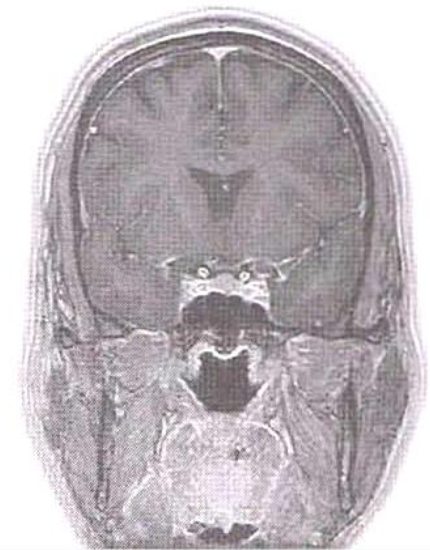


ANATOMIE Radiologică SECȚIONALĂ

Sectional Anatomy



Lecturer Lilian Globa





**CD 8.5.1 CURRICULUM DISCIPLINĂ
PENTRU STUDII UNIVERSITARE**

Redacția: 07

Data: 15.04.2019

Pag. 1/10

**FACULTATEA DE MEDICINĂ
PROGRAMĂ DE STUDII 0912.1 MEDICINĂ
CATEDRA DE ANATOMIE A OMULUI**

APROBATĂ

la ședința Comisiei de asigurare a calității și
evaluării curriculare facultatea Medicină
Proces verbal Nr. 2 din 5.11.2019
Președinte
conf.univ., dr. hab. șt. med.

Suman Serghei

APROBATĂ

la ședința Consiliului Facultății de Medicină nr. 1
Proces verbal Nr. 2 din 19.11.2019
Decanul Facultății,
conf.univ., dr. hab. șt. med.

Plăcintă Gheorghe

APROBATĂ

la ședința Catedrei de anatomie a omului
Proces verbal nr. 15 din 11.06.2019
Șef catedră, dr. hab. șt. med., prof. univ.

Catereniuc Iliia

CURRICULUM

DISCIPLINA ANATOMIA OMULUI
Anatomia sectională

Studii integrate

Tipul cursului: **Disciplină opțională**

Chişinău, 2019

V. TEMATICA ȘI REPARTIZAREA ORIENTATIVĂ A ORELOR

Nr. d/o	TEMA	Numărul de ore		
		Curs	Lucrări practice	Lucru individual
1.	Anatomia secționată. Definiție. Procedee de obținere a imaginilor anatomice și mediate paraclinic (RMN, TC, USG) Scurt istoric al evoluției cunoștințelor privind anatomia secționată. Planuri secționale.	1	1	1
2.	Anatomia secționată a membrului superior	1	1	1
3.	Anatomia secționată a membrului inferior	1	1	1
4.	Anatomia secționată a toracelui	1	1	1
5.	Anatomia secționată a abdomenului	1	1	1
6.	Anatomia secționată a bazinului	1	1	1
7.	Anatomia secționată a capului și gâtului	2	2	2
8.	Anatomia secționată a sistemului nervos	2	2	2
Total		10	10	10
TOTAL			30	

X. BILIOGRAFIE RECOMANDATĂ

A. Obligatorie:

Materialele cursurilor.

B. Suplimentară:

1. Visible human project, https://www.nlm.nih.gov/research/visible/visible_gallery.html
2. Online MRI and CT sectional anatomy, <https://omcsa.org/>
3. MRI masters, <https://mrimaster.com/anatomy%20brain%20sagittal.html>
4. Cross sectional Anatomy, <https://www.sciencedirect.com/topics/medicine-and-dentistry/cross-sectional-anatomy>
5. <https://www.kenhub.com/en/start/cross-sections>
6. Atlas of sectional Anatomy, Thieme, all systems
7. Human Sectional Anatomy: Pocket atlas of body sections, CT and MRI images, Fourth edition, 2017
8. Keith L. Moore, Artur F. Dalley, Anne M.R. Agur. Clinically Oriented Anatomy, 6-th ed., 2007.

Visible Human Project

[Applications](#) | [Sources](#) | [Projects](#) | [Tools](#) | [Media productions](#) | [Related Projects](#)

[Home](#) > [Visible Human Home](#)

Visible Human Project® Gallery

The collection of images appearing here is a small sample of images from the Visible Human Project® male dataset. For a larger collection of images, employ one of the applications for viewing the Visible Human dataset.

The Visible Human datasets are divided into six slightly overlapping subsets entitled Head, Thorax, Abdomen, Pelvis, Thighs, and Feet.

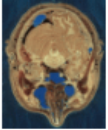
- [From head to toe: an animated trip through the Visible Human male cryosections](#) [Video: color MPEG, 770810 bytes]
 - The video is 17 seconds long, but it does not include any audio or captioning. It is an animation of head-to-toe images from the male cryosections. The video was created by the Human-Computer Interaction Lab at the University of Maryland at College Park.
- [Color Cryosections](#)
- Computed Tomography (CT) scans:
 - [Fresh cadaver](#)
 - [Frozen cadaver](#)
- [Magnetic Resonance Imaging \(MRI\) scans](#)

Last Reviewed: August 14, 2015

Home > Visible Human Home

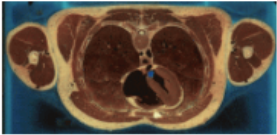
The Visible Human Project

Color Cryosections



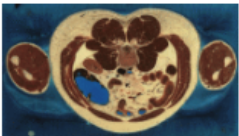
[545x700 24-bit color JPEG, 69069 bytes]

Section through Visible Human Male - head, including cerebellum, cerebral cortex, brainstem, nasal passages (from Head subset)



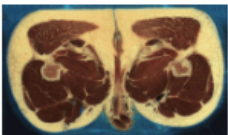
[836x417 24-bit color JPEG, 66320 bytes]

Section through Visible Human Male - thorax, including heart (with muscular left ventricle), lungs, spinal column, major vessels, musculature (from Thorax subset)



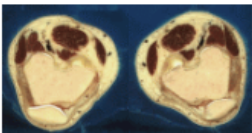
[786x459 24-bit color JPEG, 69920 bytes]

Section through Visible Human Male - abdomen, including large and small intestines, spinal column, musculature, subcutaneous fat (from Abdomen subset)



[749x450 24-bit color JPEG, 64159 bytes]

Section through Visible Human Male - upper thigh below femoral head, including prominent musculature, part of male reproductive system (from Pelvis subset)



[730x399 24-bit color JPEG, 51365 bytes]

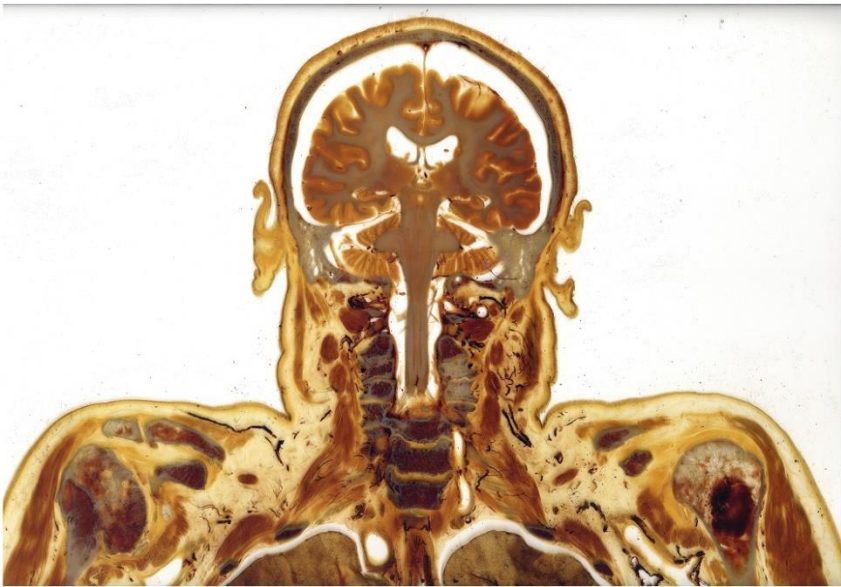
Section through Visible Human Male - knee, including patella (from Thigh subset)



5



14



7



16

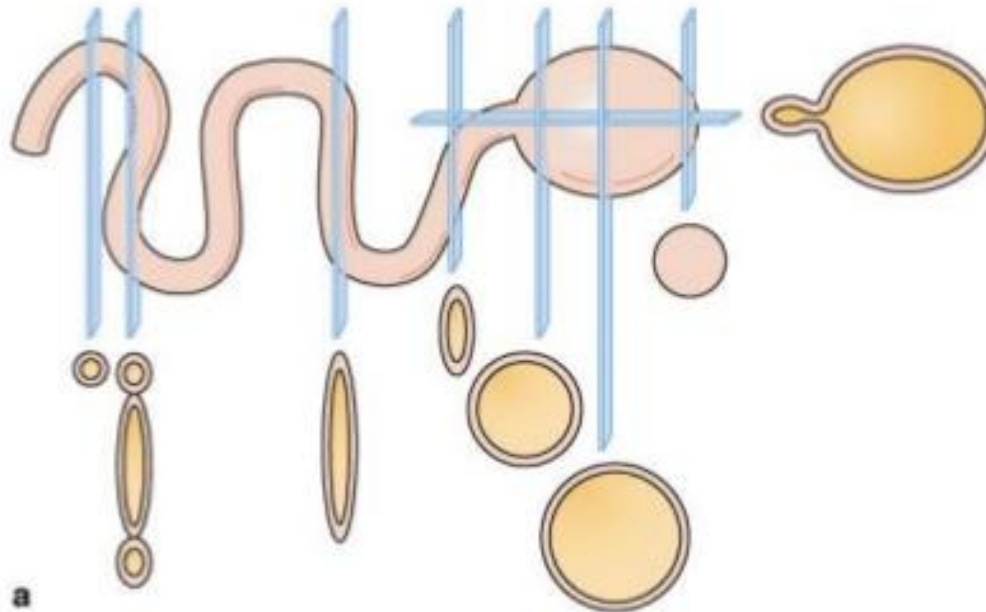
17

5

3

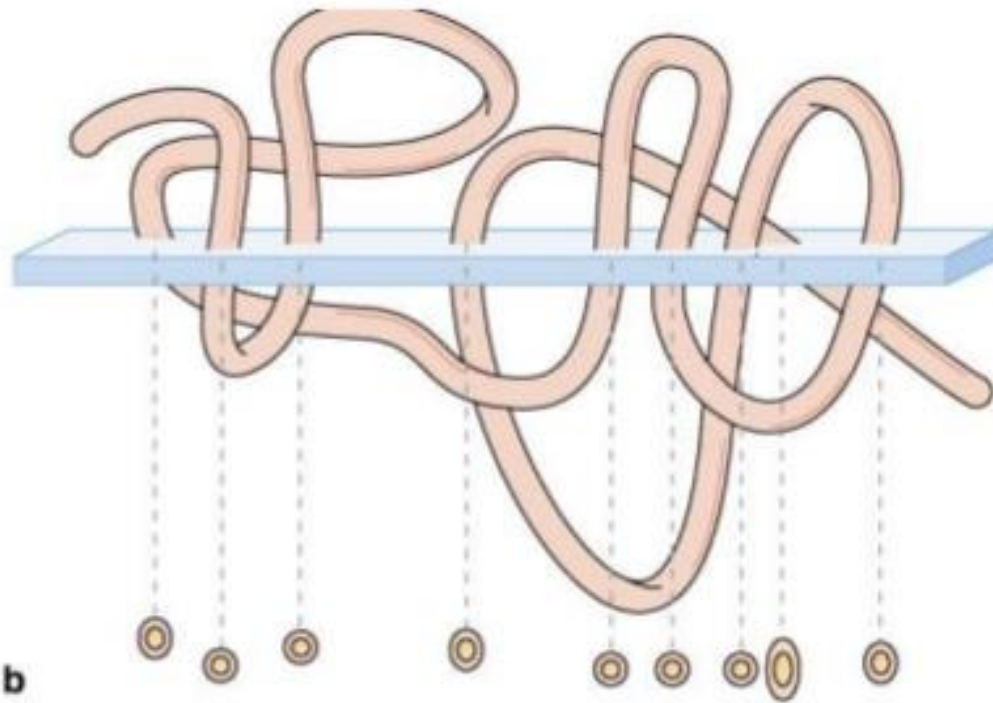


Interpretation of 3-D structures in 2-D tissue sections.



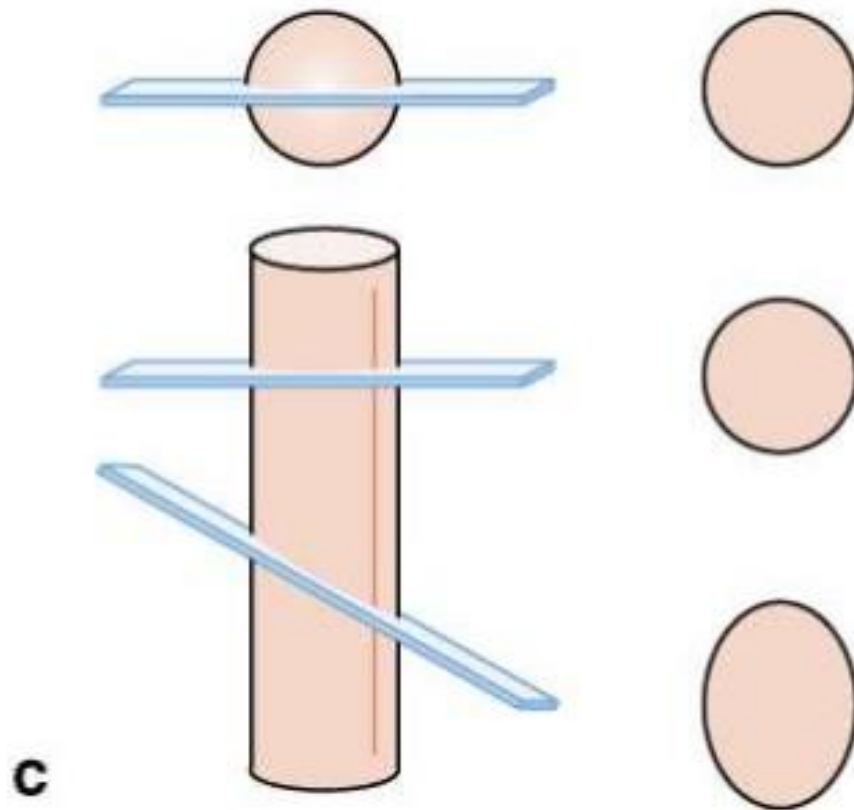
a

Sections through a hollow swelling on a tube produce large and small circles, oblique sections through bent regions of the tube produce ovals of various dimensions.

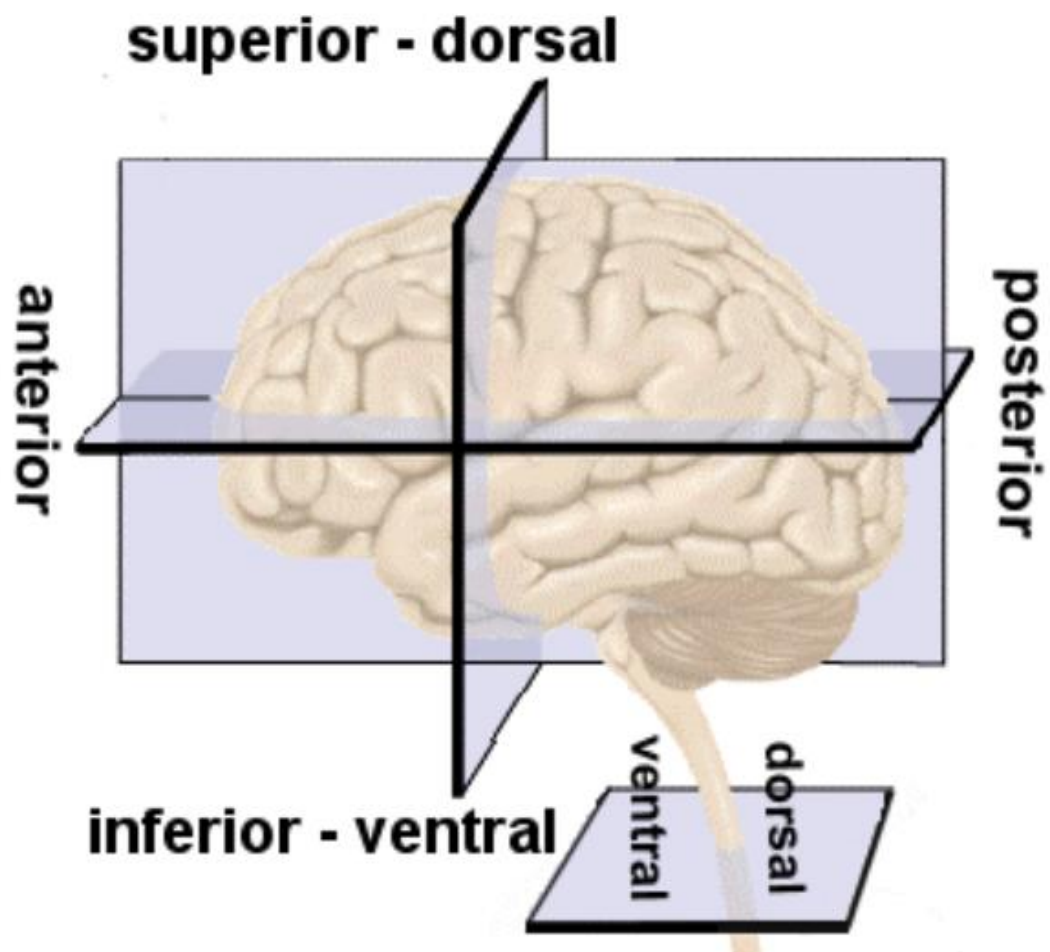


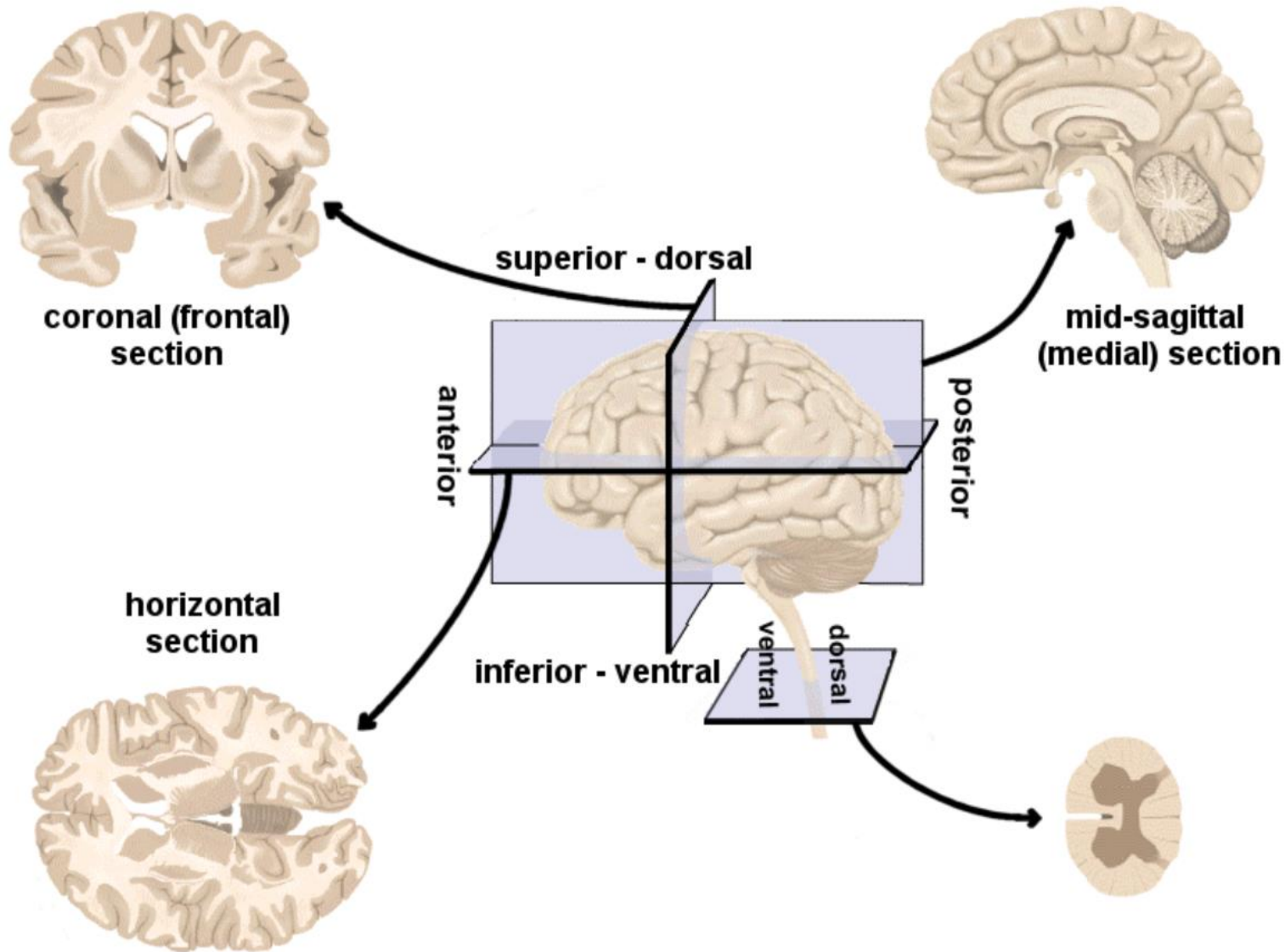
b

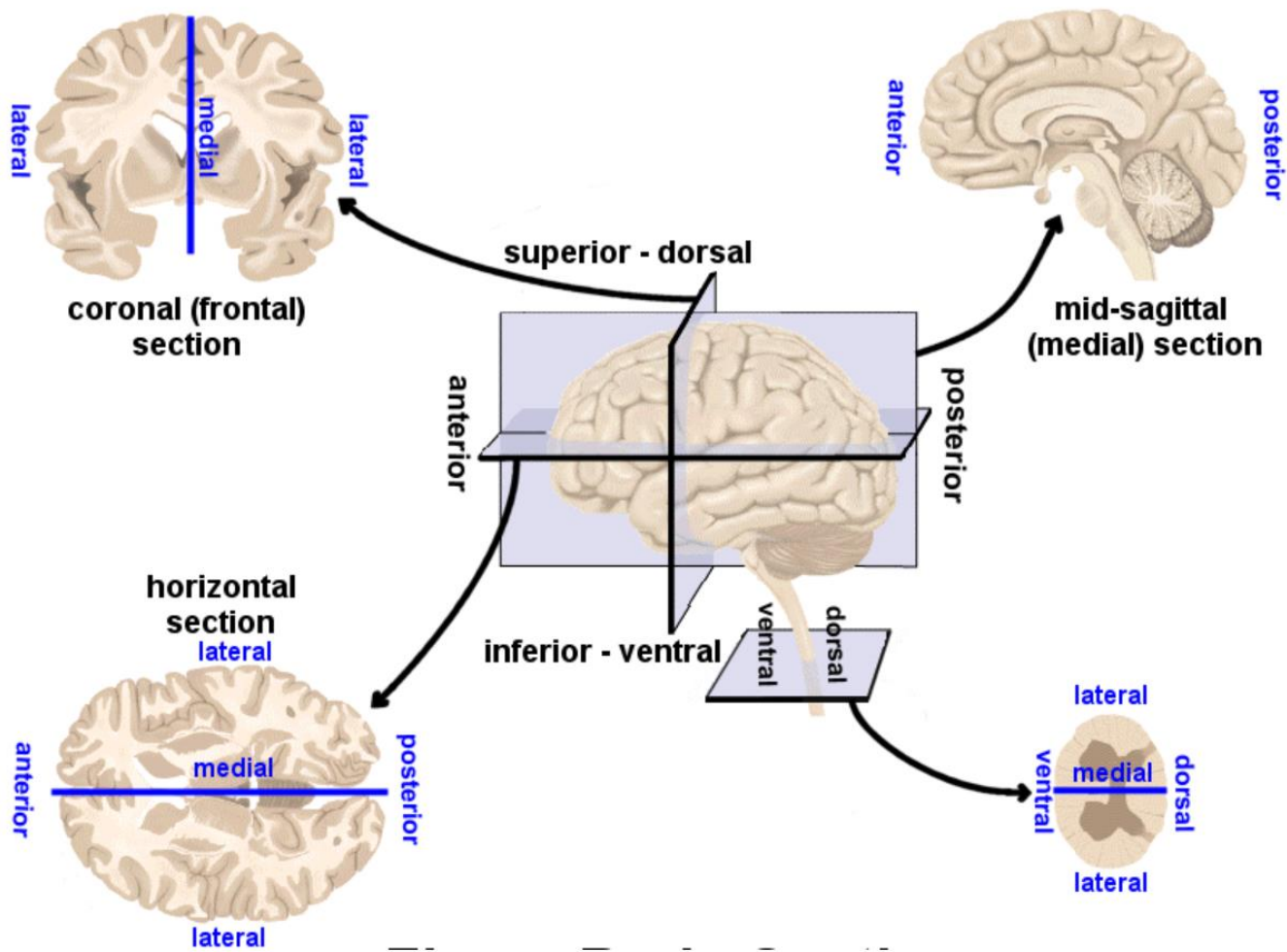
A single section through a highly coiled tube shows many small, separate round or oval sections. On first observation it may be difficult to realize that these represent a coiled tube, but it is important to develop such interpretive skill in understanding histological preparations.

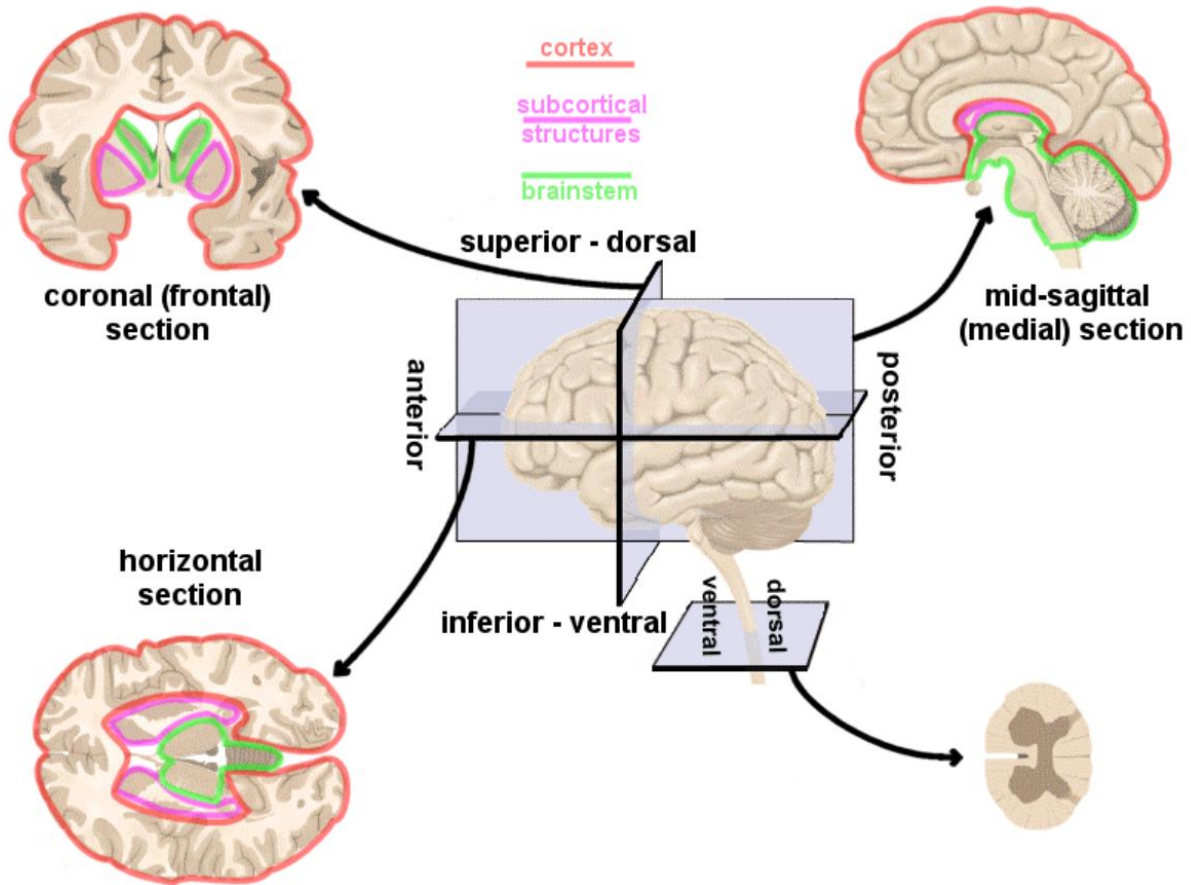


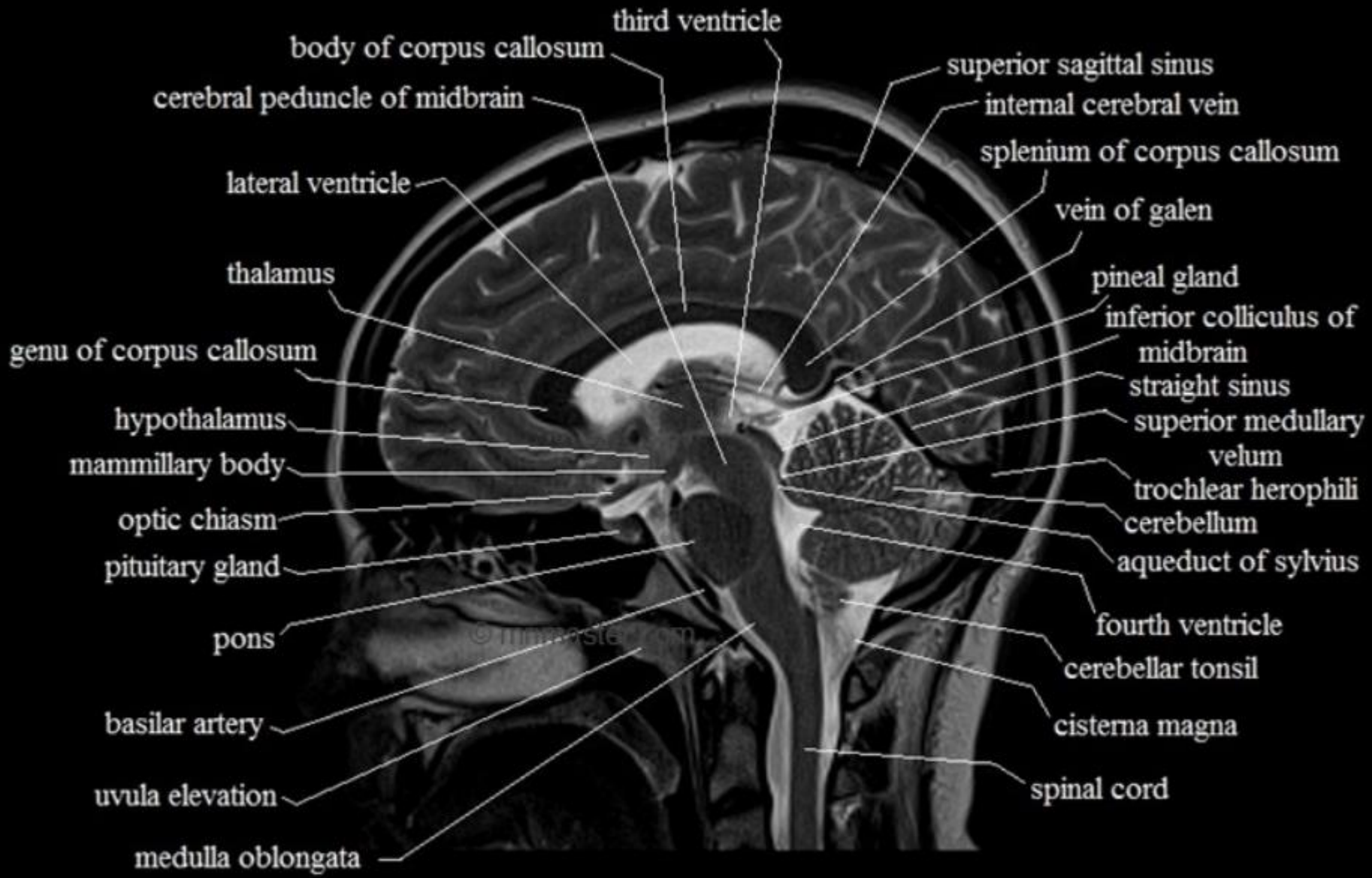
Round structures in sections may be portions of either spheres or cylinders. Additional sections or the appearance of similar nearby structures help reveal a more complete picture.

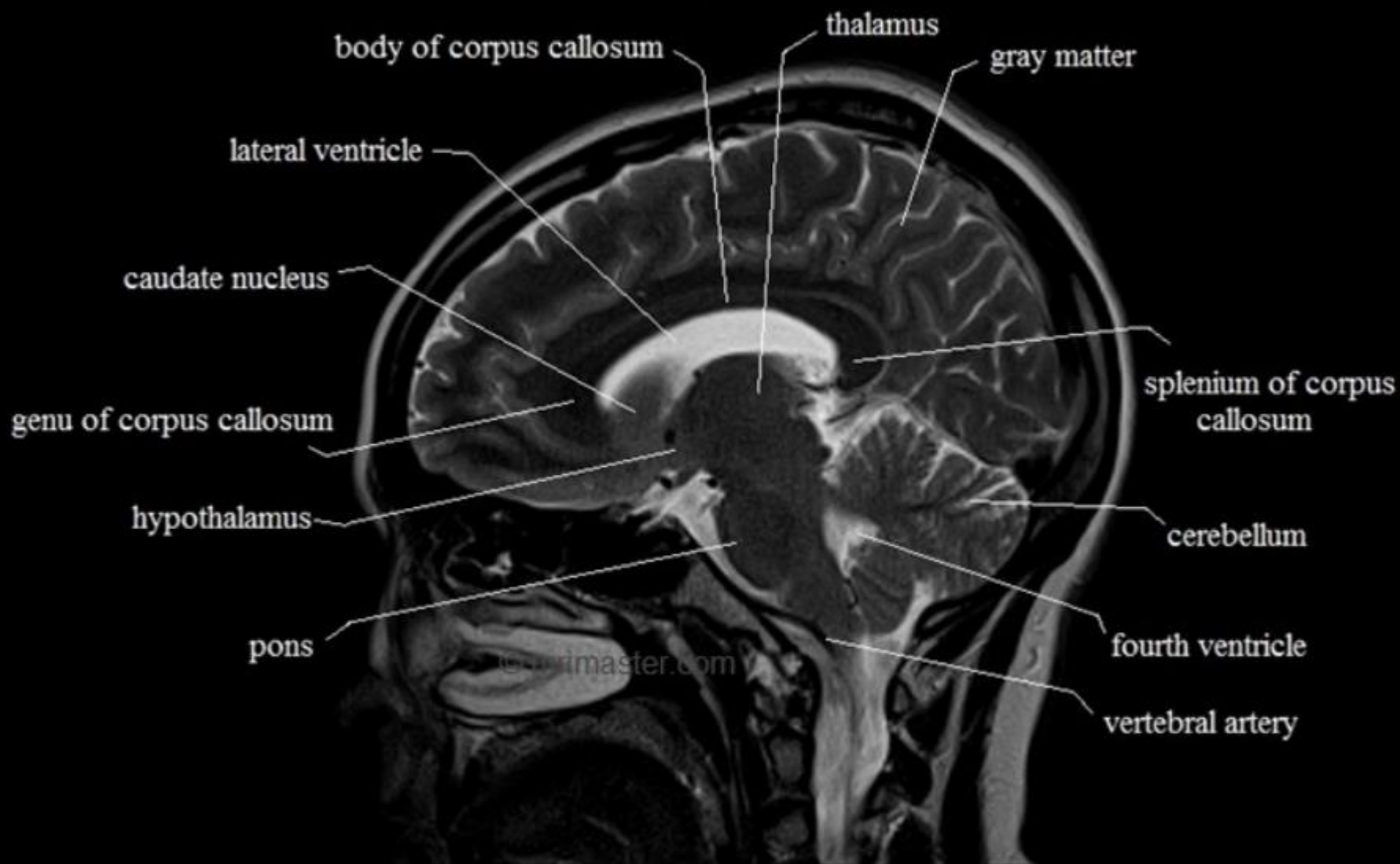


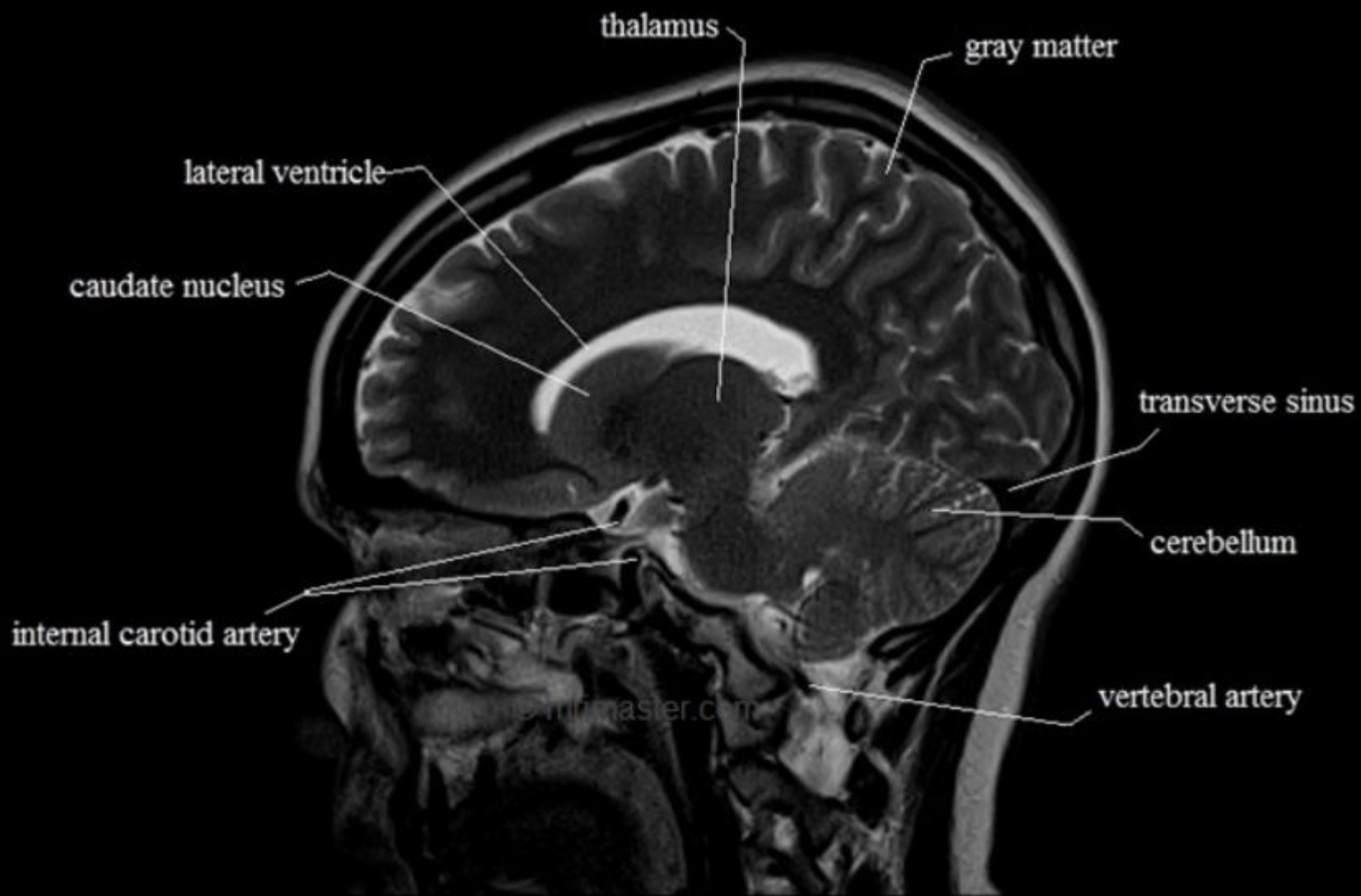


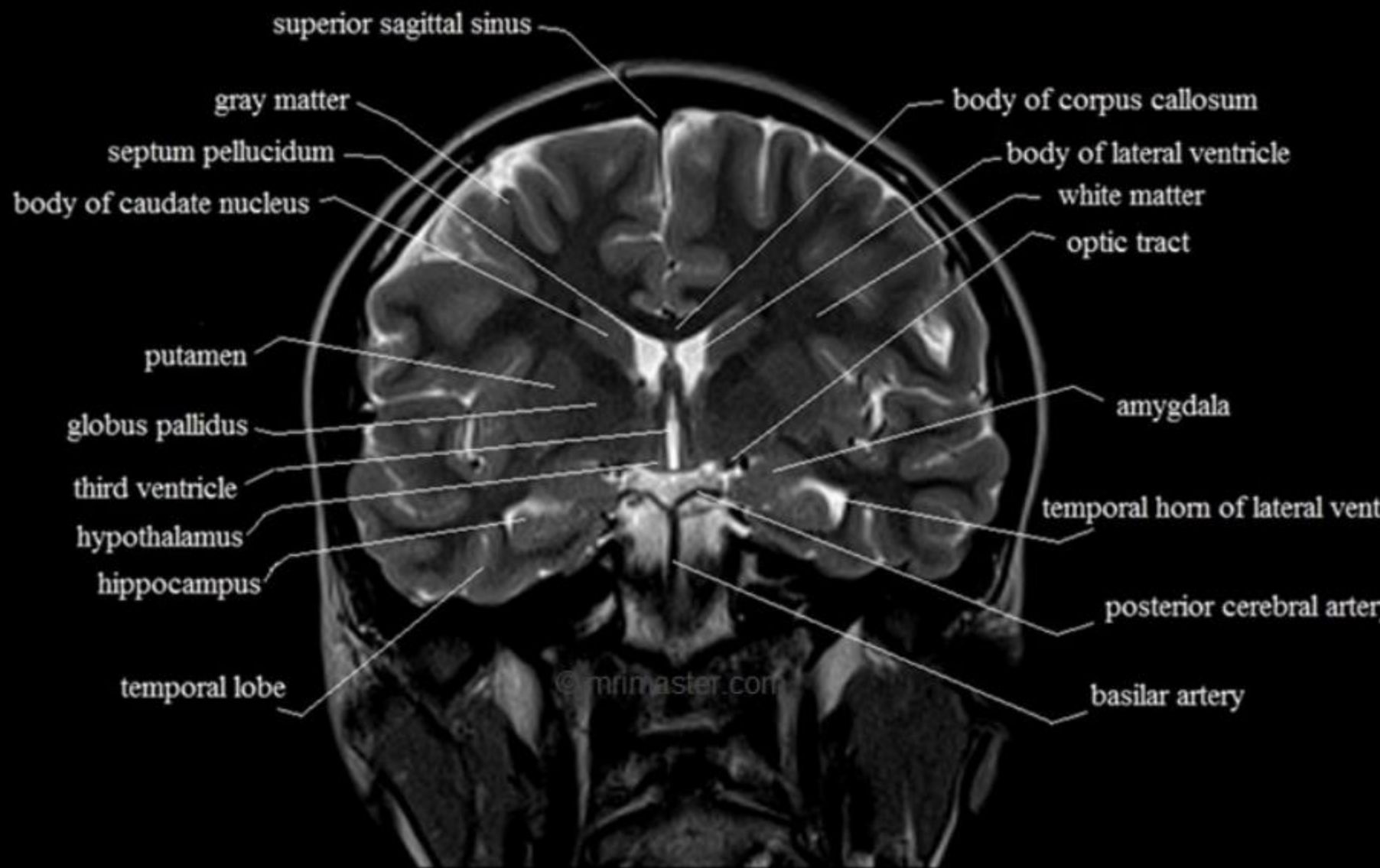


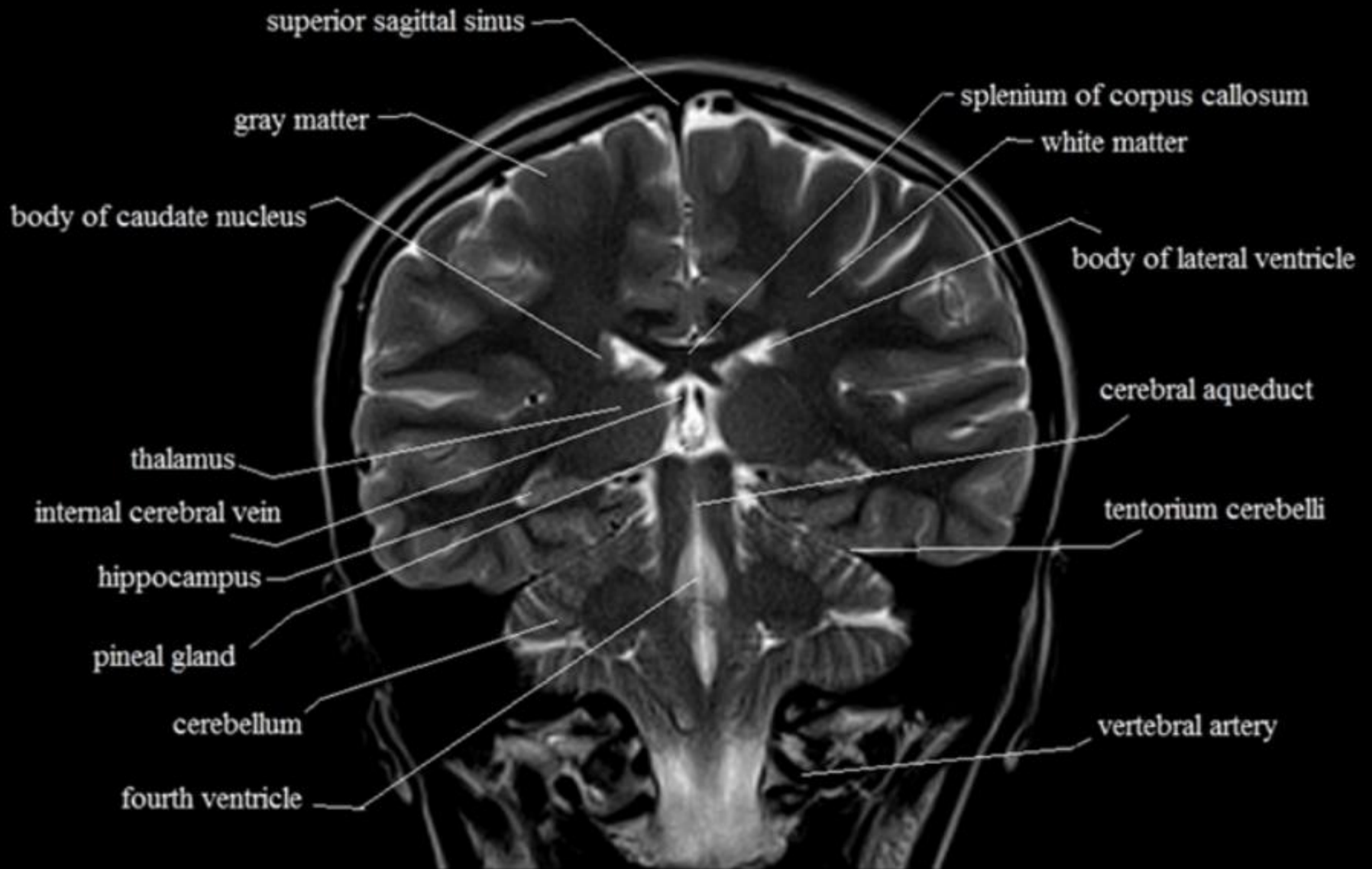


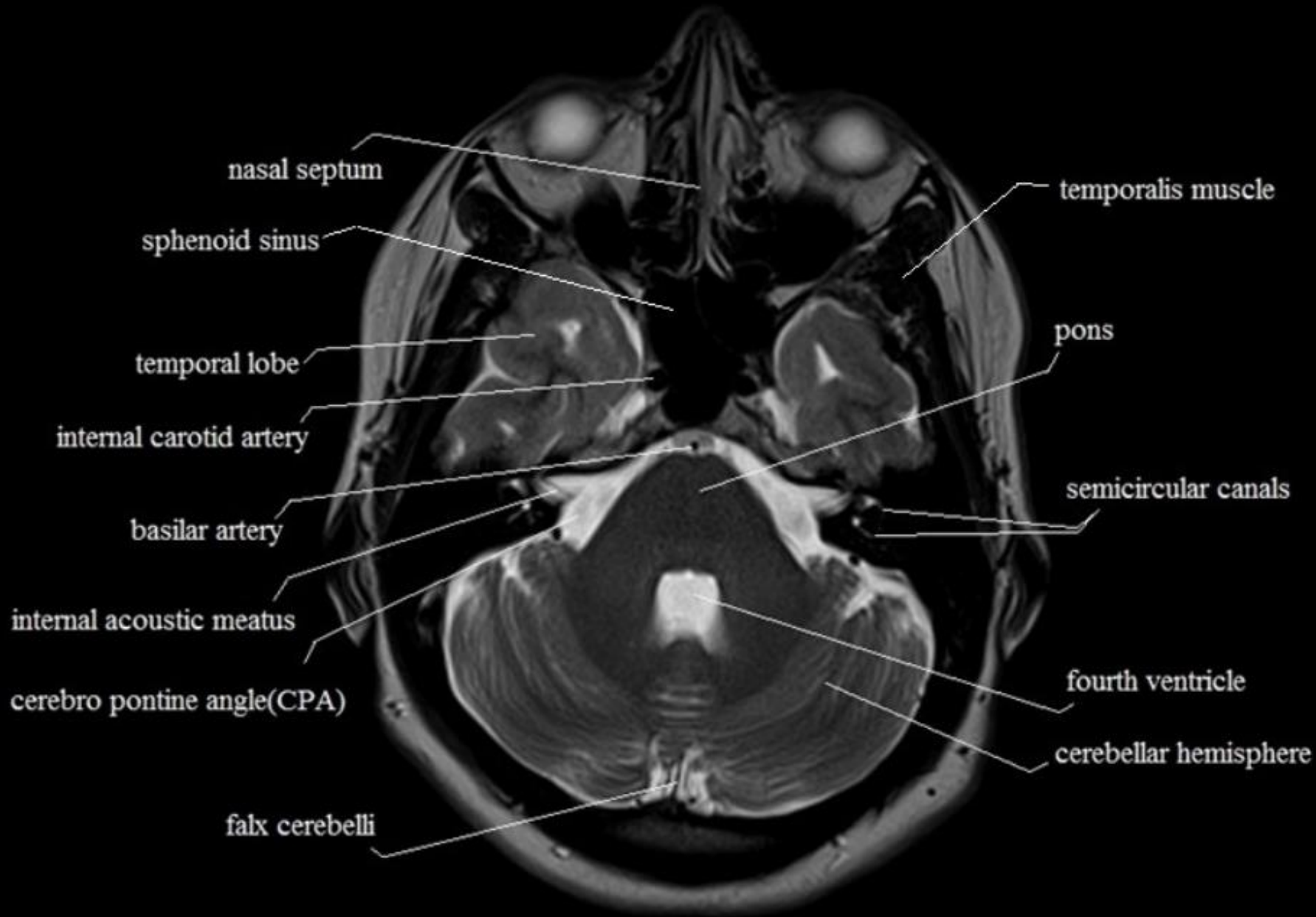


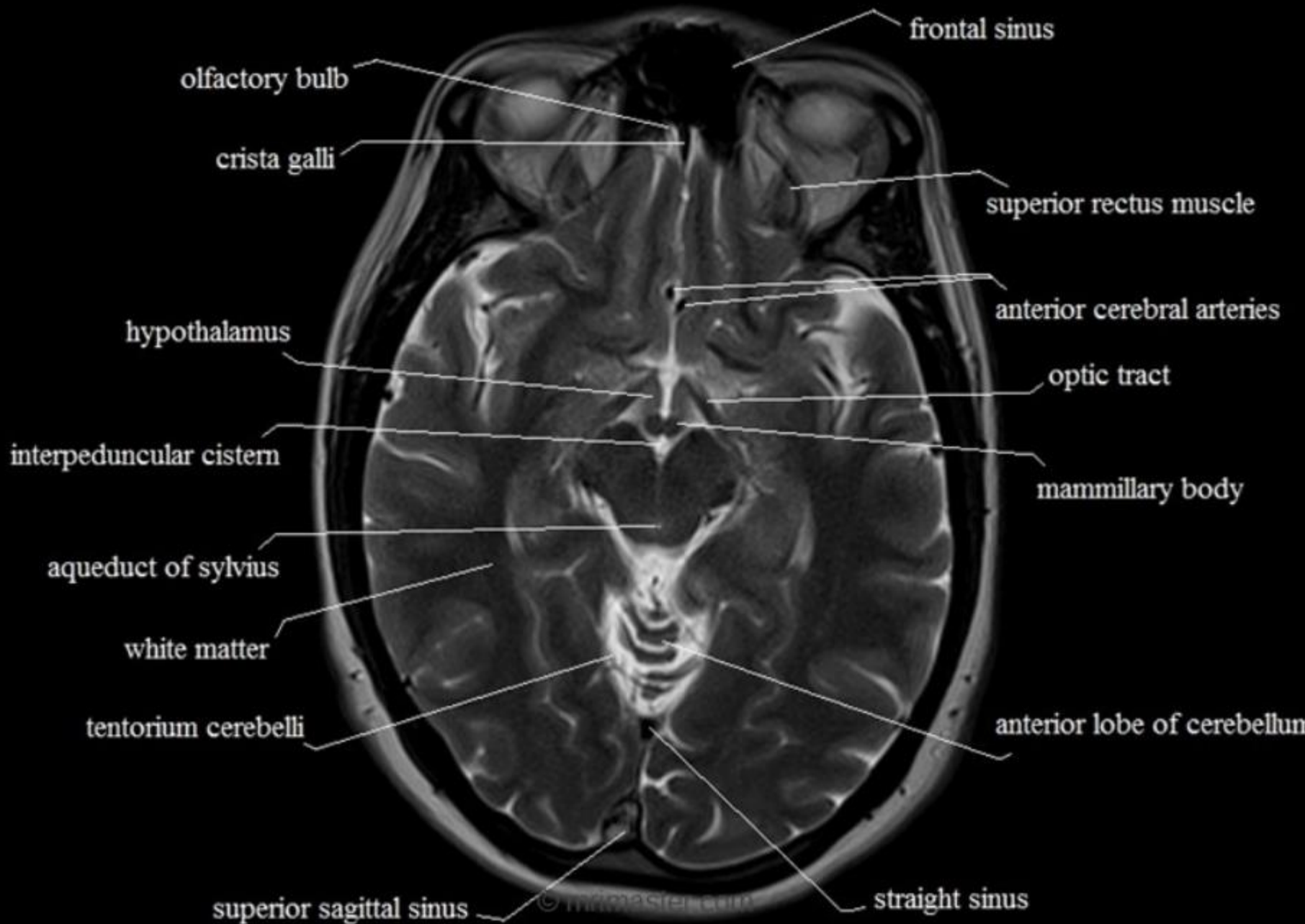


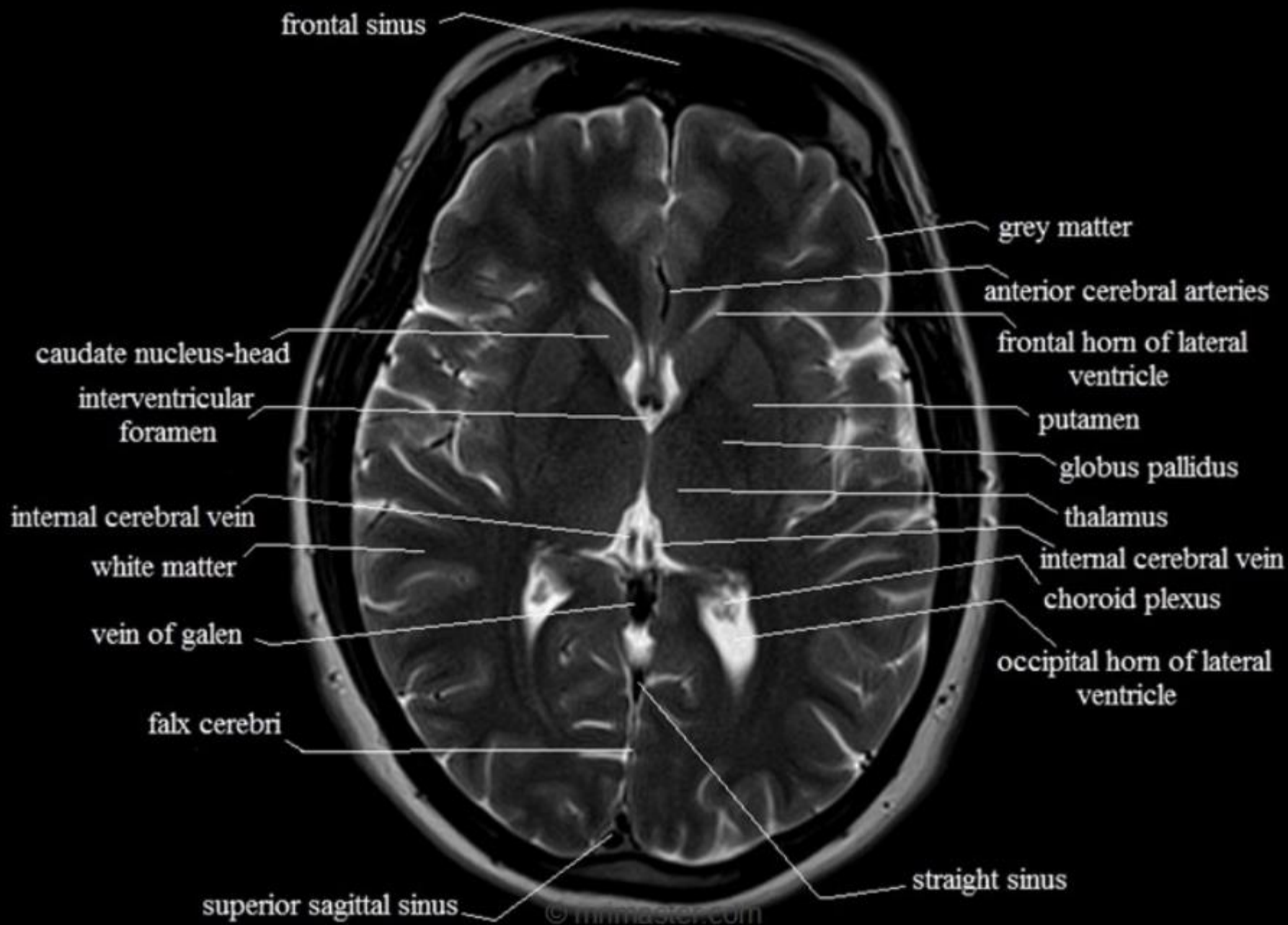


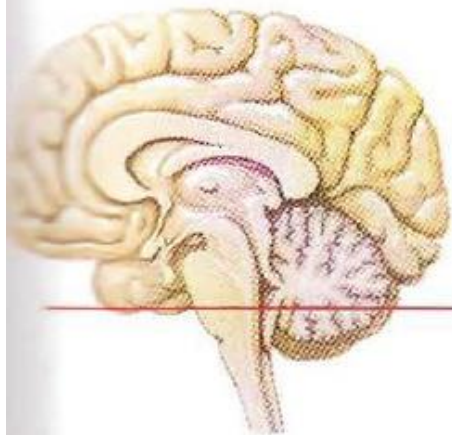




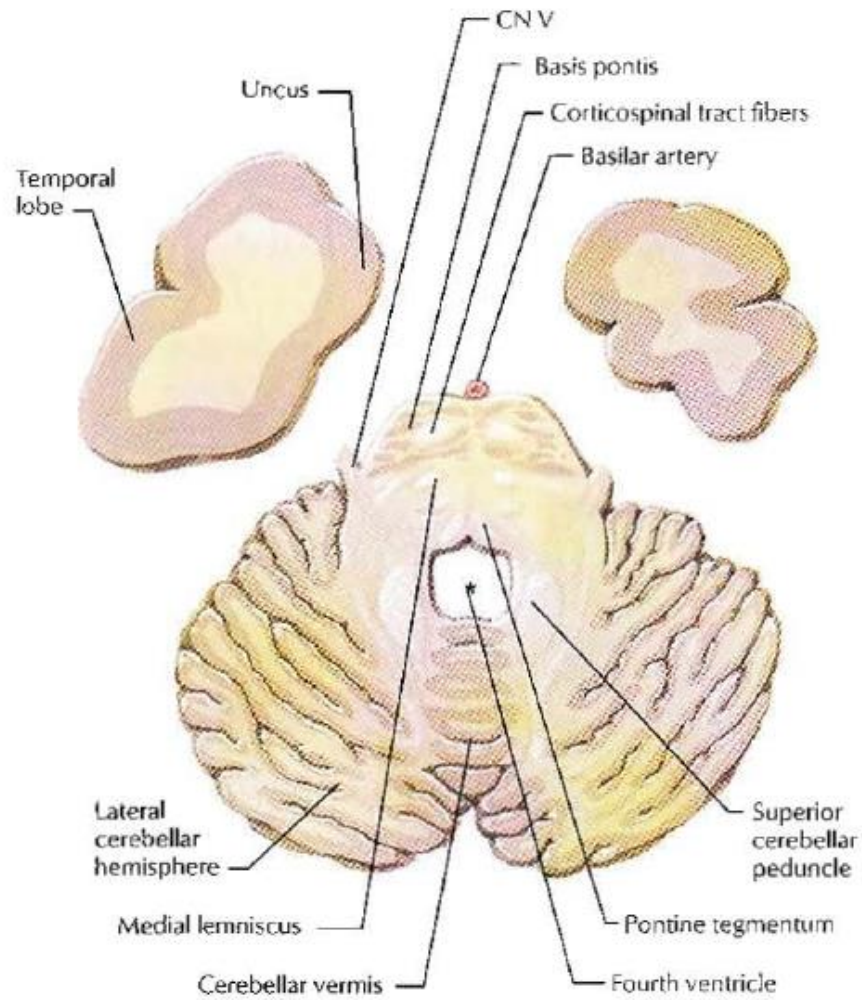


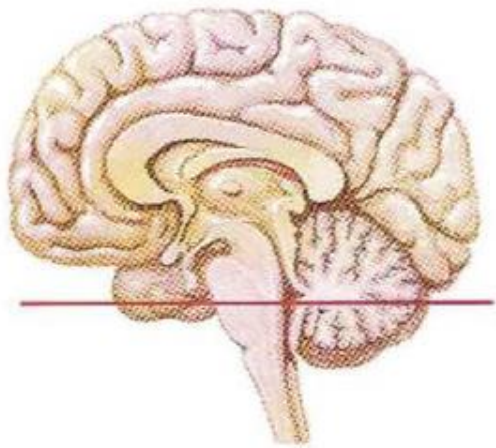




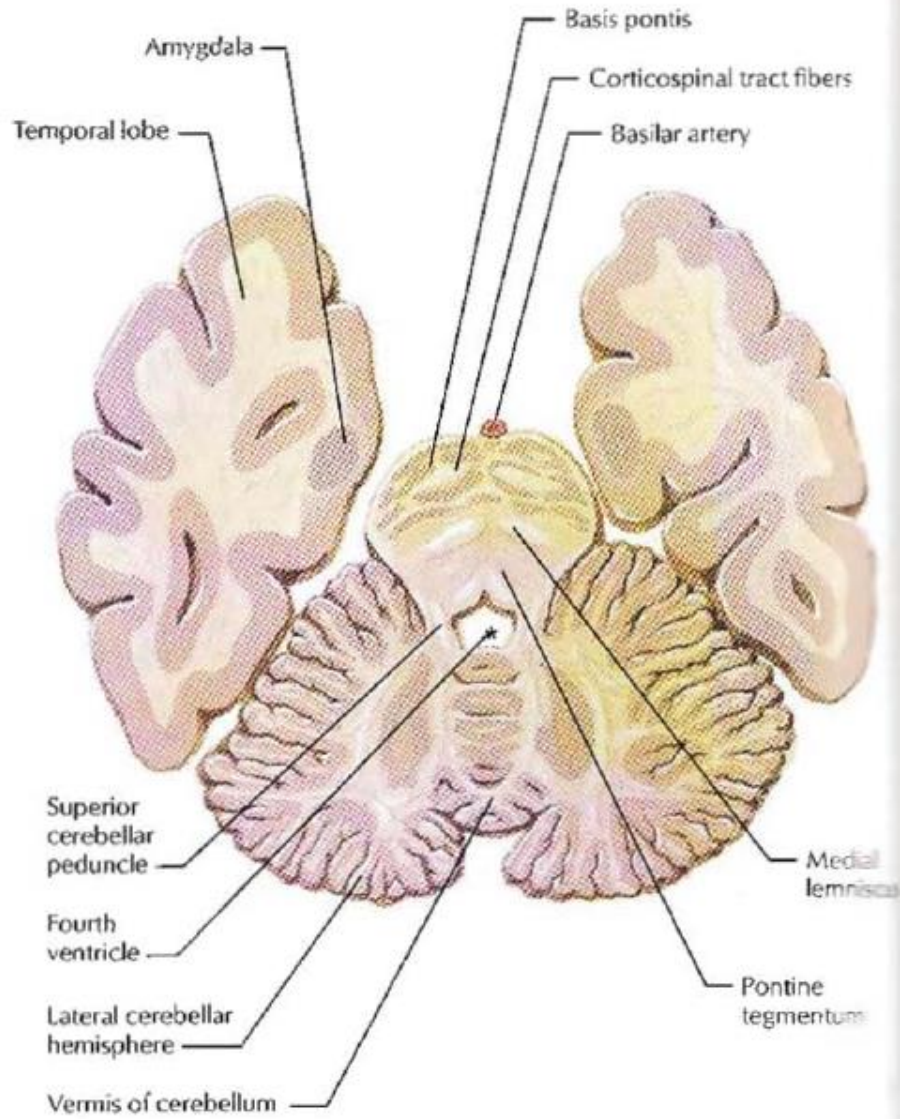


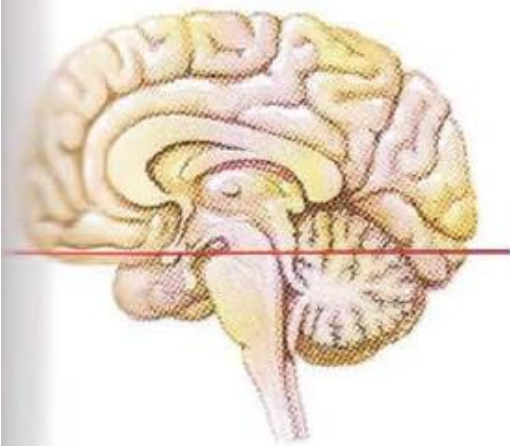
Level of section
(mid pons)



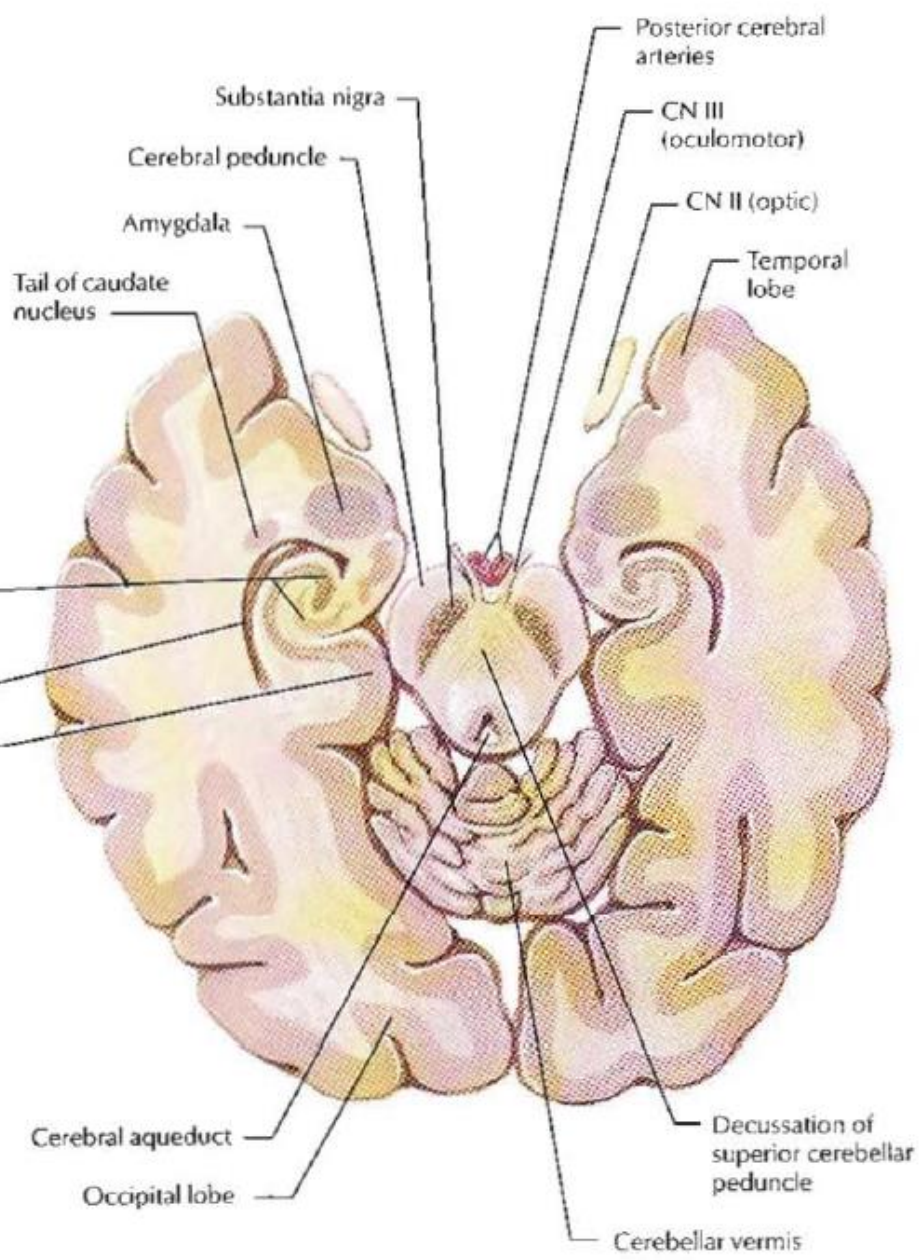


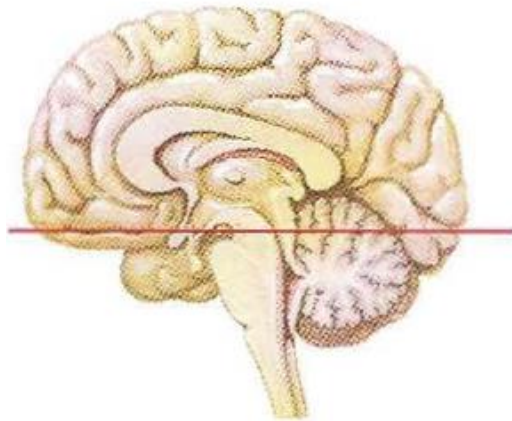
Level of section
(rostral pons)



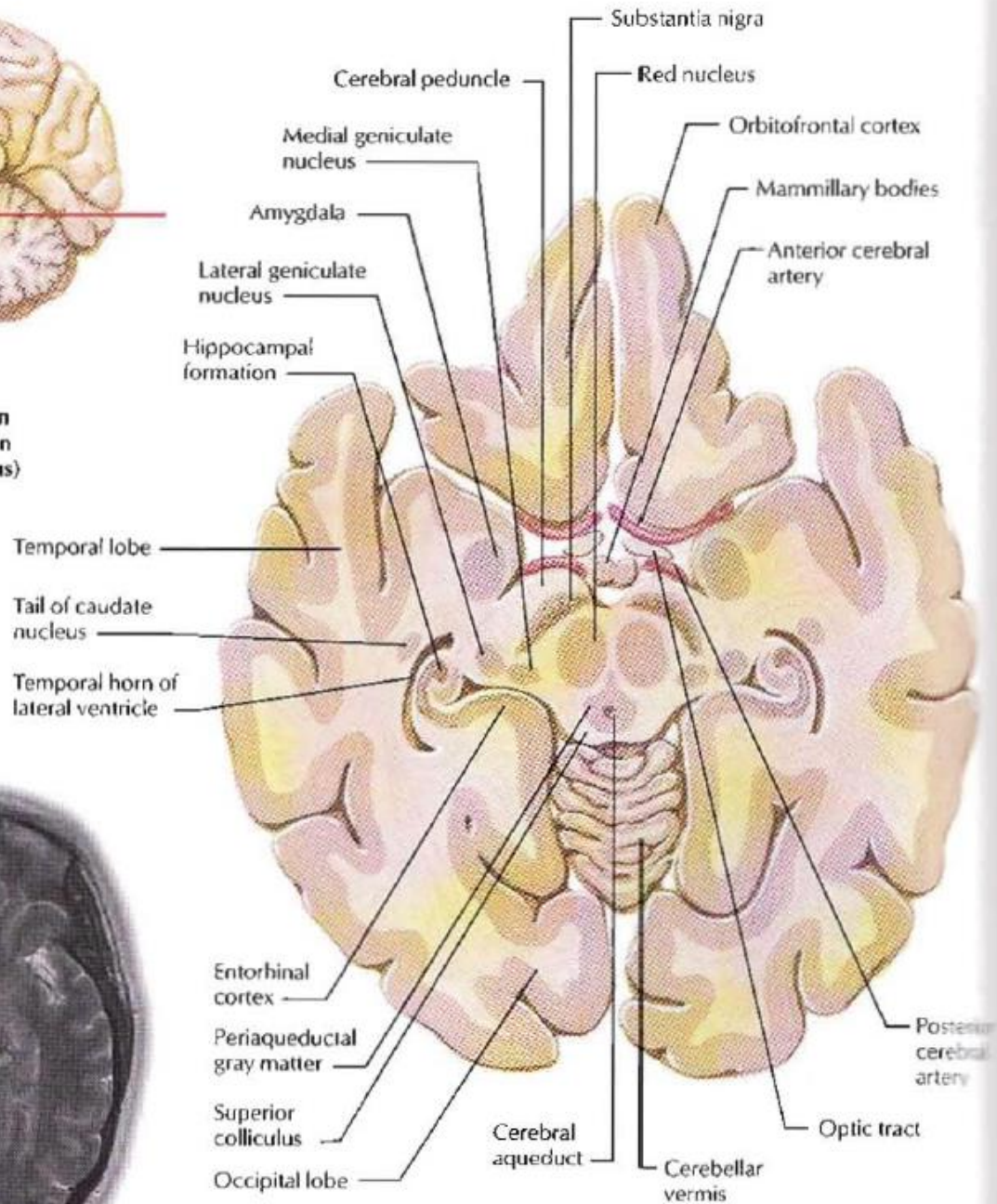


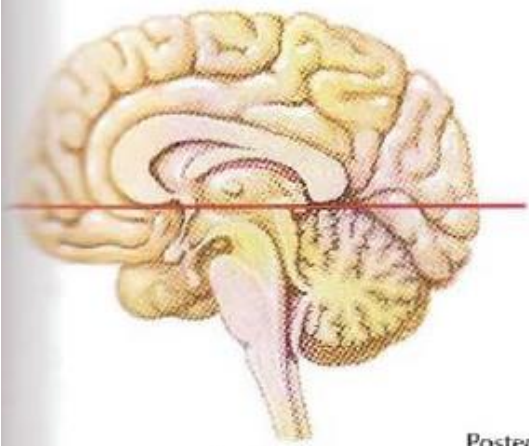
Level of section (mid brain)



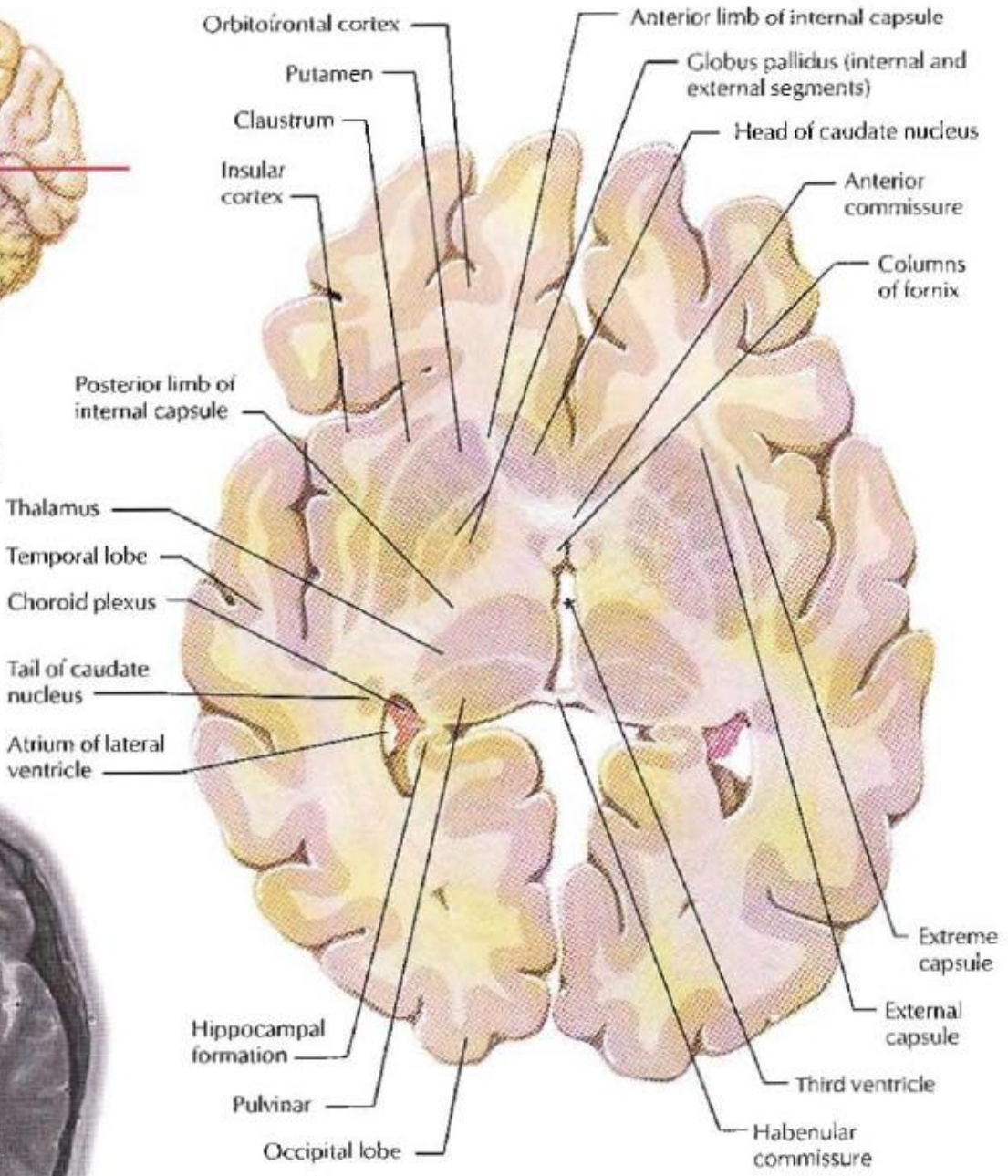


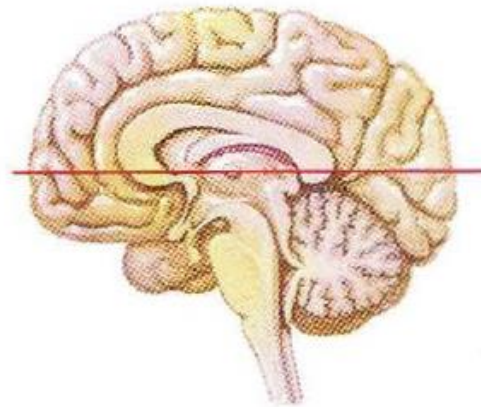
Level of section
(rostral mid brain
and hypothalamus)



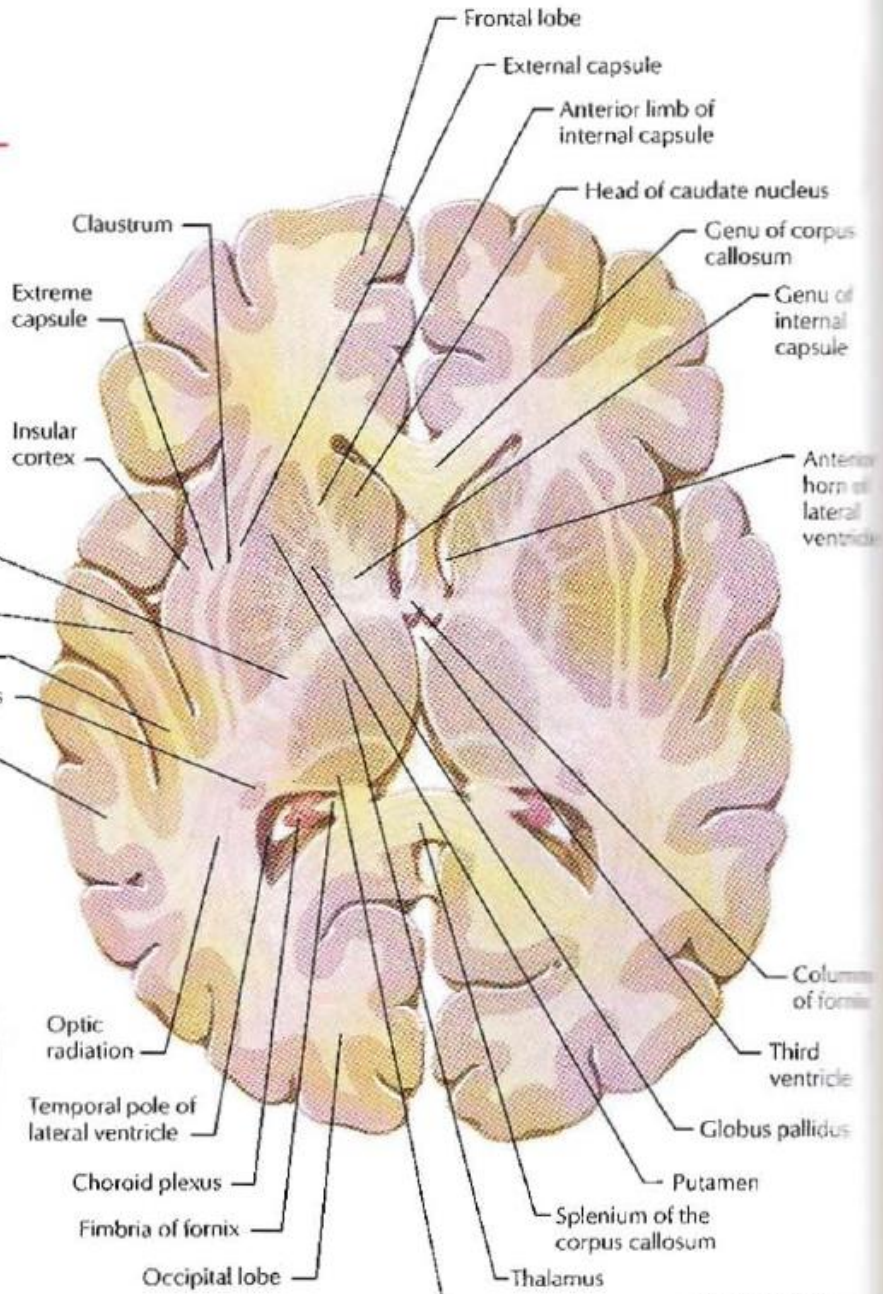


Level of section
(anterior commissure
and caudal thalamus)



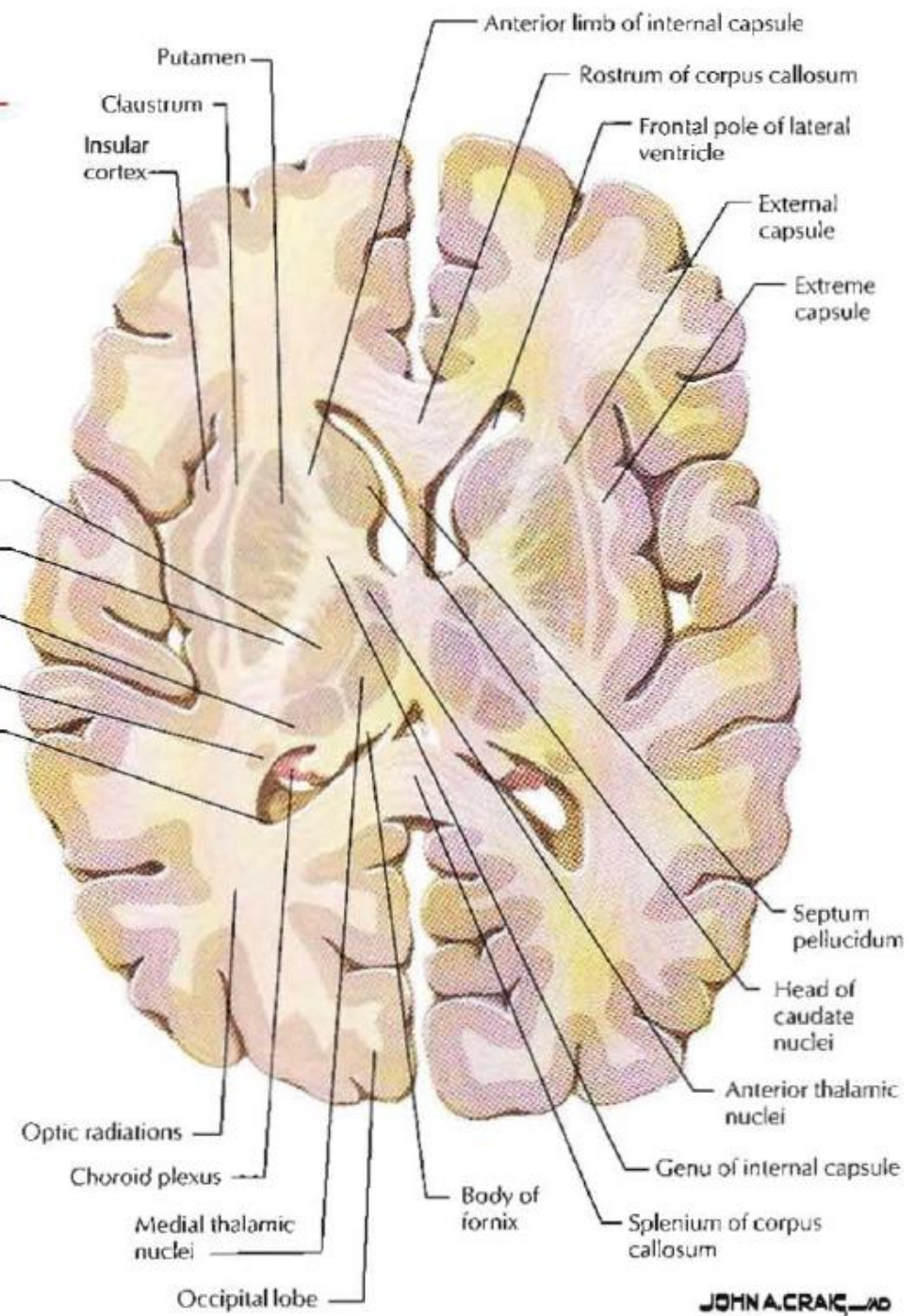


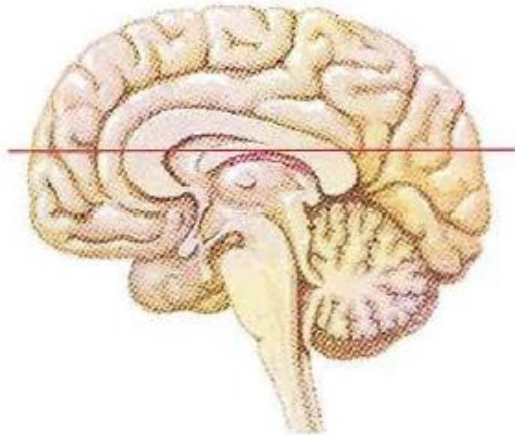
**Level of section
(head of caudate
and mid thalamus)**



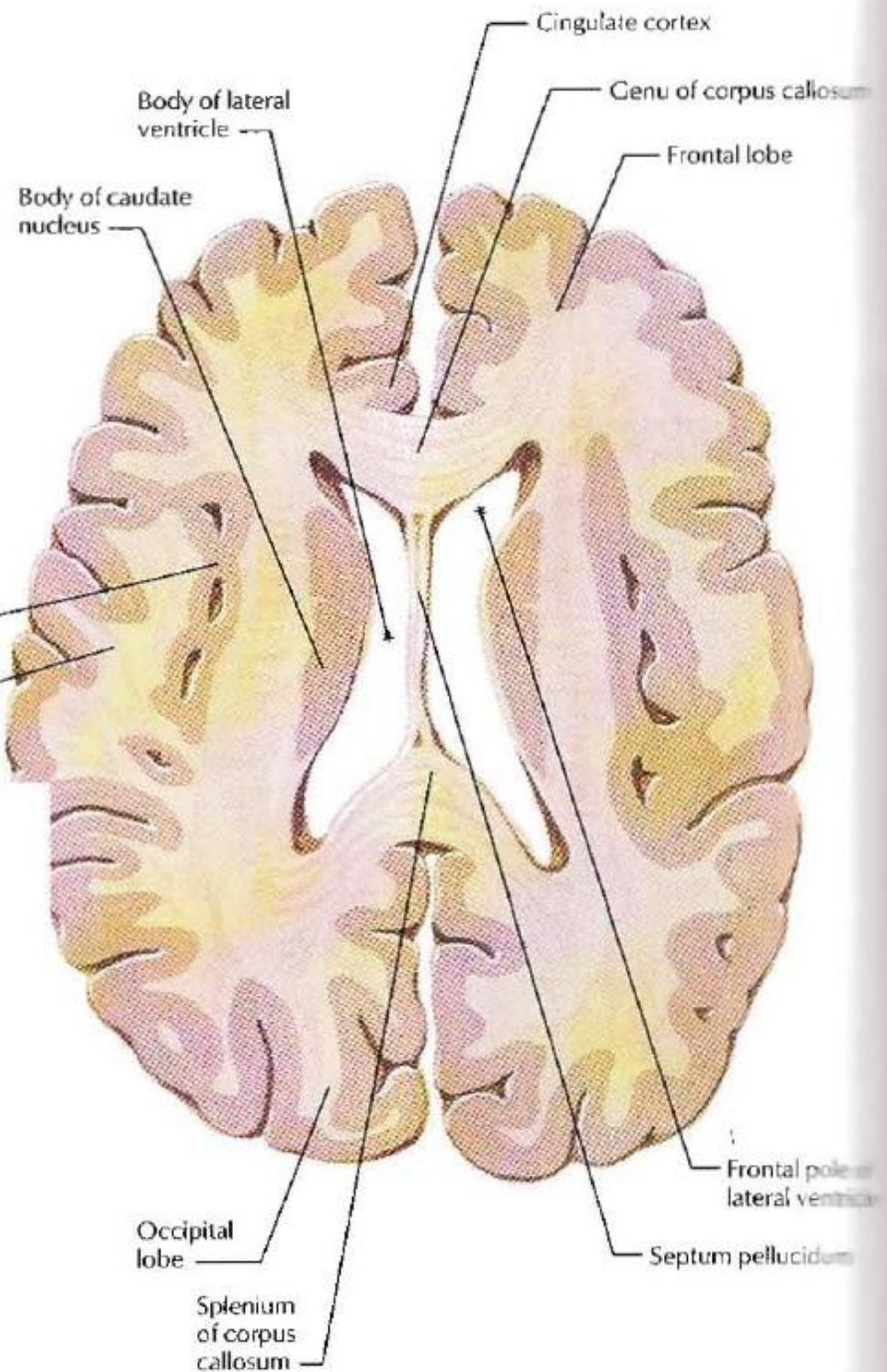
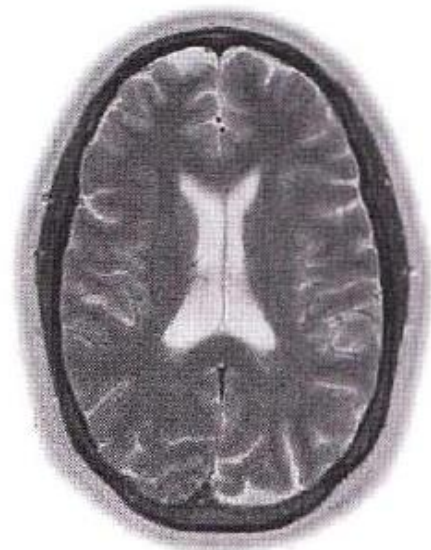


Level of section
(basal ganglia and internal capsule)



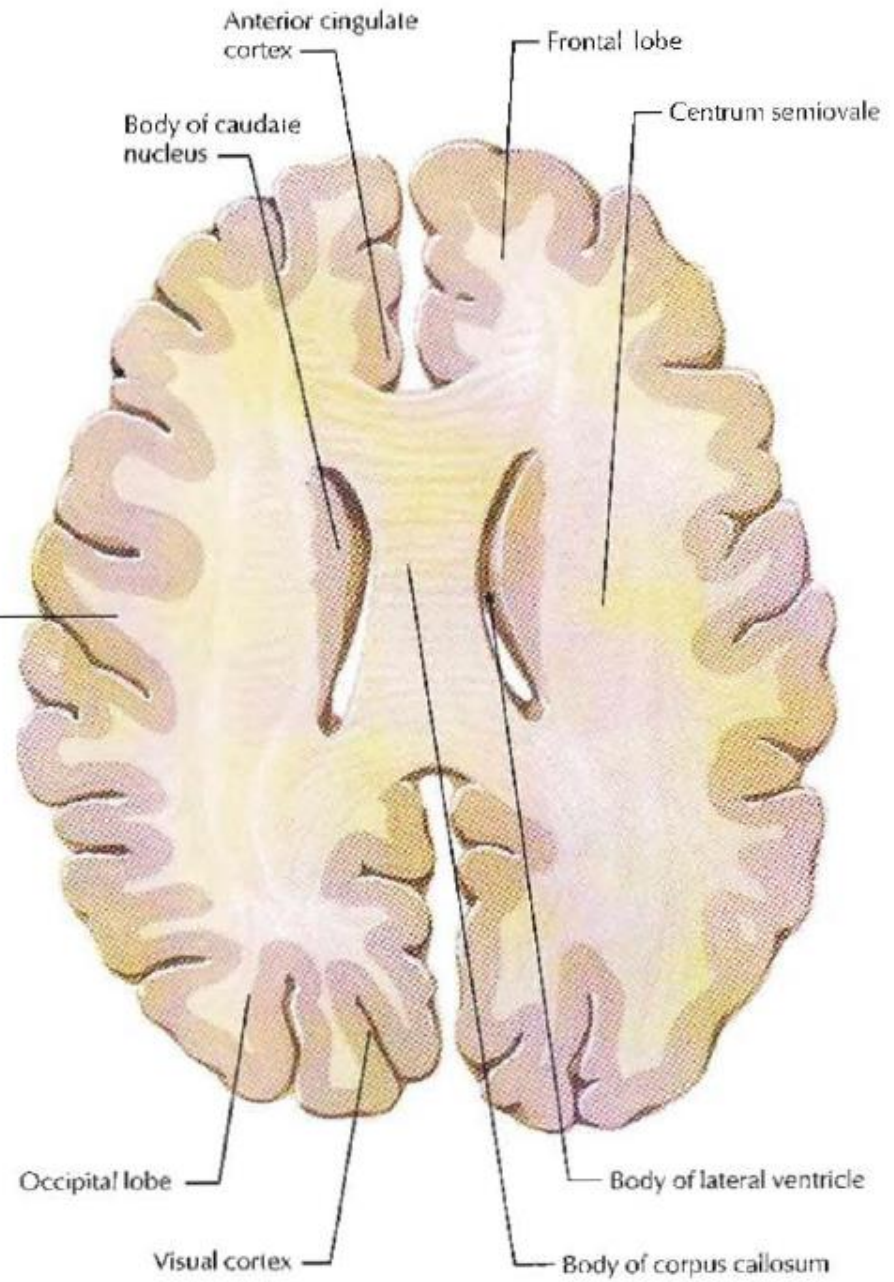


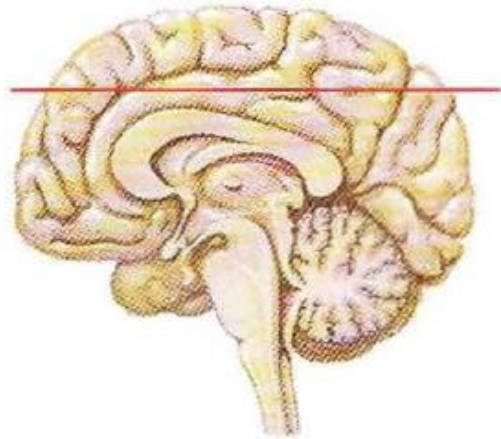
Level of section
(dorsal caudate, splenium and genu
of corpus callosum)





Level of section
(body of corpus callosum)



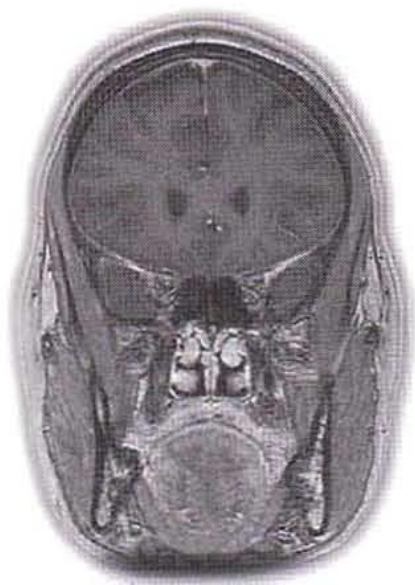
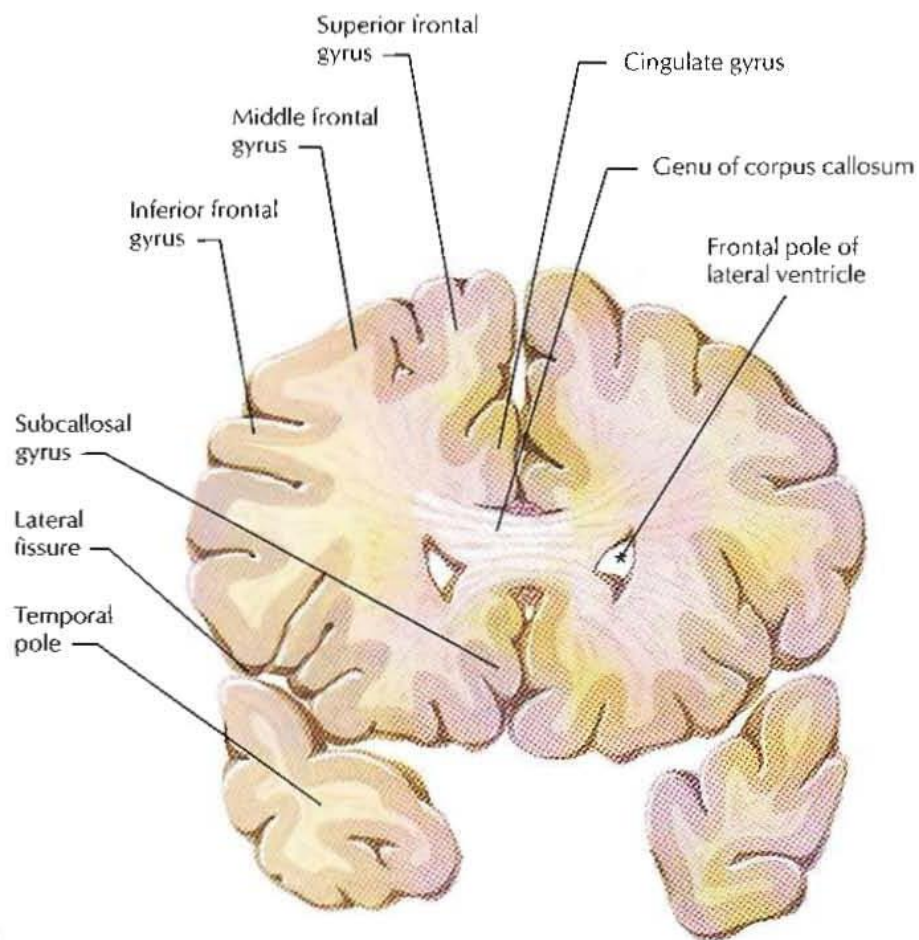


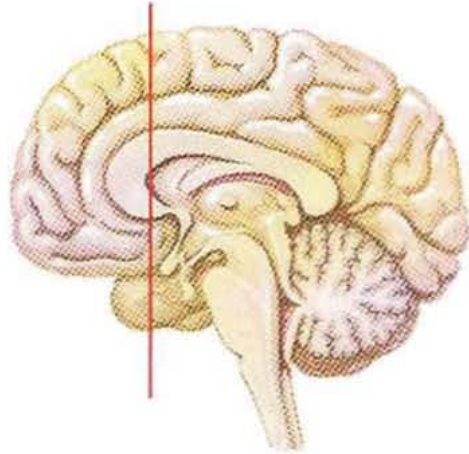
Level of section
(centrum semiovale)



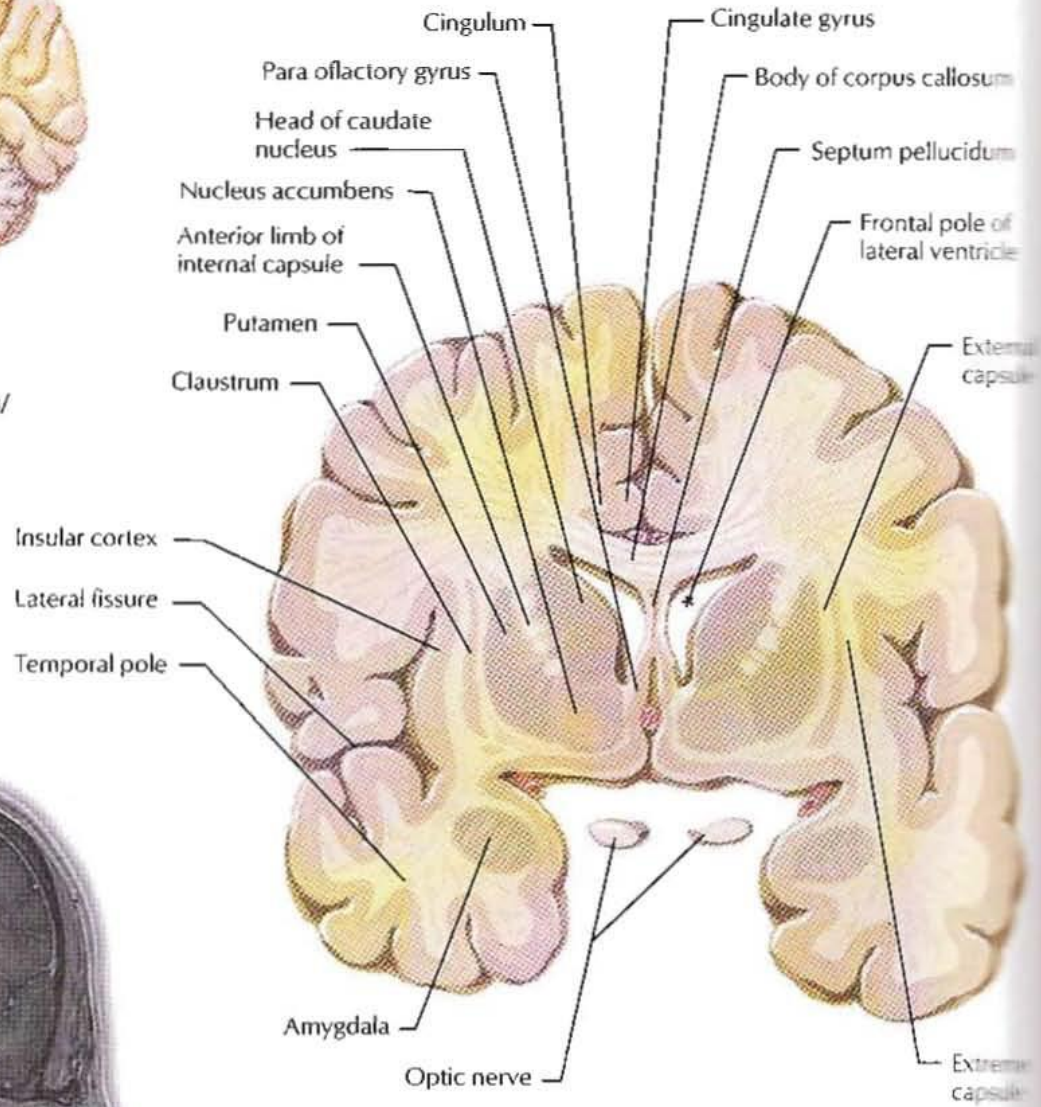
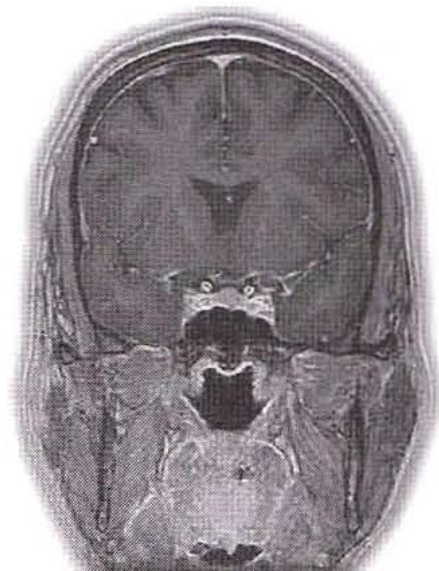


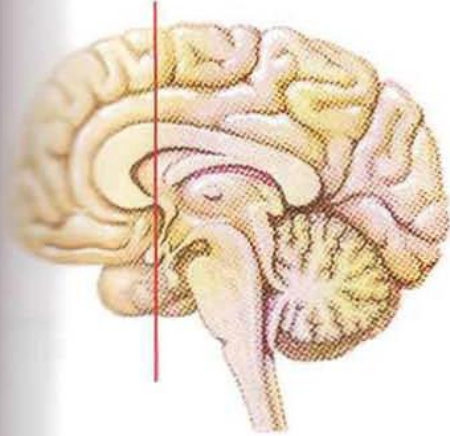
Level of section
(genu of corpus callosum)



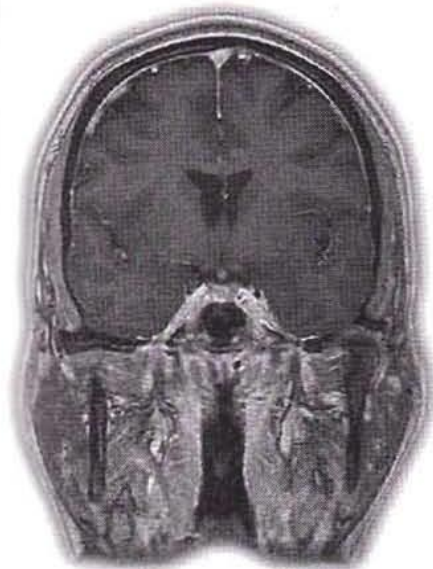
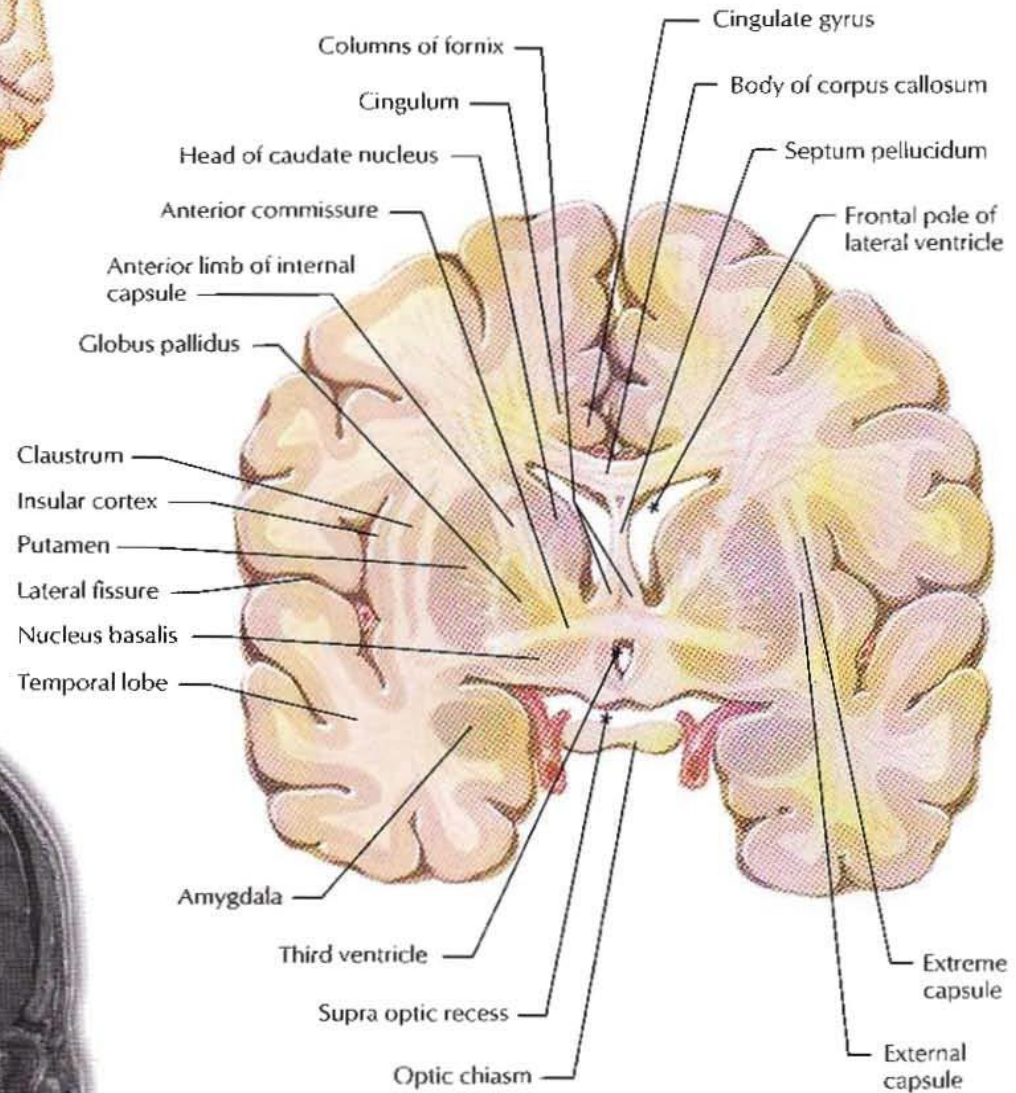


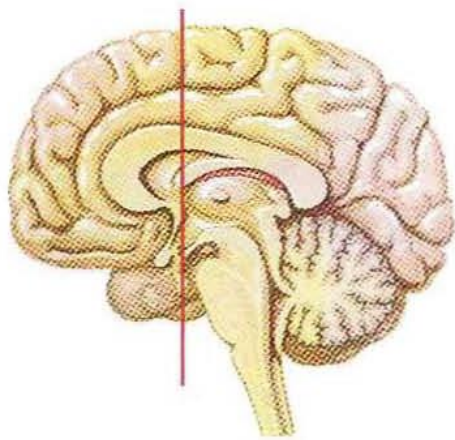
Level of section
(head of caudate nucleus/
nucleus accumbens)



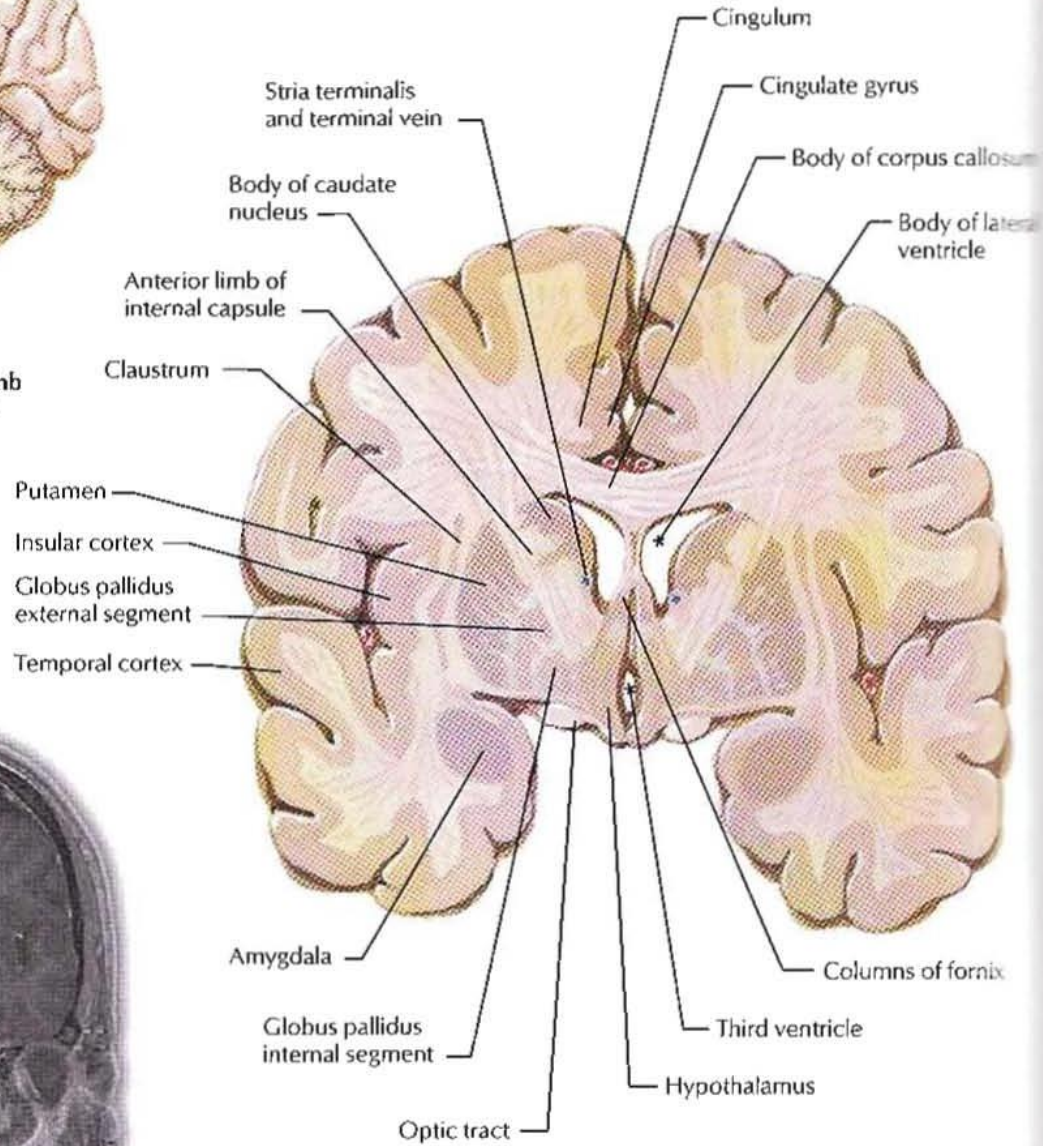
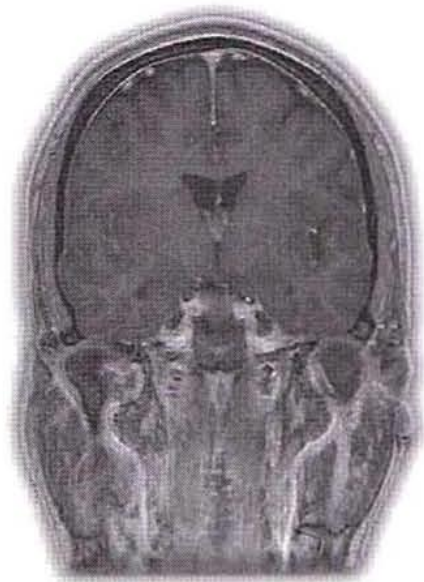


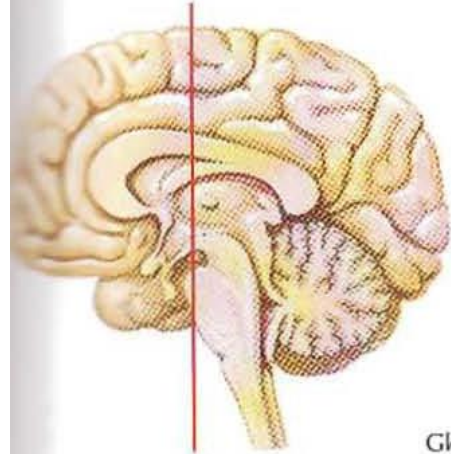
Level of section
(anterior commissure/
columns of fornix)



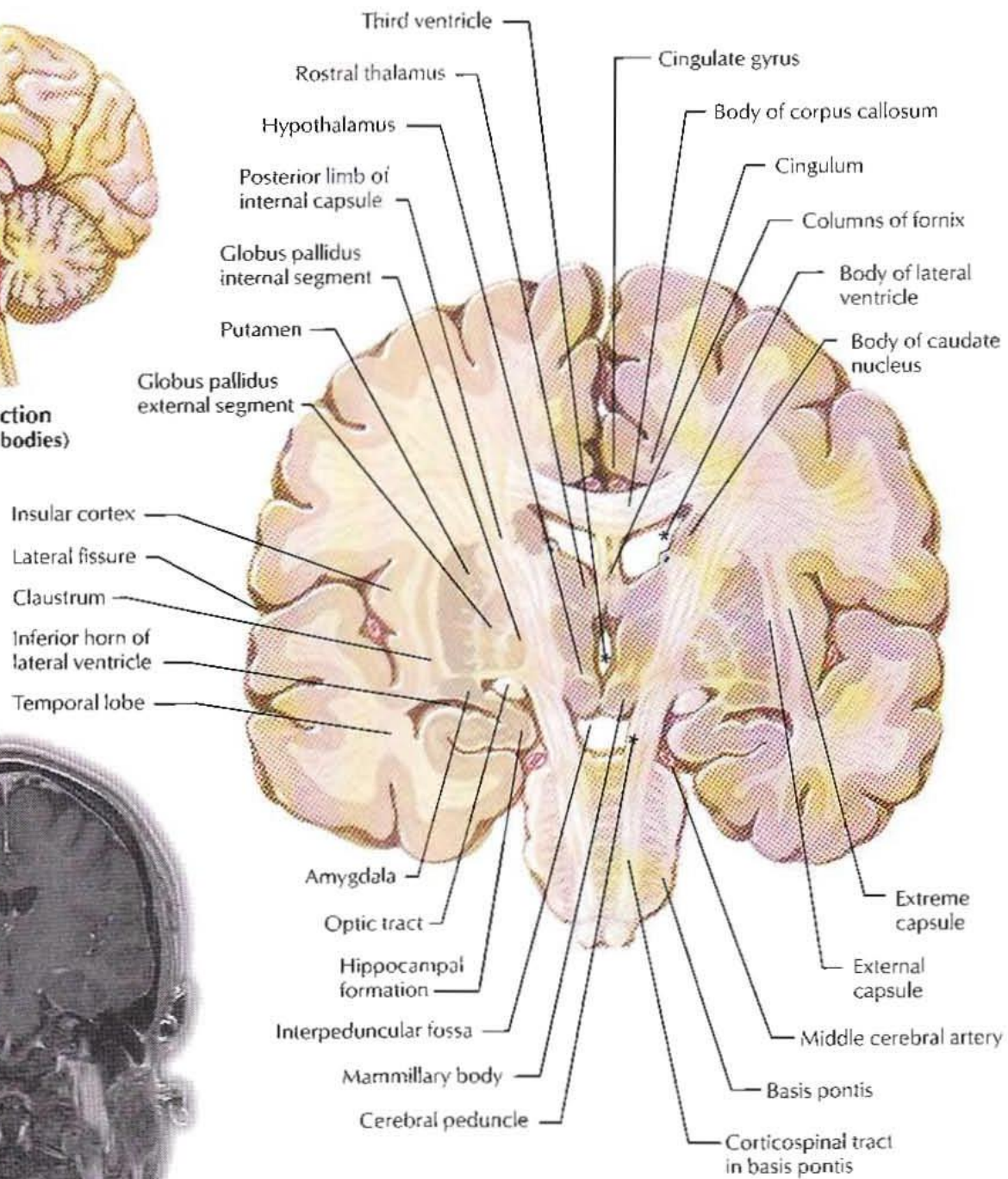


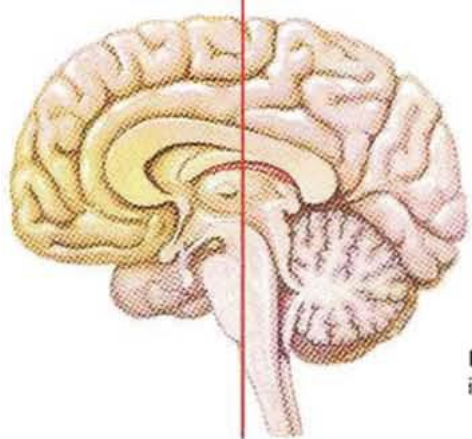
Level of section
(amygdala, anterior limb
of internal capsule)



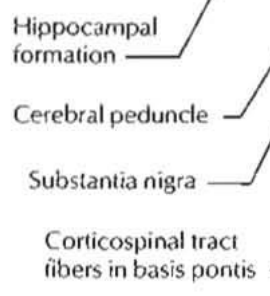
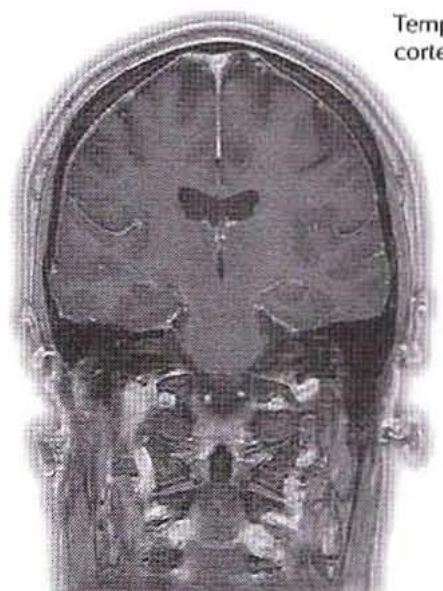
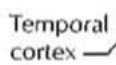
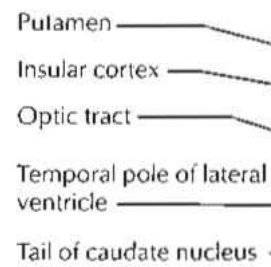
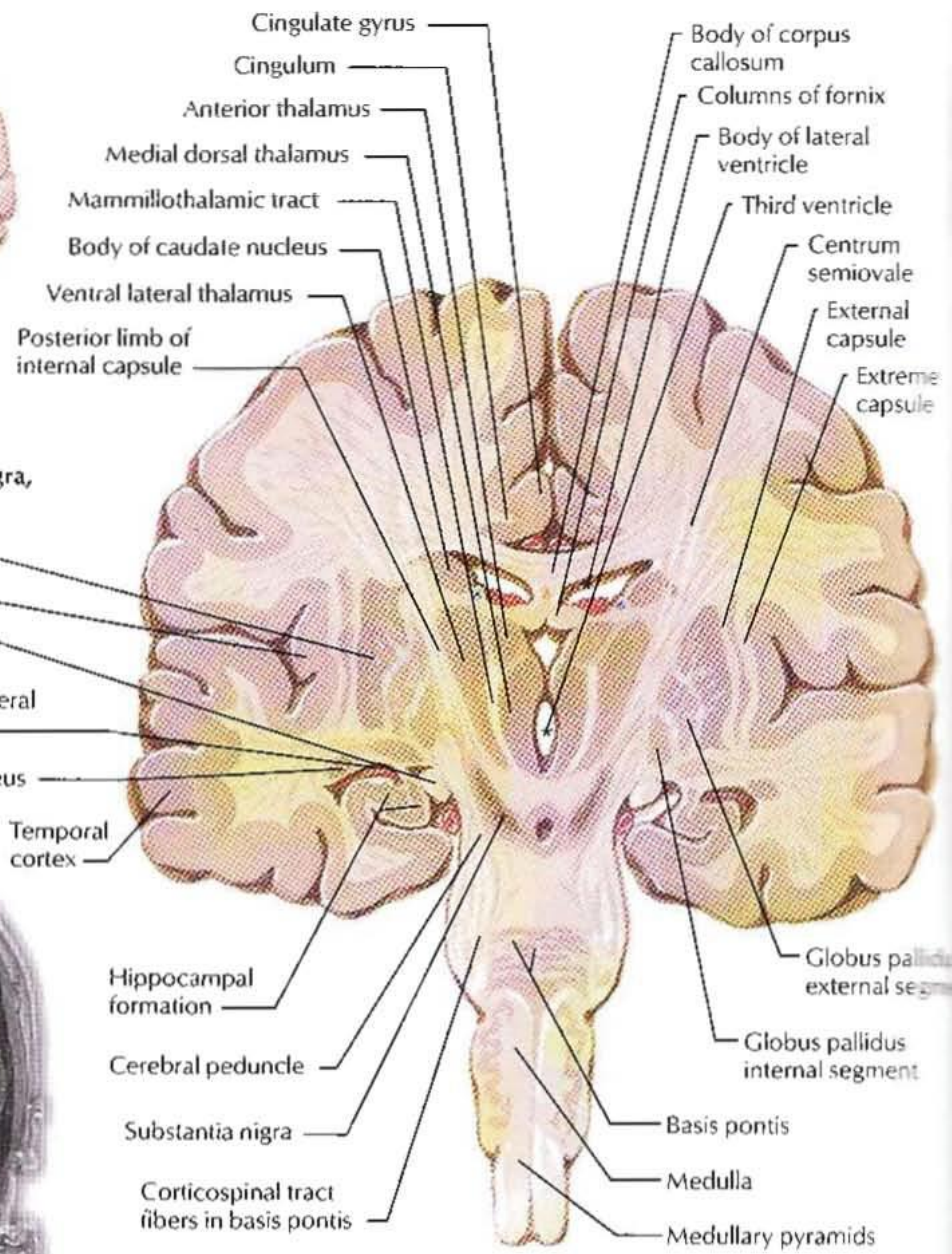


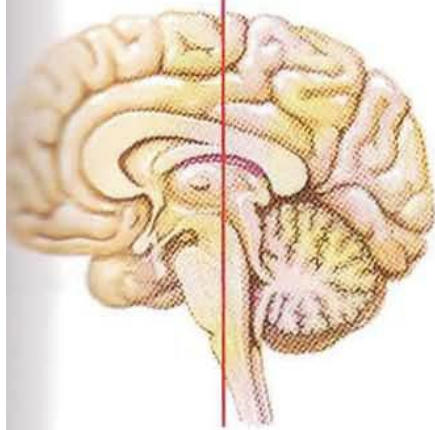
Level of section
(mammillary bodies)



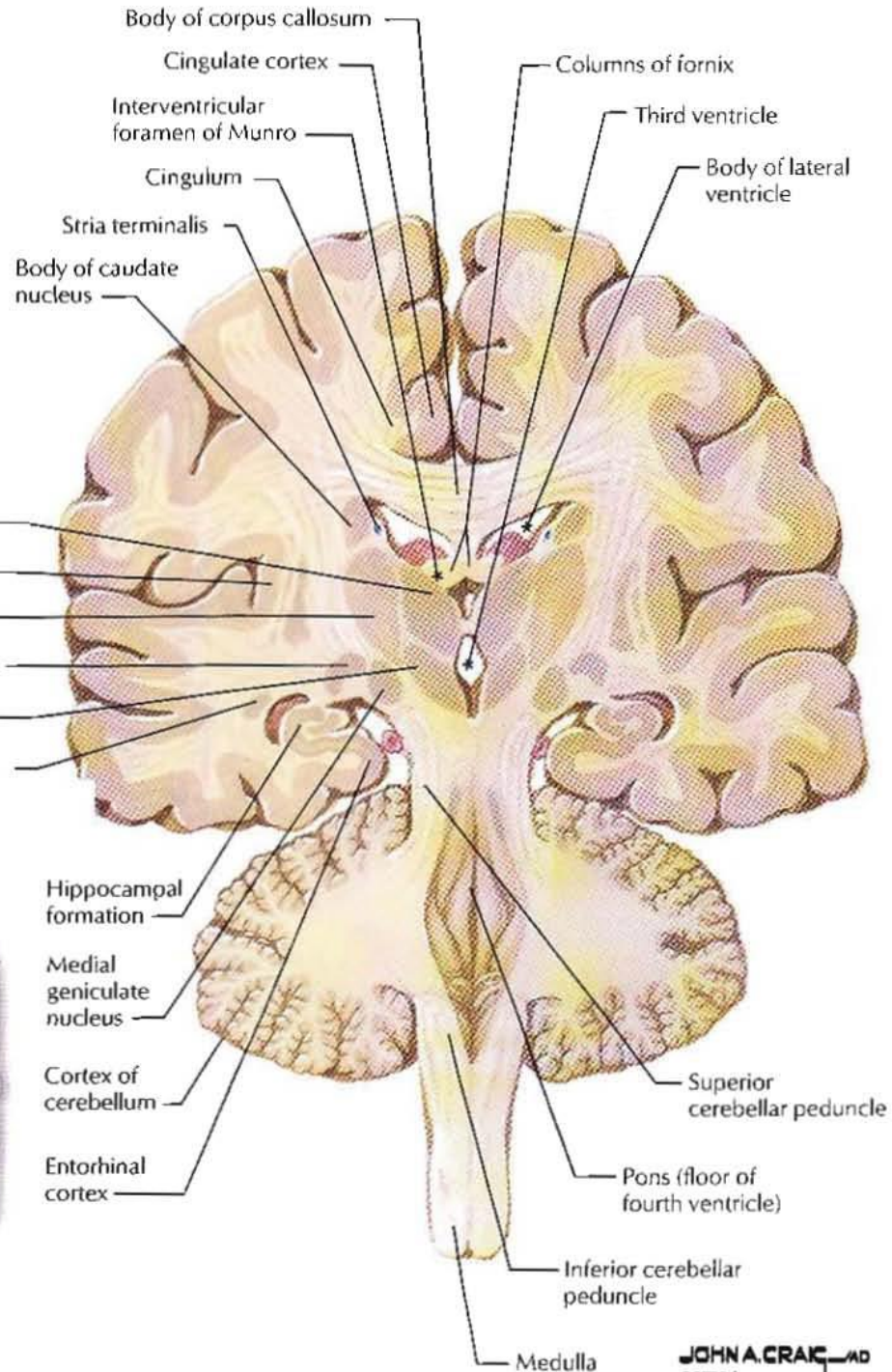


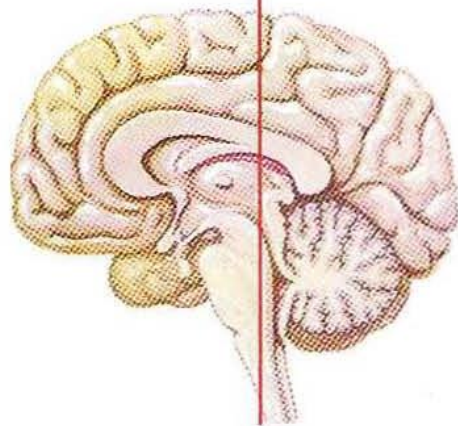
Level of Section
 (mammillothalamic tract/substantia nigra,
 rostral hippocampus)



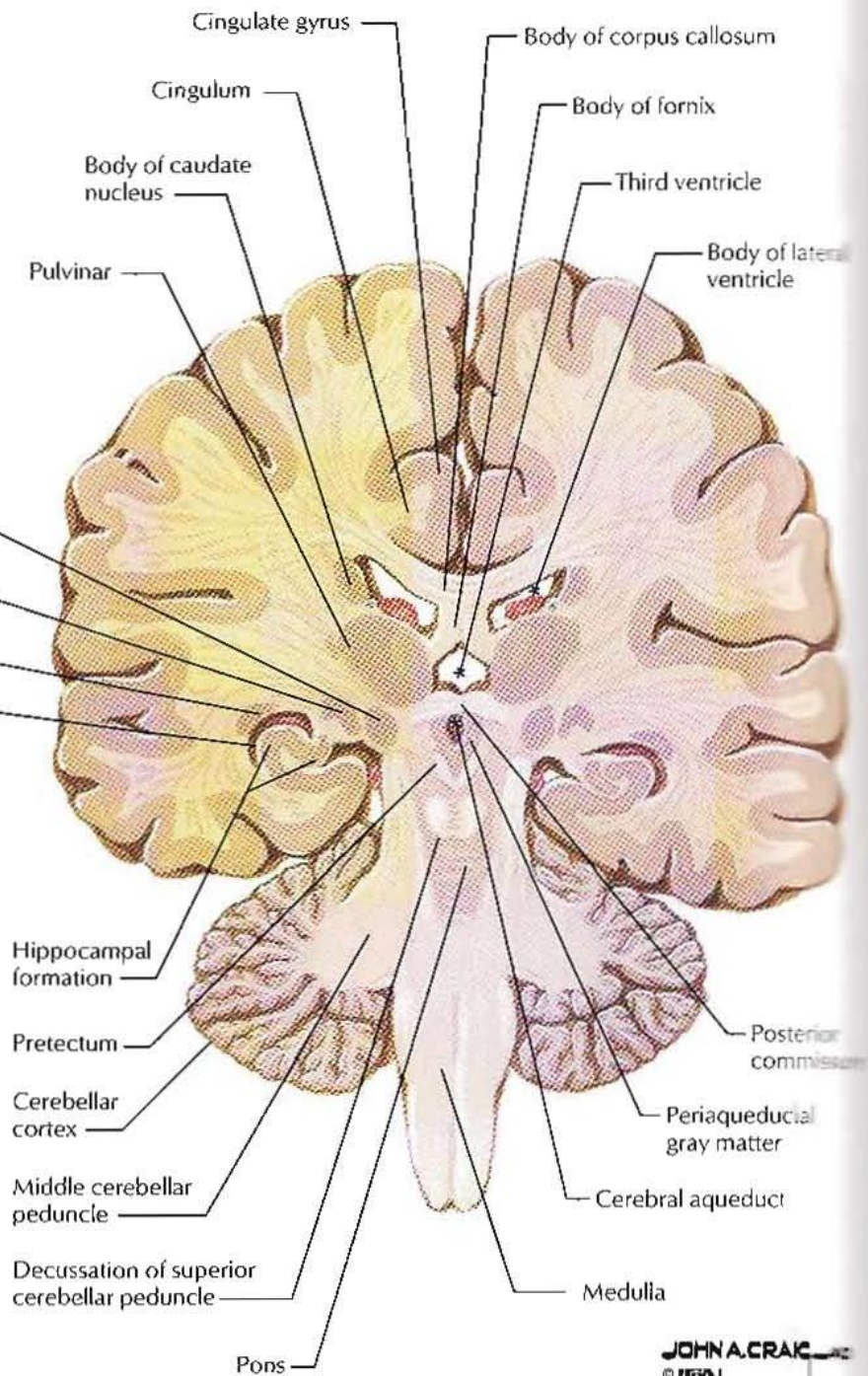
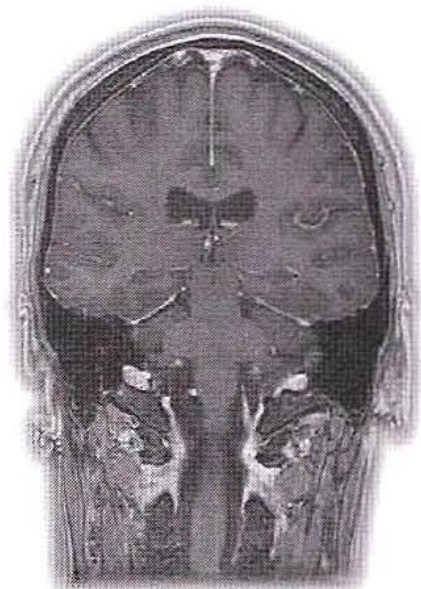


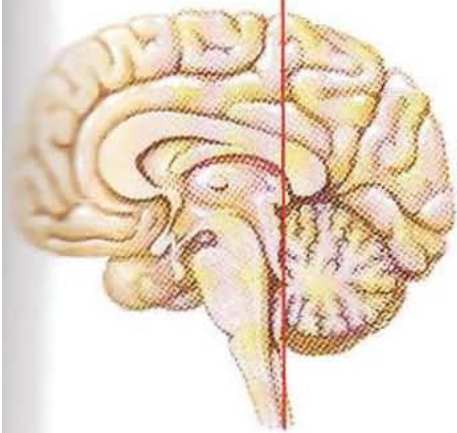
Level of section
(midthalamus)





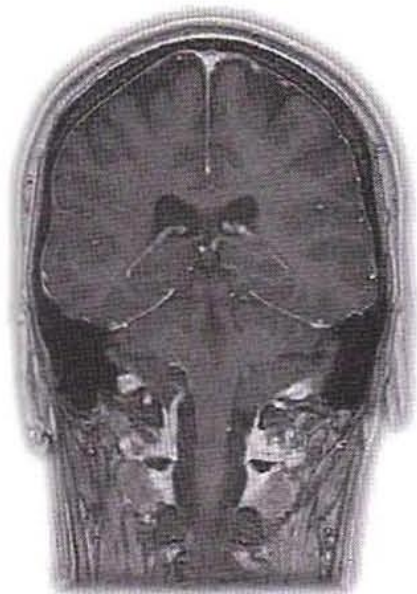
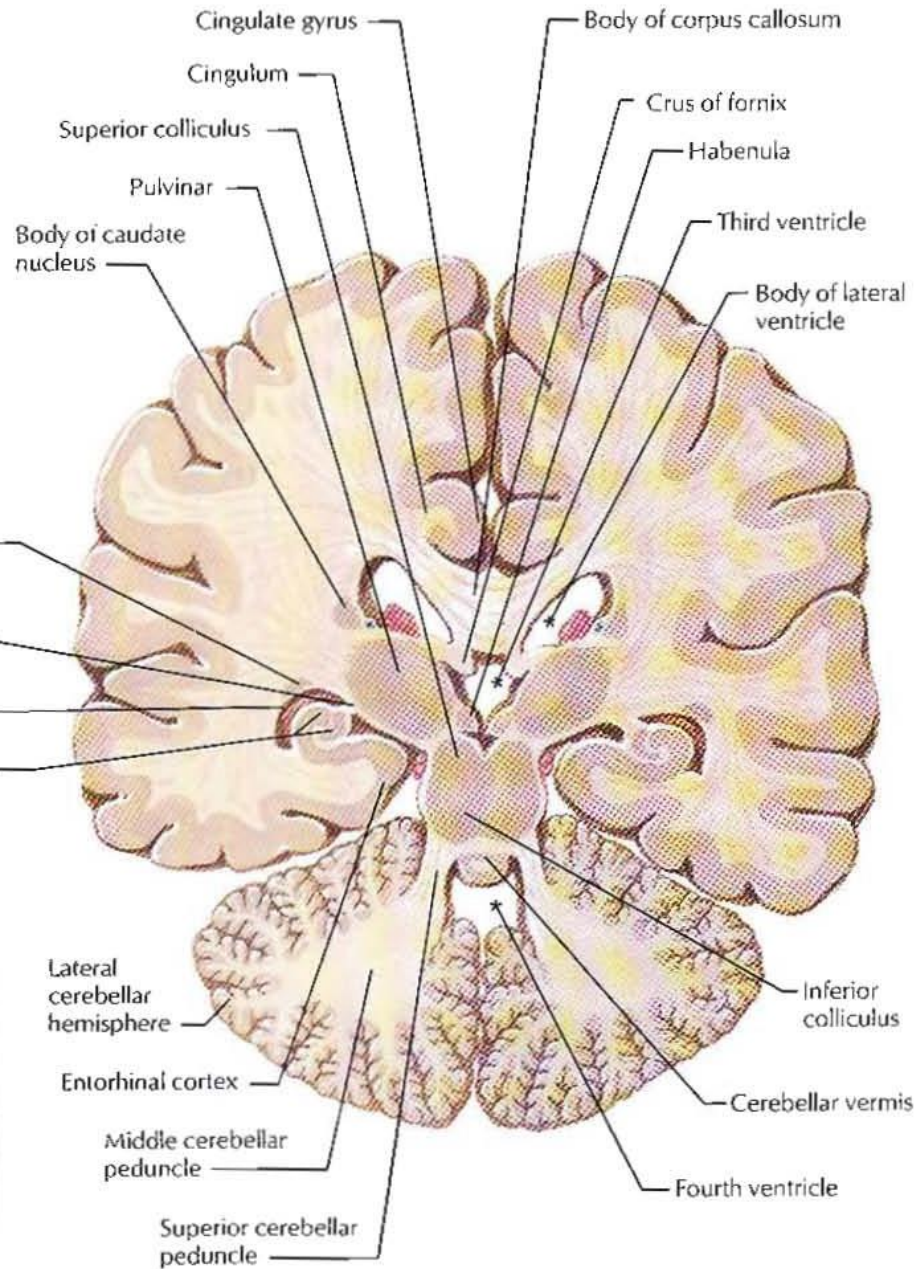
Level of section
(geniculate nuclei)

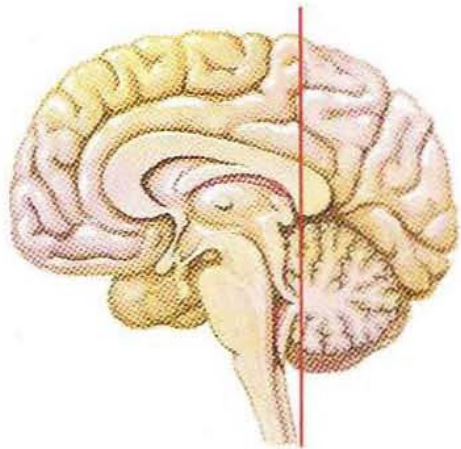




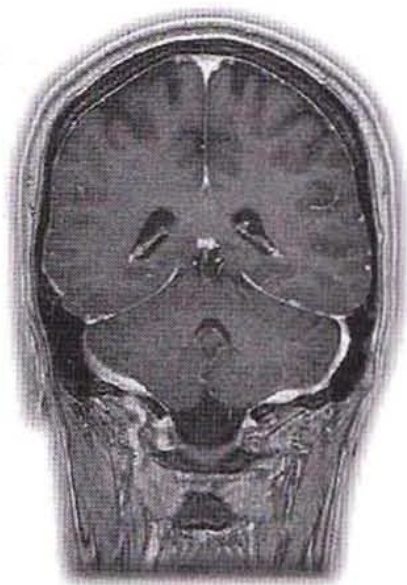
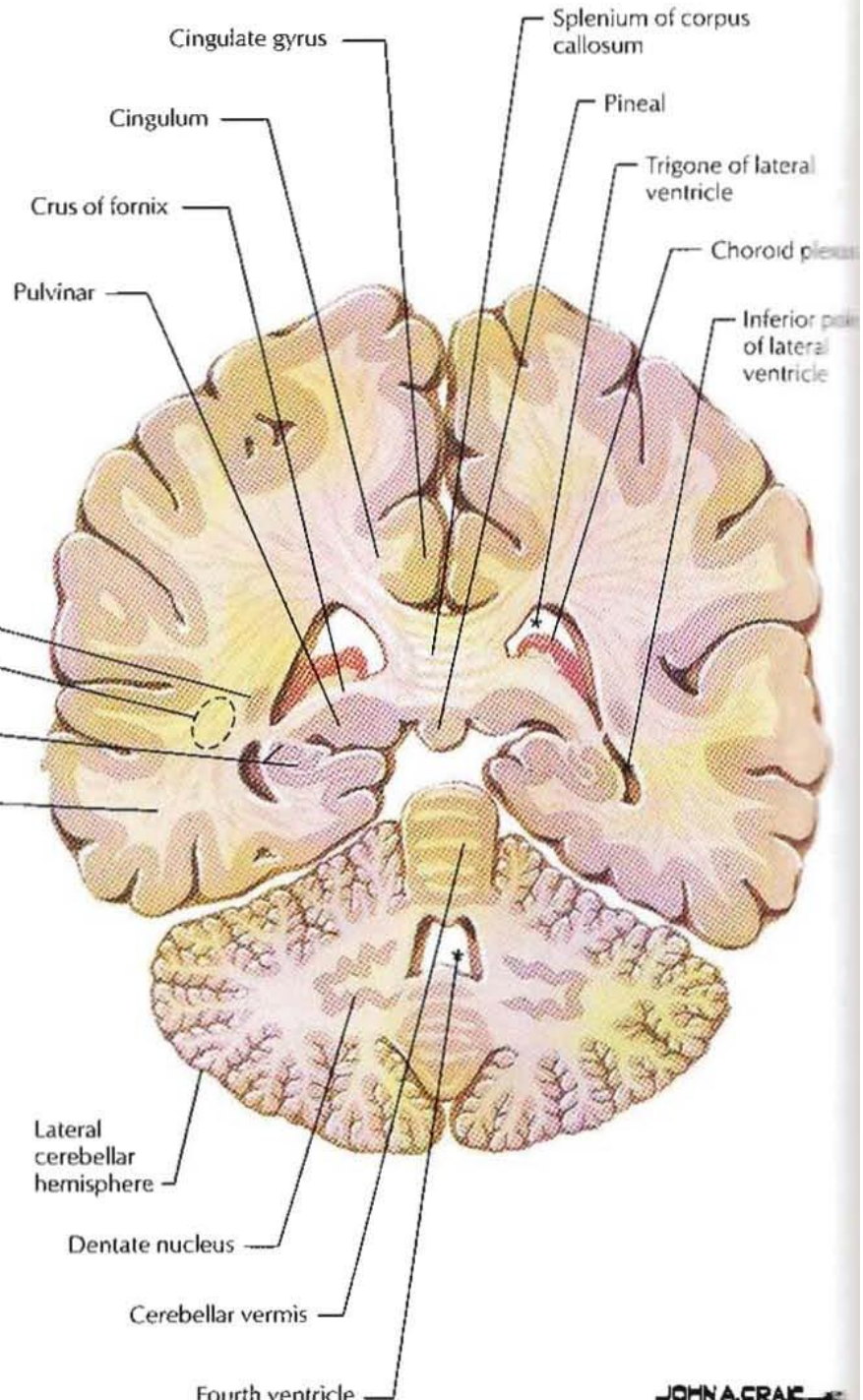
Level of section

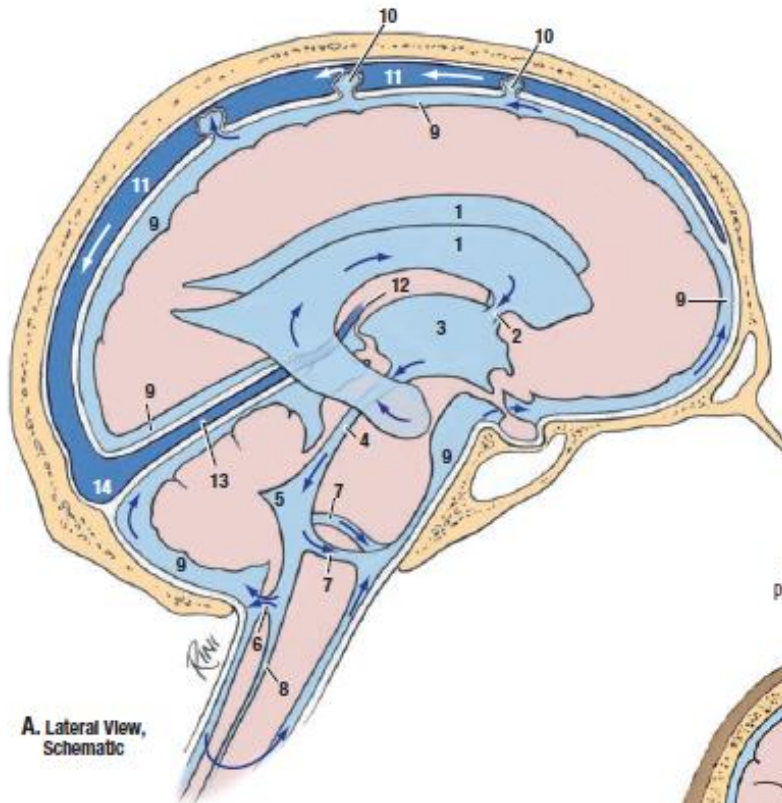
(caudal pulvinar and superior colliculus)





Level of section
(splenium of corpus callosum)

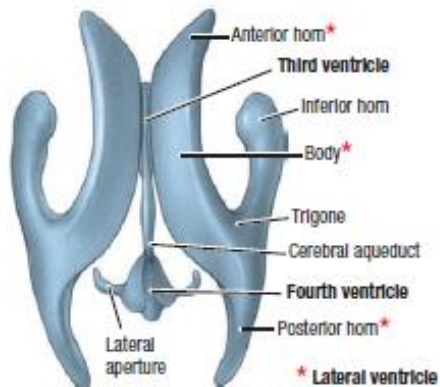




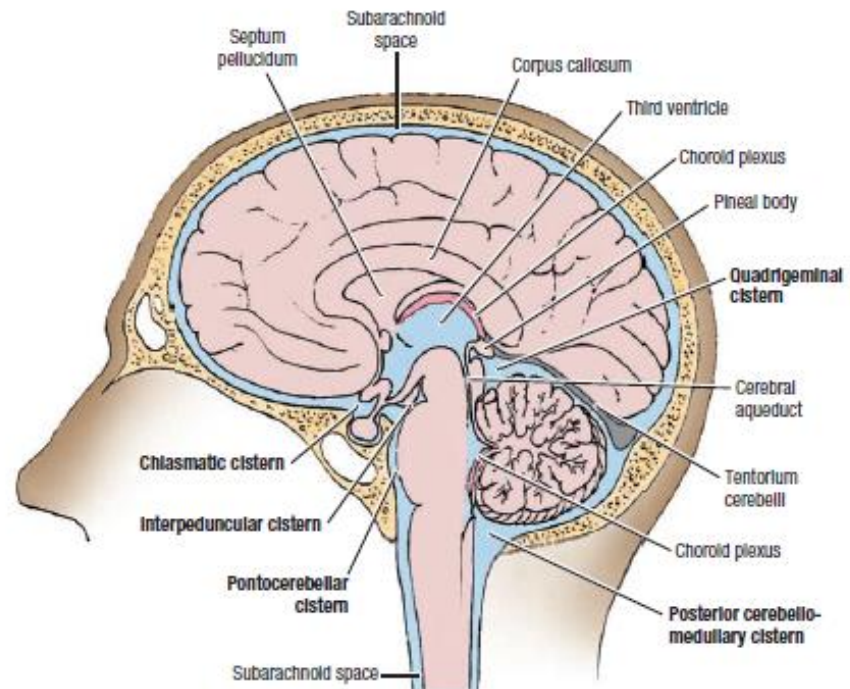
KEY for A:

- 1 Right and left lateral ventricles
- 2 Interventricular foramen
- 3 Third ventricle
- 4 Cerebral aqueduct
- 5 Fourth ventricle
- 6 Median aperture
- 7 Lateral apertures
- 8 Central canal
- 9 Subarachnoid space
- 10 Arachnoid granulations
- 11 Superior sagittal sinus
- 12 Great cerebral vein
- 13 Straight sinus
- 14 Confluence of sinuses

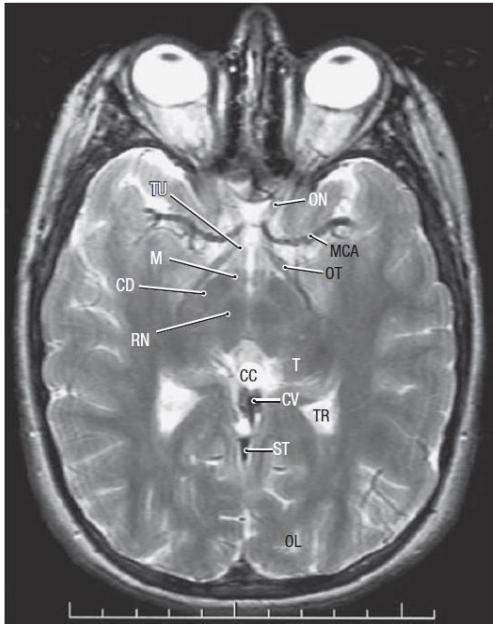
A. Lateral View, Schematic



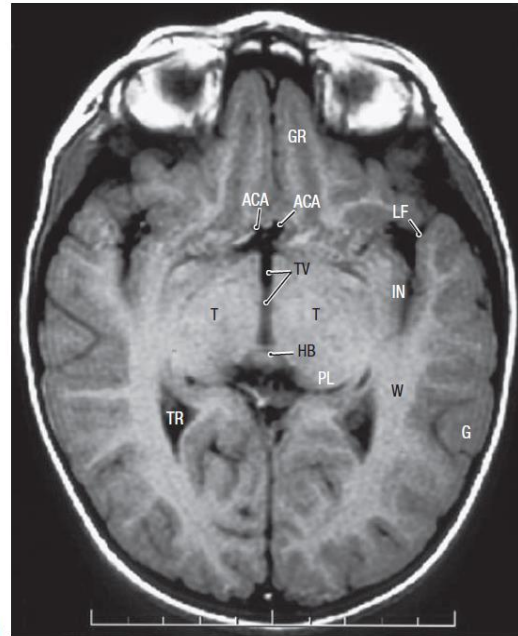
B. Superior View



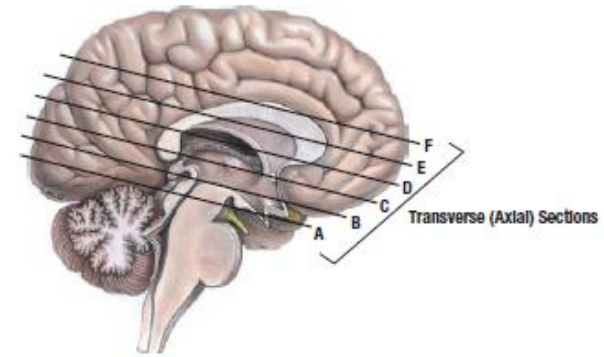
C. Medial View



A



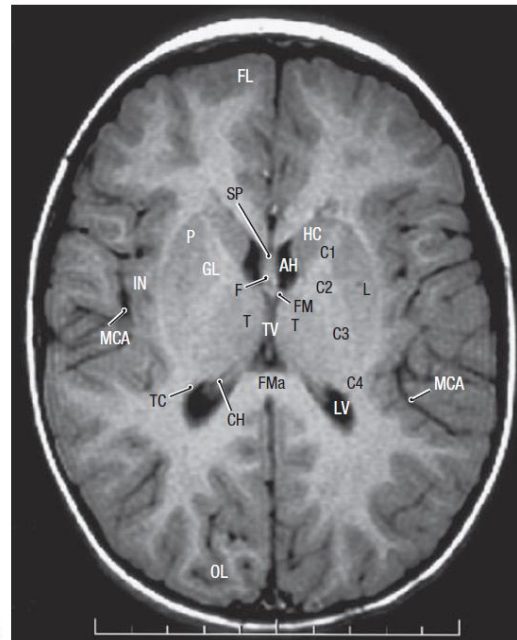
B



Transverse (Axial) Sections

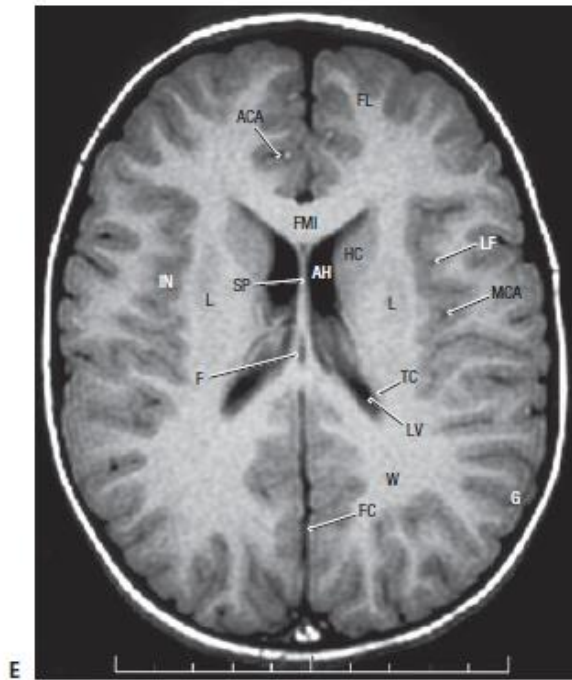


C

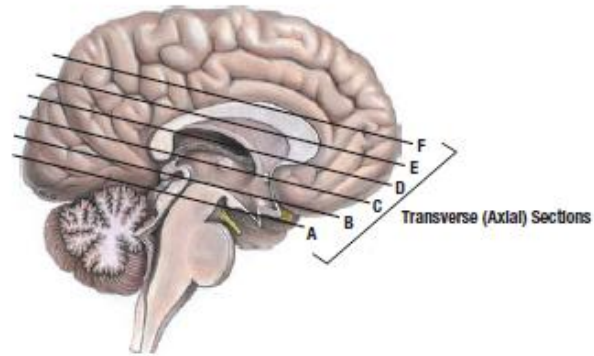


D

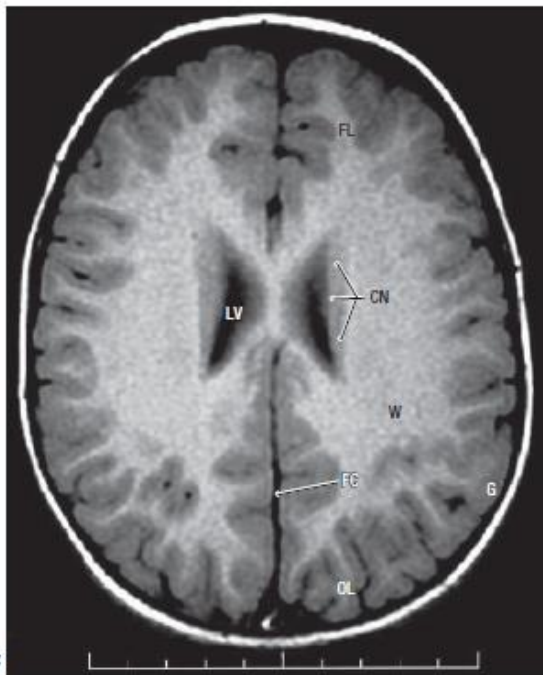
AC	Anterior commissure	GL	Globus pallidus
ACA	Anterior cerebral artery	GR	Gyrus rectus
AH	Anterior horn of lateral ventricle	HB	Habenular commissure
C1	Anterior limb of internal capsule	HC	Head of caudate nucleus
C2	Genus of internal capsule	IN	Insular cortex
C3	Posterior limb of internal capsule	L	Lentiform nucleus
C4	Retrolenticular limb of internal capsule	LF	Lateral fissure
CC	Collicular cistern	LV	Lateral ventricle
CD	Cerebral peduncle	M	Mammillary body
CH	Choroid plexus	MCA	Middle cerebral artery
CL	Clausstrum	OL	Occipital lobe
CN	Caudate nucleus	ON	Optic nerve
CV	Great cerebral vein	OR	Optic radiations
ET	External capsule	OT	Optic tract
EX	Extreme capsule	P	Putamen
F	Fornix	PL	Pulvinar
FC	Falx cerebri	RN	Red nucleus
FL	Frontal lobe	SP	Septum pellucidum
FM	Interventricular foramen	ST	Straight sinus
FMa	Forceps major	T	Thalamus
FMI	Forceps minor	TC	Tail of caudate nucleus
G	Gray matter	TR	Trigone of lateral ventricle
		TU	Tuber cinereum
		TV	Third ventricle
		W	White matter



E

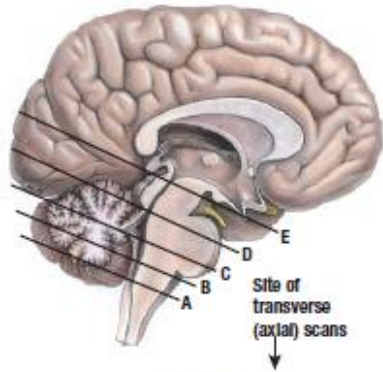


Transverse (Axial) Sections



F

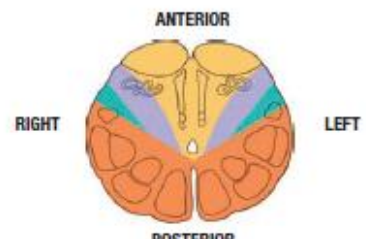
AC	Anterior commissure	GL	Globus pallidus
ACA	Anterior cerebral artery	GR	Gyrus rectus
AH	Anterior horn of lateral ventricle	HB	Habenular commissure
C1	Anterior limb of internal capsule	HC	Head of caudate nucleus
C2	Genu of internal capsule	IN	Insular cortex
C3	Posterior limb of internal capsule	L	Lentiform nucleus
C4	Retrolenticular limb of internal capsule	LF	Lateral fissure
CC	Collicular cistern	LV	Lateral ventricle
CD	Cerebral peduncle	M	Mammillary body
CH	Choroid plexus	MCA	Middle cerebral artery
CL	Clastrum	OL	Occipital lobe
CN	Caudate nucleus	ON	Optic nerve
CV	Great cerebral vein	OR	Optic radiations
ET	External capsule	OT	Optic tract
EX	Extreme capsule	P	Putamen
F	Fornix	PL	Pulvinar
FC	Falx cerebri	RN	Red nucleus
FL	Frontal lobe	SP	Septum pellucidum
FM	Interventricular foramen	ST	Straight sinus
FMa	Forceps major	T	Thalamus
FMI	Forceps minor	TC	Tail of caudate nucleus
G	Gray matter	TR	Trigone of lateral ventricle
		TU	Tuber cinereum
		TV	Third ventricle
		W	White matter



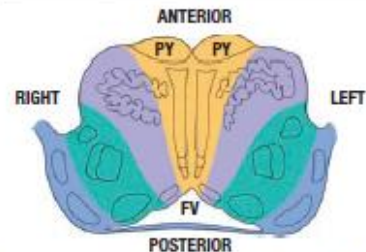
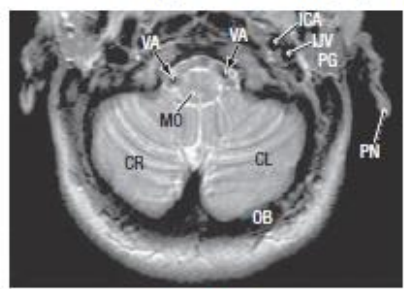
Blood Supply:

 Posterior cerebral	 Posterior spinal
 Superior cerebellar	Basilar:
 Anterior inferior cerebellar	 Long circumferential branches
 Posterior inferior cerebellar	 Short circumferential branches
 Vertebral	 Paramedian branches
 Anterior spinal	

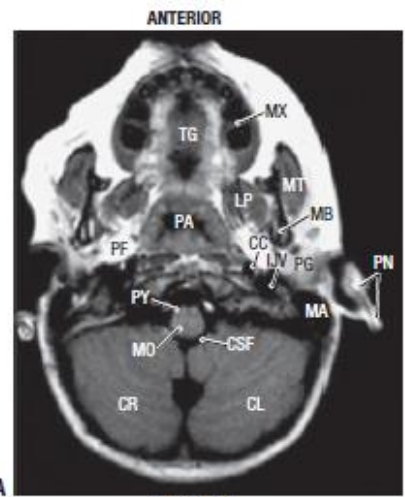
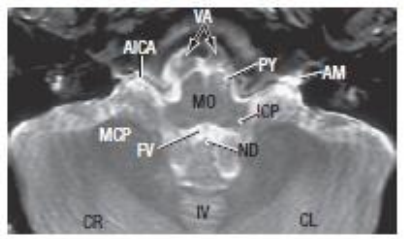
AICA	Anterior inferior cerebellar artery
AM	Internal acoustic meatus
BA	Basilar artery
C	Cerebral crus
CA	Cerebral aqueduct
CB	Ciliary body
CC	Common carotid artery
CI	Colliculi
CL	Left cerebellar hemisphere
CP	Cochlear perilymph
CR	Right cerebellar hemisphere
CSF	CSF in subarachnoid space
DS	Dorsum sellae
EB	Eyeball
F	CN VII and CN VIII
FC	Facial colliculus
FI	Fat in Intra temporal fossa
FL	Flocculus
FV	Fourth ventricle
G	Gray matter
HF	Hypophysial fossa
HP	Hippocampus
IN	Infundibulum
IC	Interpeduncular cistern
ICA	Internal carotid artery
ICP	Inferior cerebellar peduncle
IF	Inferior concha
IH	Inferior horn (lateral ventricle)
IJV	Internal jugular vein
IP	Interpeduncular fossa
IV	Inferior vermis
L	Lens
LP	Lateral pterygoid
MA	Mastoid air cells
MB	Mandible
MC	Middle concha
MCP	Middle cerebellar peduncle
MD	Midbrain
MO	Medulla oblongata
MS	Maxillary sinus
MT	Masseter
MX	Maxilla
ND	Nodule of cerebellum
NS	Nasal septum
OB	Occipital bone
OC	Optic chiasm



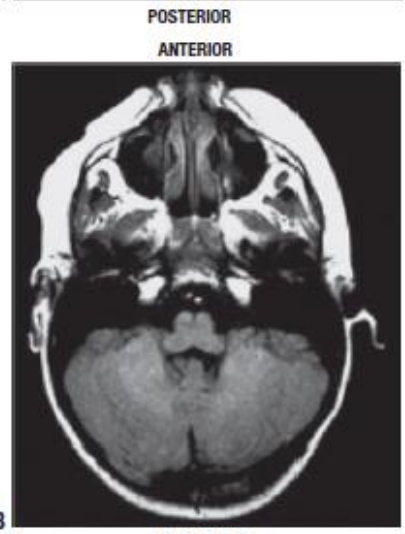
Transverse section through lower medulla oblongata (Part A)



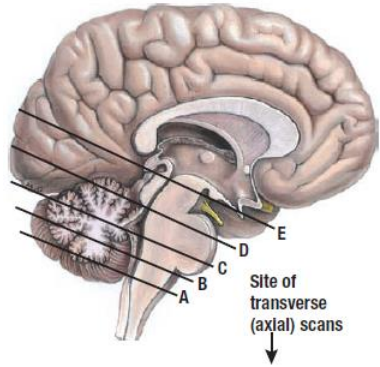
Transverse section through upper medulla oblongata (Part B)



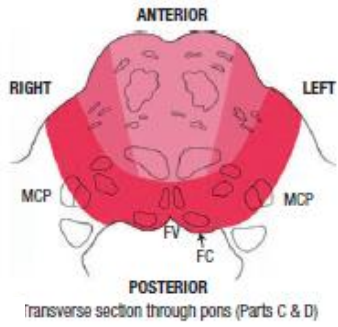
A



B

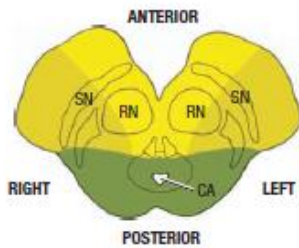


Site of transverse (axial) scans
↓

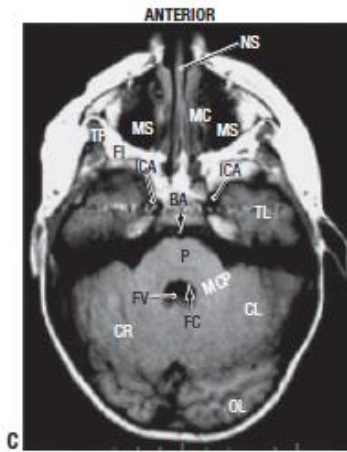


Transverse section through pons (Parts C & D)

OL	Occipital lobe
ON	Optic nerve (CN II)
P	Pons
PA	Pharynx
PCA	Posterior cerebral artery
PF	Parapharyngeal fat
PG	Parotid gland
PH	Posterior horn (lateral ventricle)
PN	Pinna
PY	Pyramid
RN	Red nucleus
SC	Semicircular canal
SCP	Superior cerebellar peduncle
SE	Suprasellar cistern
SH	Superior concha
SN	Substantia nigra
SS	Superior sagittal sinus
ST	Straight sinus
SV	Superior vermis
TG	Tongue
TL	Temporal lobe
TP	Temporals
UN	Uncus
VA	Vertebral artery
VP	Vestibular perilymph
VT	Vitreous body
W	White matter



Transverse section through midbrain (Part E)



C

POSTERIOR

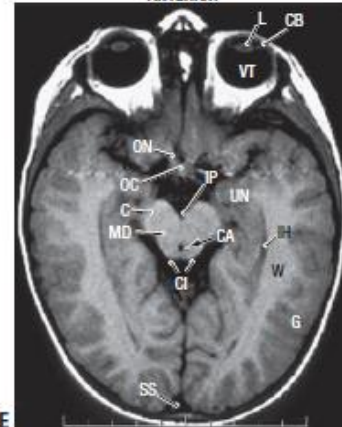
ANTERIOR



D

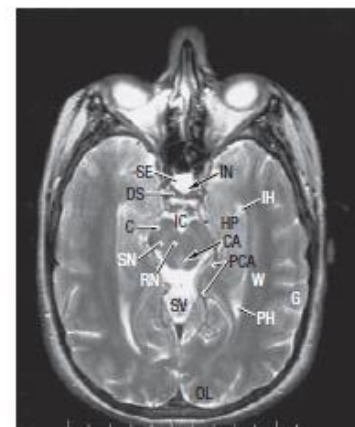
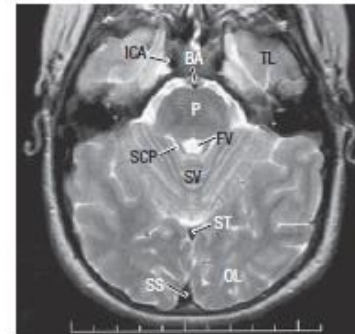
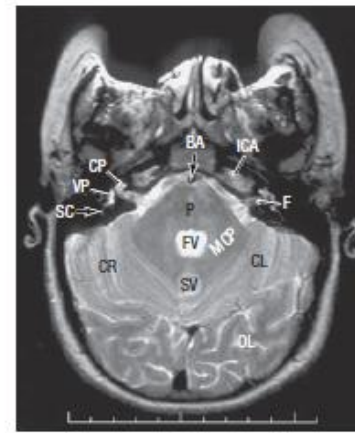
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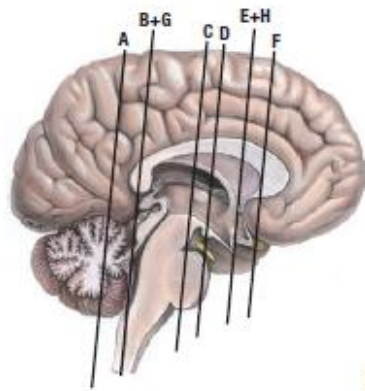
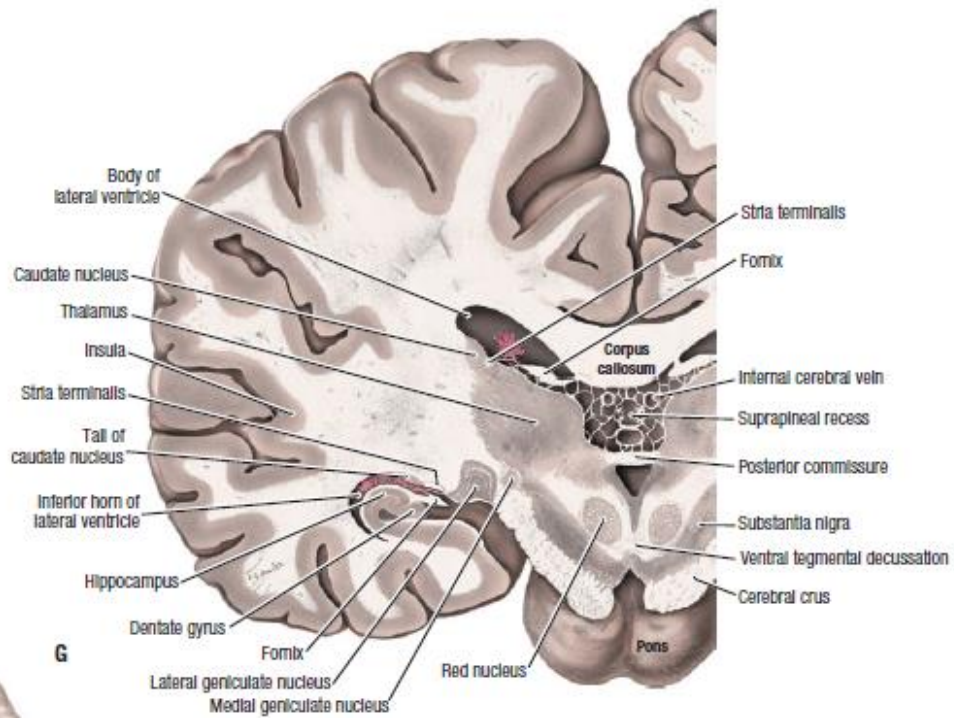
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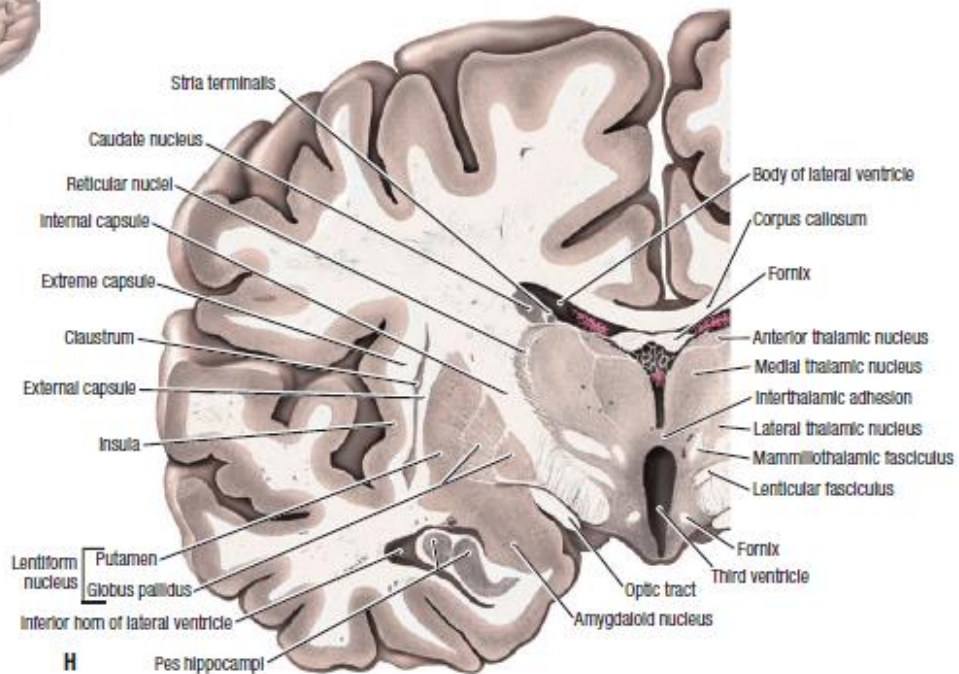
E

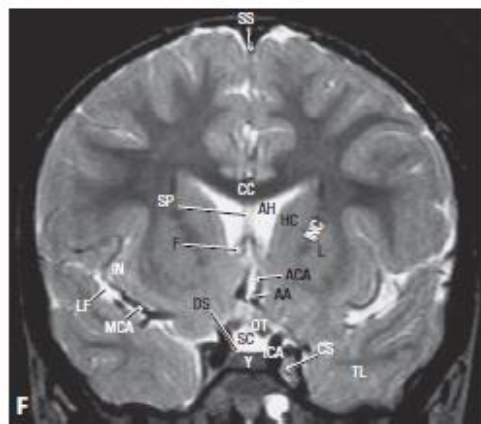
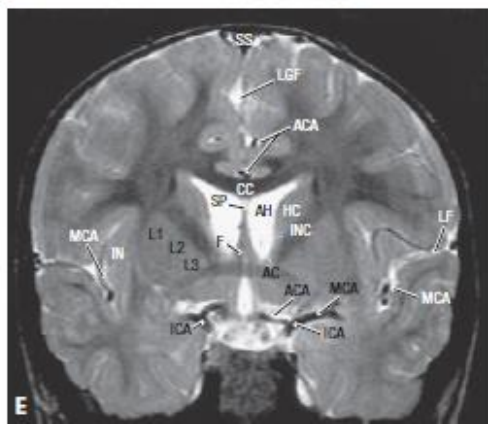
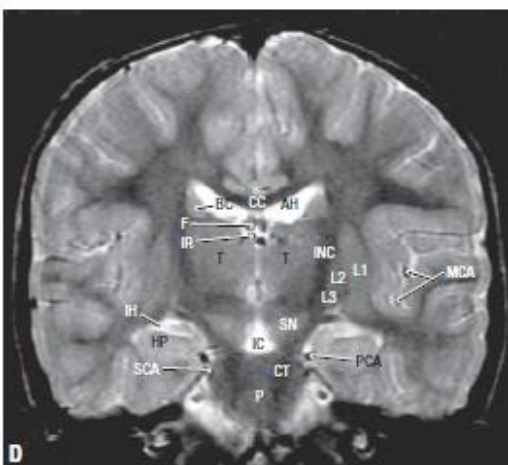
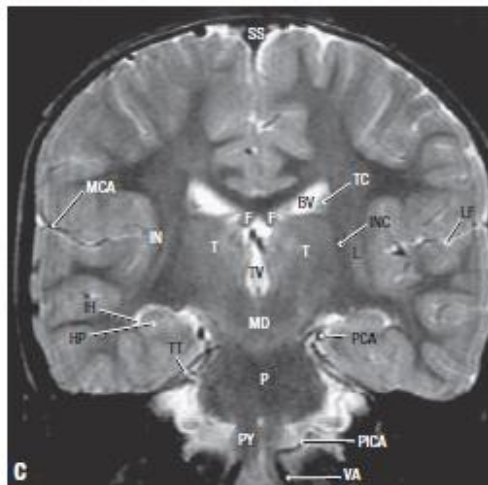
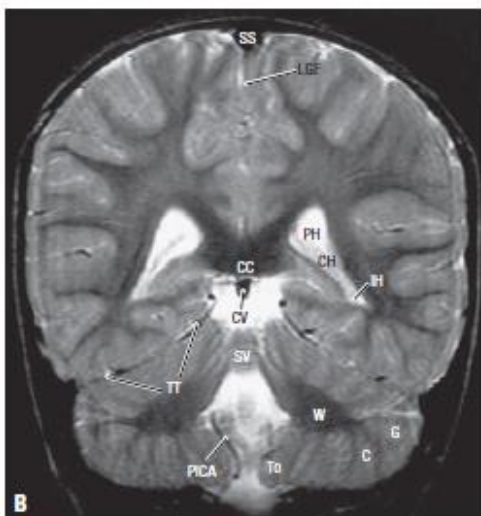
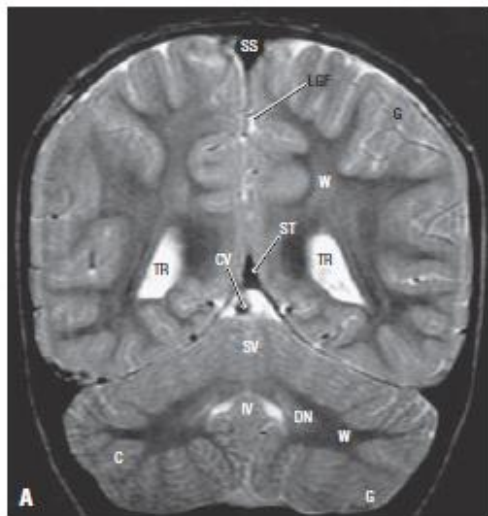
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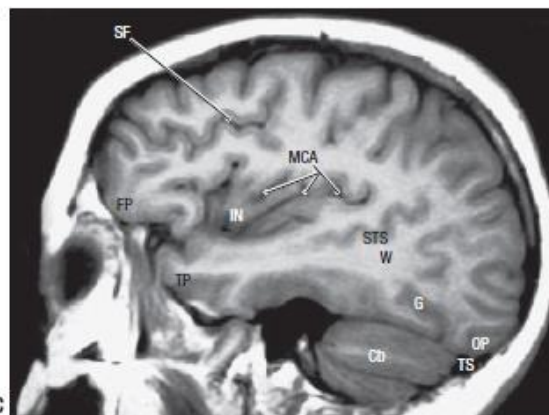
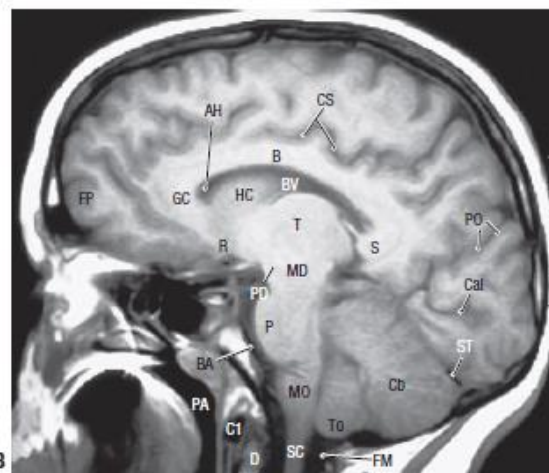


Site of coronal scans and sections



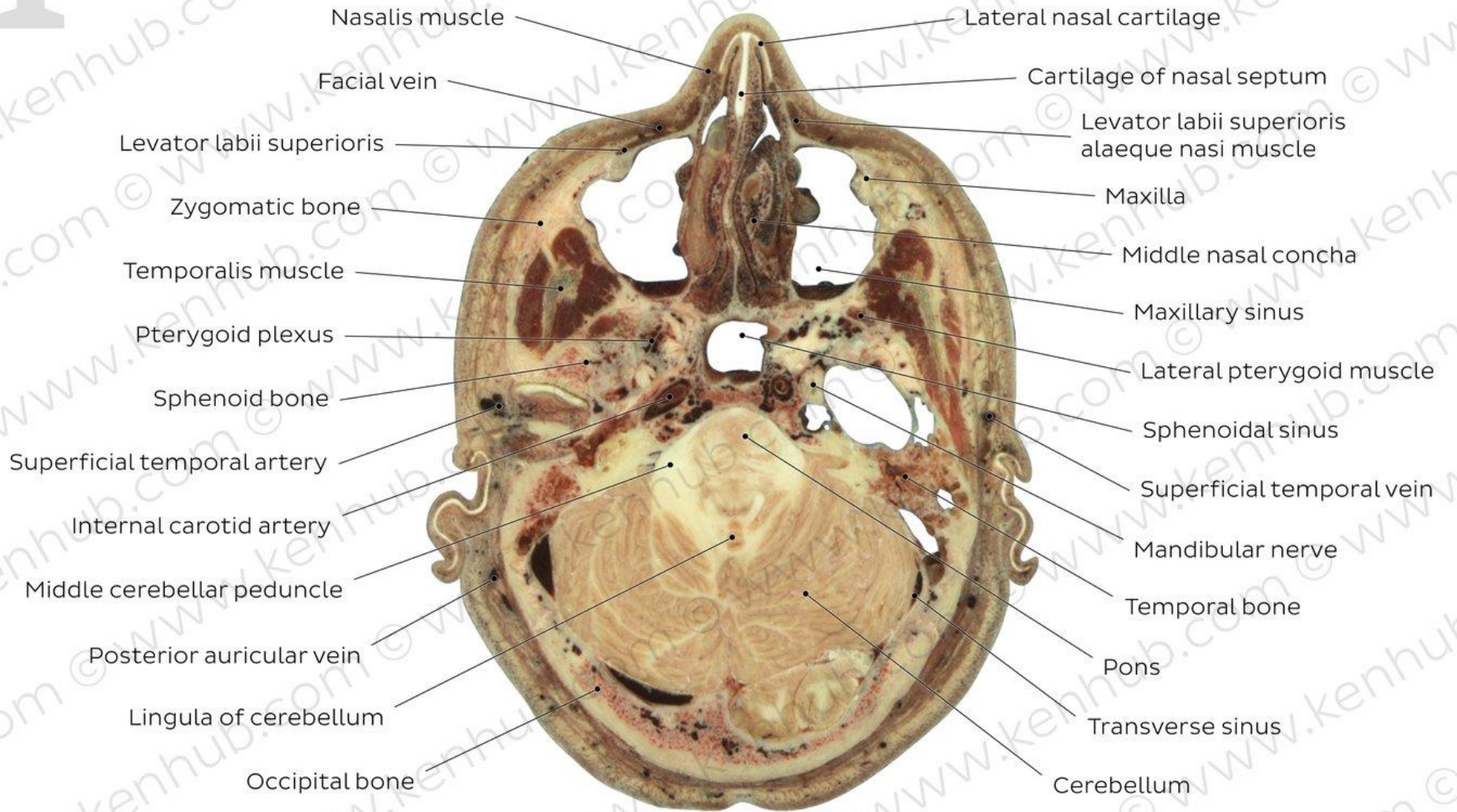


- AA Anterior communicating artery
- AC Anterior commissure
- ACA Anterior cerebral artery
- AH Anterior horn of lateral ventricle
- BC Body of caudate nucleus
- BV Body of lateral ventricle
- C Cerebellum
- CC Corpus callosum
- CH Choroid plexus
- CS Cavernous sinus
- CT Corticospinal tract
- CV Great cerebral vein
- DN Dentate nucleus
- DS Diaphragma sellae
- F Fornix
- FV Fourth ventricle
- G Gray matter
- HC Head of caudate nucleus
- HP Hippocampus
- IC Interpeduncular cistern
- ICA Internal carotid artery
- IH Interior horn of lateral ventricle
- IN Insular cortex
- INC Internal capsule
- IR Intervertebral vein
- IV Inferior vermis
- L Lentiform nucleus
- L1 Putamen
- L2 External (lateral) segment of globus pallidus
- L3 Internal (medial) segment of globus pallidus
- LF Lateral fissure
- LGF Longitudinal fissure
- MCA Middle cerebral artery
- MD Midbrain
- OT Optic tract
- P Pons
- PCA Posterior cerebral artery
- PH Posterior horn of lateral ventricle
- PICA Posterior inferior cerebellar artery
- PY Pyramid
- S Carotid siphon
- SC Supracellar cistern
- SCA Superior cerebellar artery
- SN Substantia nigra
- SP Septum pellucidum
- SS Superior sagittal sinus
- ST Straight sinus
- SV Superior vermis
- T Thalamus
- TC Tail of caudate nucleus
- TL Temporal lobe
- To Cerebellar tonsil
- TR Trigone of lateral ventricle
- TT Tentorium cerebelli
- TV Third ventricle
- VA Vertebral artery
- W White matter
- Y Hypophysis



- ACA Anterior cerebral artery
- AH Anterior horn of lateral ventricle
- B Body of corpus callosum
- BA Basilar artery
- BV Body of lateral ventricle
- C Colliculi
- C1 Anterior tubercle of atlas
- Cal Calcarine sulcus
- Cb Cerebellum
- CG Cingulate nucleus
- CQ Cerebral aqueduct
- CS Cingulate sulcus
- D Dens (odontoid process)
- F Fomix
- FM Foramen magnum
- FP Frontal pole
- FV Fourth ventricle
- G Cerebral cortex (gray matter)
- GC Genus of corpus callosum
- H Hypothalamus
- HC Head of caudate nucleus
- I Infundibulum
- IN Insular cortex
- M Mammillary body
- MCA Middle cerebral artery
- MD Midbrain
- OP Occipital pole
- P Pons
- PA Pharynx
- PD Cerebral peduncle
- PI Pineal
- PO Parieto-occipital fissure
- R Rostrum of corpus callosum
- S Splenium of corpus callosum
- SC Spinal cord
- SF Superior frontal sulcus
- ST Straight sinus
- STS Superior temporal sulcus
- SV Superior medullary vellum
- T Thalamus
- To Cerebellar tonsil
- TP Temporal pole
- TS Transverse sinus
- W White matter
- Y Hypophysis







Frontal sinus

Superior sagittal sinus

Frontalis muscle

Frontal bone

Anterior horn
of the lateral ventricle

Frontal lobe

Coronal suture

Genu of corpus callosum

Temporalis muscle

Septum pellucidum

Head of the caudate nucleus

Caudate nucleus

Lateral ventricle

Superior cerebral veins

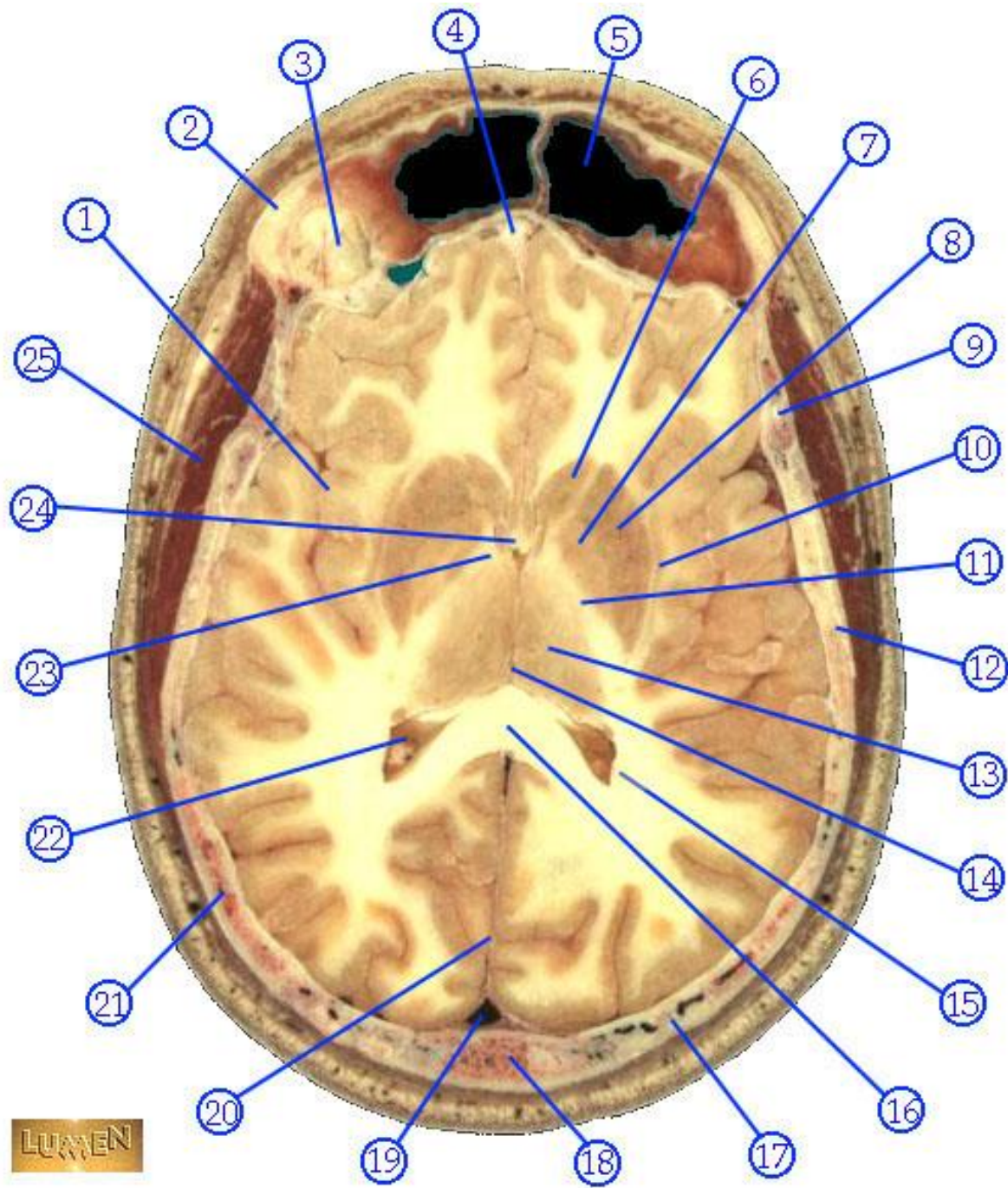
Longitudinal cerebral fissure

Splenium of corpus callosum

Parietal bone

Parietal lobe

Sagittal suture



LUMEN