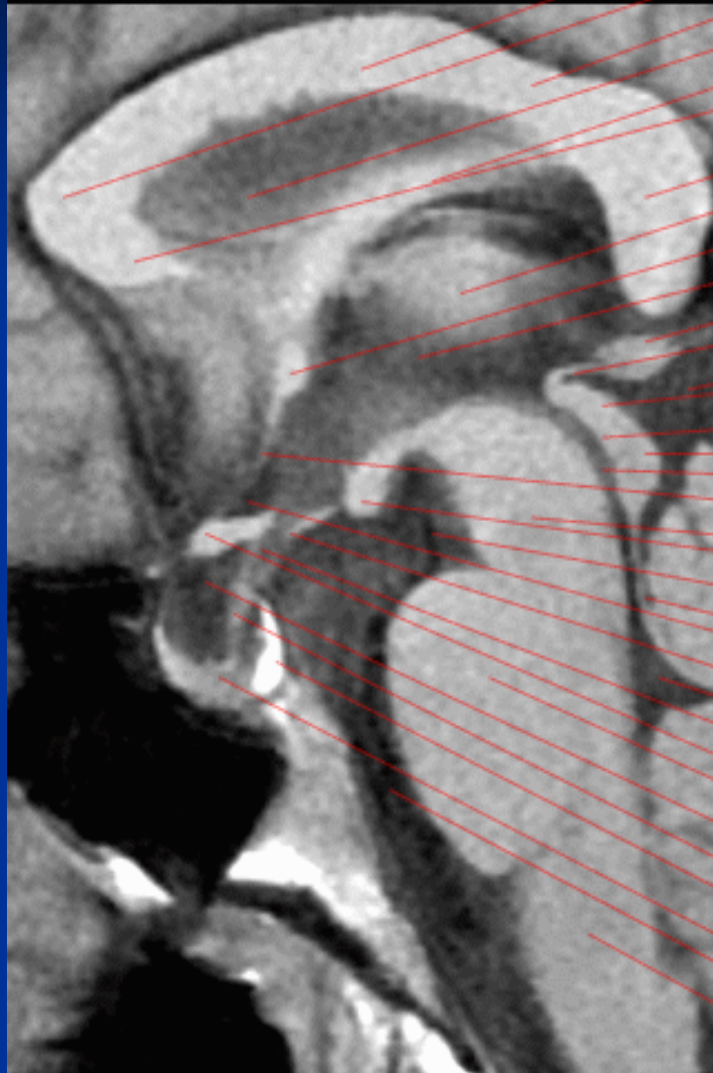
Brainstem

Straight gyrus

Spinal cord

# Brain

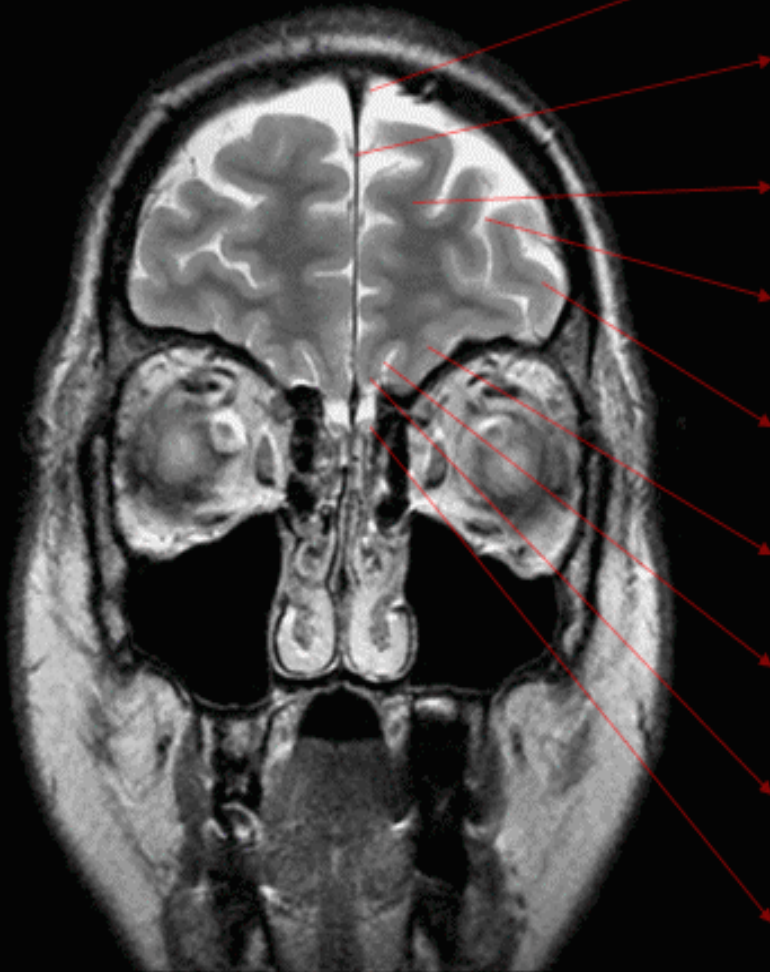
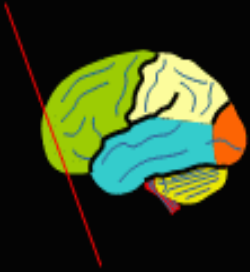
## Sagittal T1



- Corpus callosum (body)
- Corpus callosum (genu)
- Corpus callosum (isthmus)
- Septum pellucidum
- Fornix
- Corpus callosum (rostrum)
- Corpus callosum (splenium)
- Thalamus
- Anterior commissure
- Third ventricle
- Pineal gland
- Posterior commissure
- Quadrigeminal cistern
- Superior colliculus
- Quadrigeminal plate
- Inferior colliculus
- Cerebral aqueduct
- Lamina terminalis
- Midbrain
- Mamillary body
- Interpeduncular cistern
- Superior medullary velum
- Supraoptic recess
- Tuber cinereum
- Fourth ventricle
- Infundibular recess
- Optic chiasm
- Pons
- Suprasellar cistern
- Infundibulum
- Neurohypophysis
- Adenohypophysis
- Prepontine cistern
- Medulla oblongata

# Brain

## Coronal T2

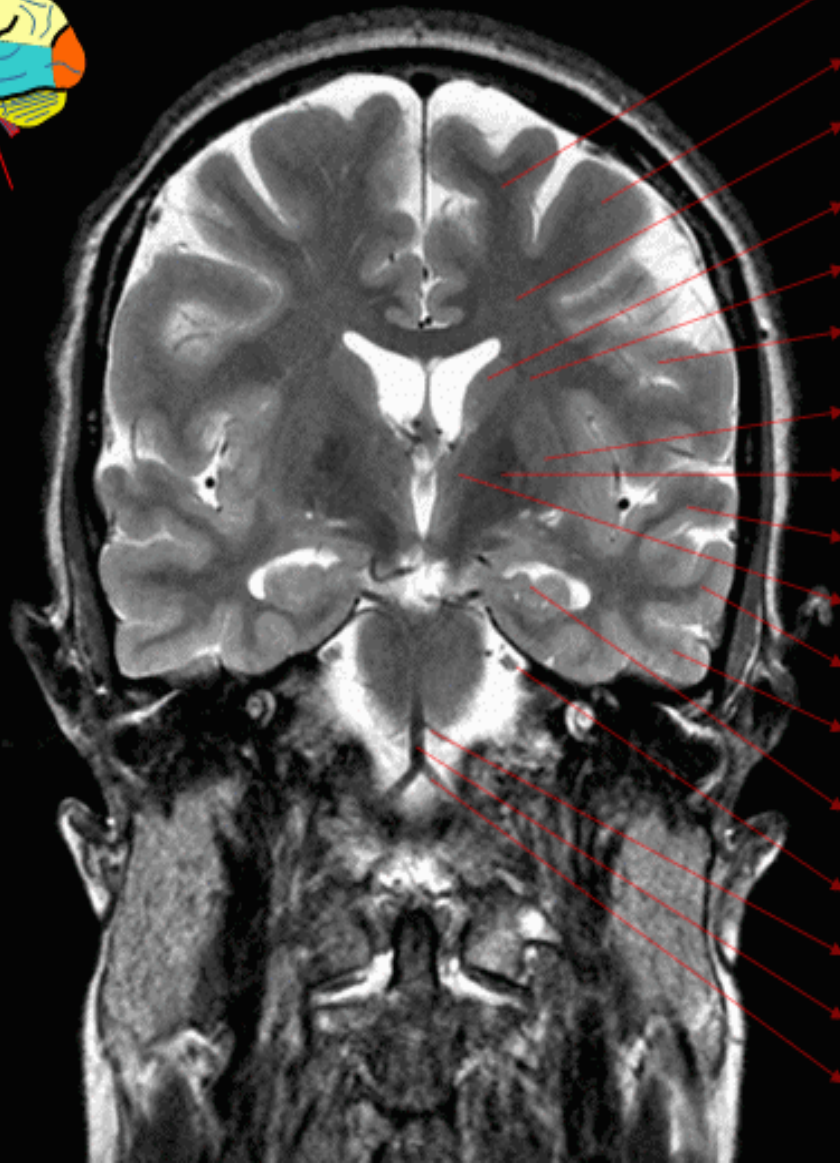
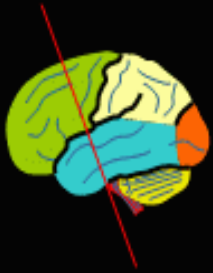


- [Redacted]
- [Redacted]
- [Redacted] gyrus
- [Redacted] sulcus
- [Redacted] gyrus
- Medial orbital gyrus
- Olfactory sulcus
- Gyrus rectus
- [Redacted]



# Brain

## Coronal T2

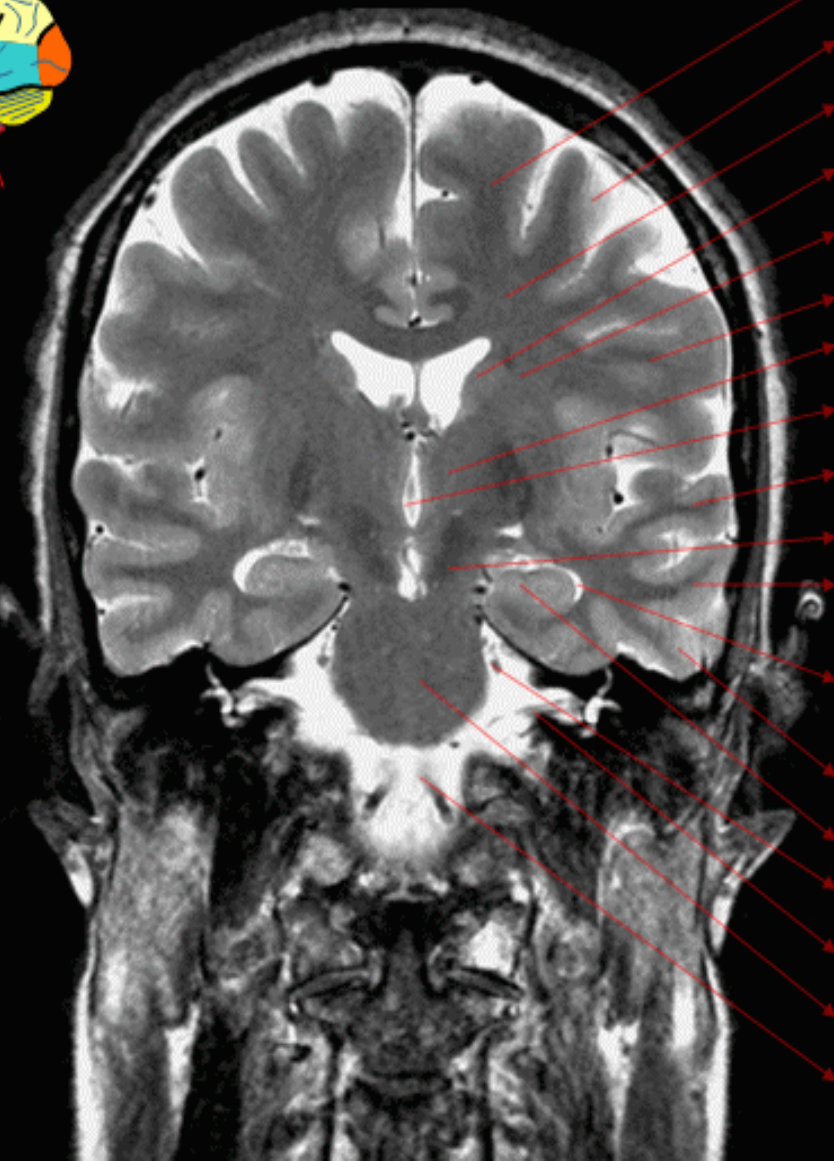
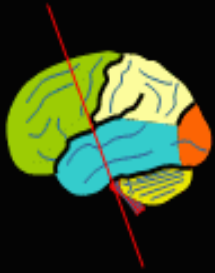


- Superior frontal gyrus
- Middle frontal gyrus
- Centrum semiovale
- Caudate nucleus
- Corona radiata
- Inferior frontal gyrus
- Putamen
- Globus pallidus
- Superior temporal gyrus
- Internal capsule
- Middle temporal gyrus
- Inferior temporal gyrus
- Hippocampus
- Trigeminal nerve (V)
- Superior cerebellar artery



# Brain

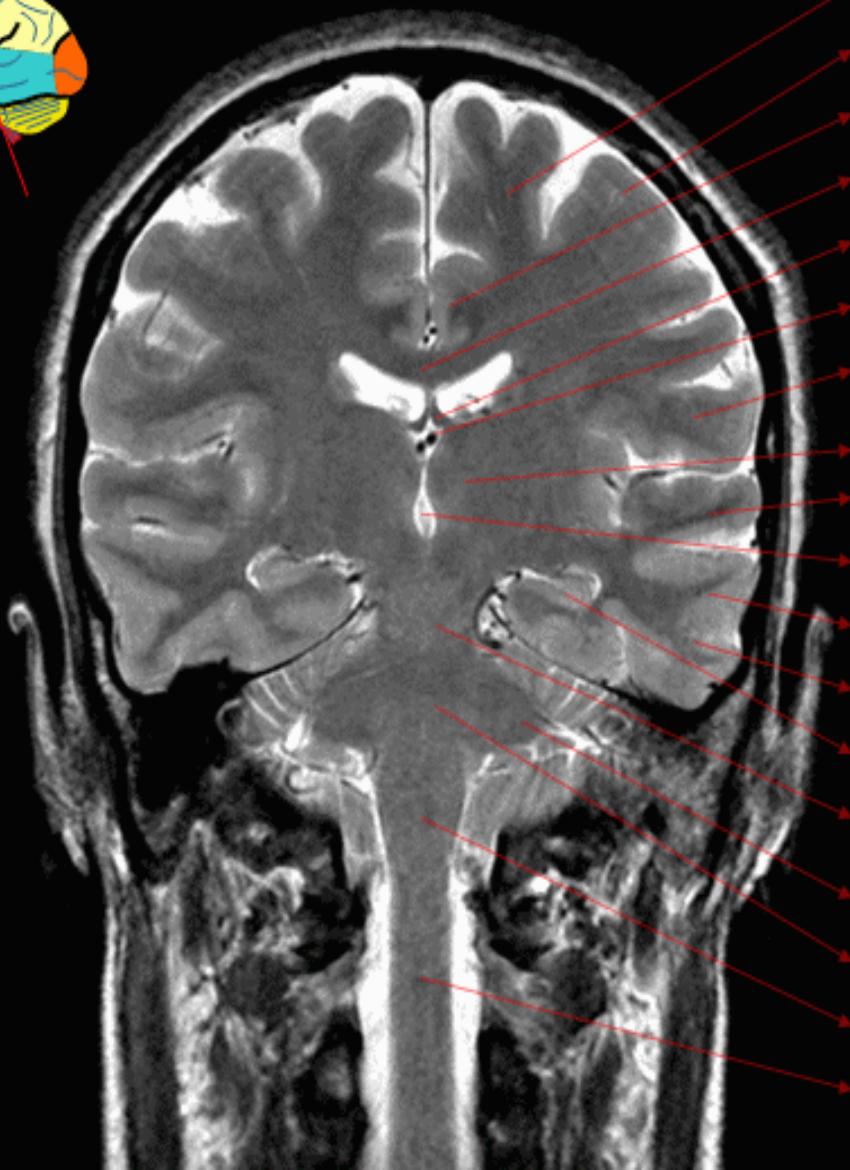
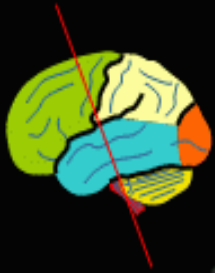
## Coronal T2



- Superior frontal gyrus
- Middle frontal gyrus
- Centrum semiovale
- Caudate nucleus
- Corona radiata
- Inferior frontal gyrus
- Thalamus
- Third ventricle
- Superior temporal gyrus
- Mid brain
- Middle temporal gyrus
- Lateral ventricle  
(temporal horn)
- Inferior temporal gyrus
- Hippocampus
- Trigeminal nerve (V)
- CN VII and VIII
- Pons
- Vertebral artery

# Brain

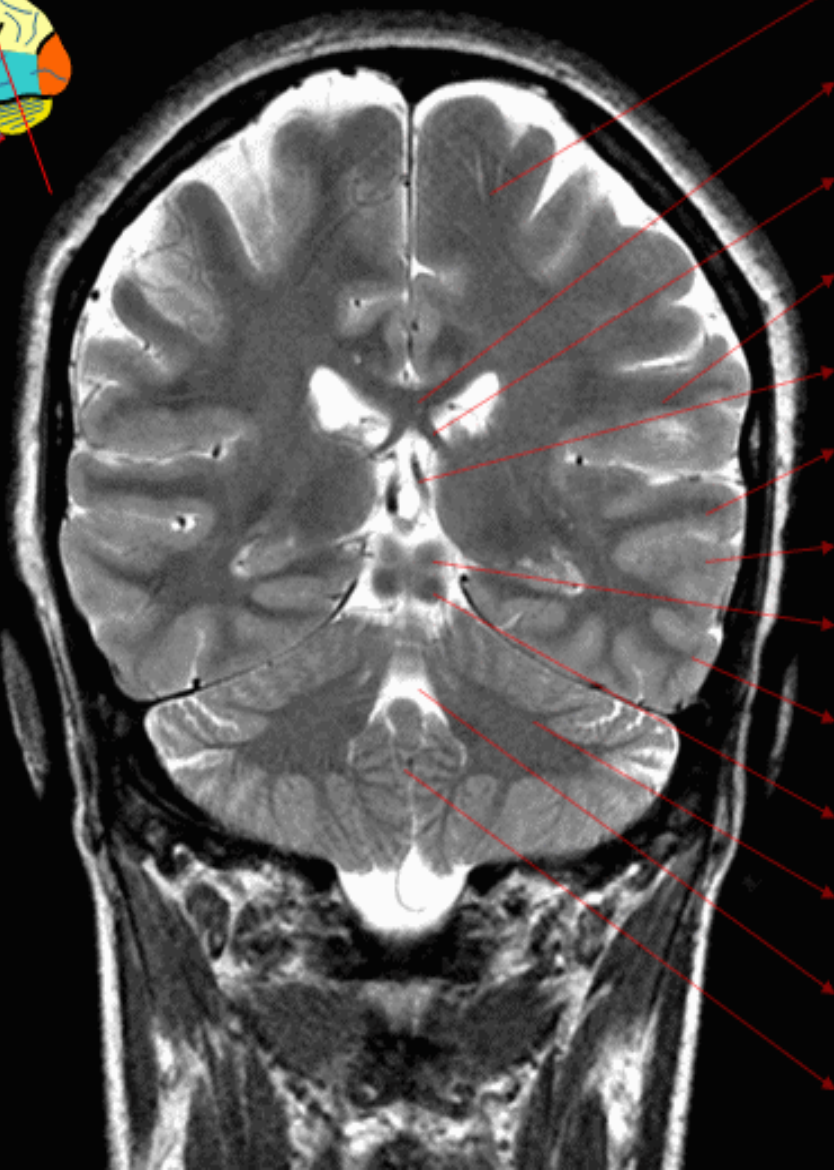
## Coronal T2



- Superior frontal gyrus
- Middle frontal gyrus
- Cingulate gyrus
- Corpus callosum (body)
- Internal cerebral vein
- Precentral gyrus
- Thalamus
- Superior temporal gyrus
- Middle temporal gyrus
- Inferior temporal gyrus
- Hippocampus
- Mid brain
- Middle cerebellar peduncle
- Pons
- Medulla oblongata
- Spinal cord

# Brain

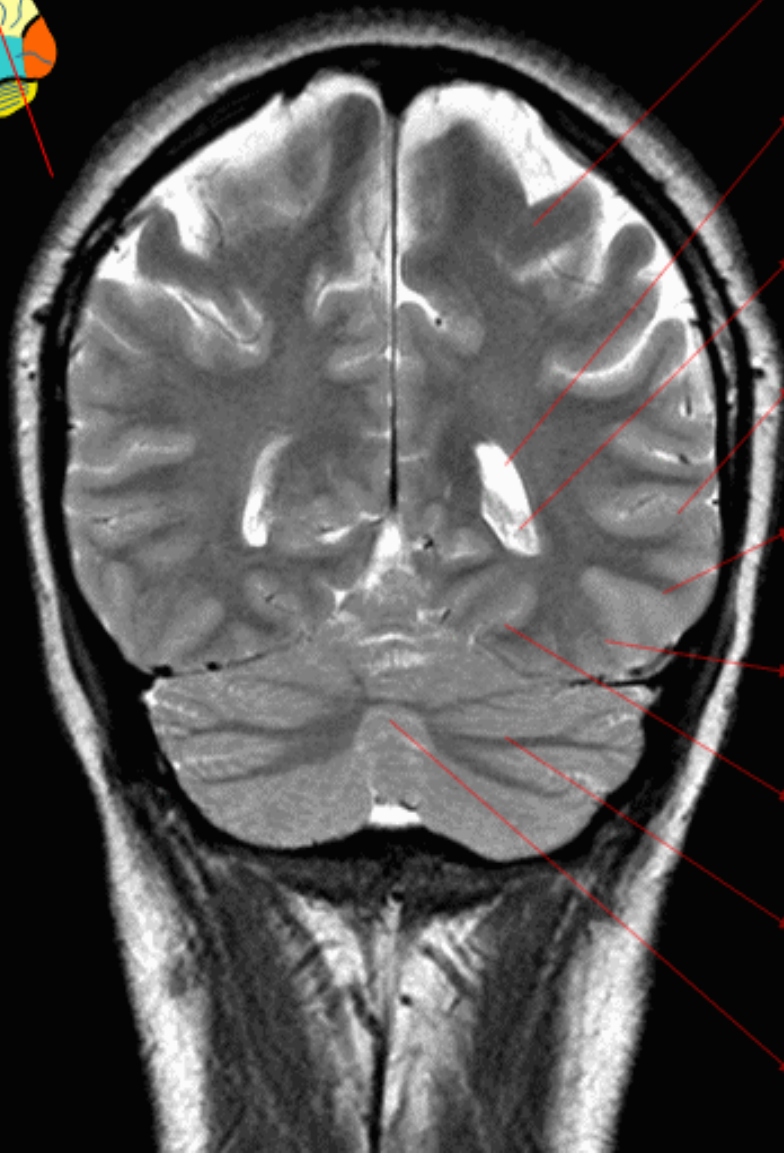
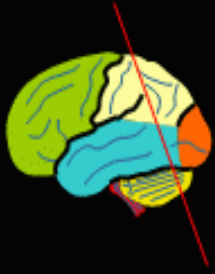
## Coronal T2



- Postcentral gyrus
- Corpus callosum (body)
- Fornix
- Supramarginal gyrus
- Internal cerebral vein
- Superior temporal gyrus
- Middle temporal gyrus
- Superior colliculus
- Inferior temporal gyrus
- Inferior colliculus
- Cerebellum
- Fourth ventricle
- Vermis



# Brain Coronal T2



Supramarginal gyrus

Lateral ventricle (occipital horn)

Middle temporal gyrus

Inferior temporal gyrus

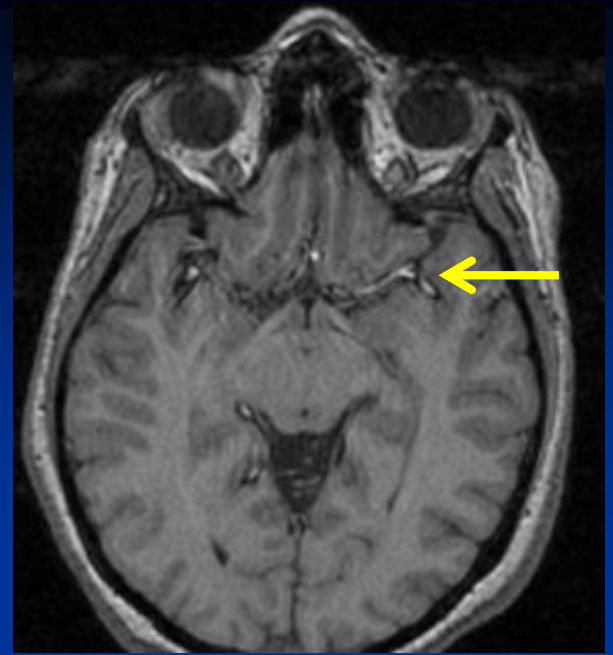
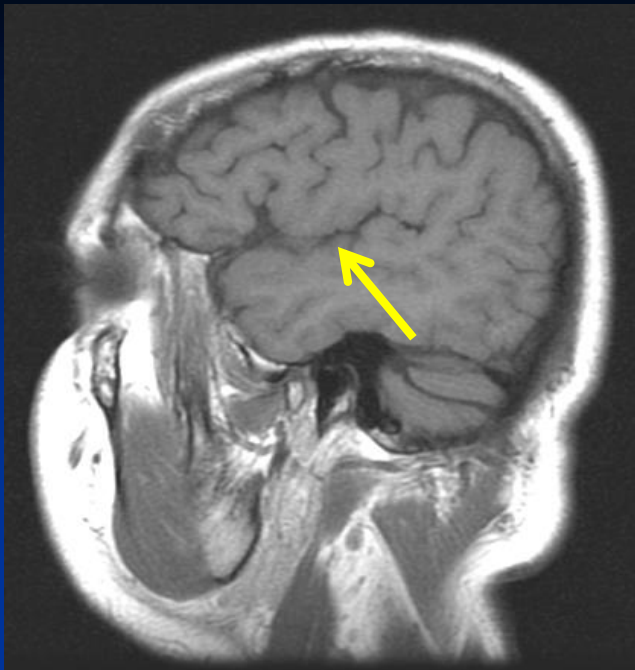
Fusiform gyrus

Lingual gyrus

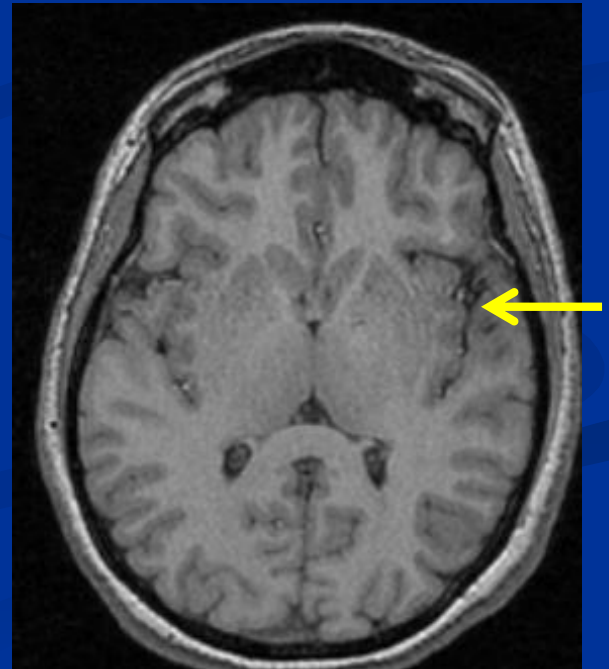
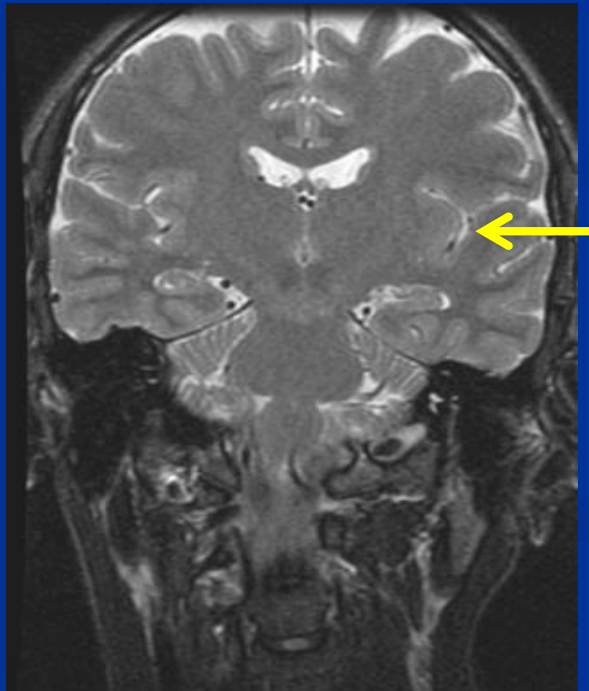
Cerebellum

Vermis

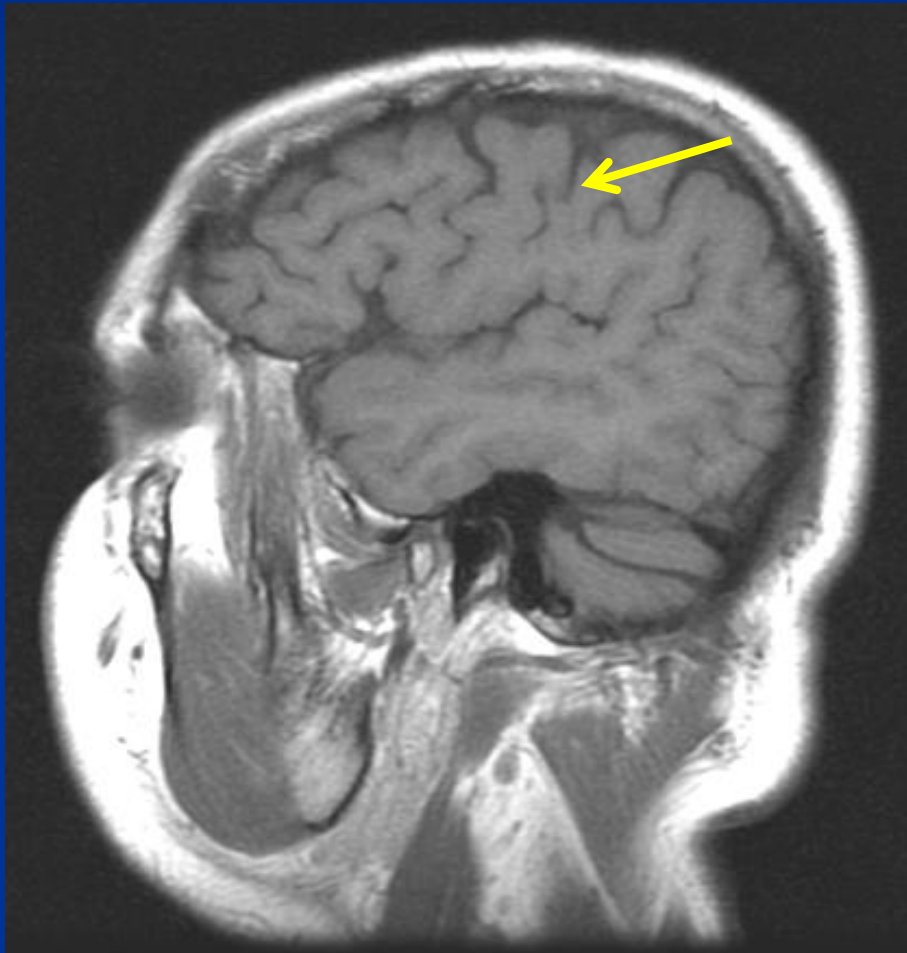
# Multiplane correlation



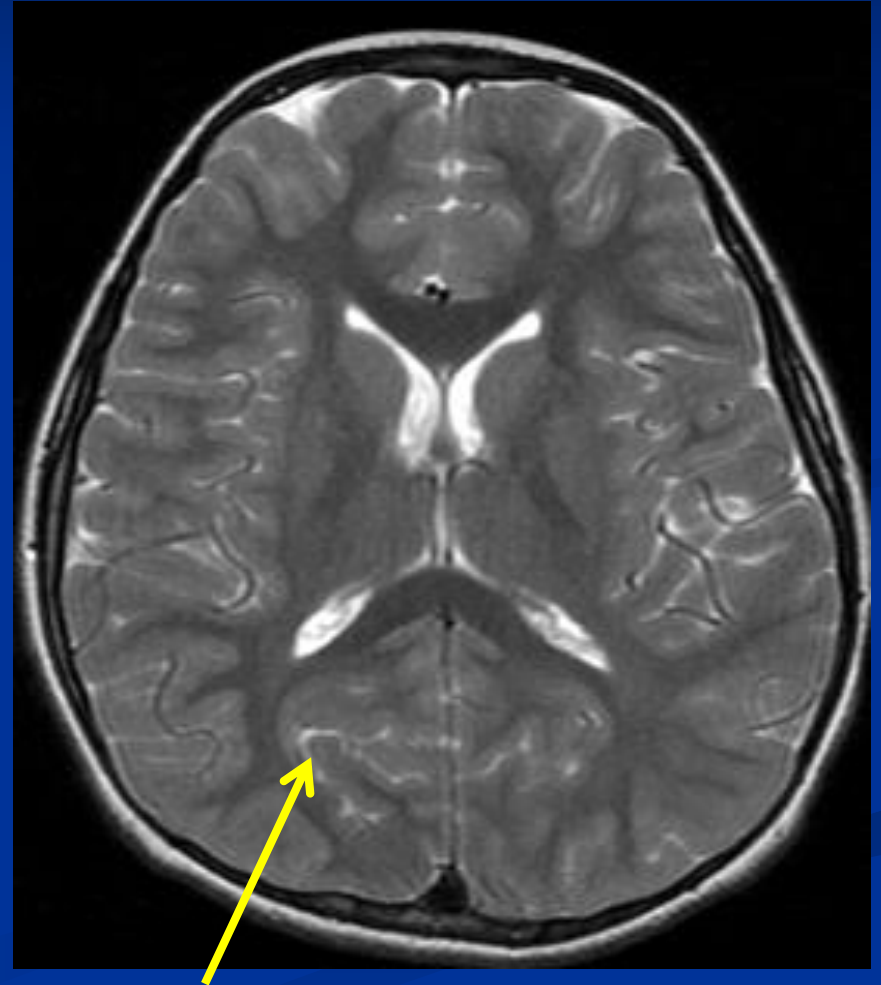
Sylvian fissure



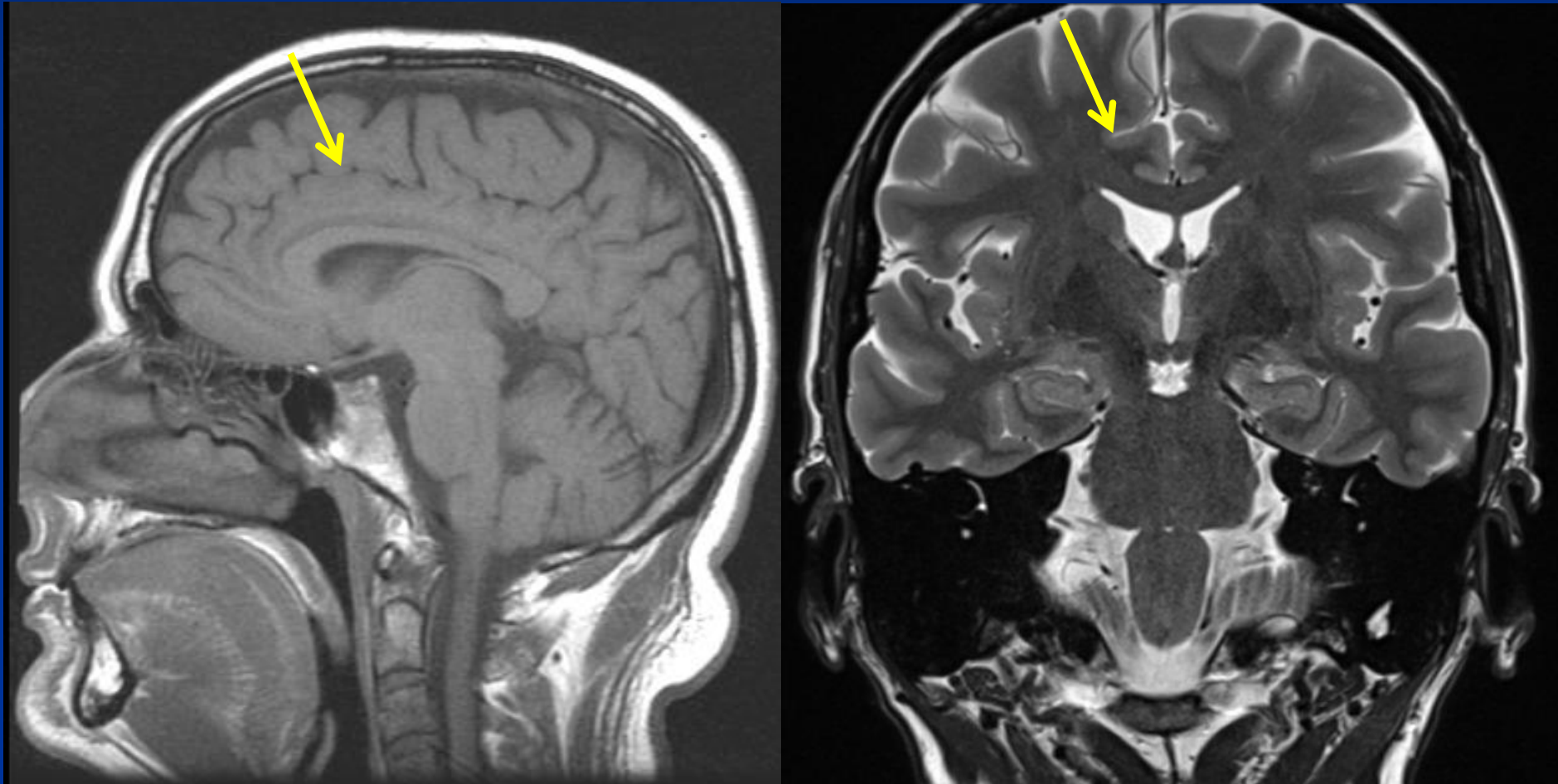
## Central (Rolandic) fissure



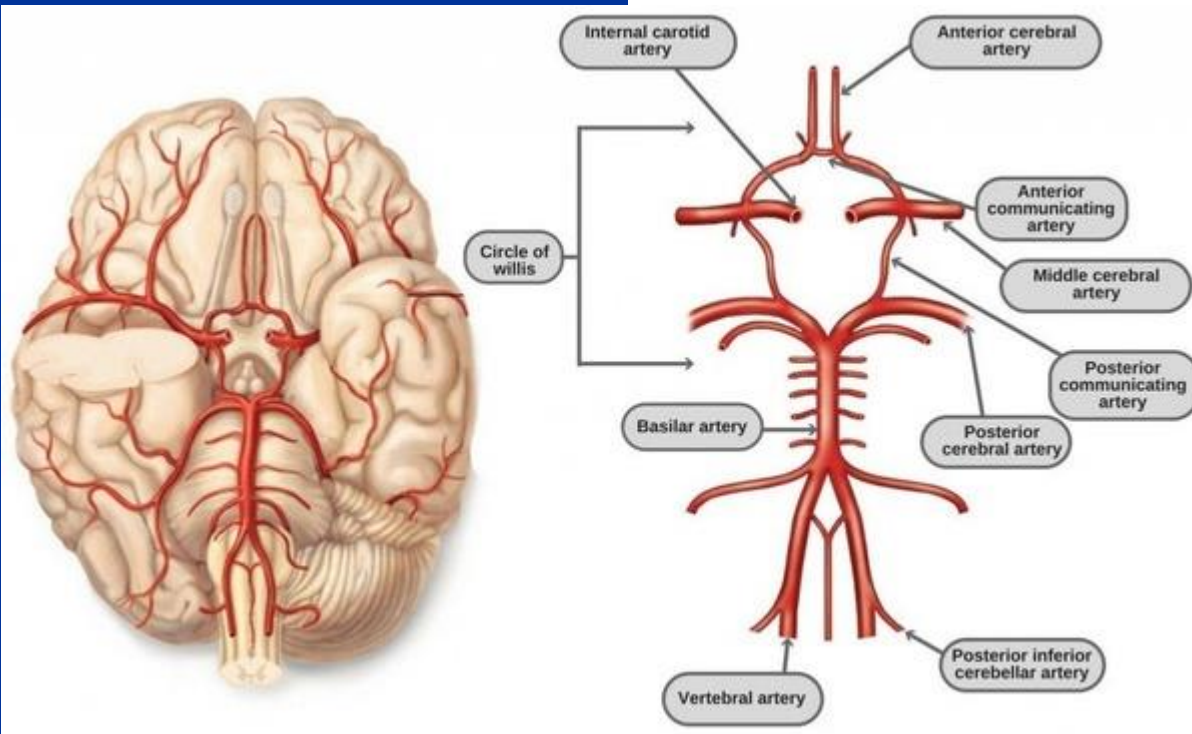
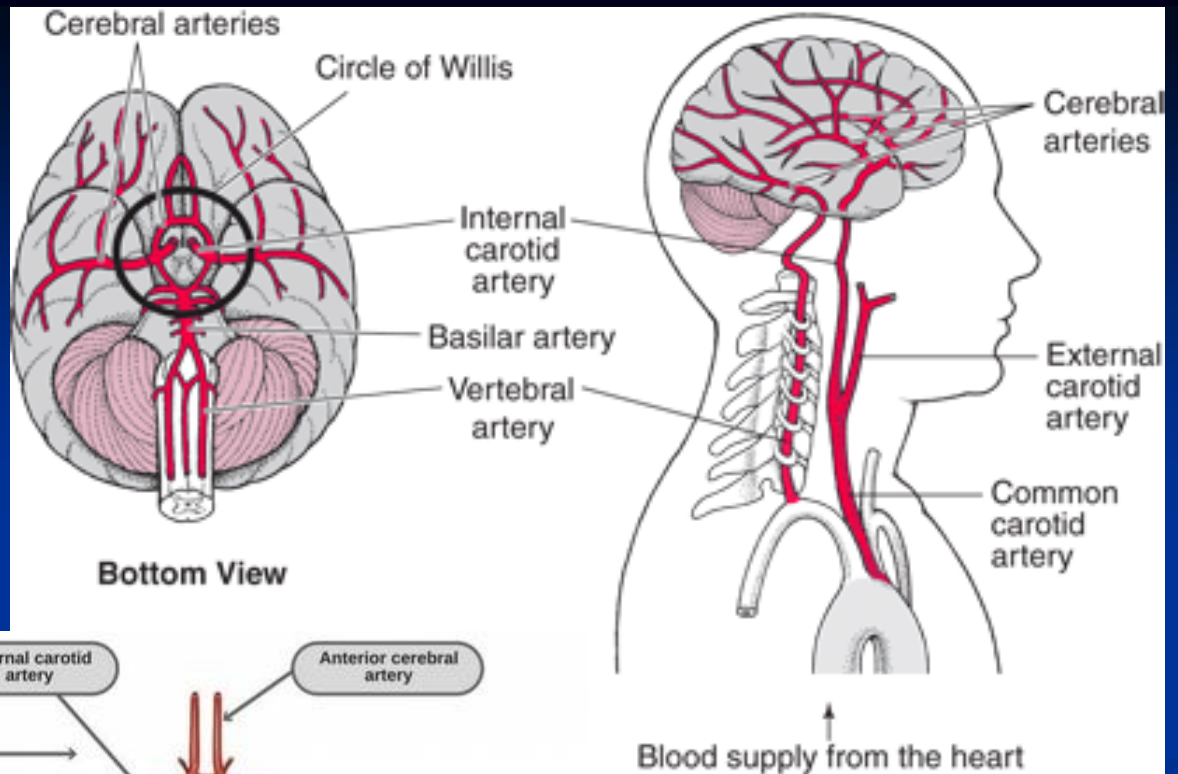
## Parieto-occipital fissure



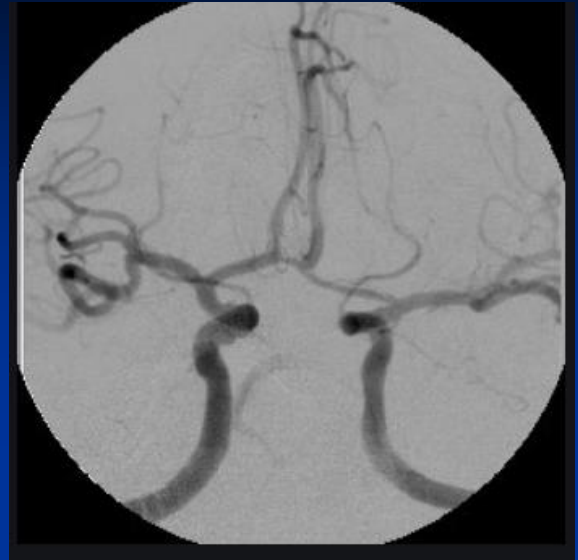
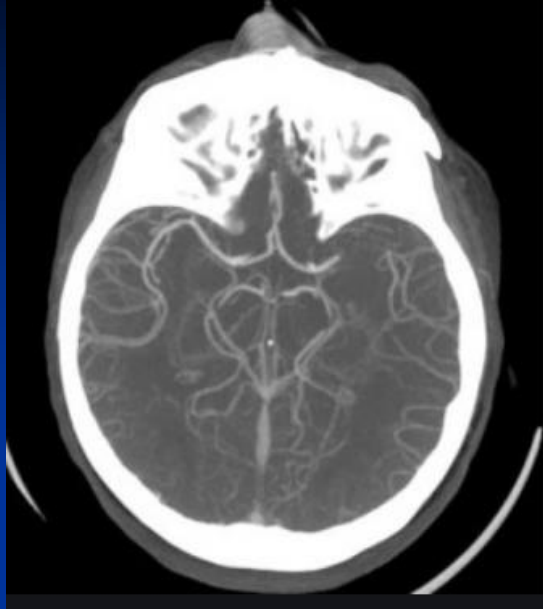
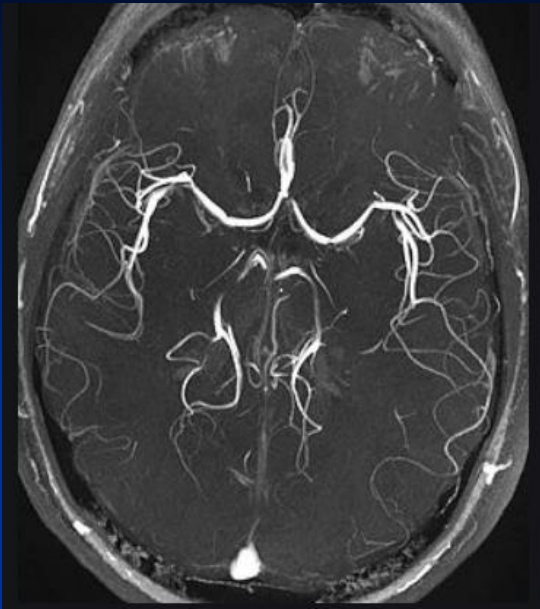
# Cingulate Sulcus



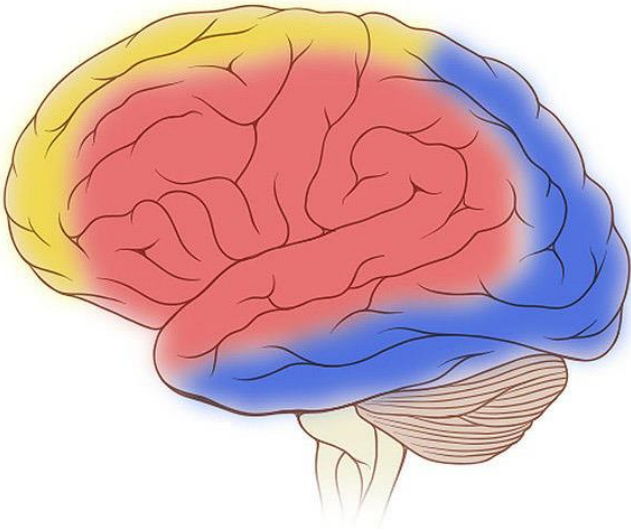




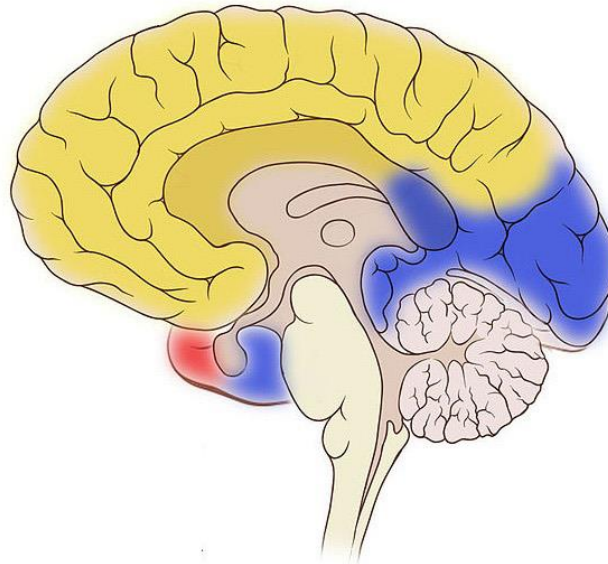







## Lateral Brain



## Medial Brain



-  Anterior Cerebral Artery
-  Middle Cerebral Artery
-  Posterior Cerebral Artery

# Brain (Arterial territories)

## Axial T2



Anterior cerebral artery

Anterior choroidal artery

Middle cerebral artery

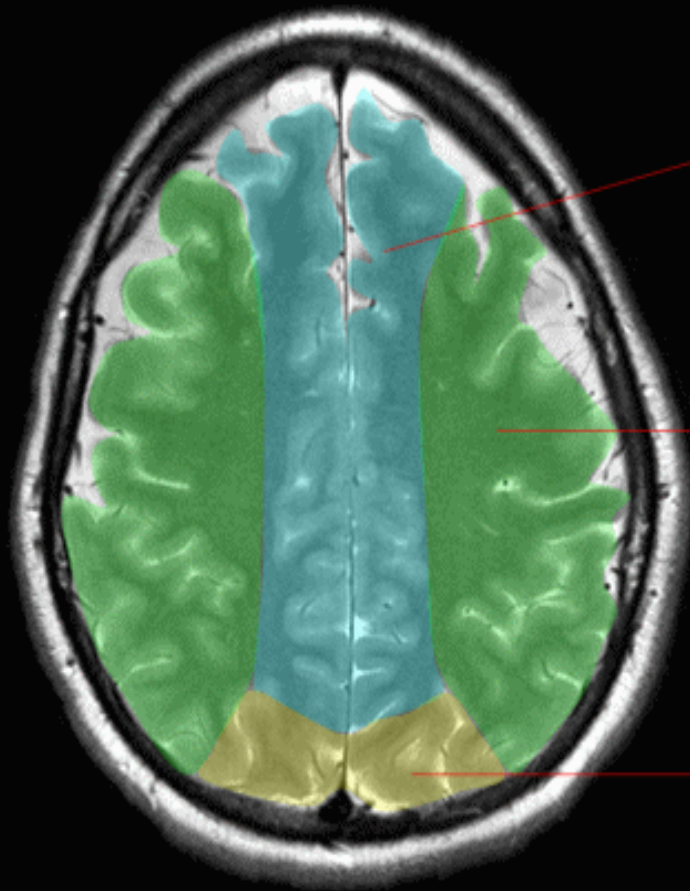
Basilar perforating arteries

Superior cerebellar artery

Posterior cerebral artery

# Brain (Arterial territories)

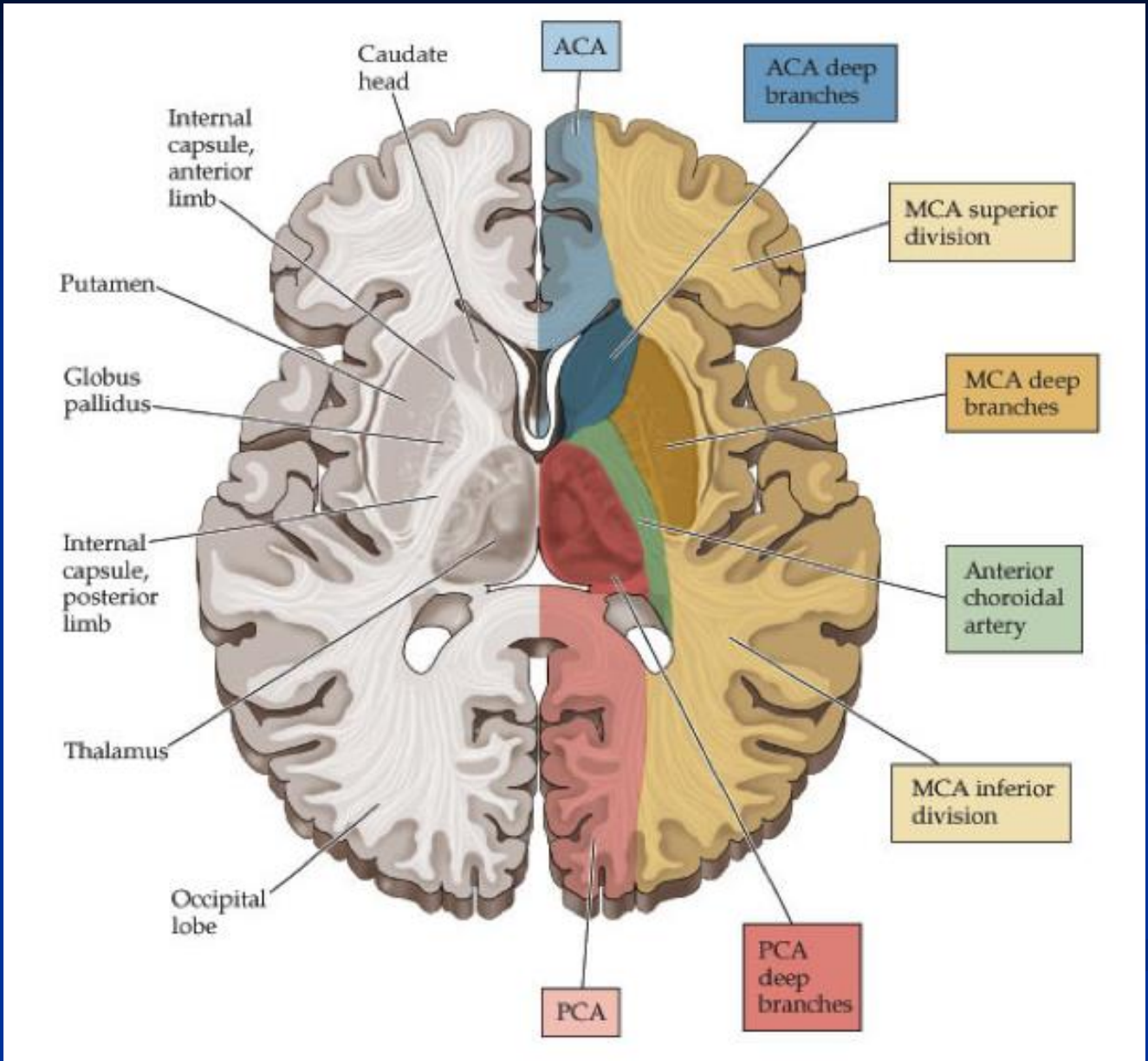
## Axial T2



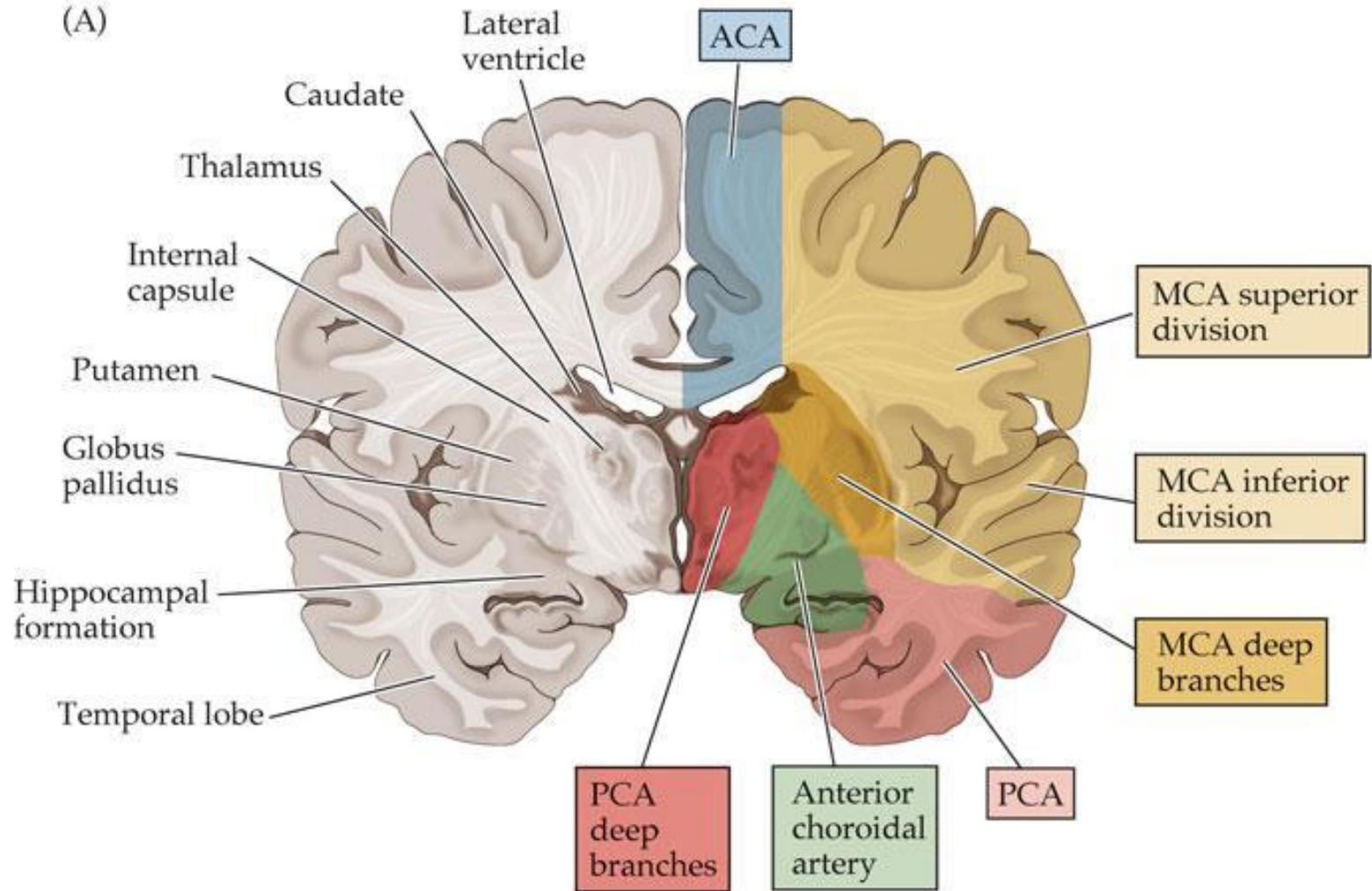
Anterior cerebral artery

Middle cerebral artery

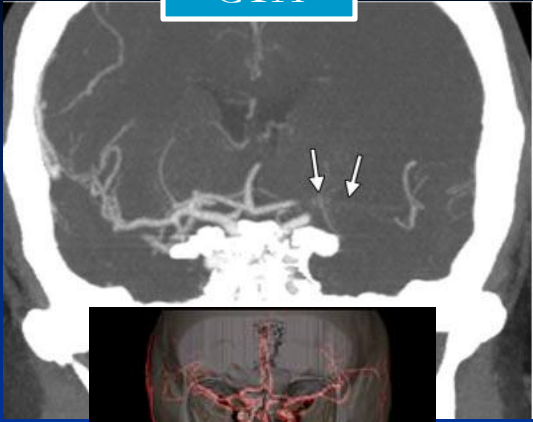
Posterior cerebral artery



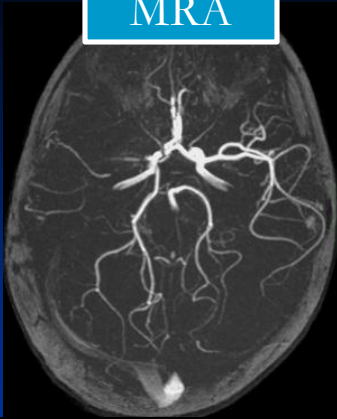
(A)



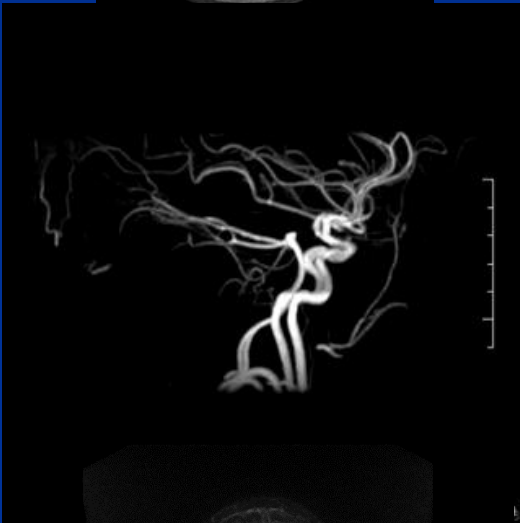
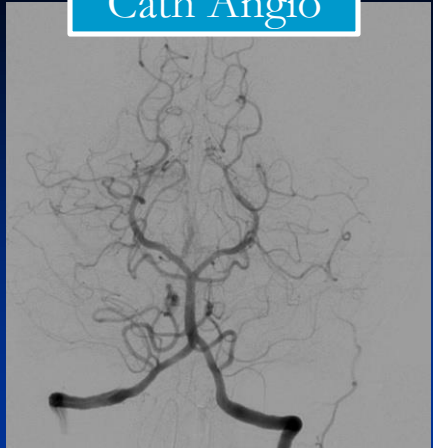
CTA



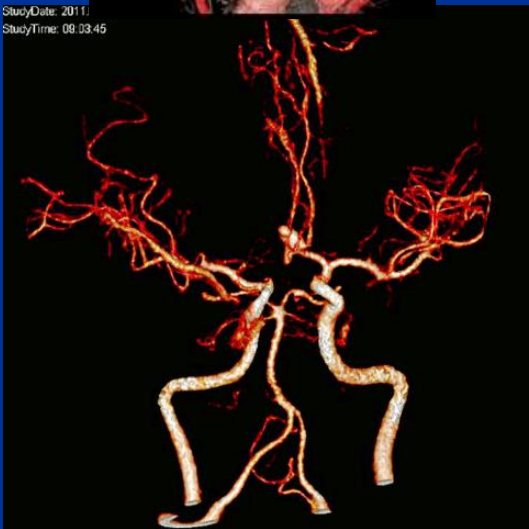
MRA

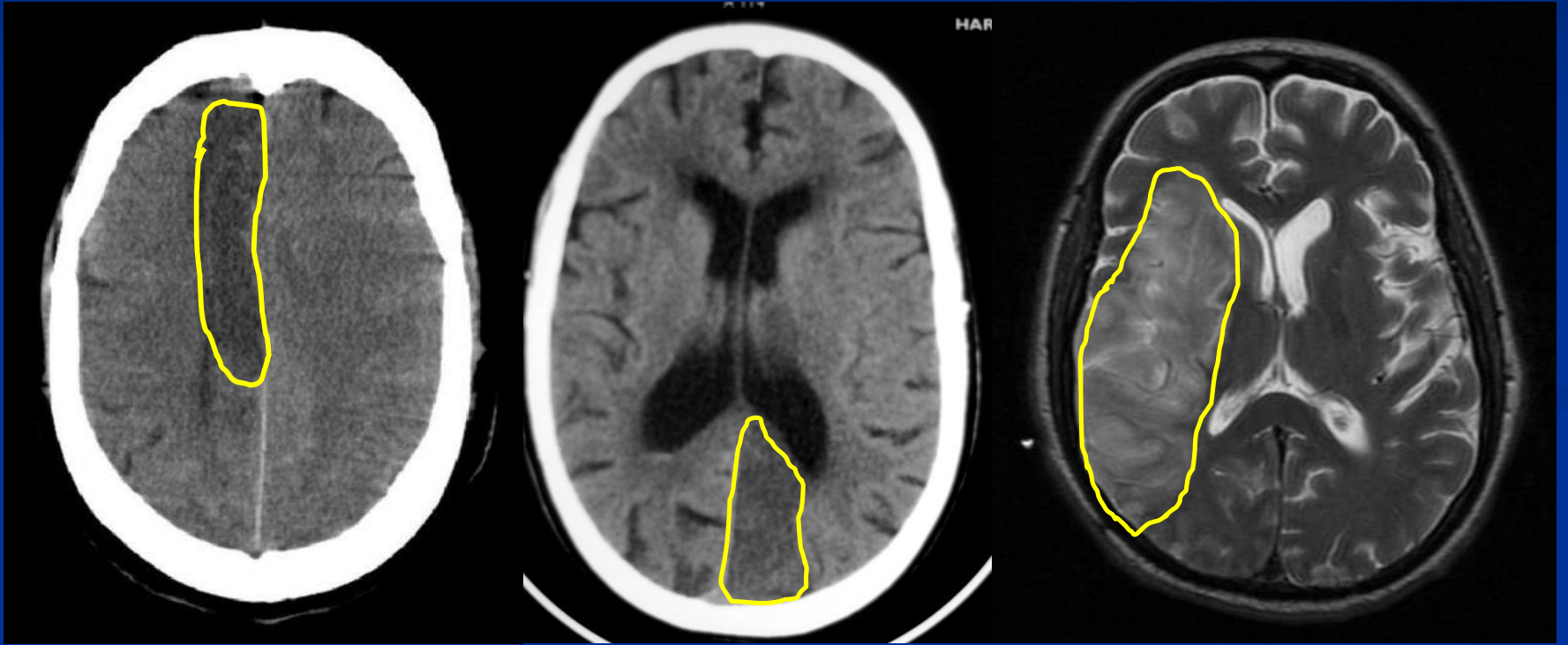


Cath Angio



StudyDate: 2011;  
StudyTime: 09:03:45







# e-Resources

- The whole brain atlas, Harvard University.
- Radiologic Anatomy, Wayne State University.
- E-anatomy, [www.imaios.com](http://www.imaios.com)
- Visible body, [www.visiblebody.com](http://www.visiblebody.com)
- Radiology assistant, [www.radiologyassistant.nl](http://www.radiologyassistant.nl)
- Head Neck Brain Spine  
<http://www.headneckbrainspine.com/>

*Thank you*