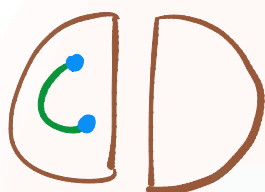


CEREBRUM

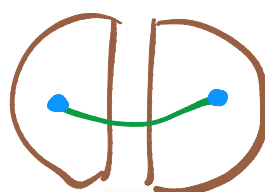
white fibres

Association



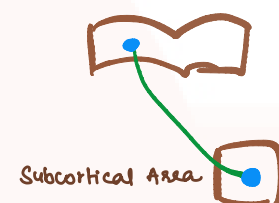
eg. Arcuate fasciculus

Commisural



Corpus callosum

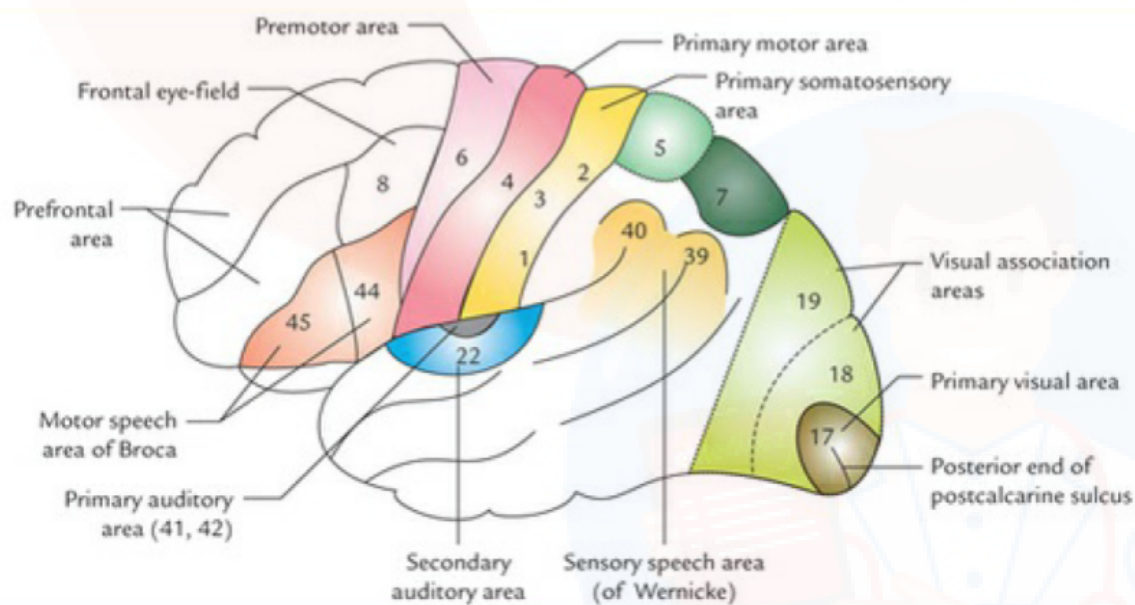
Projection



Internal Capsule

Fornix → has all 3 types of fibres (A+C+P)

A/c to Grey's Anatomy (41e) → Fornix = A+C



1° = Perception

2° = Interpretation

Area 17 = 1° visual area → B/L # = Blindness

Area 18, 19 = 2° visual area → # = word Blindness

Area 41, 42 = 1° Auditory area → B/L # = Deafness

Area 22 = 2° Auditory area → # = word deafness

Area 3, 1, 2 = 1° Sensory Area → # = c/L loss of Crude & fine sensation

Area 5, 7 = Sensory Association Area → # = Astereognosis

Area 4 = 1° Motor Area → # = c/L Hemiplegia

Area 6 = Premotor Area → # = Apraxia

Area 8 = 1° Gaze Centre → # = c/L Gaze #
(frontal eye field)

Area 9-12 = Pre frontal Area → # = New learning not possible
 - Improper dressing
 - Use of obscene language
 - Public urination.

Area 44, 45 = Broca's Area ARCULATE FASCICULUS Area 22, 39, 40 = Wernicke's Area
 - Production of speech # understanding of speech

= Broca's Aphasia

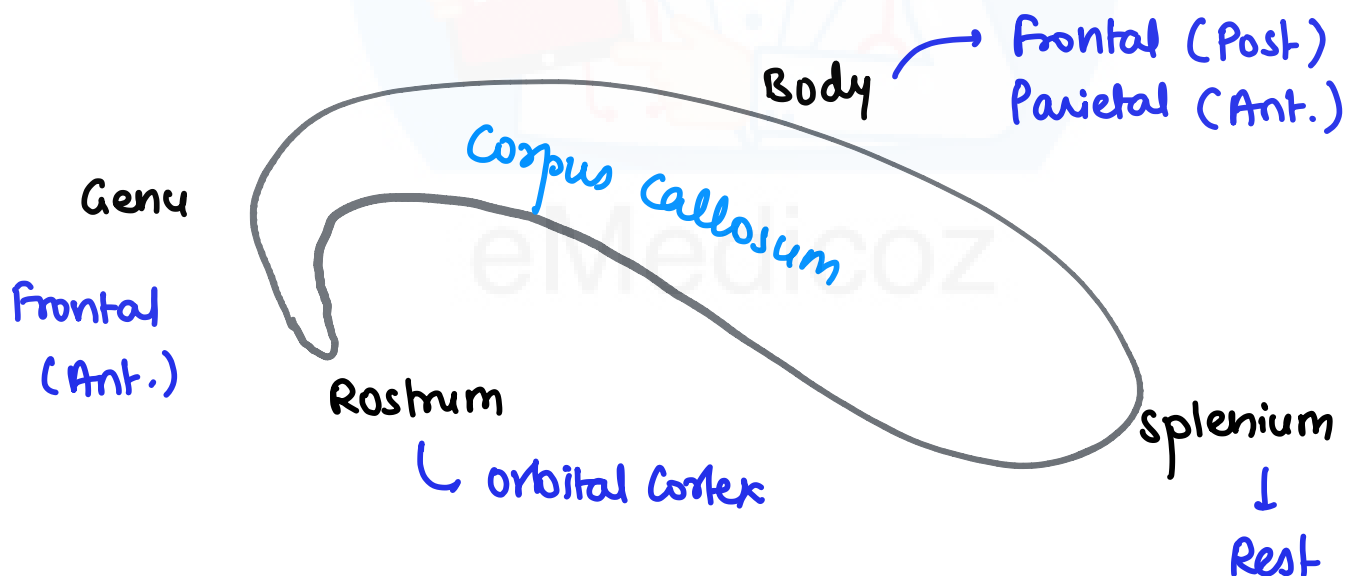
Production x
understanding ✓

Conduction
Aphasia

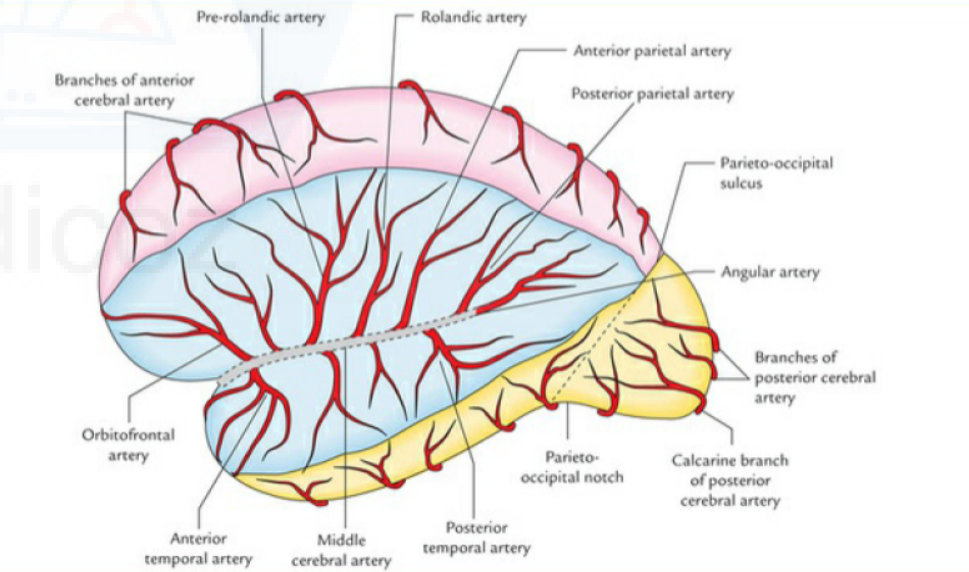
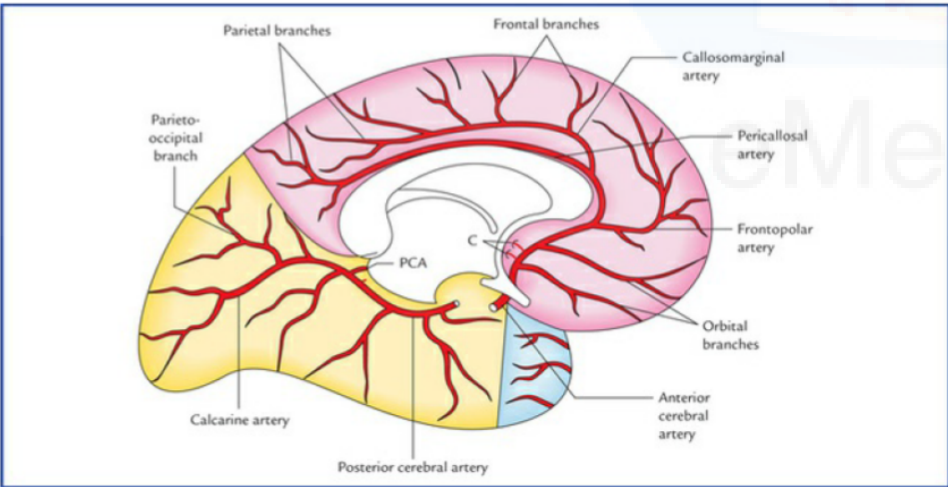
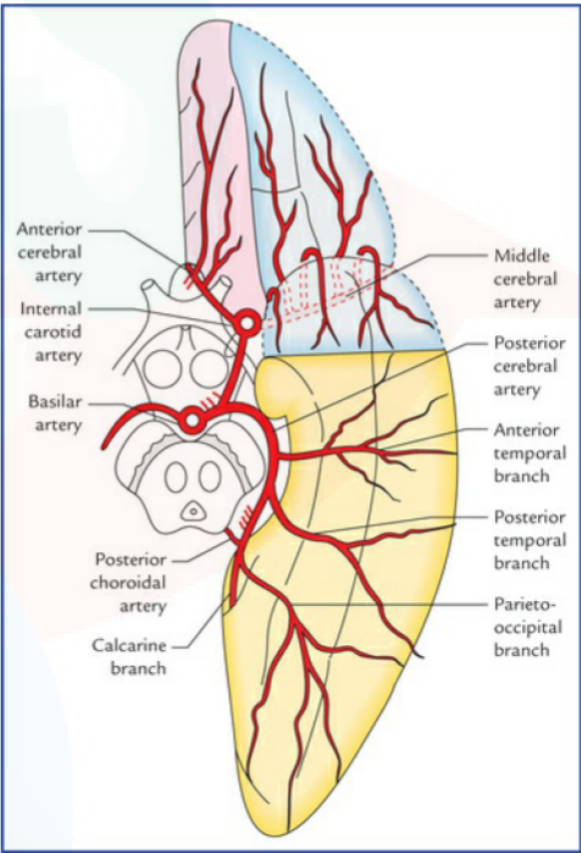
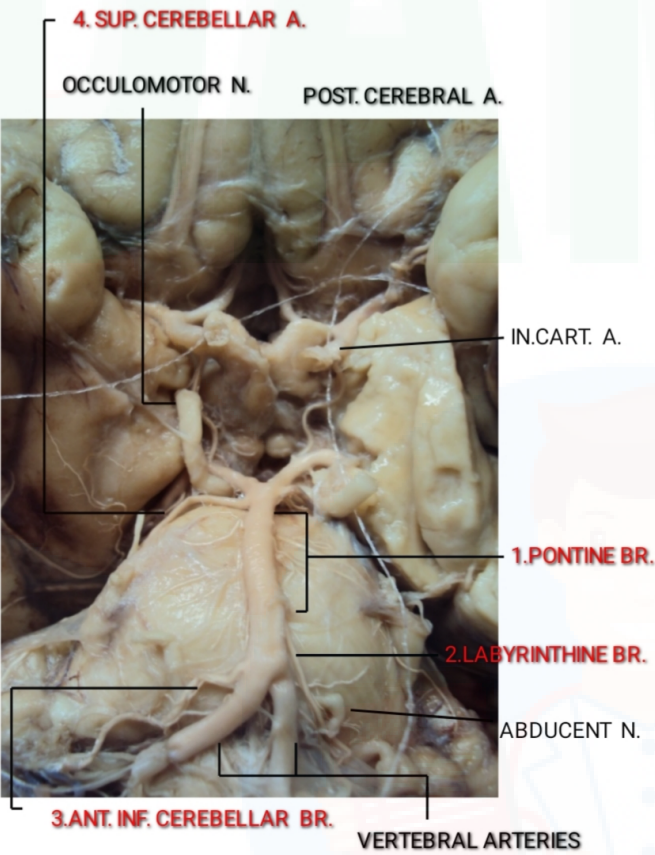
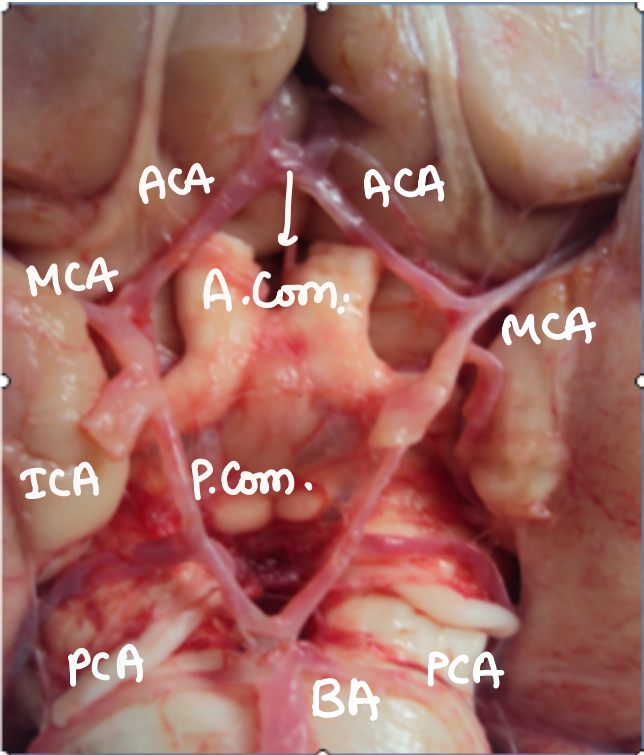
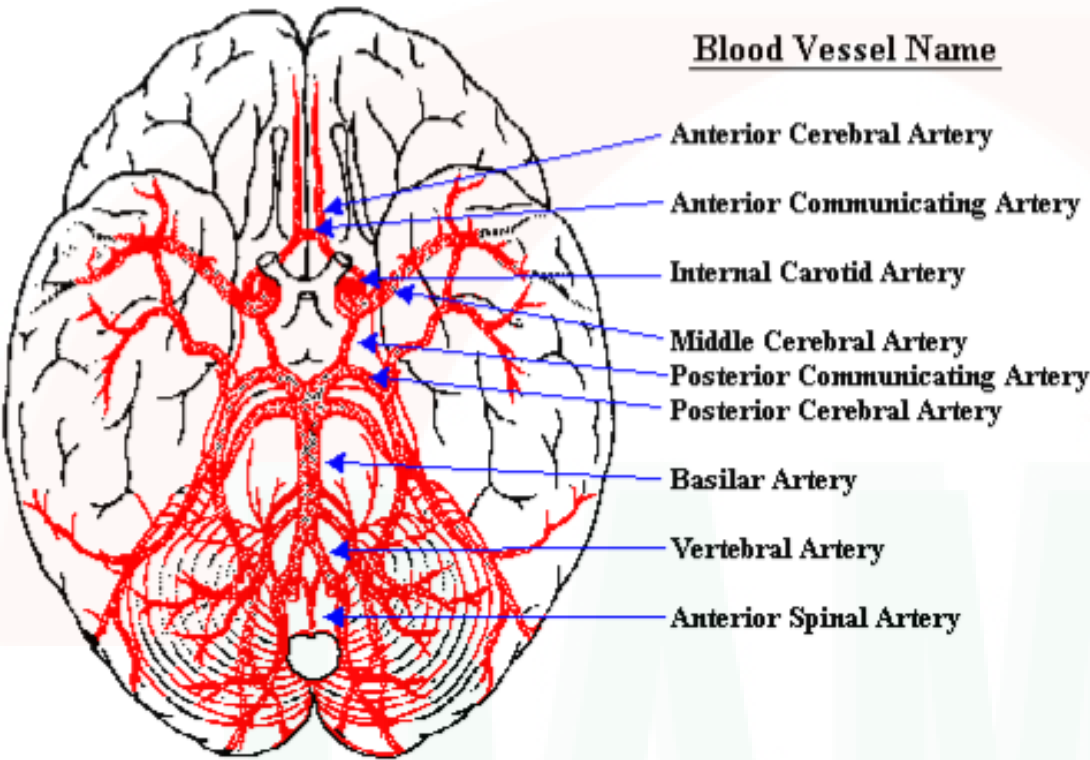
Production ✓
understanding ✓
↓
Repetition is poor

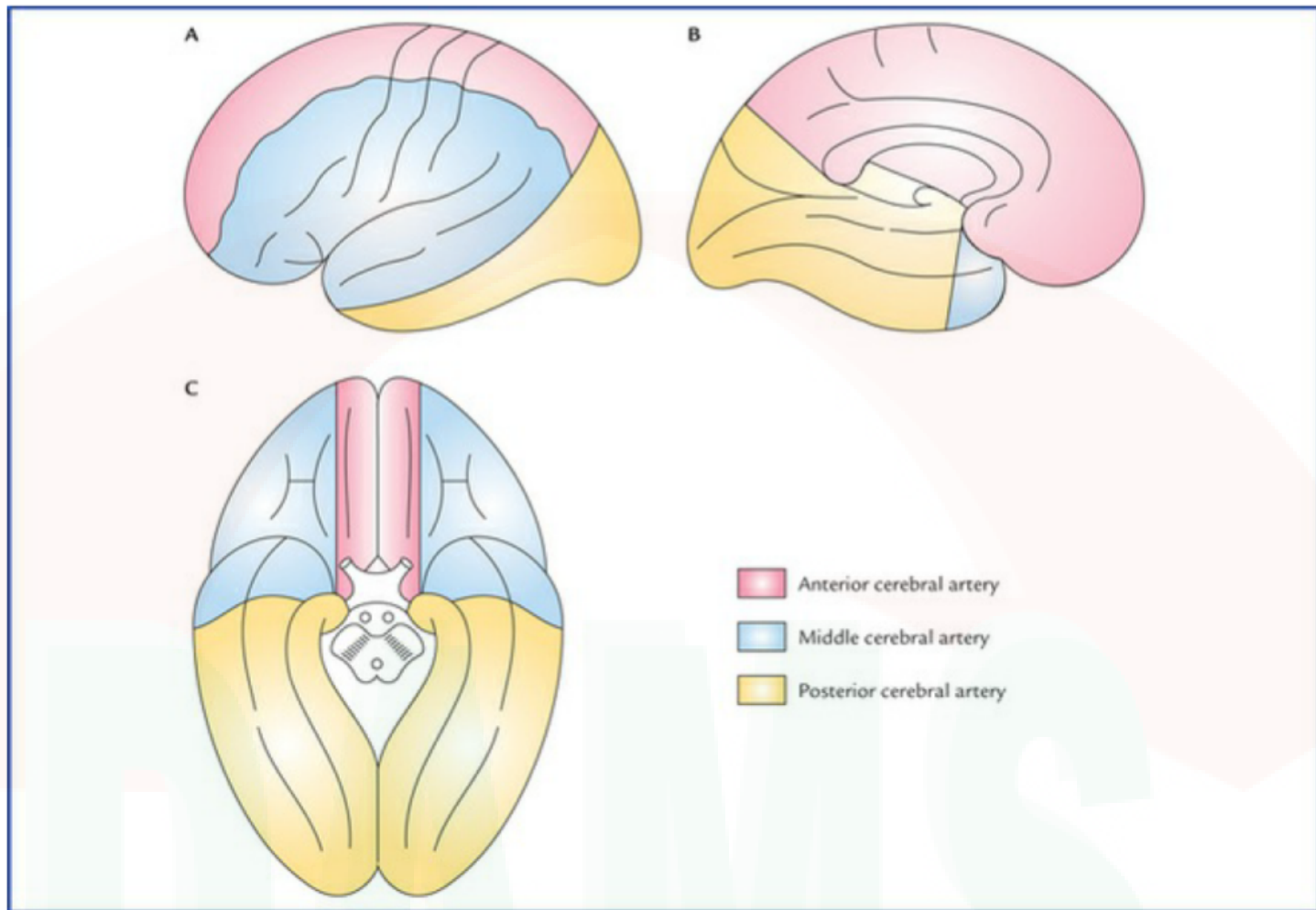
= Wernicke's Aphasia

Production ✓
understanding x



BLOOD SUPPLY





1° Motor area / 1° Sensory Area → **ACA + MCA**

Speech → **MCA**

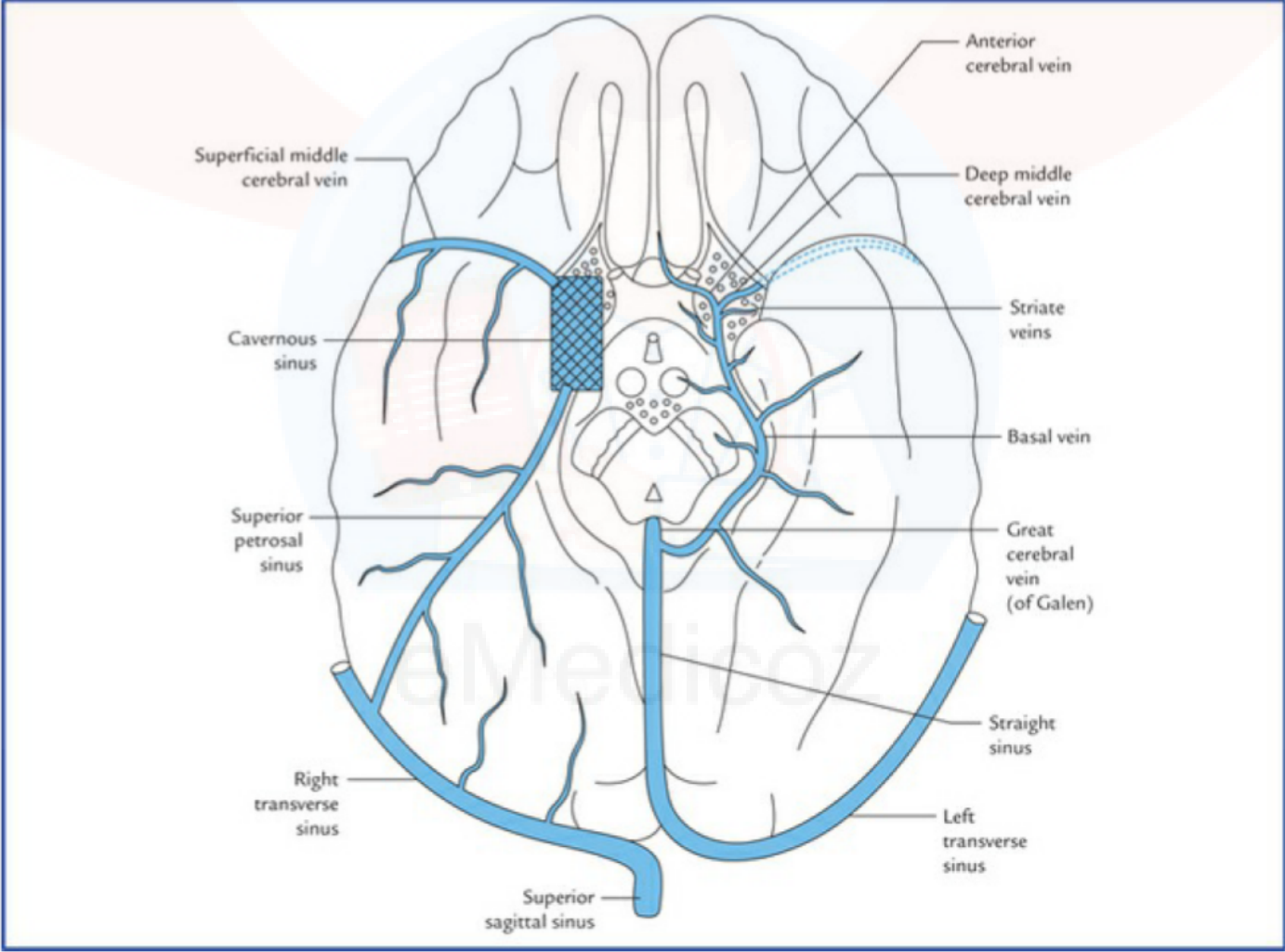
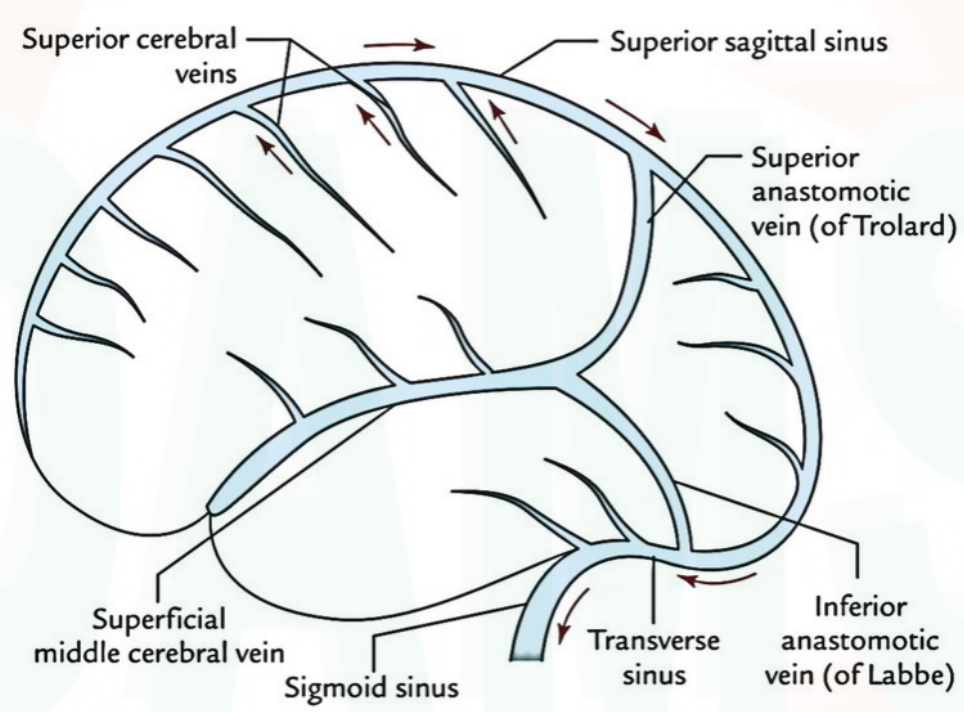
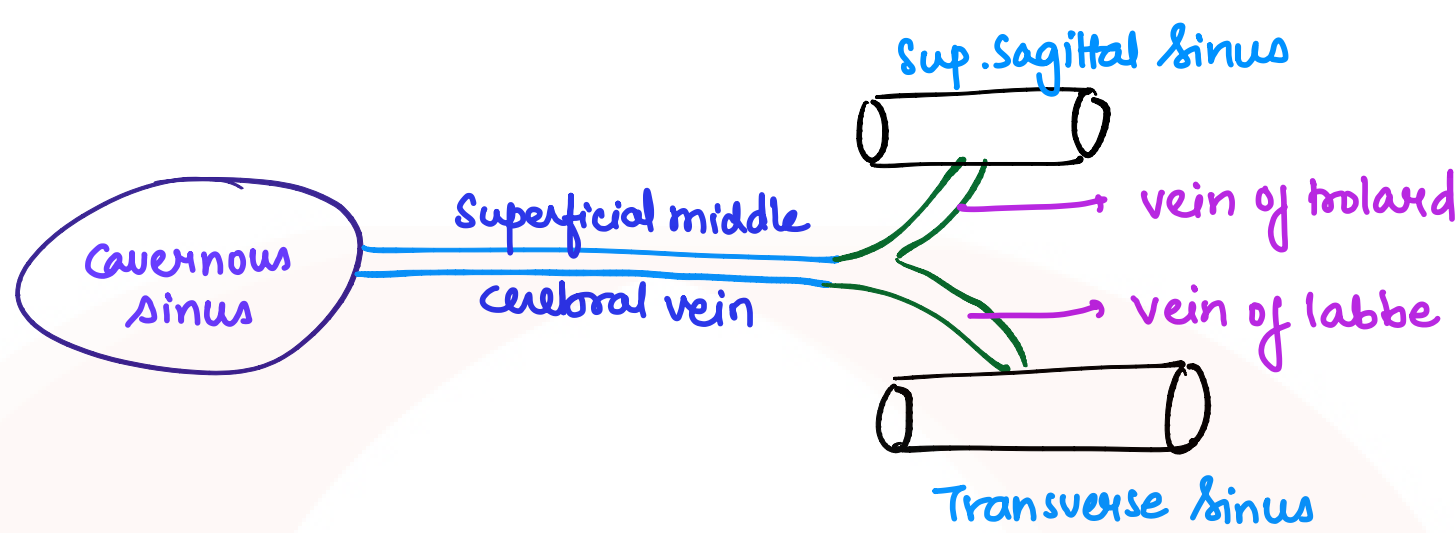
visual → **PCA**

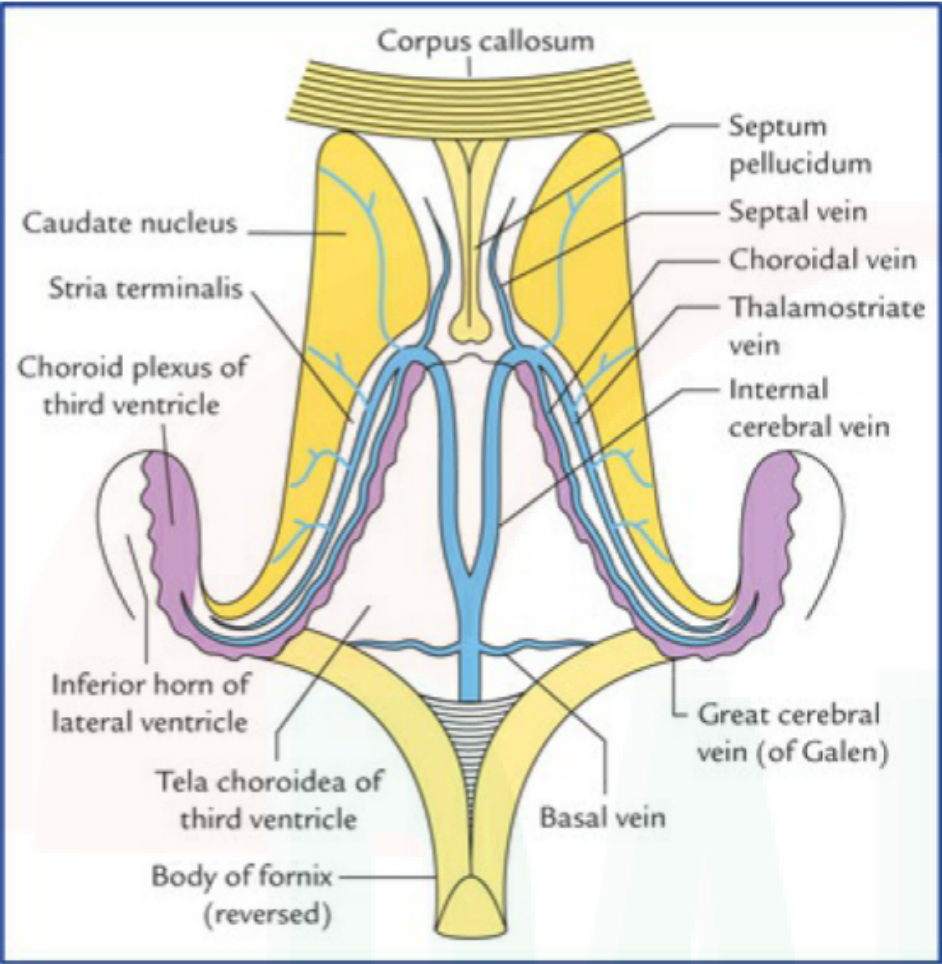
Macula → **MCA + PCA**

VENOUS DRAINAGE

→ Superficial cerebral veins :-

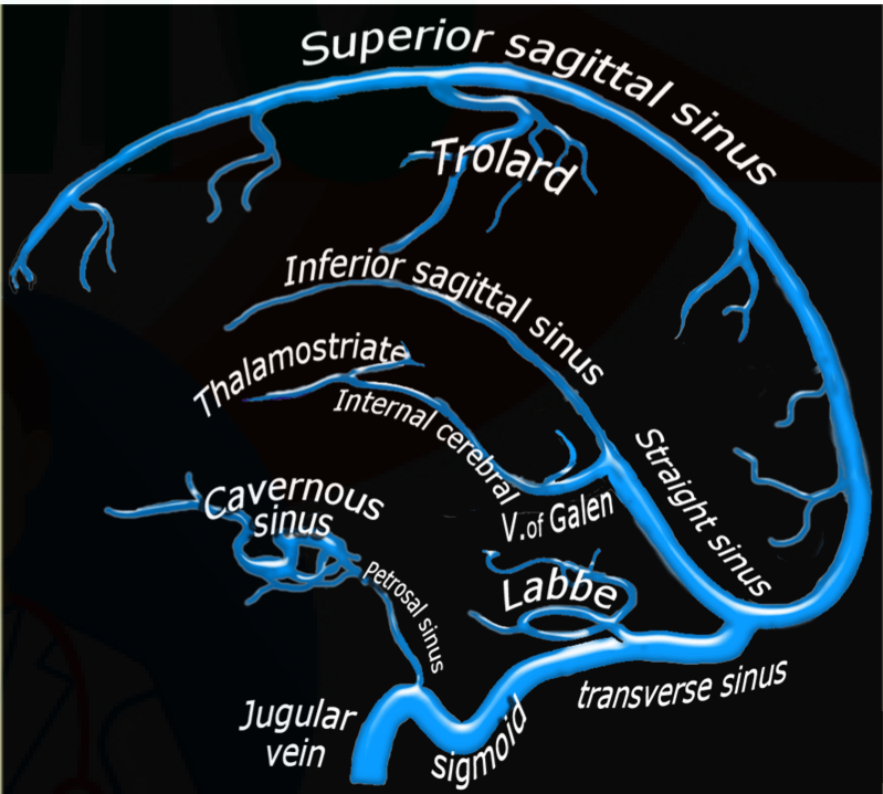
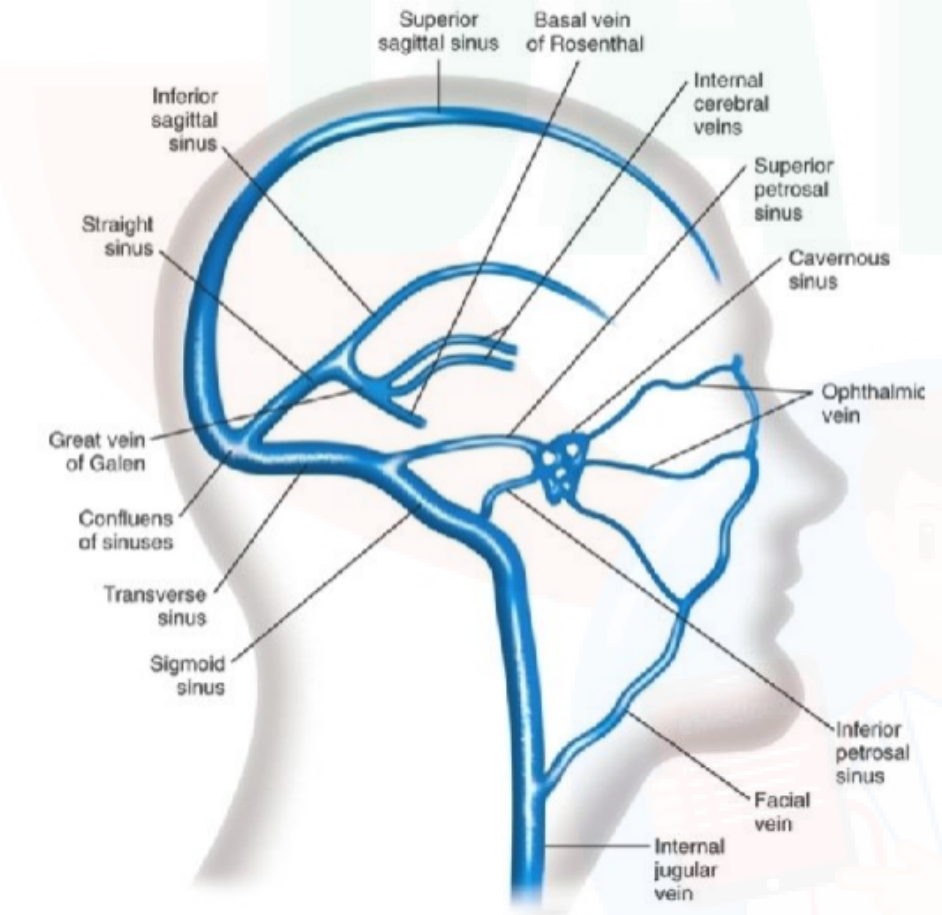
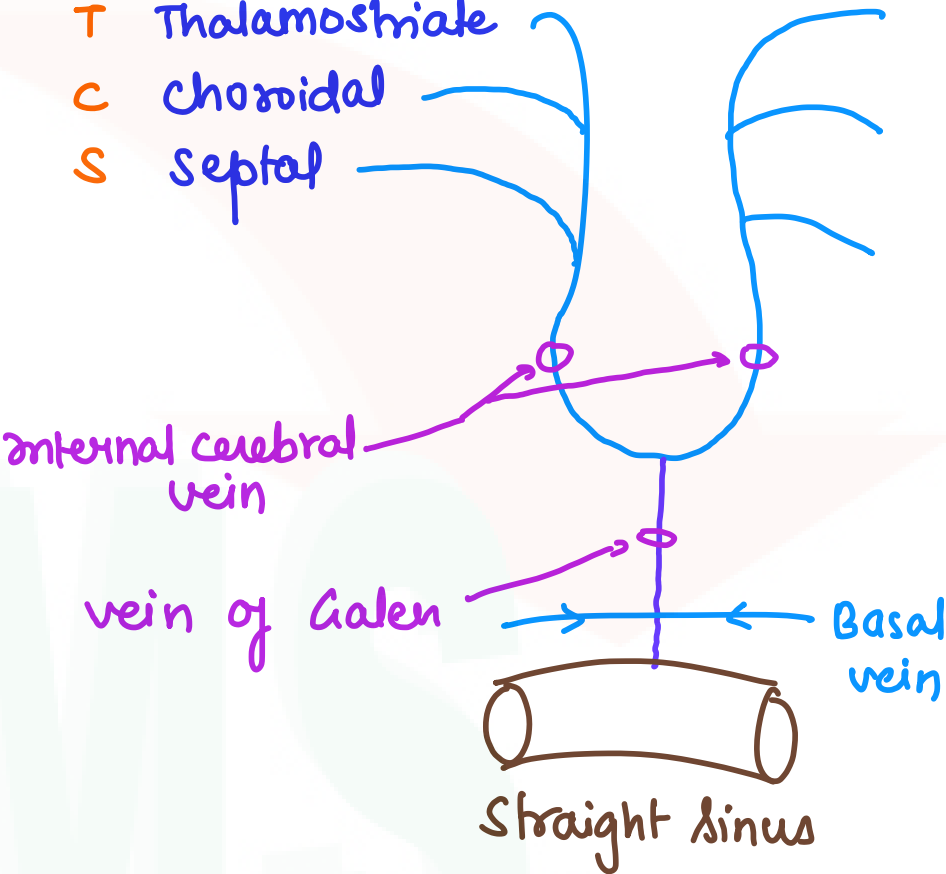
- Sup. cerebral vein → sup. Sagittal sinus
 - Inf. cerebral vein
 - Mid. cerebral vein
- Cavernous sinus
- Superficial
- Deep → Basal vein





→ Deep cerebral vein

T Thalamostriate
C Choroidal
S Septal



Type of haemorrhage	Vessels/vessels most commonly involved
Extradural haemorrhage	Rupture of anterior division of middle meningeal artery
Subdural haemorrhage	Tearing of superior cerebral (bridging) veins
Subarachnoid haemorrhage	Leakage or rupture of congenital berry aneurysms on the arterial circle of Willis
Intracerebral (cerebral) haemorrhage	Rupture of thin-walled lenticulostriate artery (Charcot's artery of cerebral haemorrhage), a branch of the middle cerebral artery

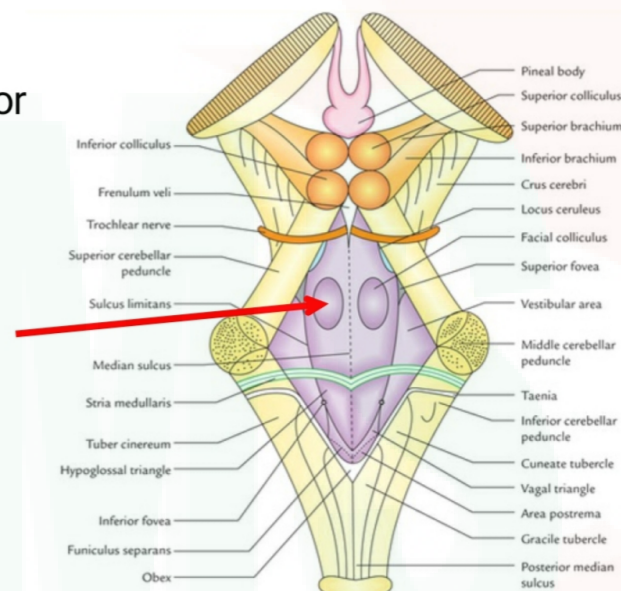
Q. Floor of 4th ventricle has:

- a) Infundibulum
- ☒ b) Vagal triangle
- c) Mammillary body
- d) Tuber cinerium

Q. Damage to the structure producing the elevation marked leads to paralysis of which of the following muscle?

- a) Lateral rectus
- ☒ b) Risorius
- c) Levator palpebrae Superior
- d) Superior oblique

→ Facial nerve produces elevation
→ Beneath elevation = 6th CN Nucleus



Q. A man comes with aphasia, is unable to name things and repetition is poor. However, comprehension, fluency and articulation is unaffected. He is probably suffering from:

- a) Anomic aphasia
- b) Transcortical sensory aphasia
- ☒ c) Conduction aphasia
- d) Broca's aphasia

Q. A highly agitated 54-year-old man is brought to the emergency department by his family because he is unable to effectively communicate. He speaks clearly and with conviction but his sentences are incomprehensible. He does not appear to understand the doctor's questions, does not follow oral or written instructions, and cannot repeat simple phrases. Branch occlusion of which of the following arteries is most likely responsible for this patient's condition?

- A. Anterior cerebral artery
- B. Anterior inferior cerebellar artery
- ☒ C. Middle cerebral artery
- D. Posterior cerebral artery
- E. Posterior inferior cerebellar artery