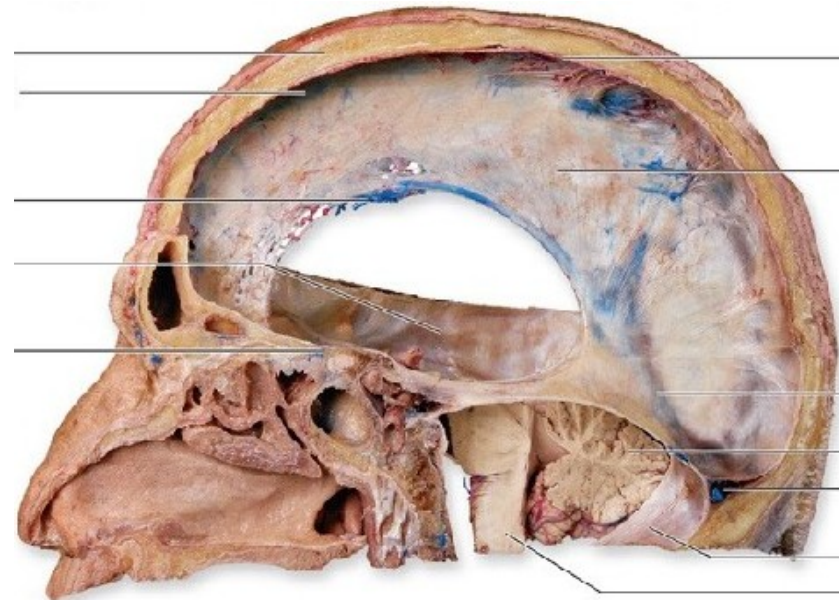
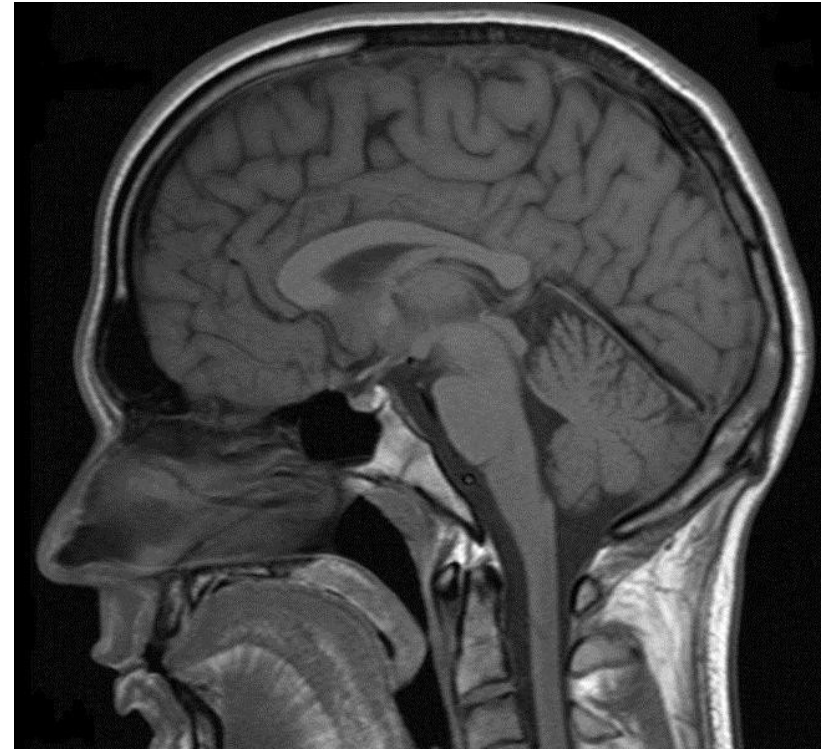
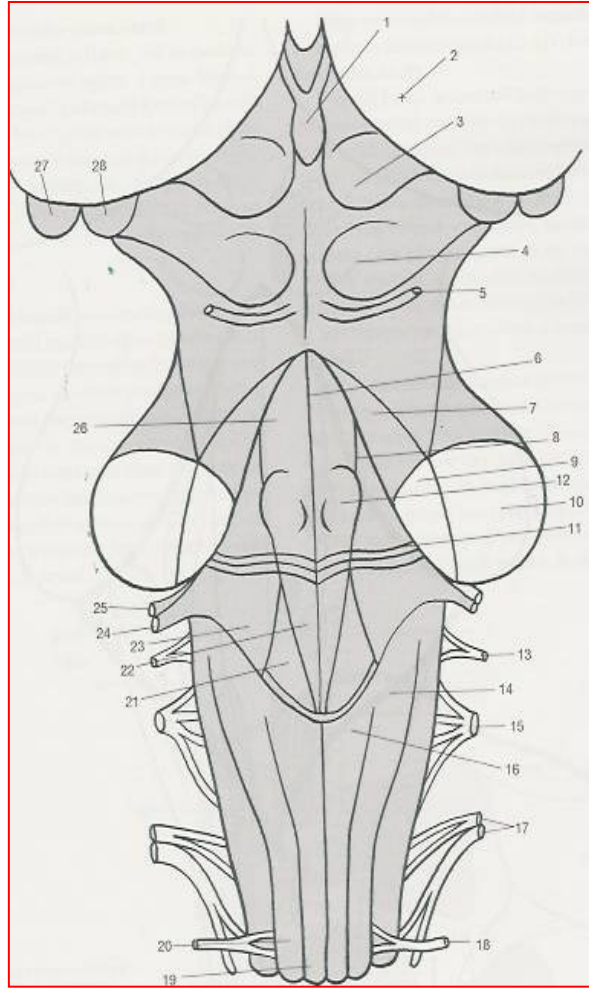
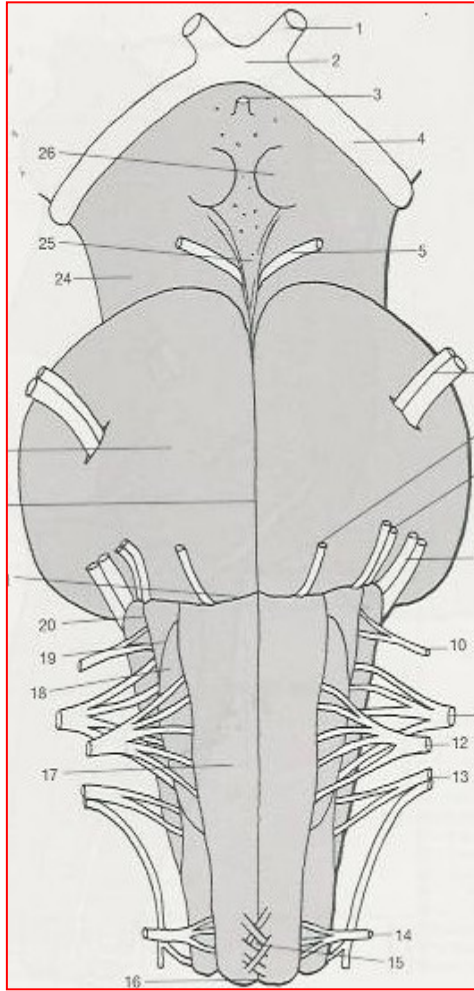
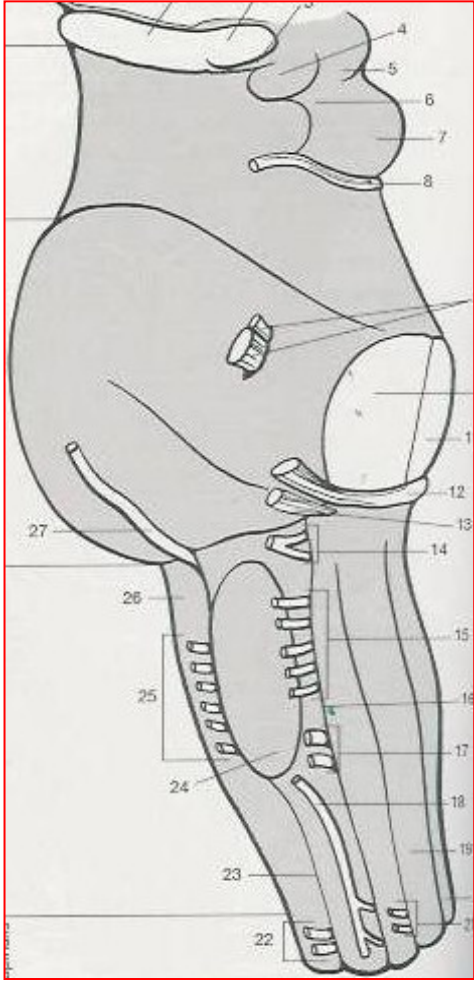
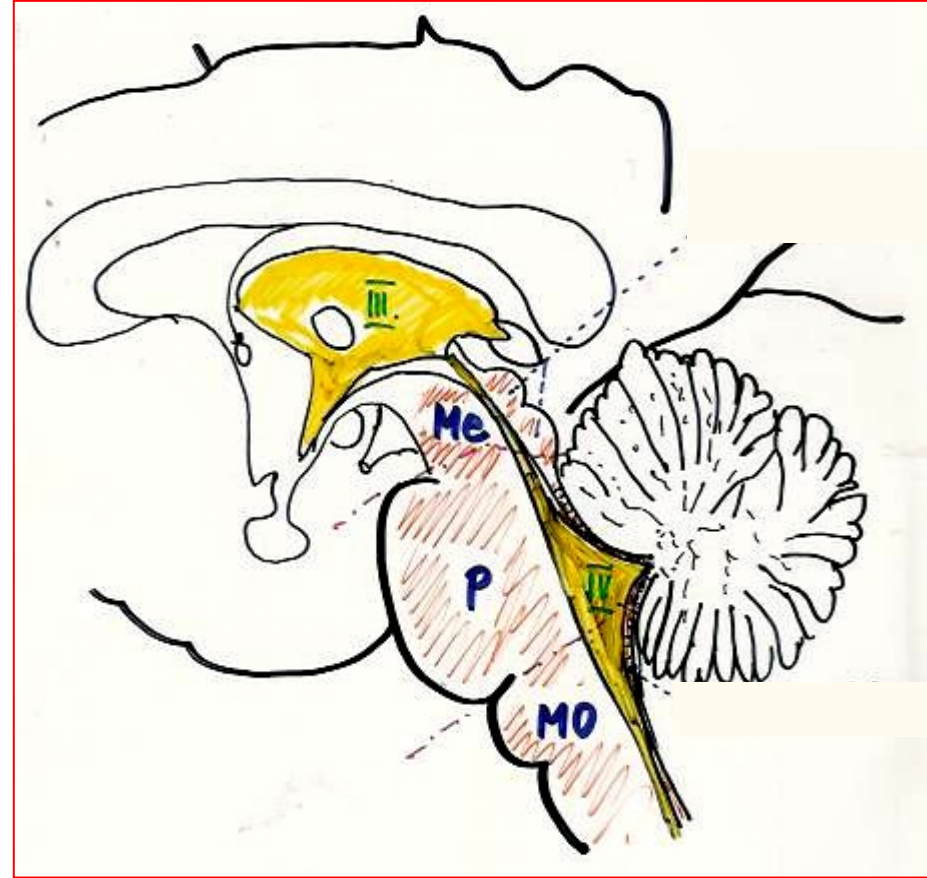


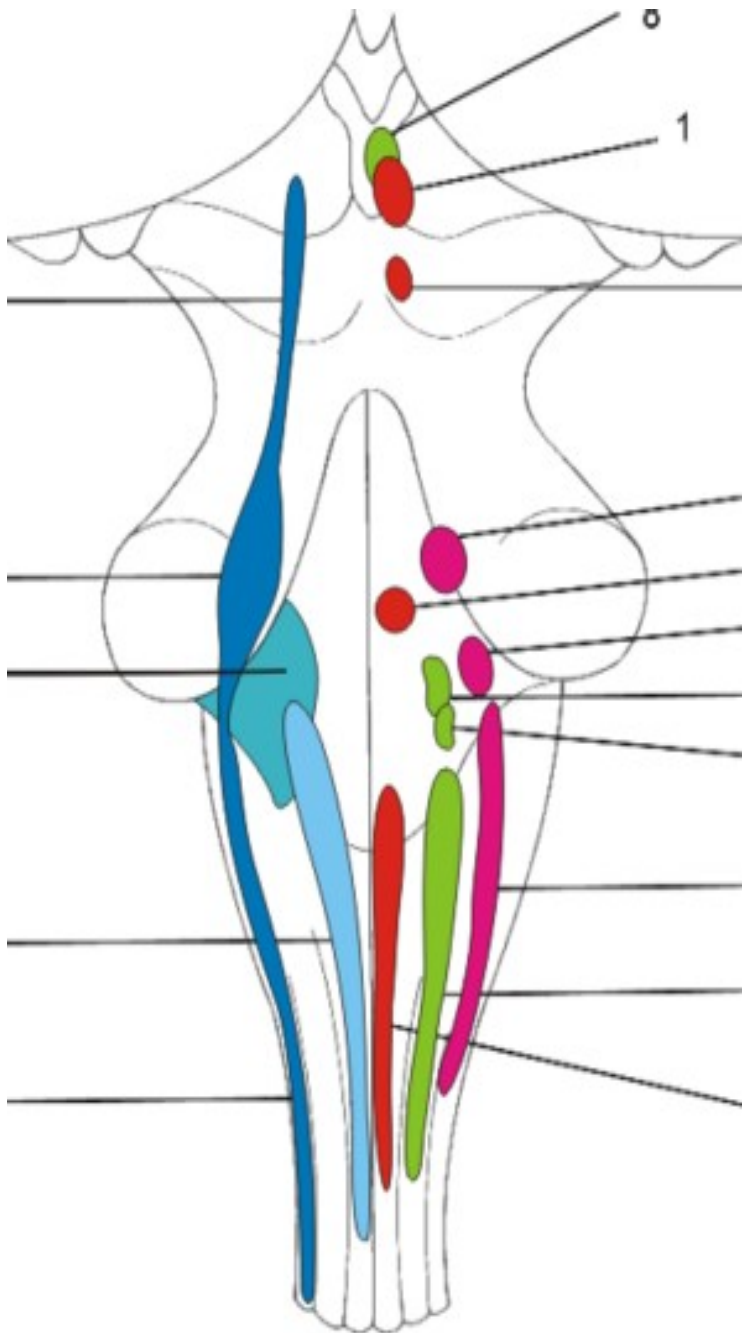
BRAINSTEM- LONGITUDINAL PARTS



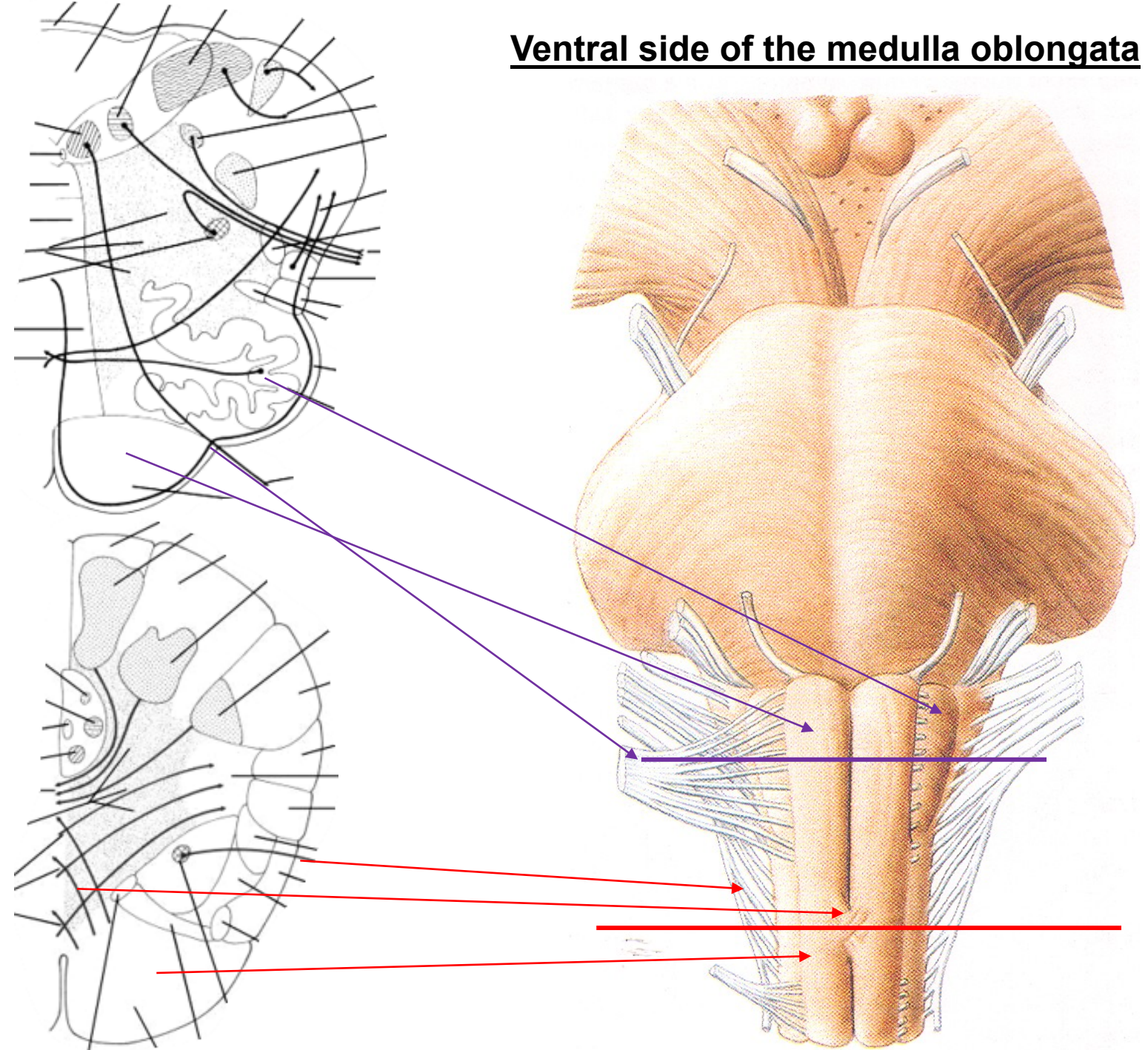
SAGITAL SECTION OF THE BRAINSTEM



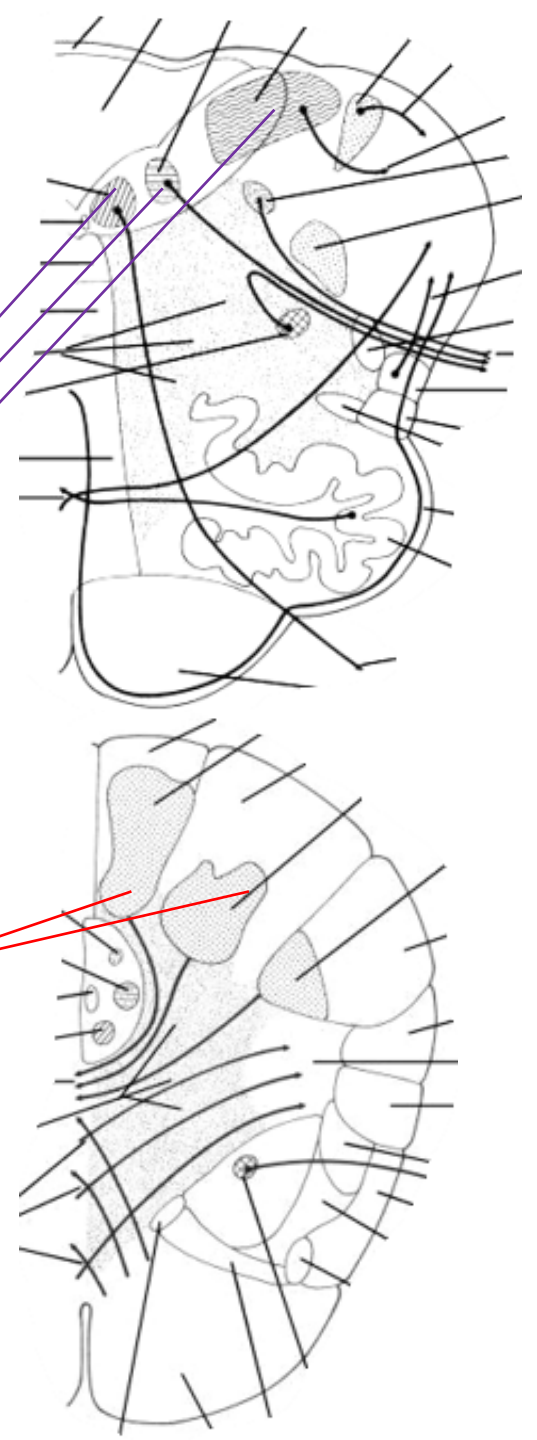
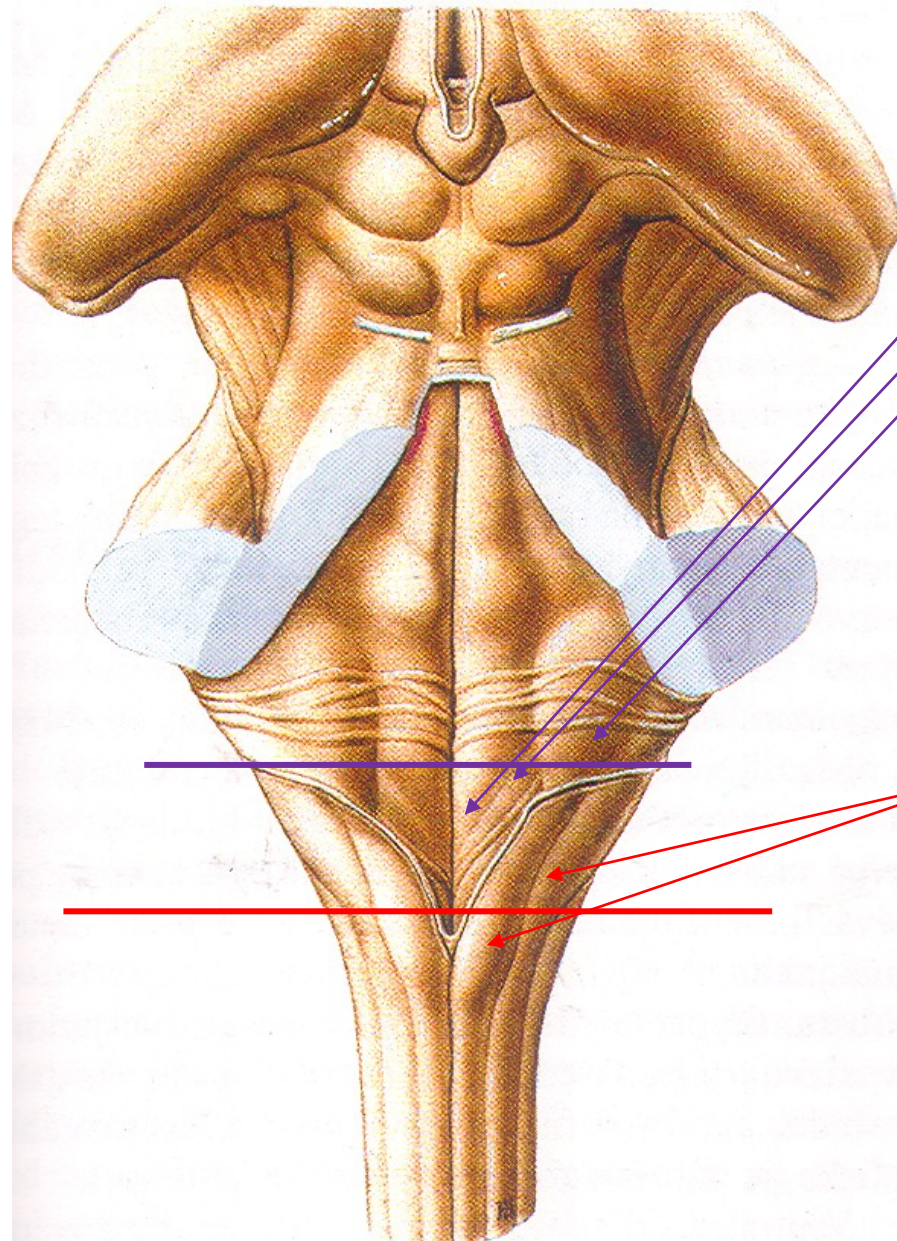
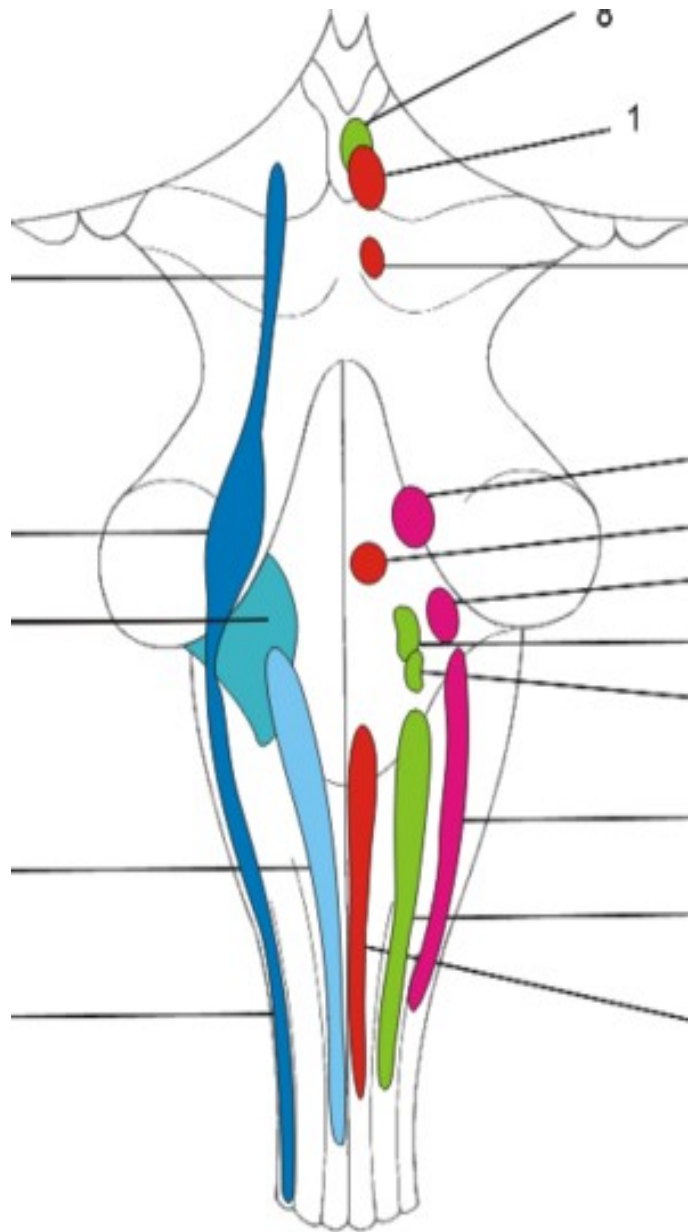
Medulla oblongata



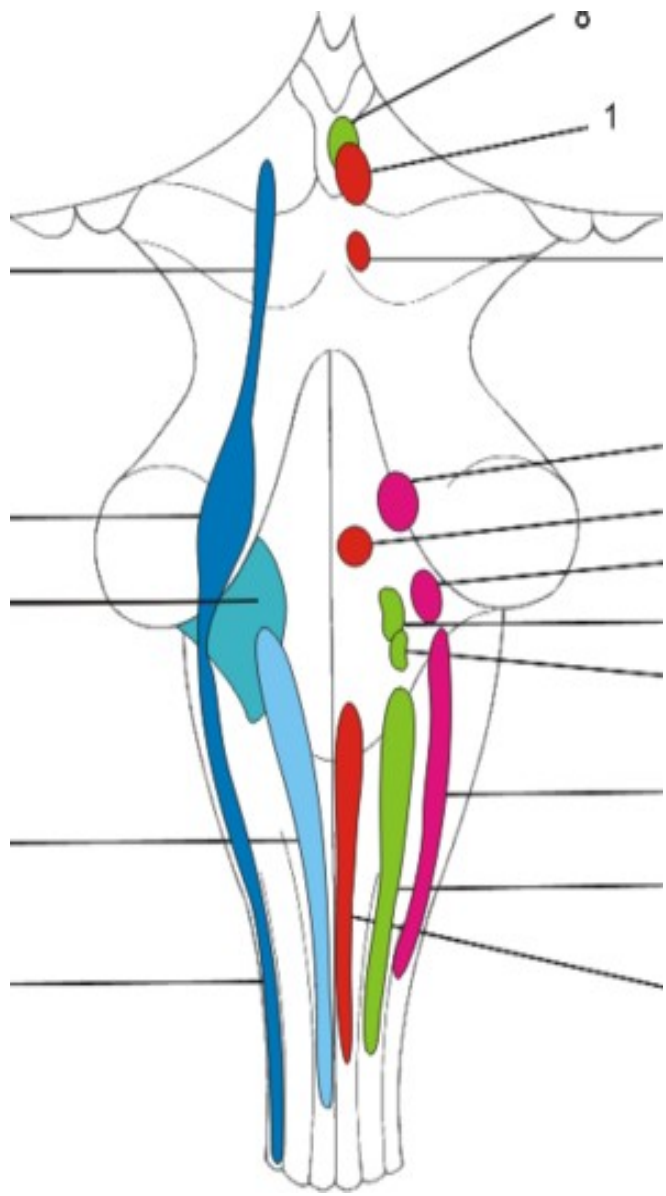
Ventral side of the medulla oblongata



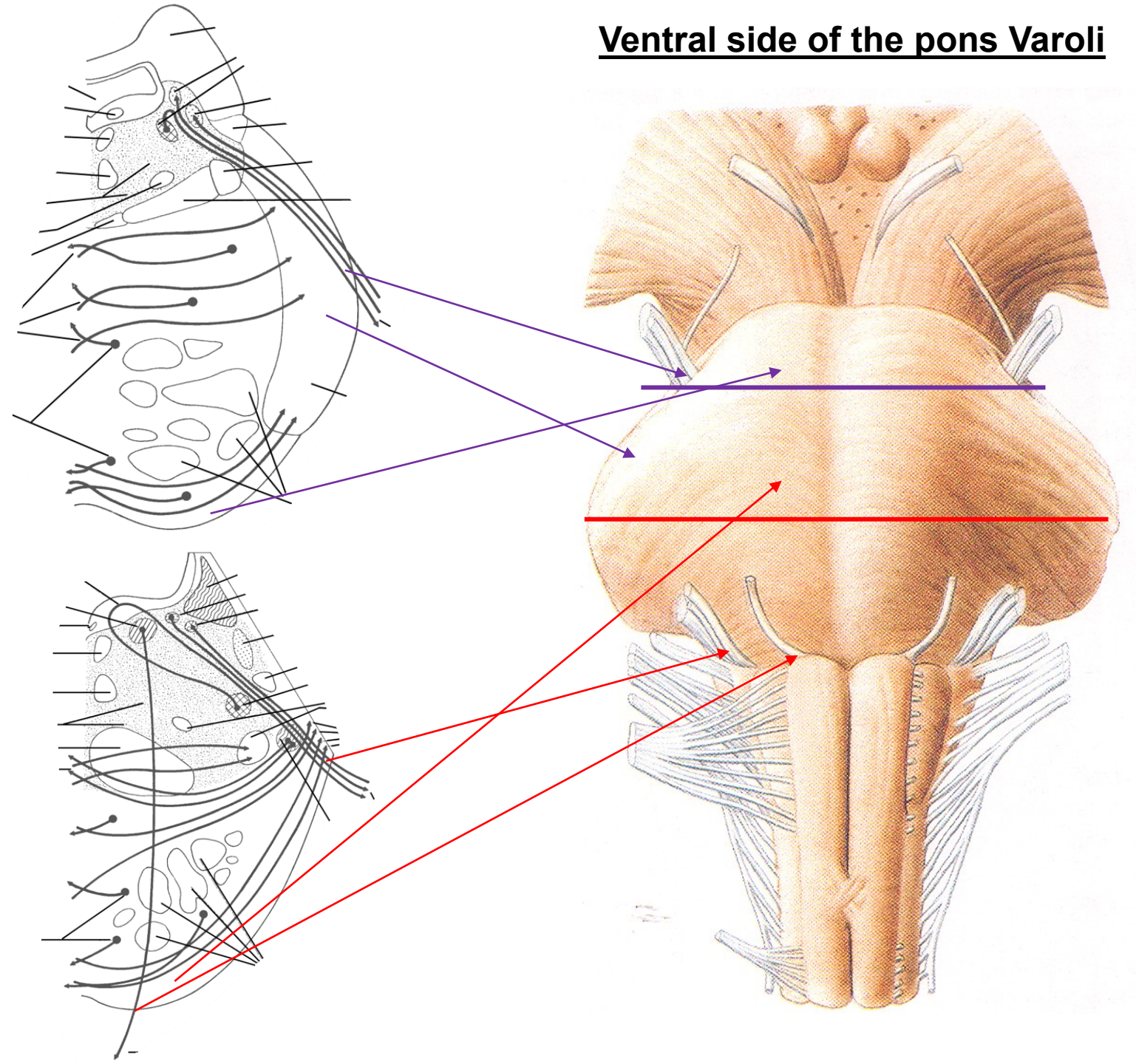
Dorsal side of the medulla oblongata



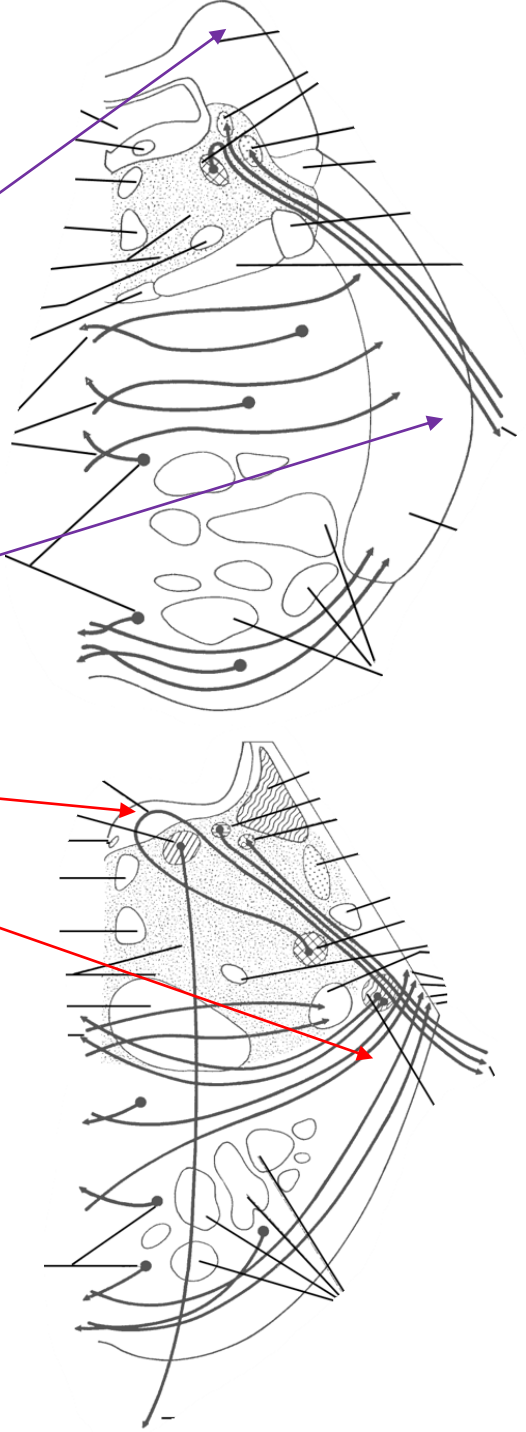
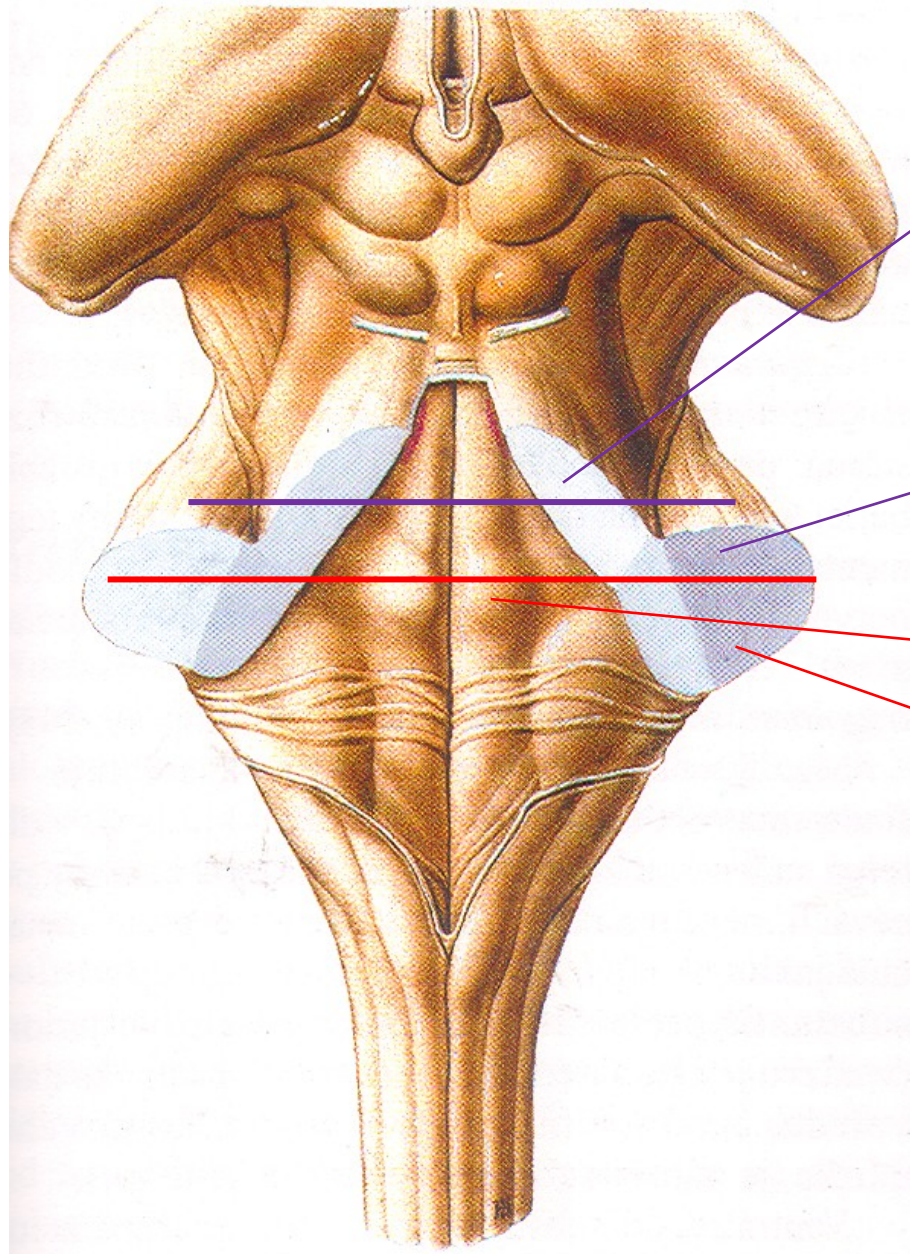
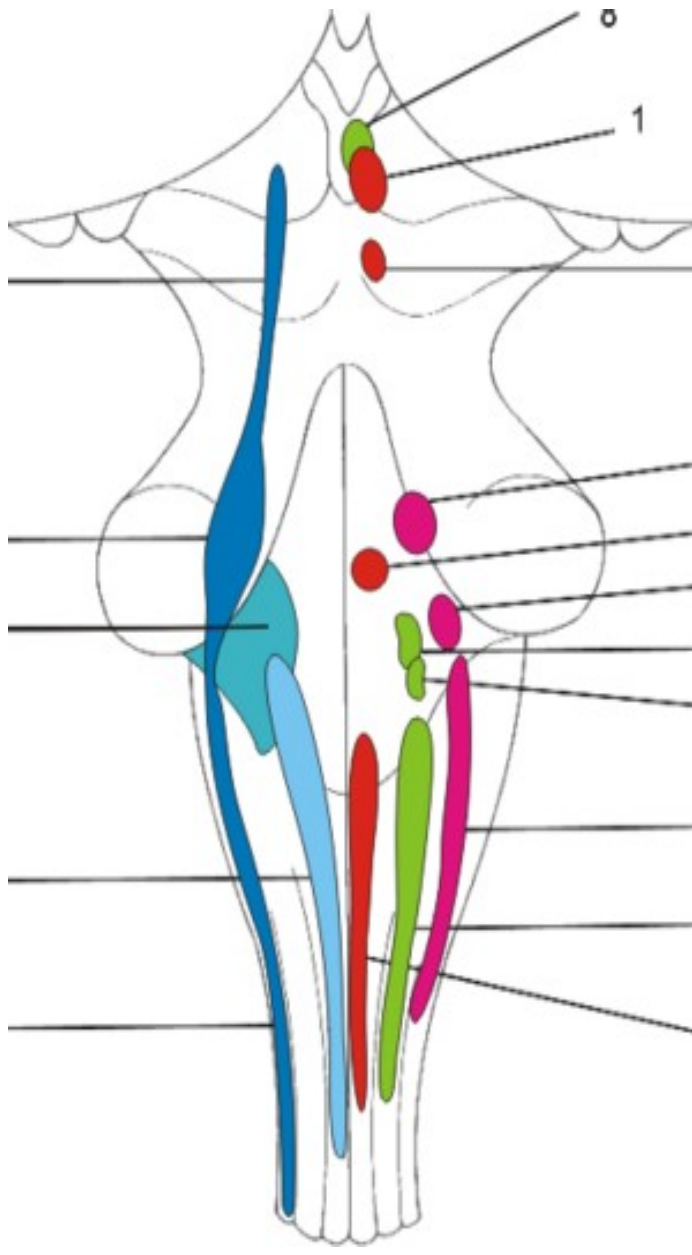
Pons Varoli



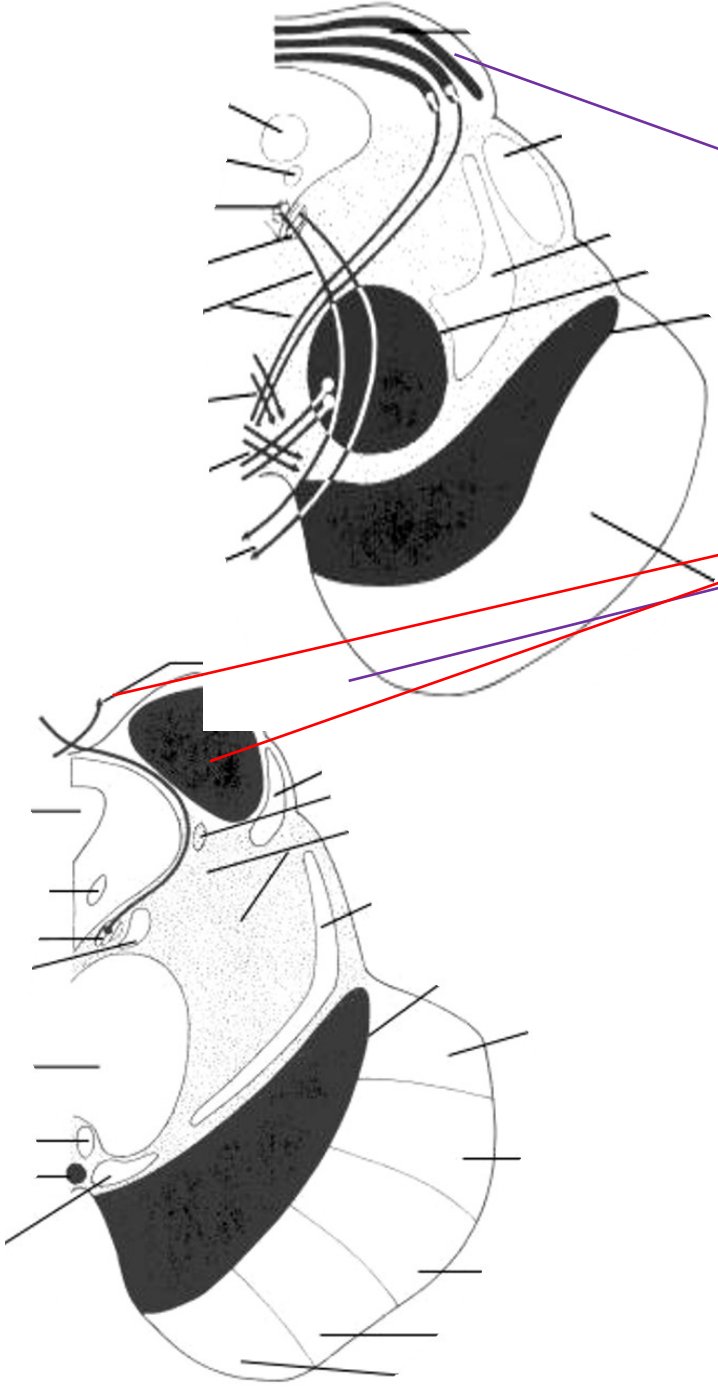
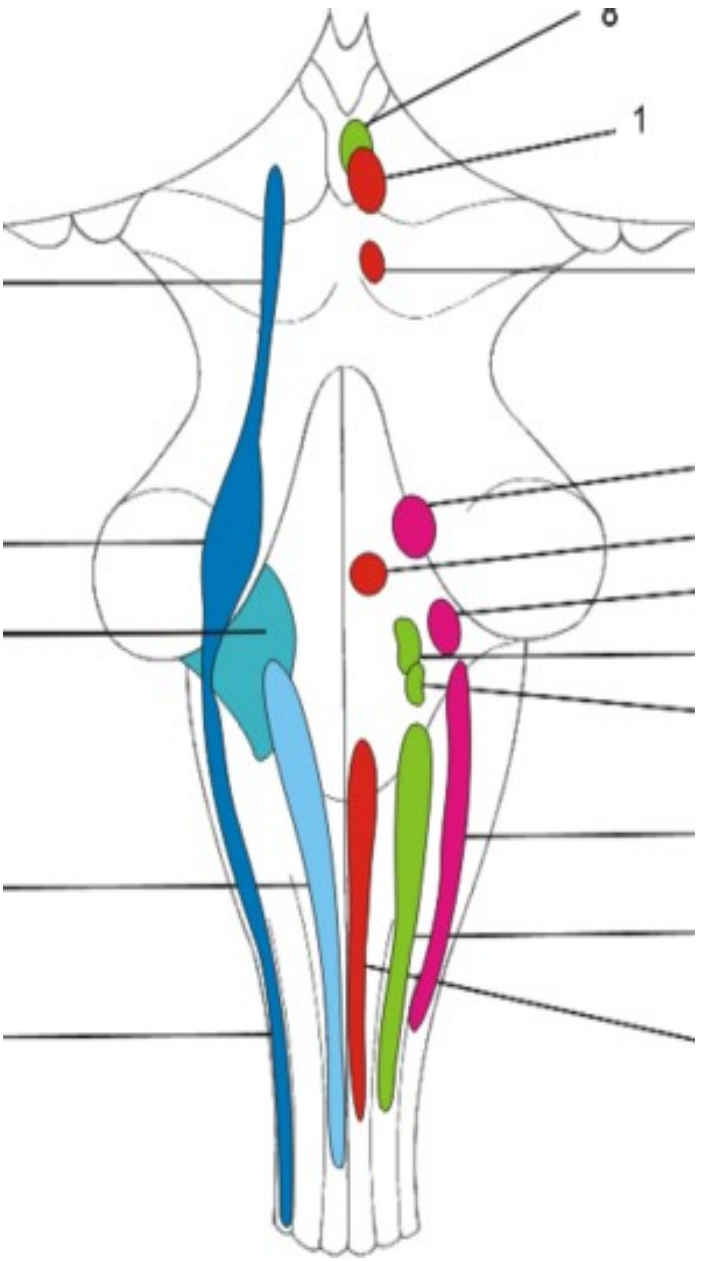
Ventral side of the pons Varoli



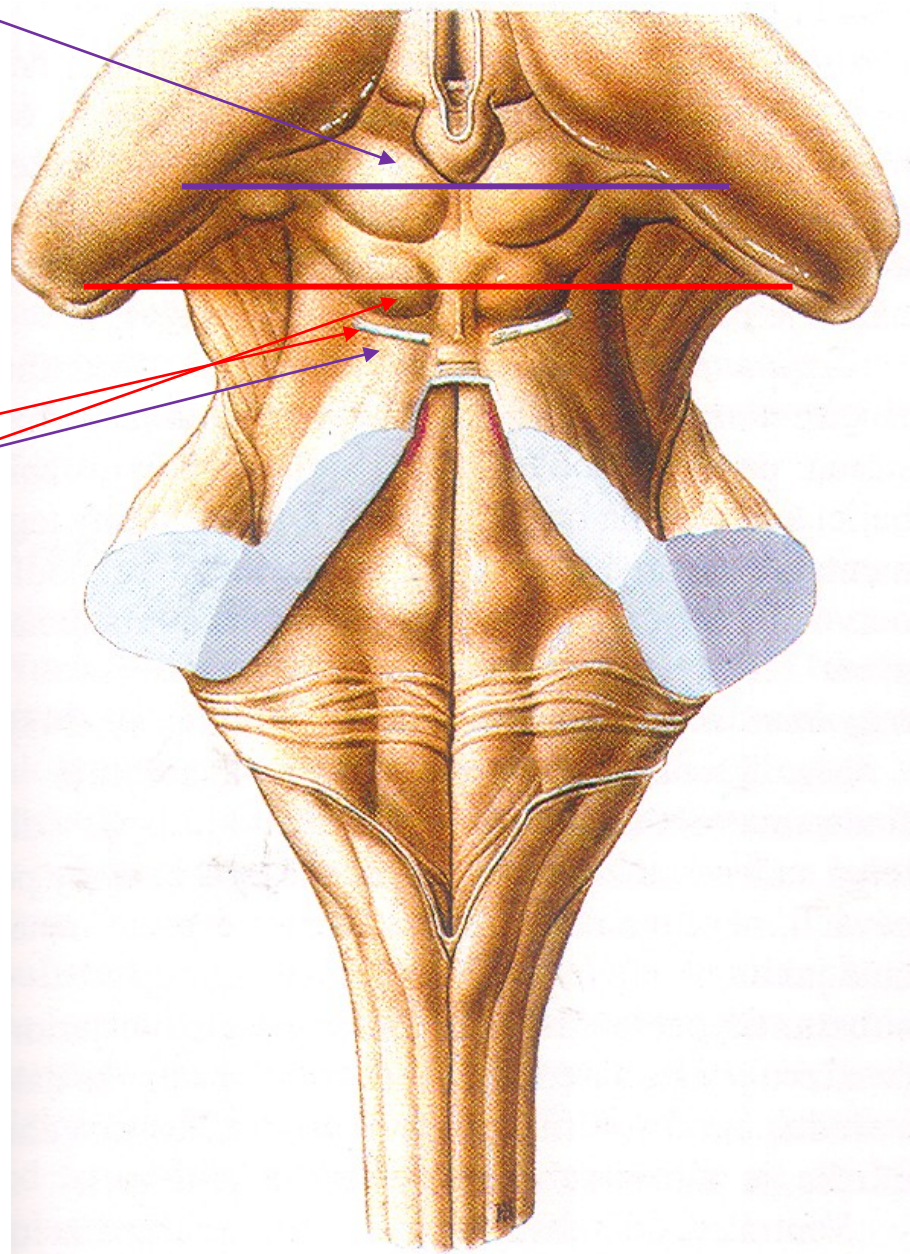
Dorsal side of the pons Varoli



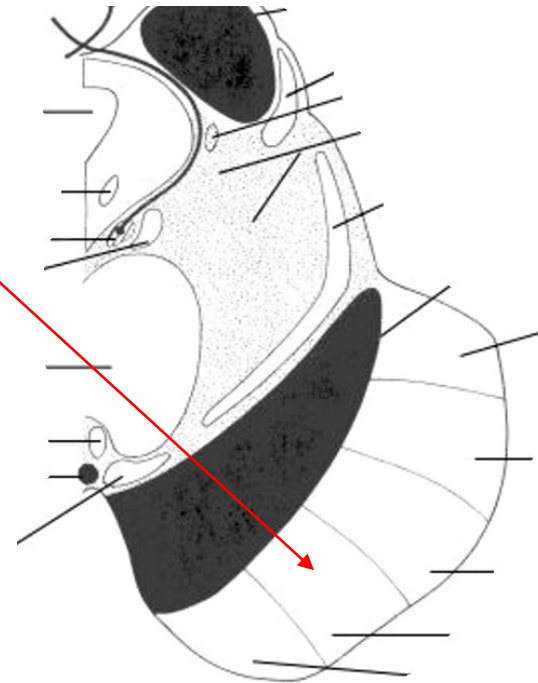
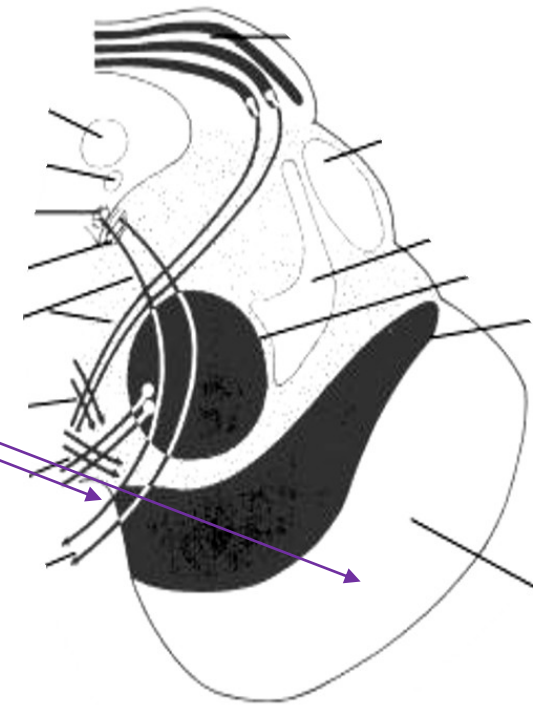
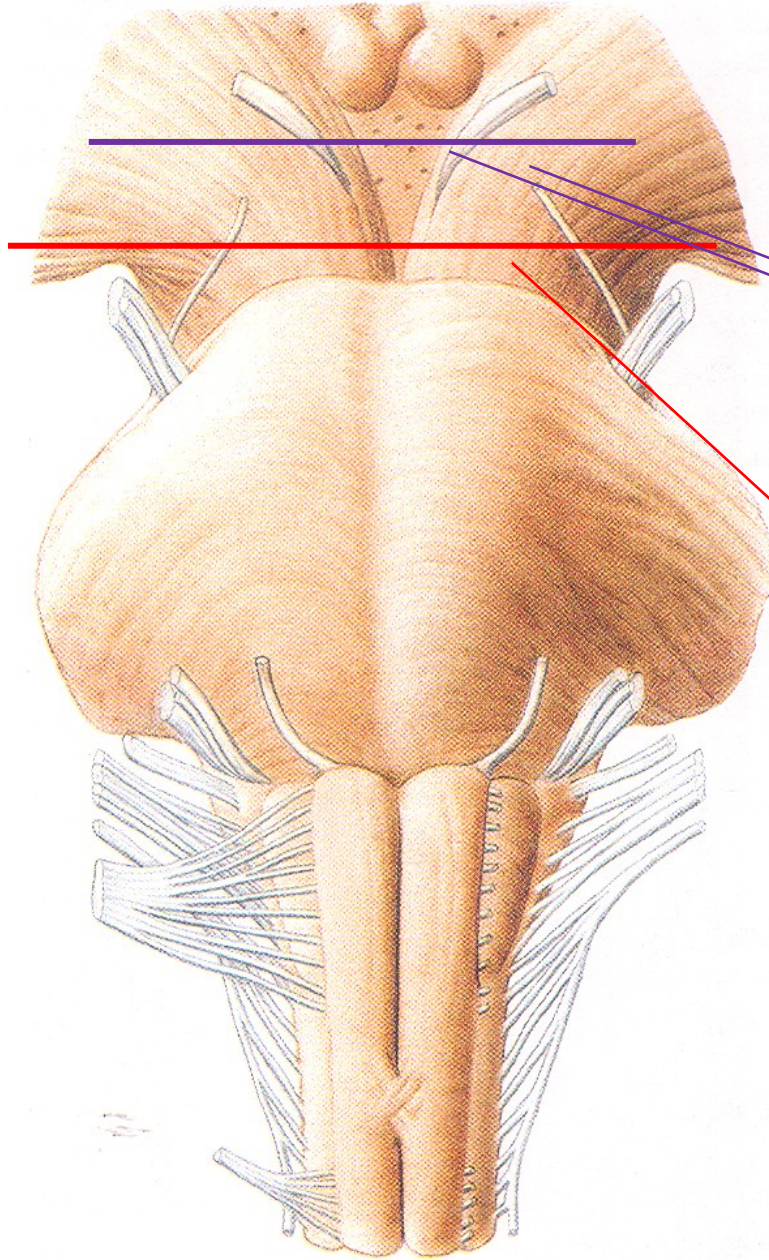
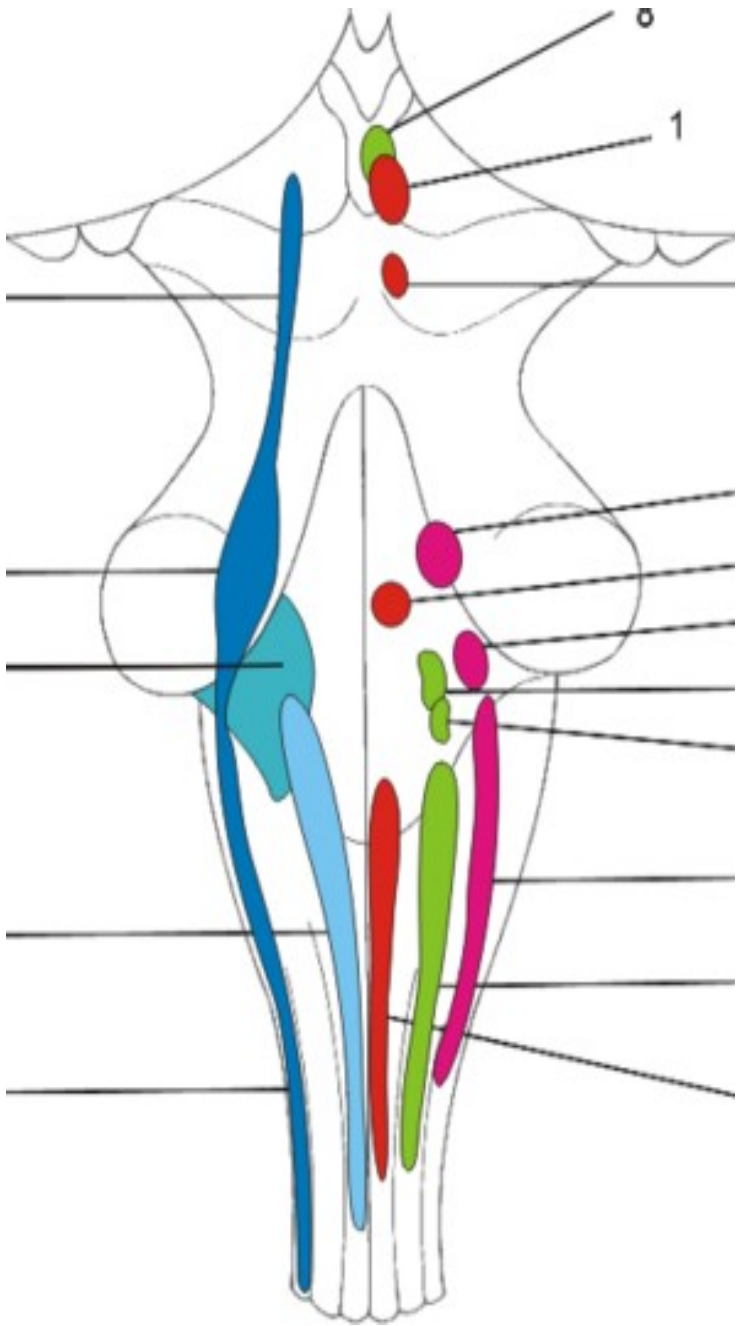
Mesencephalon



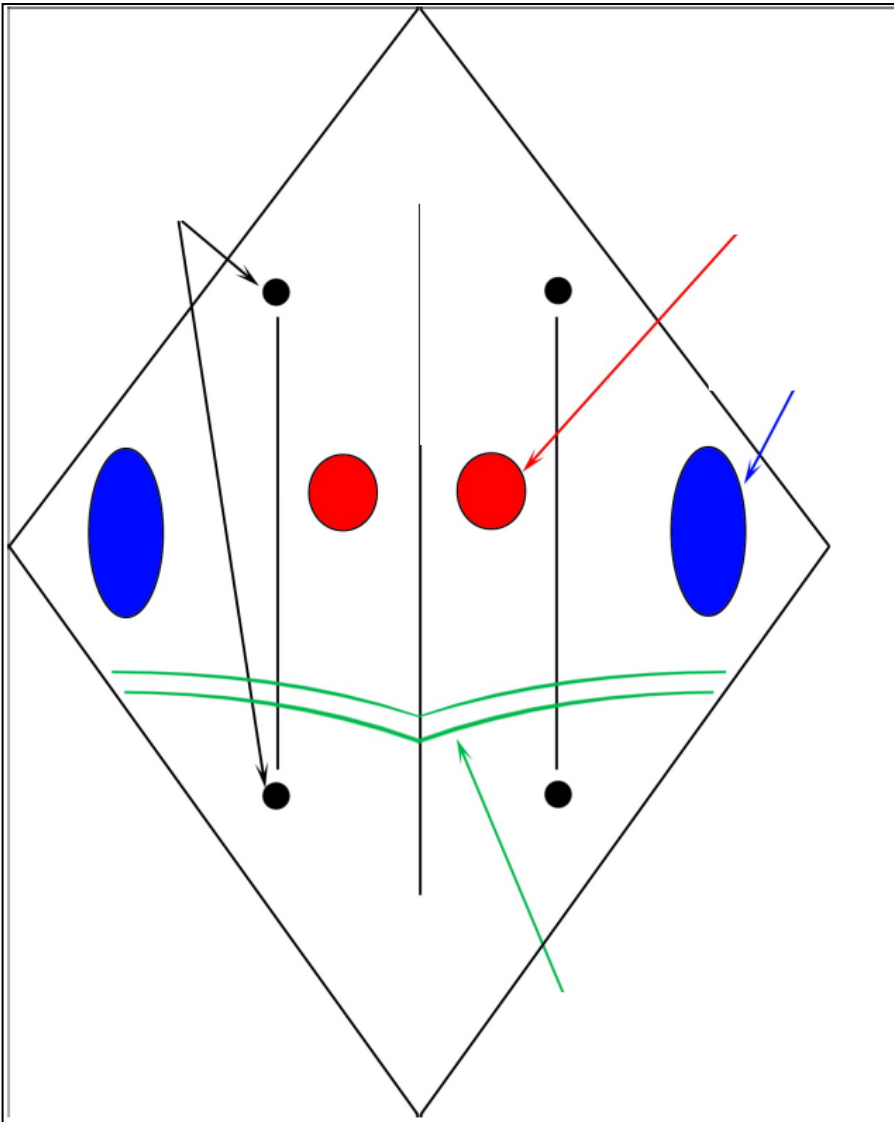
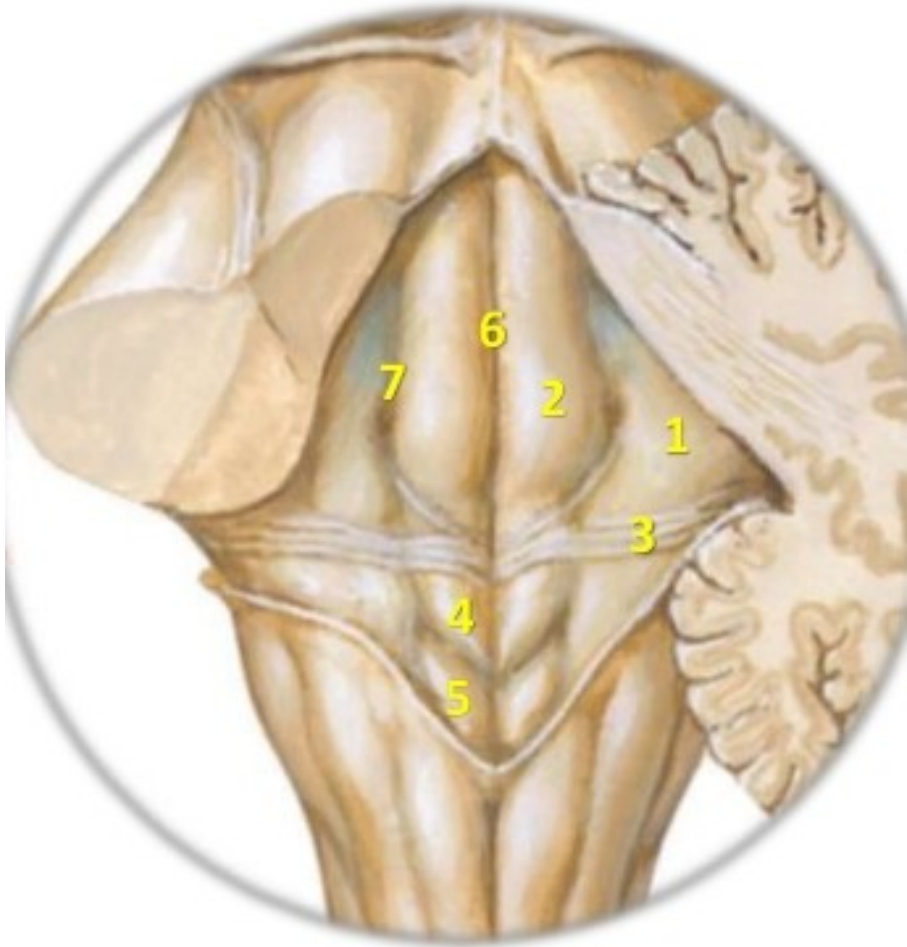
Dorsal side of the mesencephala



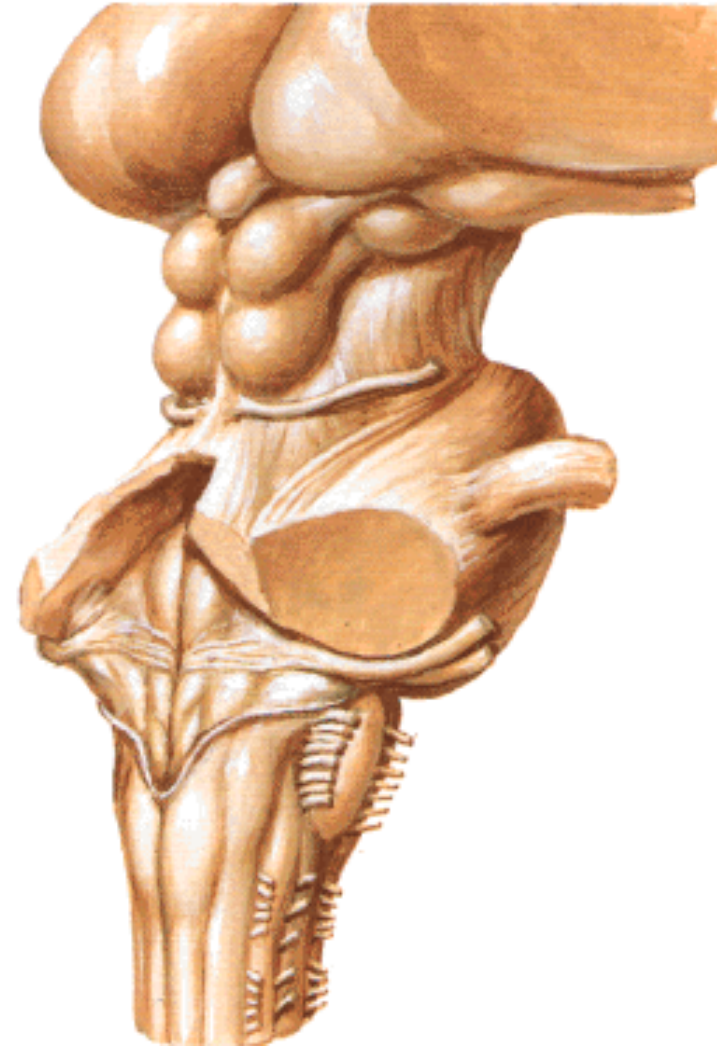
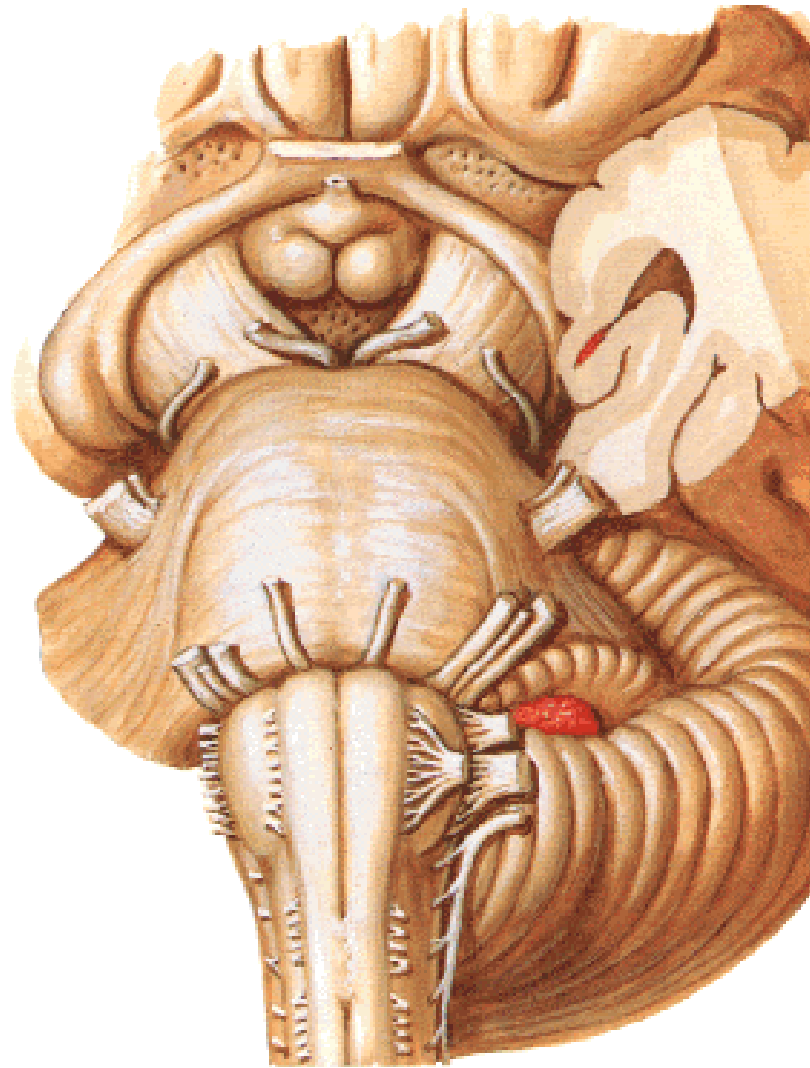
Ventral side of the mesencephala



Fossa rhomboidea

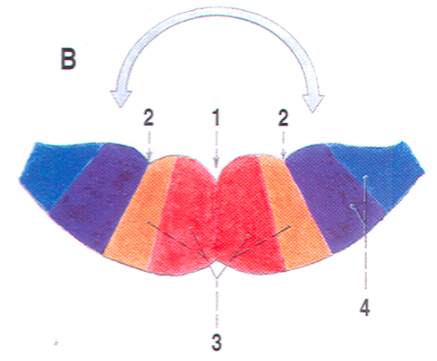
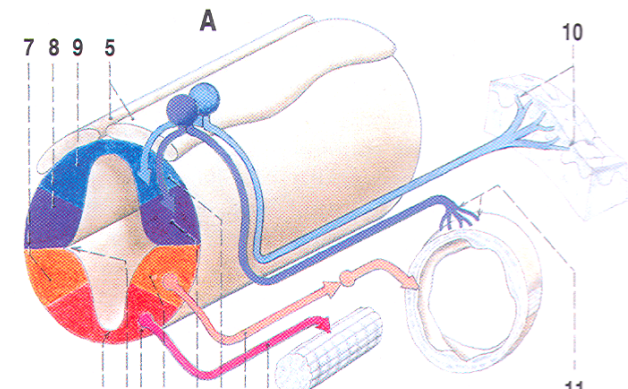
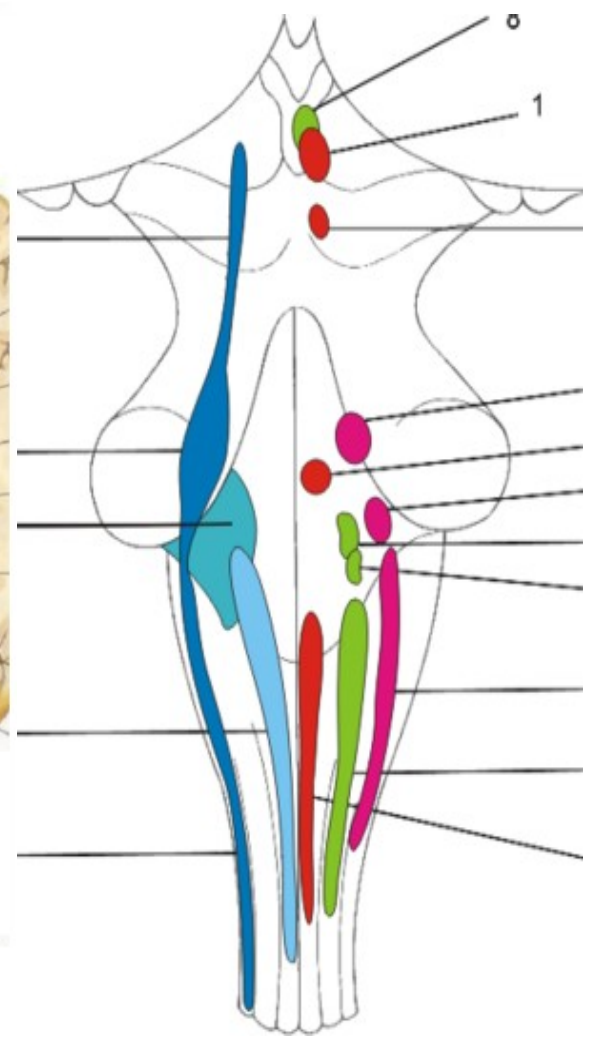
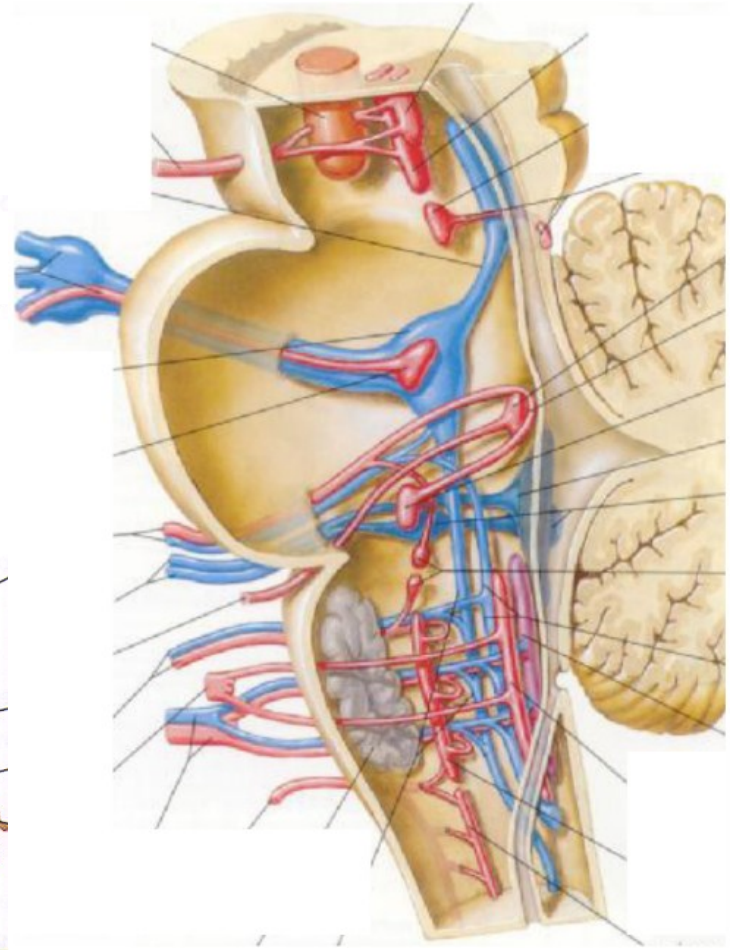
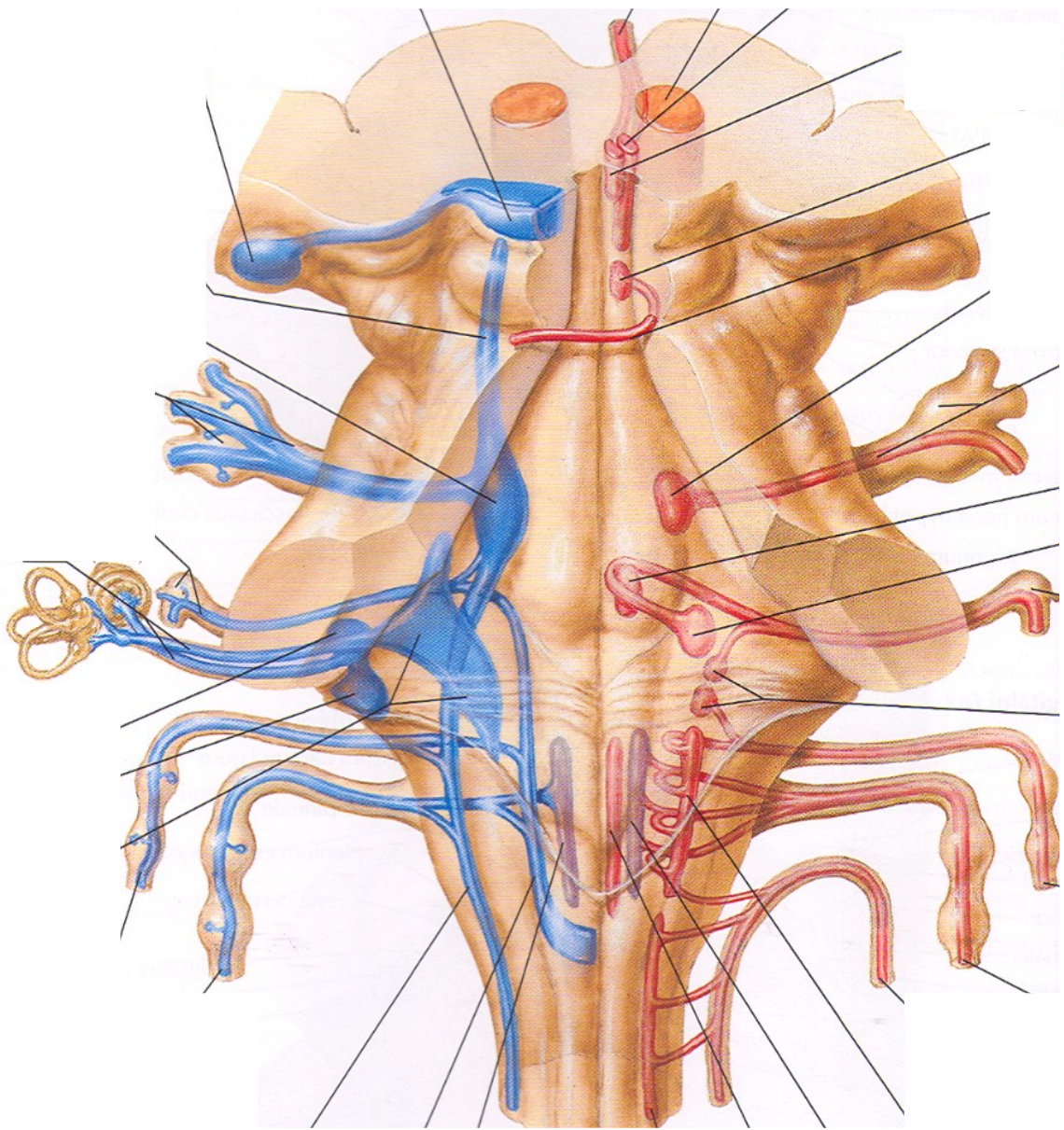


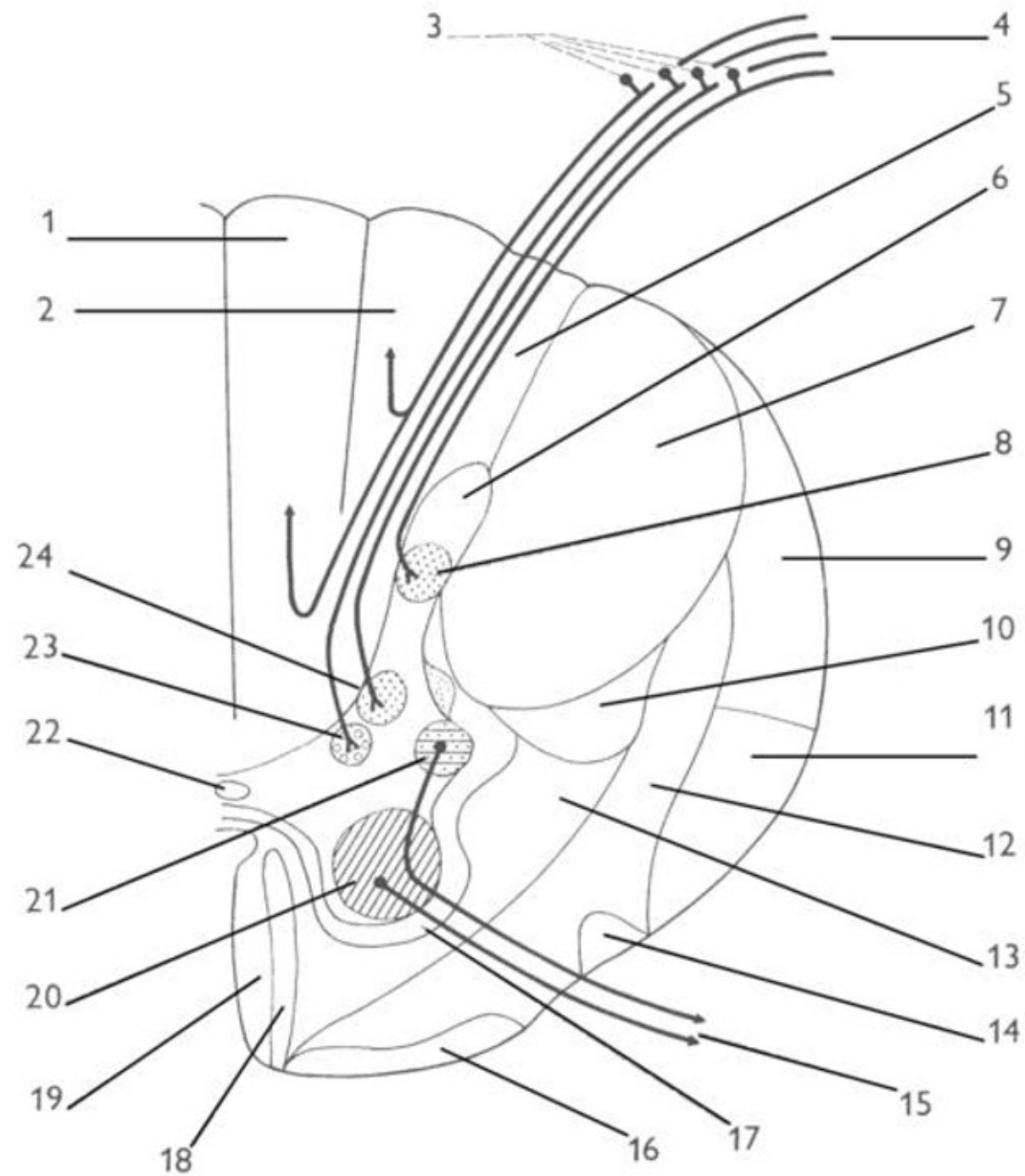
OUTPUTS OF THE CRANIAL NERVES FROM THE BRAINSTEM

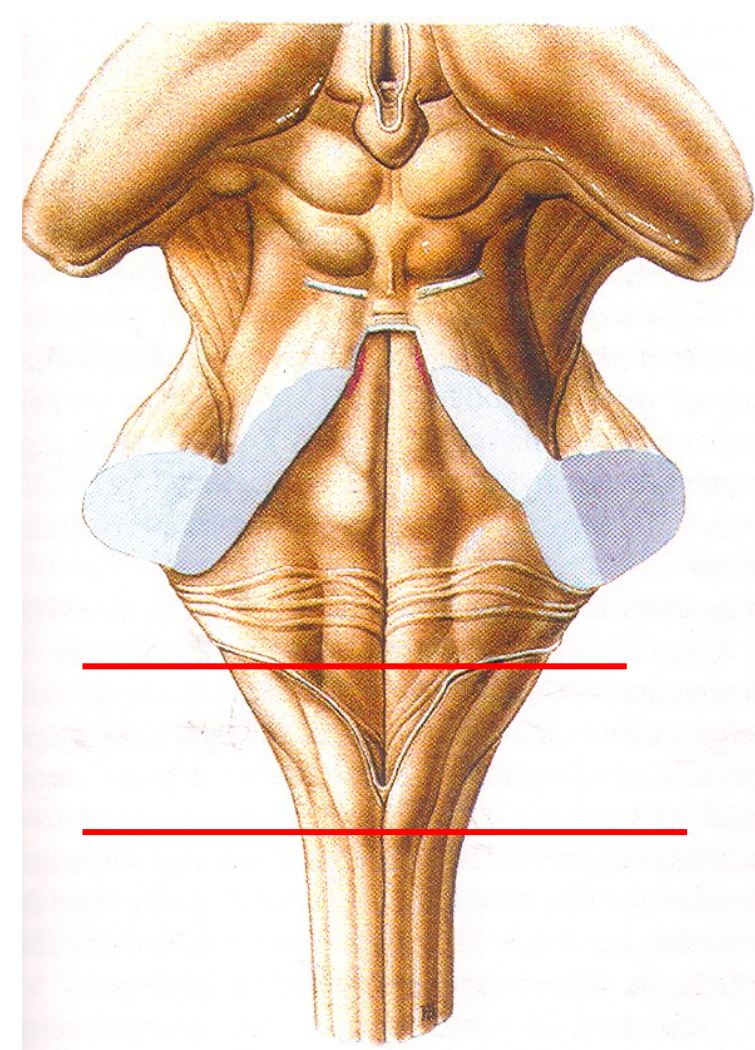
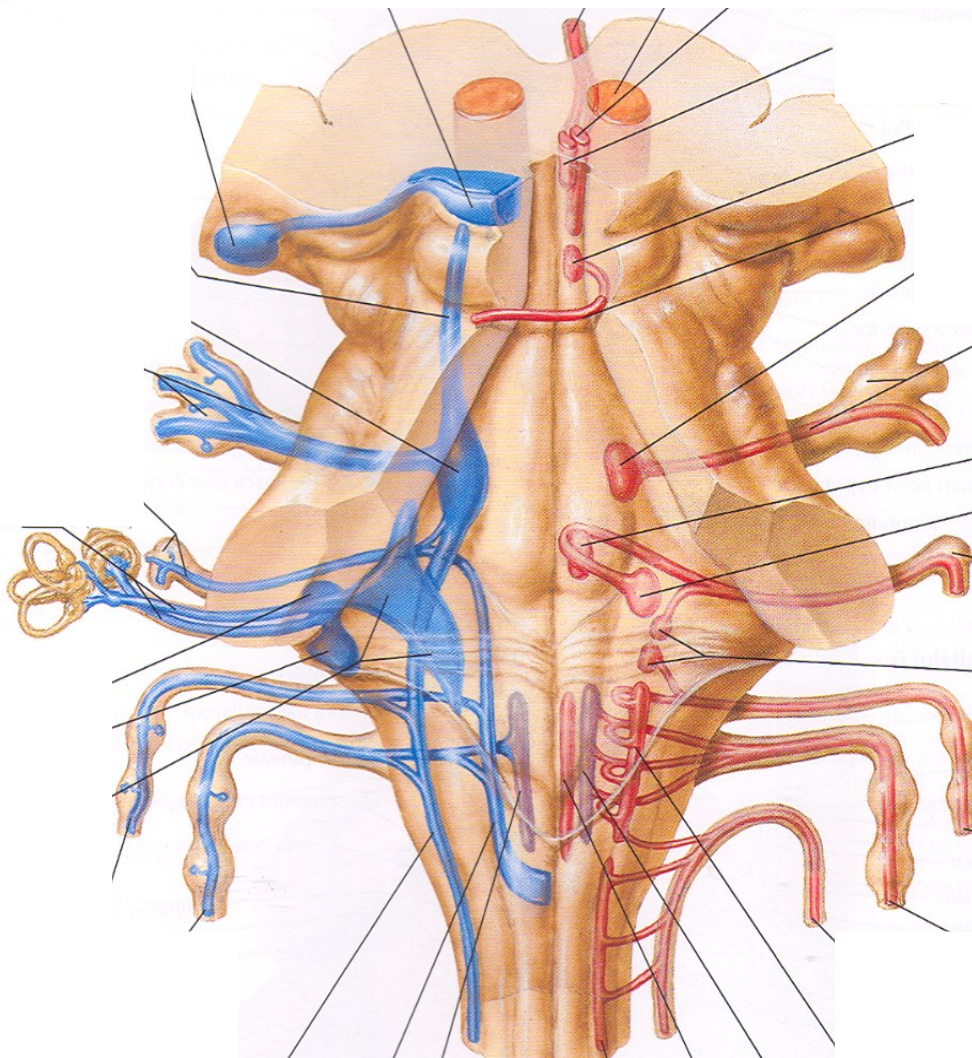
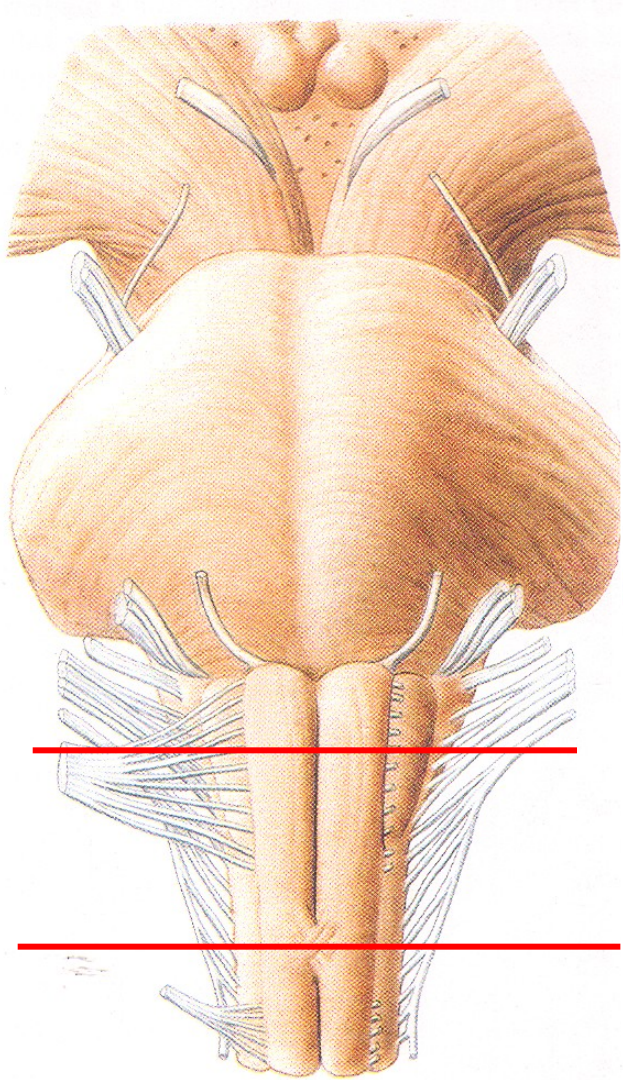


NUCLEI OF THE CRANIAL NERVES

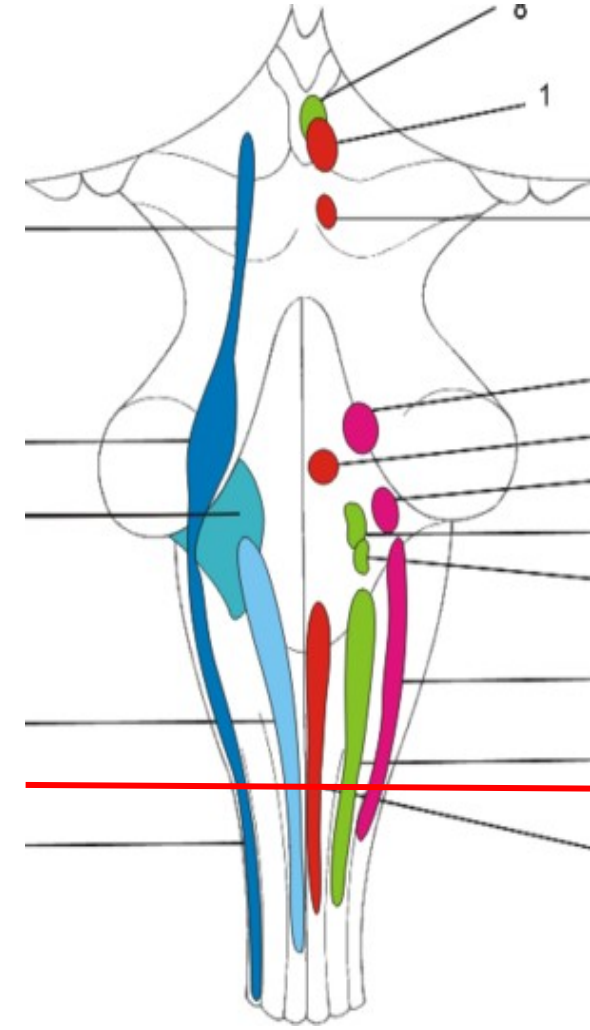
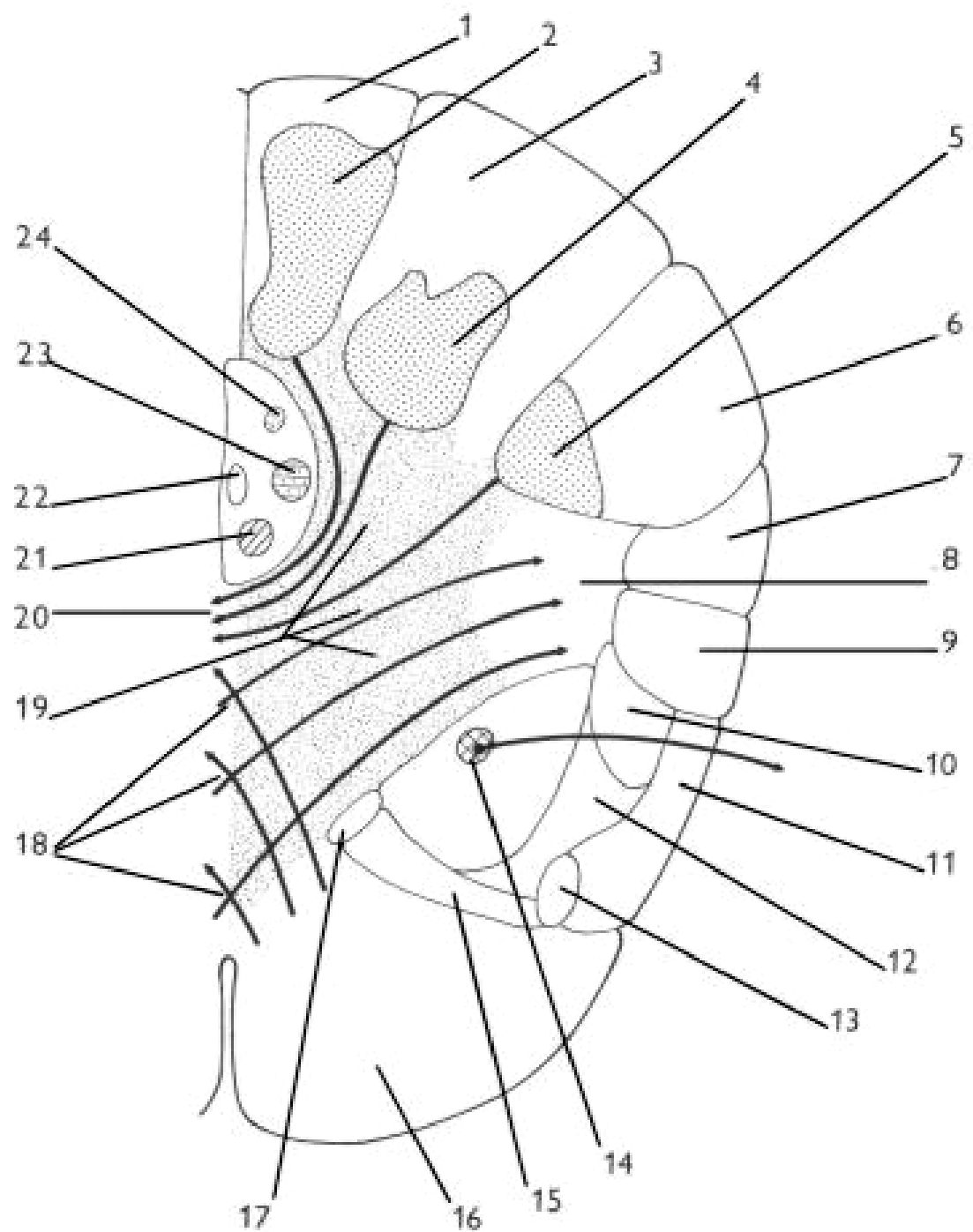
brainstem- fossa rhomboidea

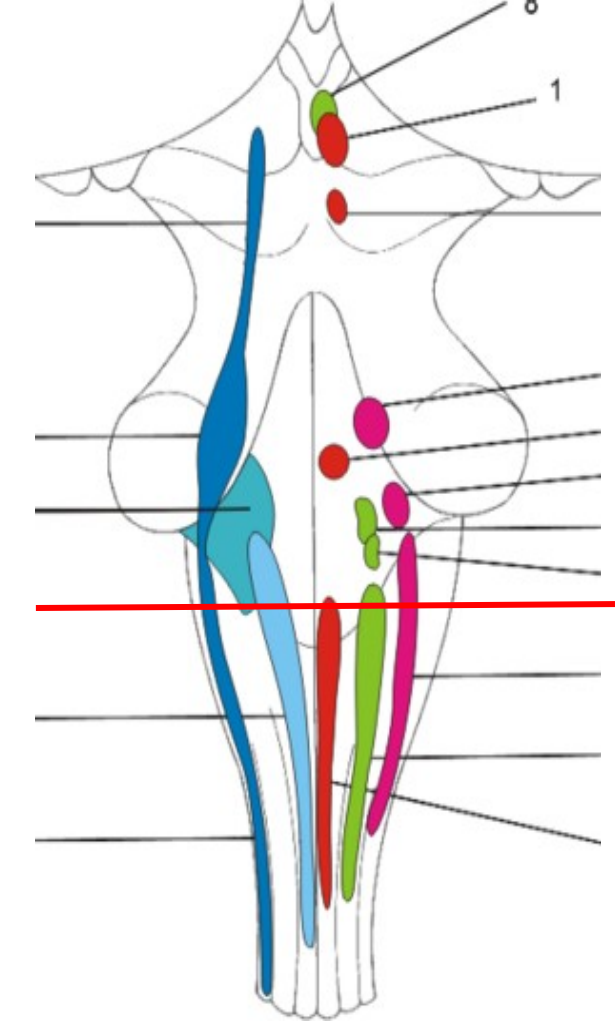
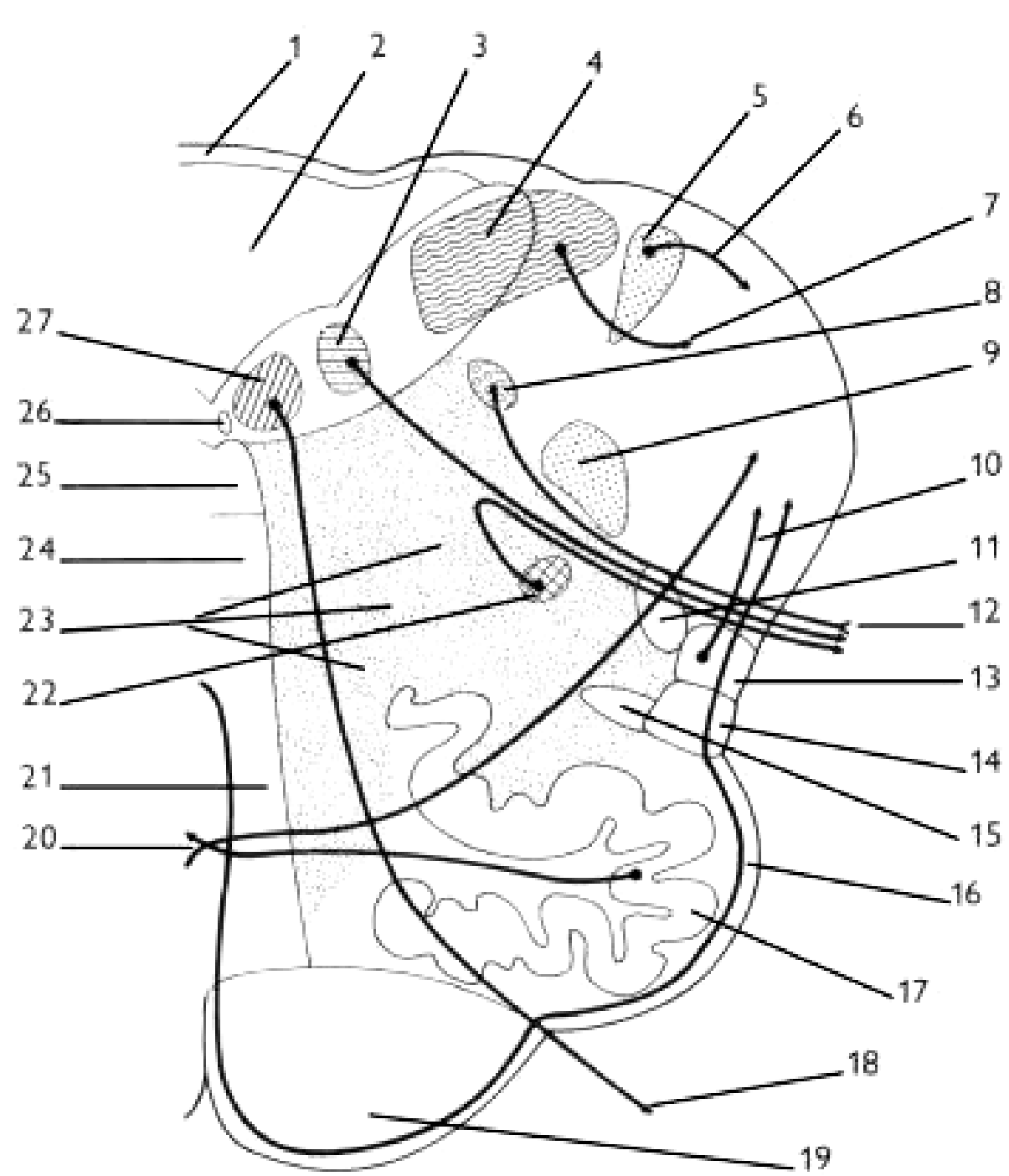


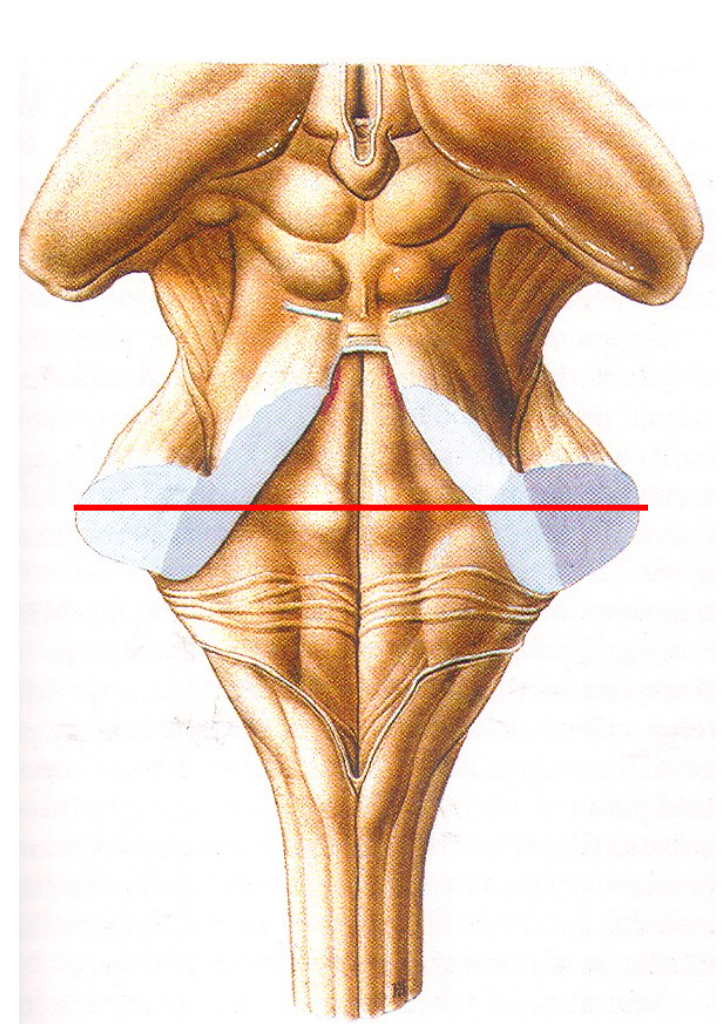
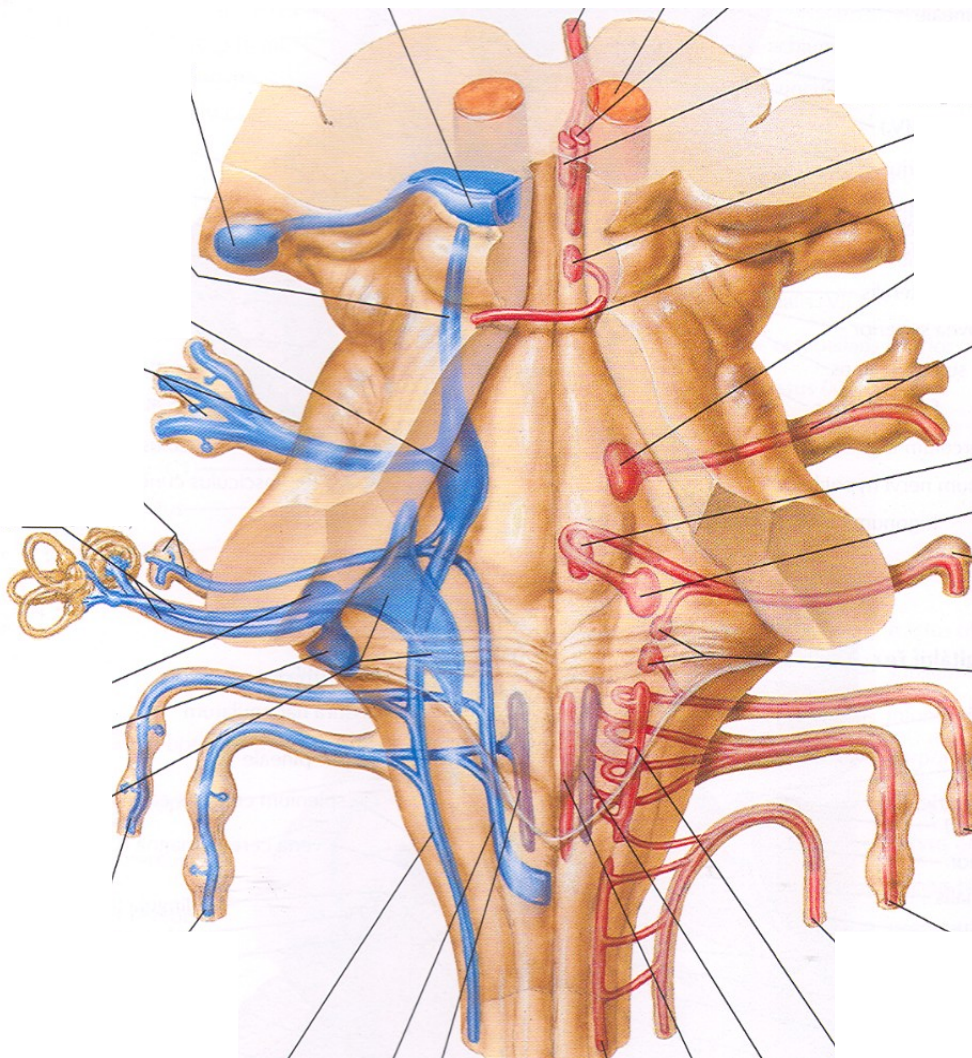
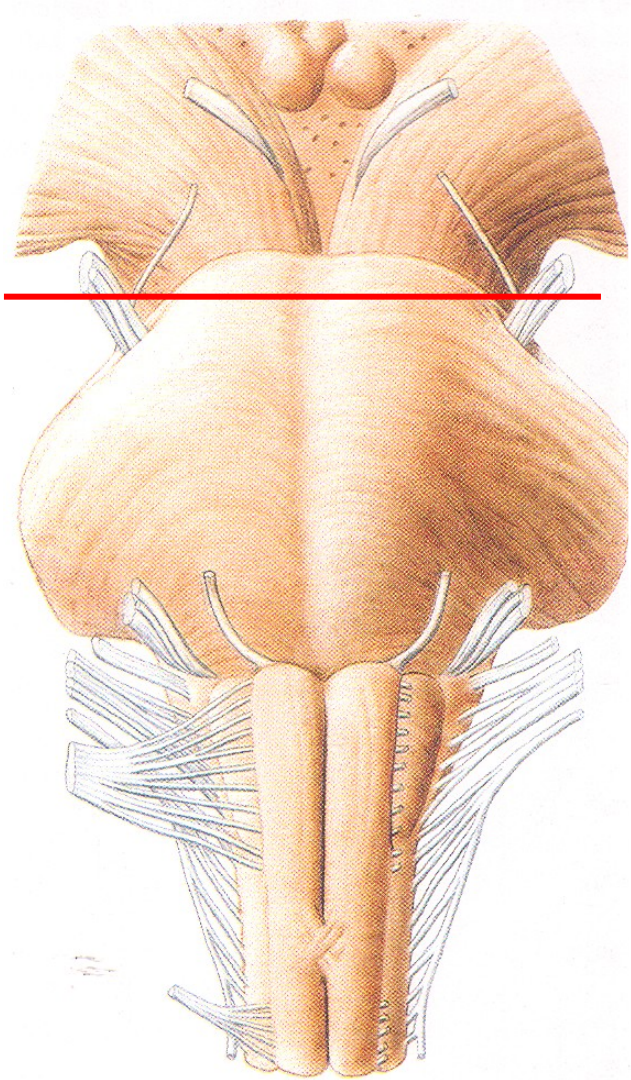




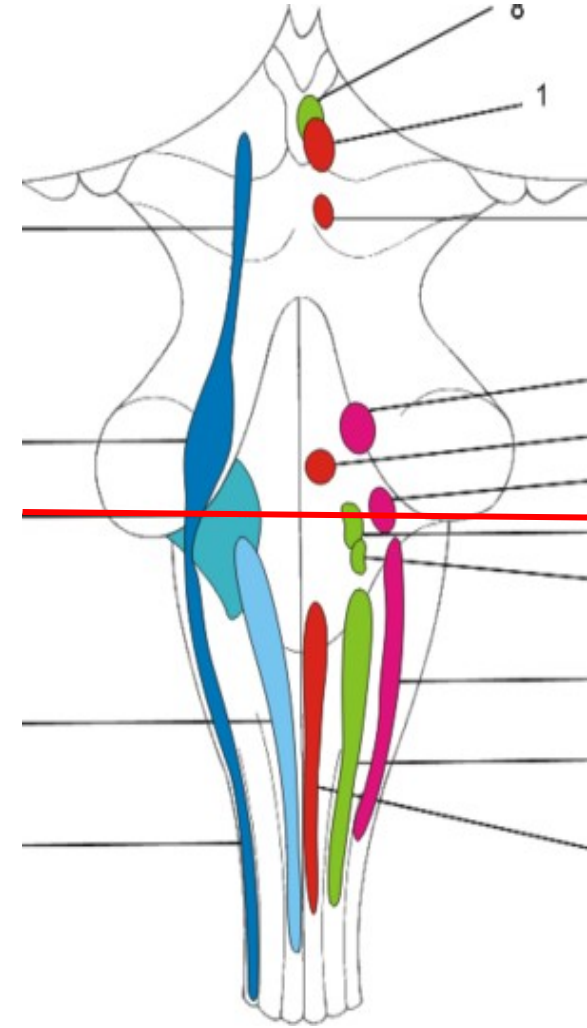
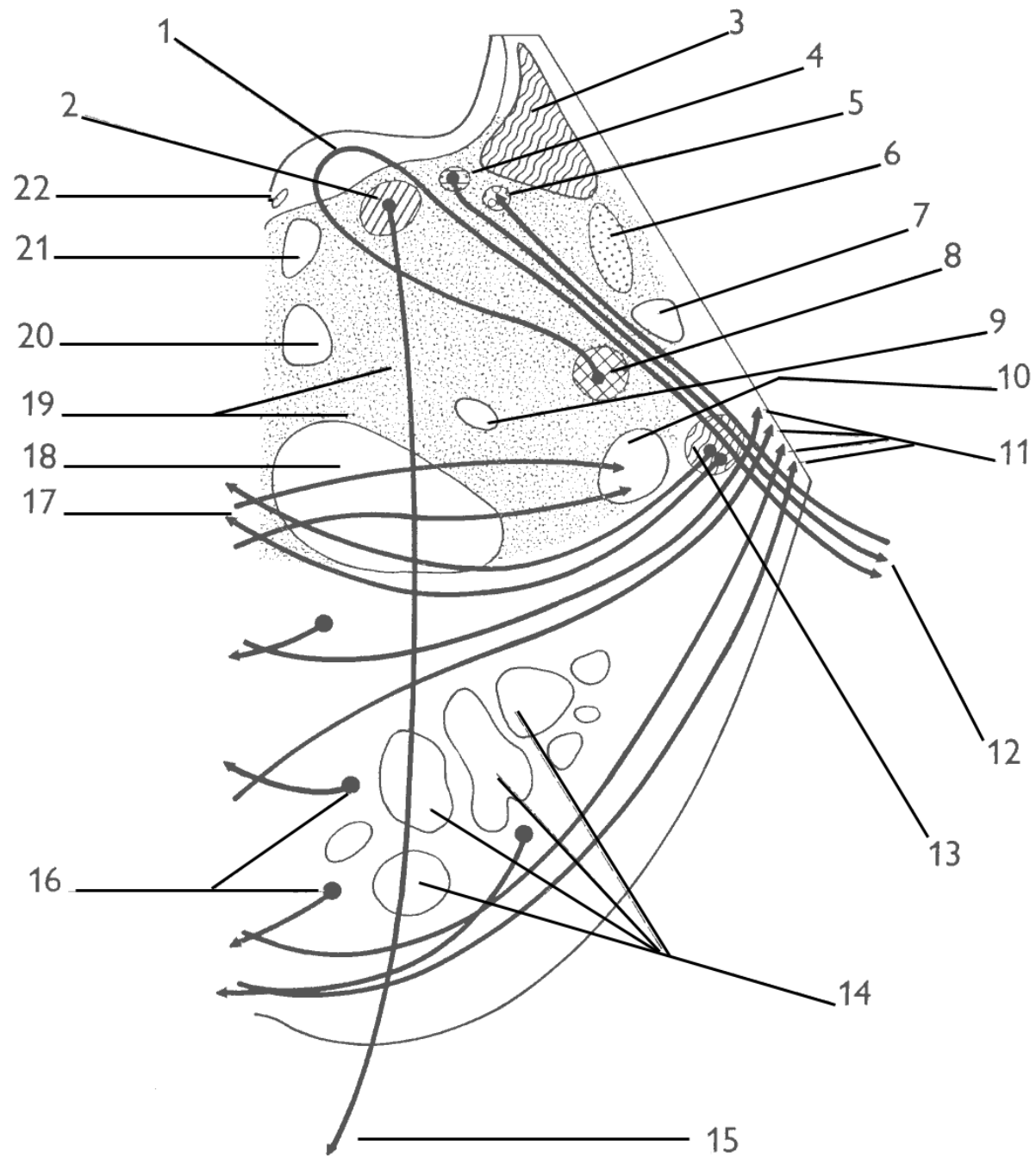
MEDULLA OBLONGATA

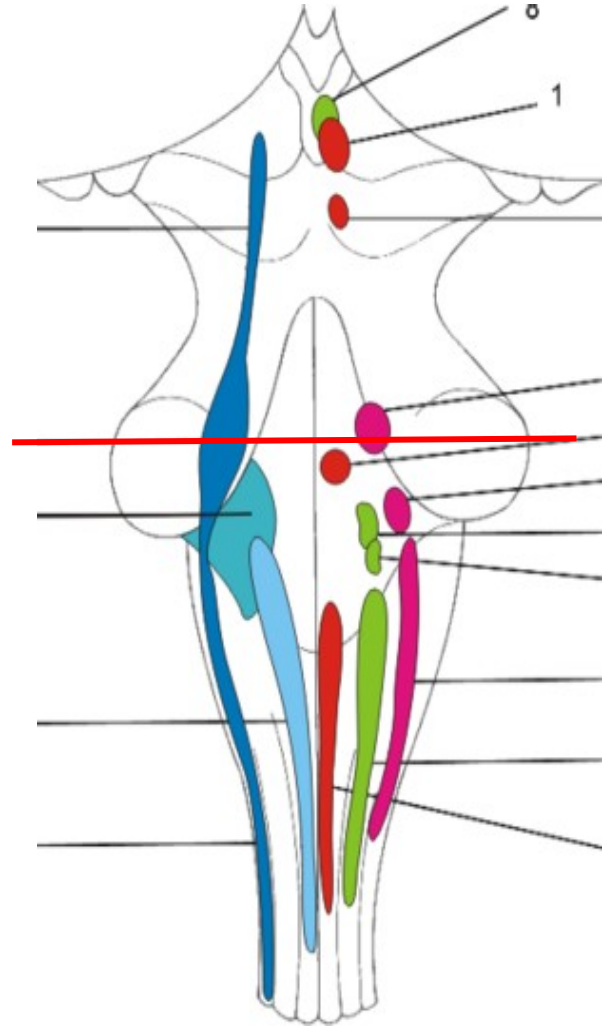
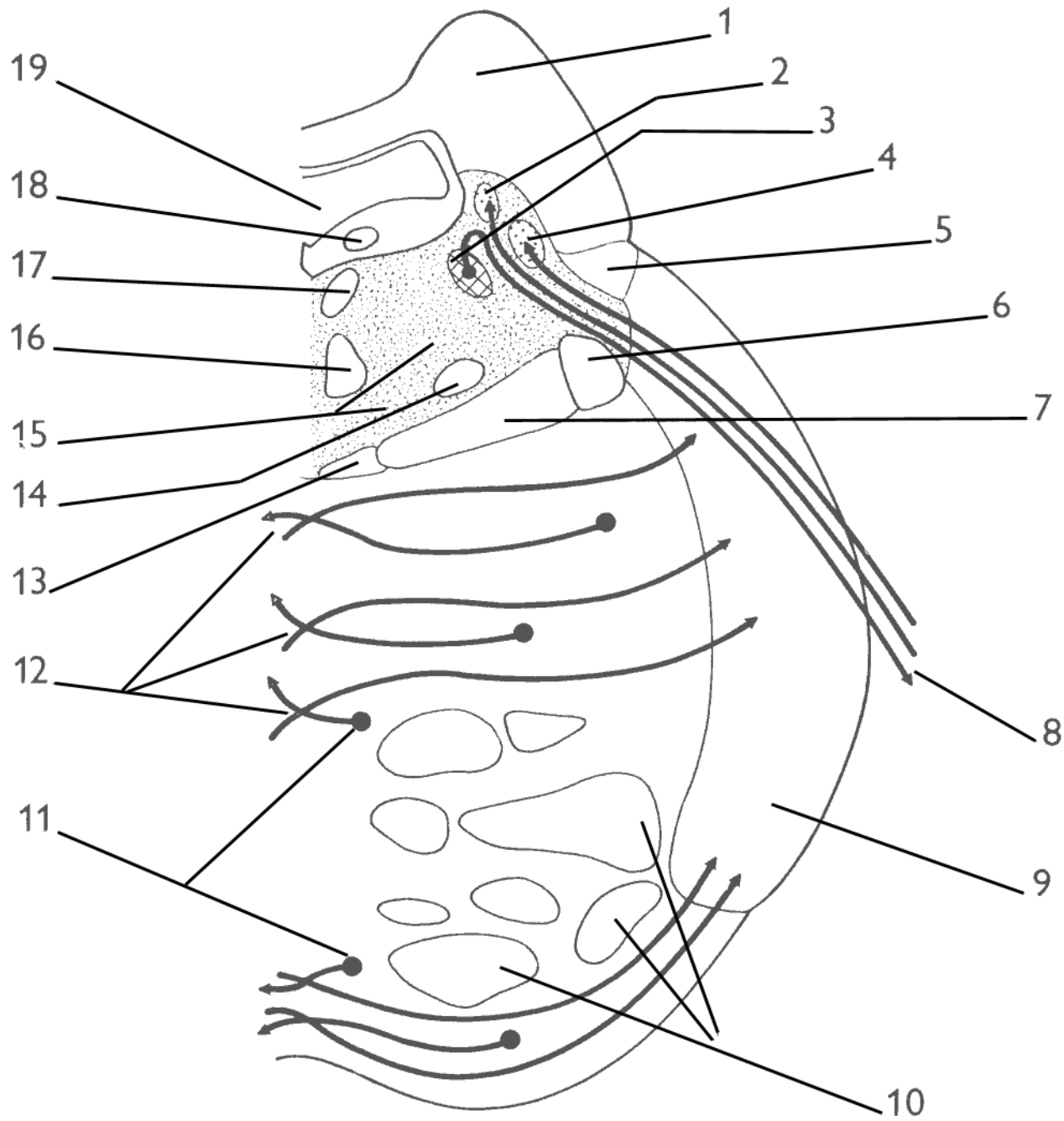


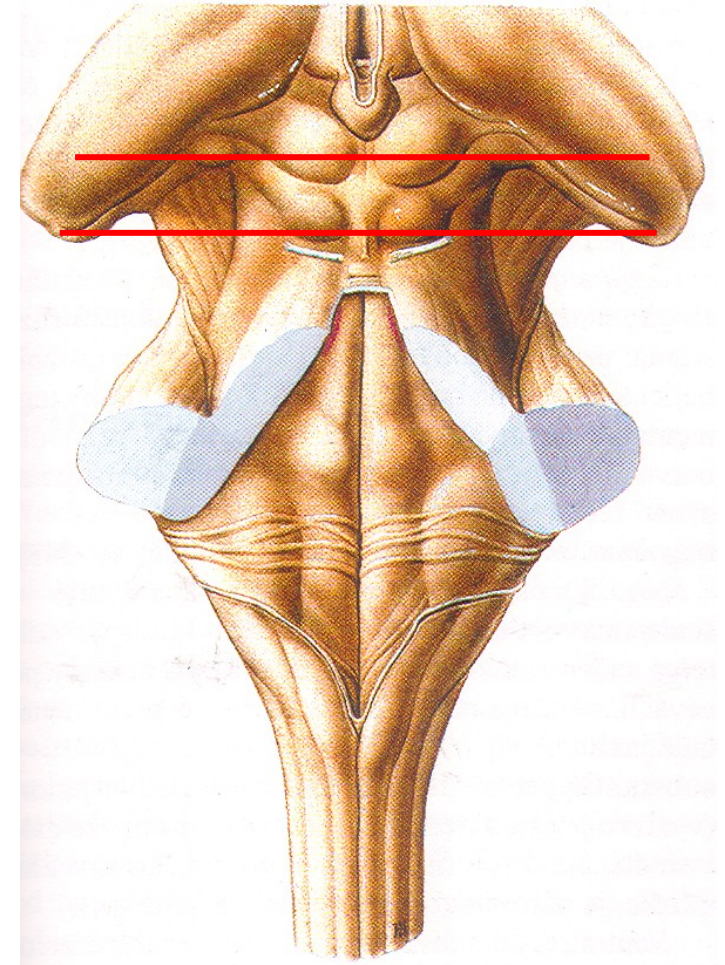
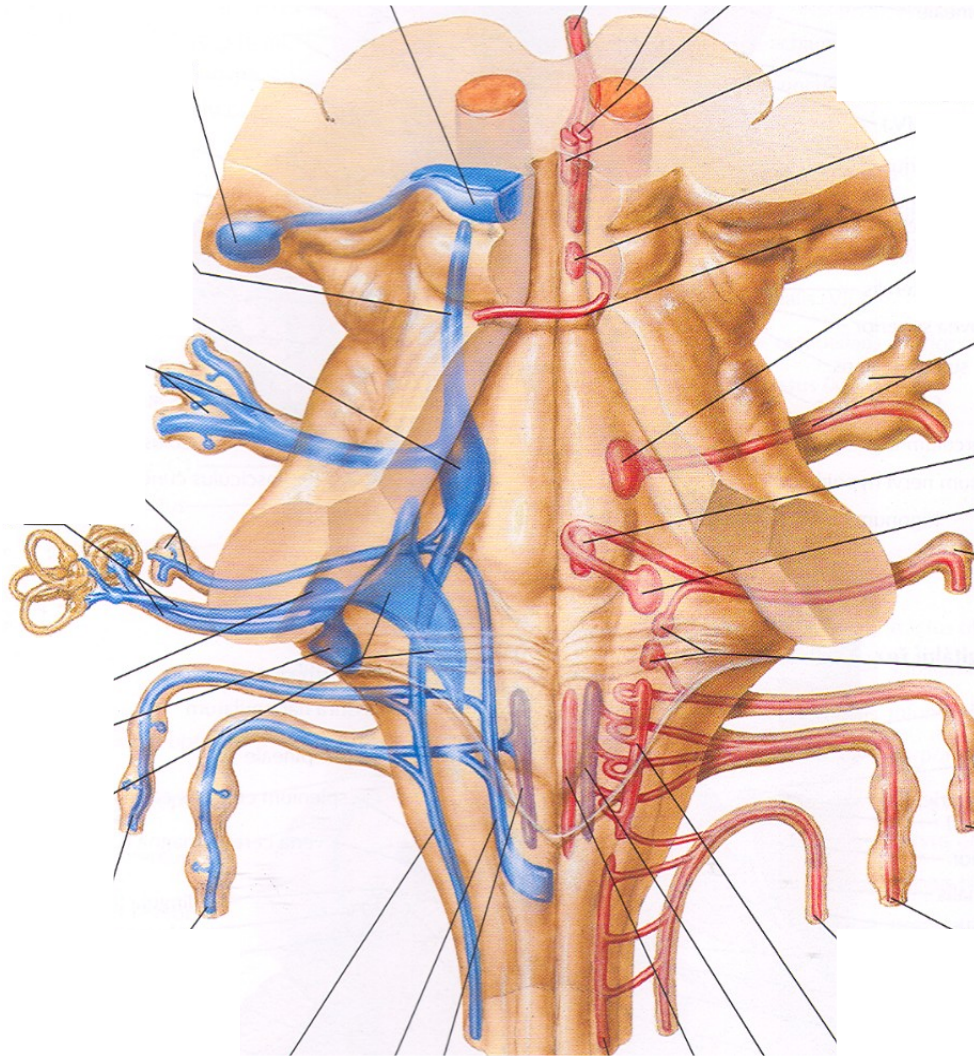
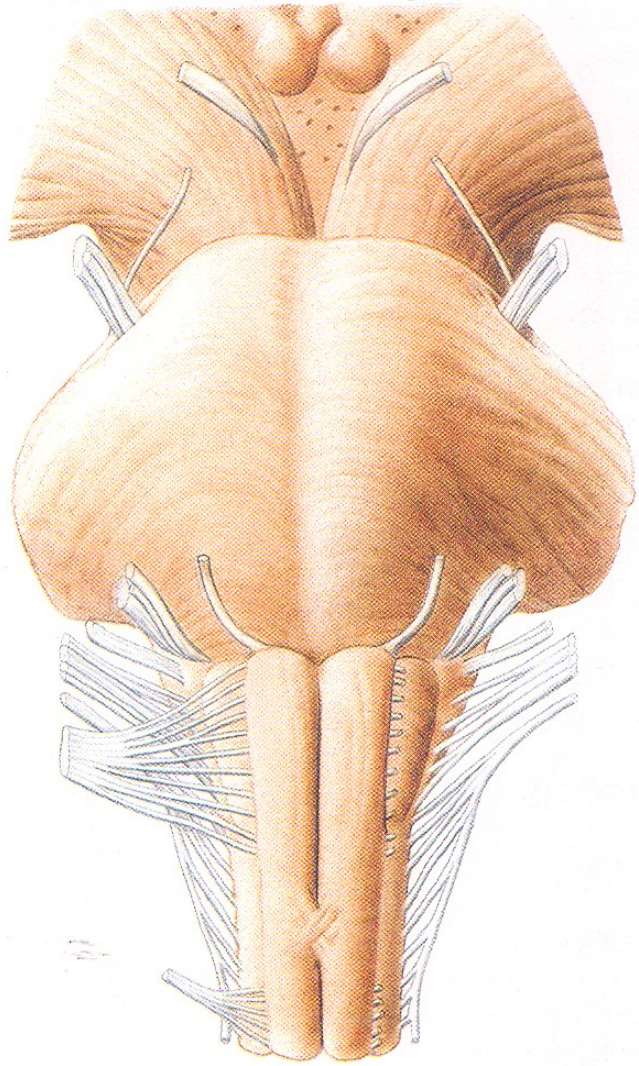




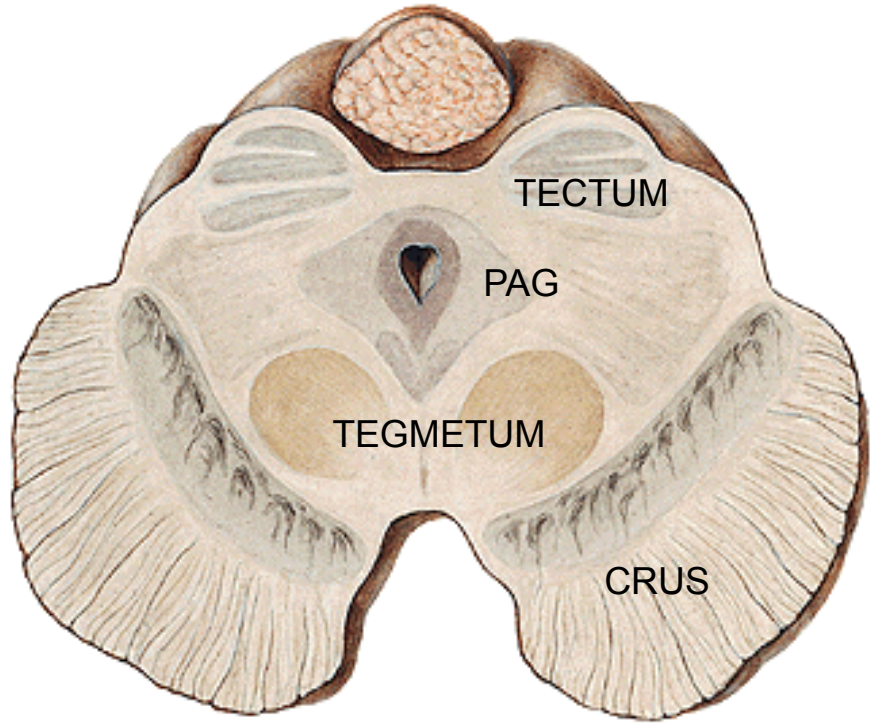
PONS VAROLI



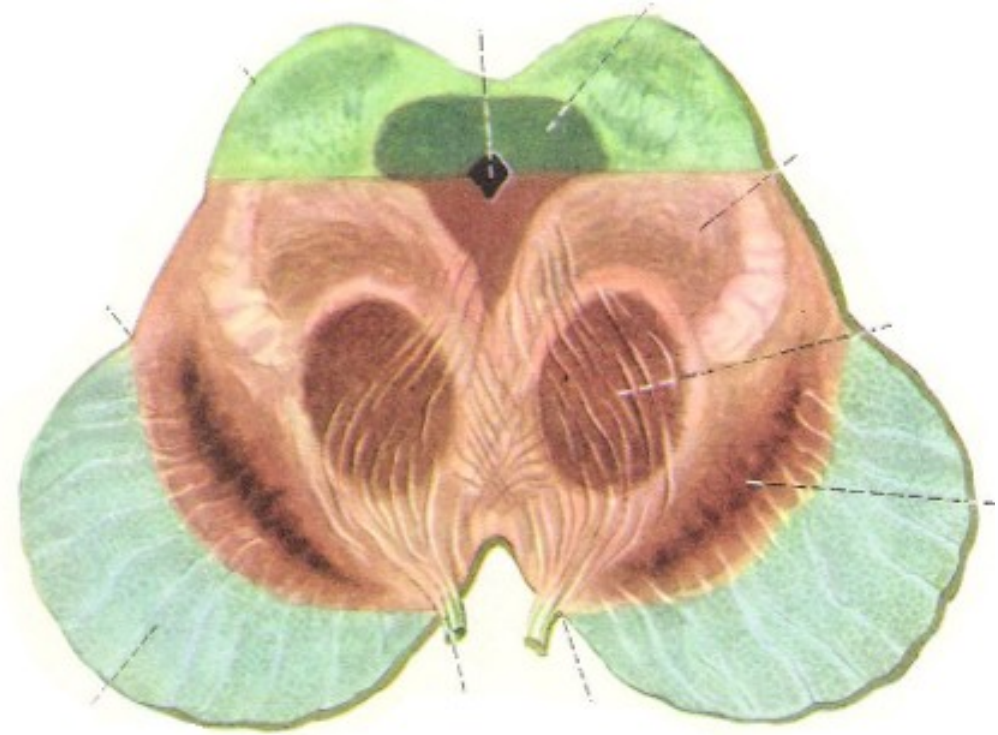


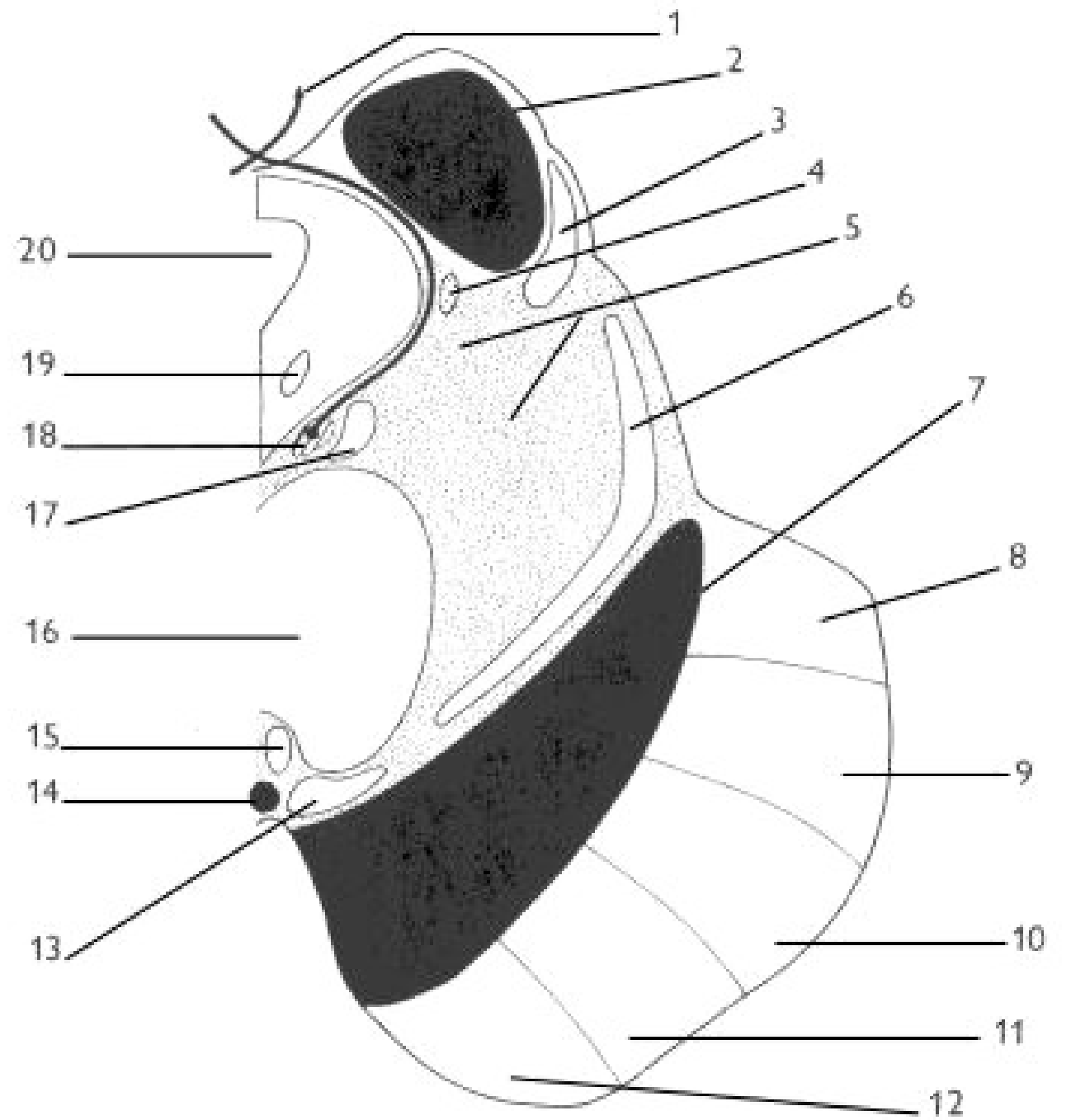
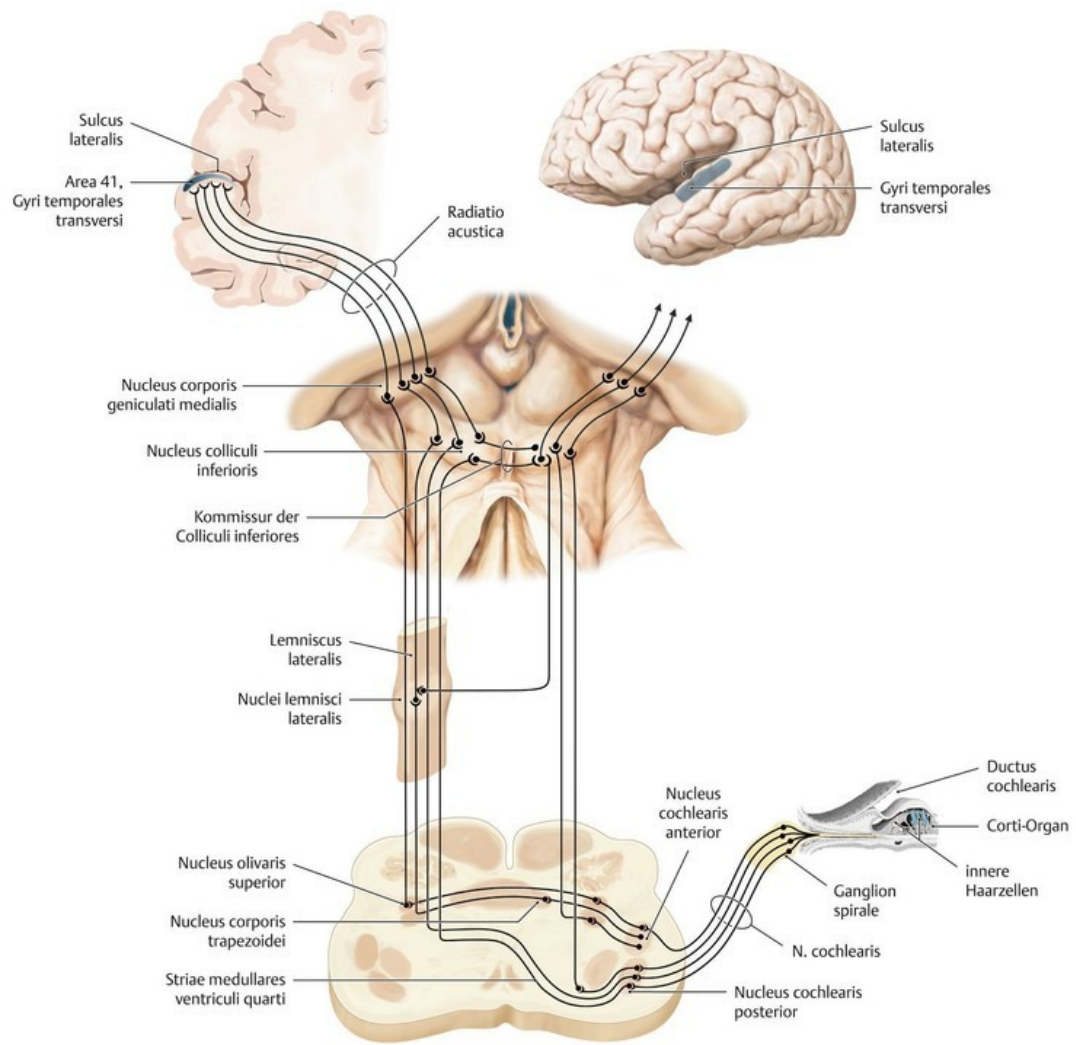


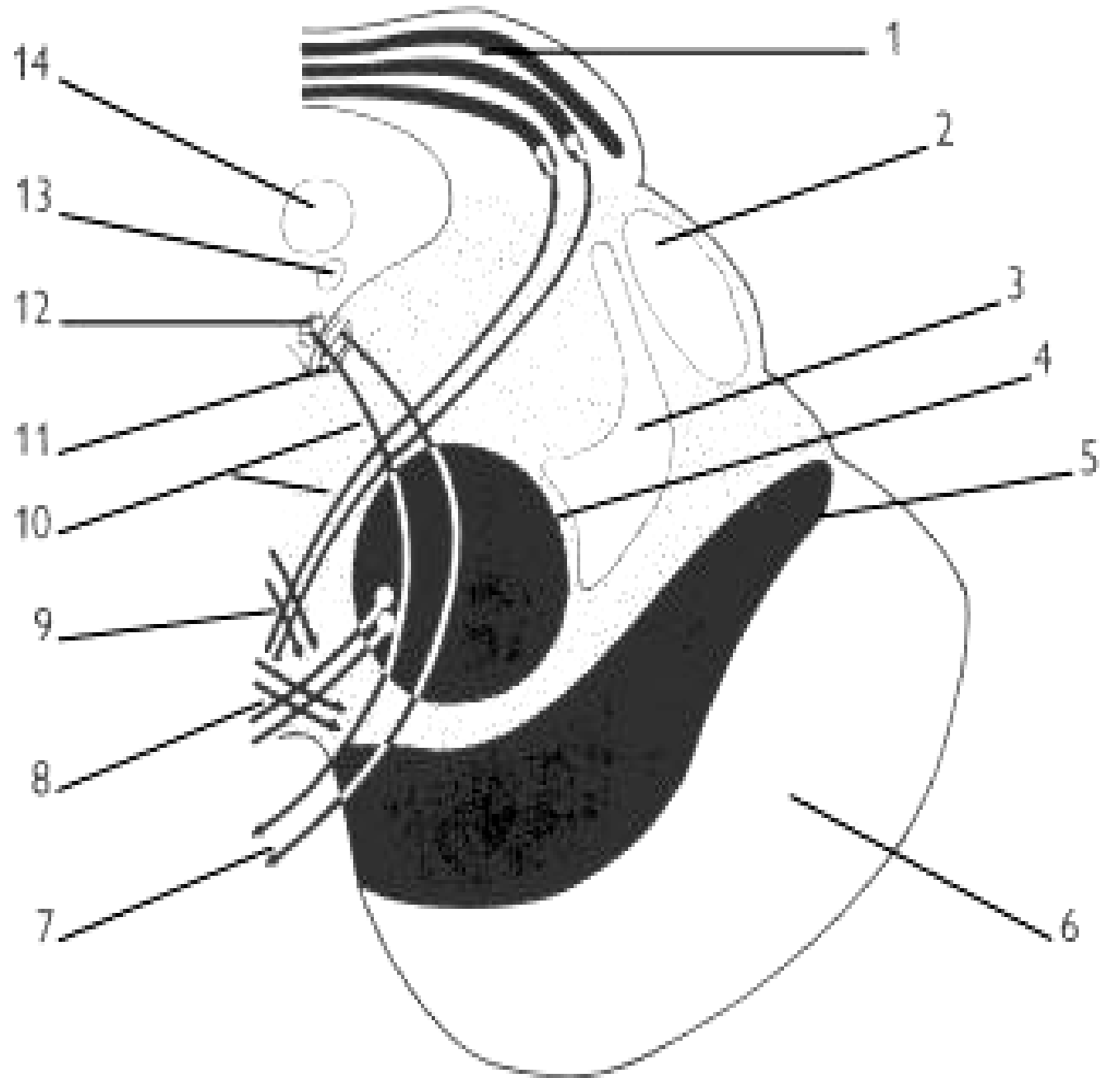
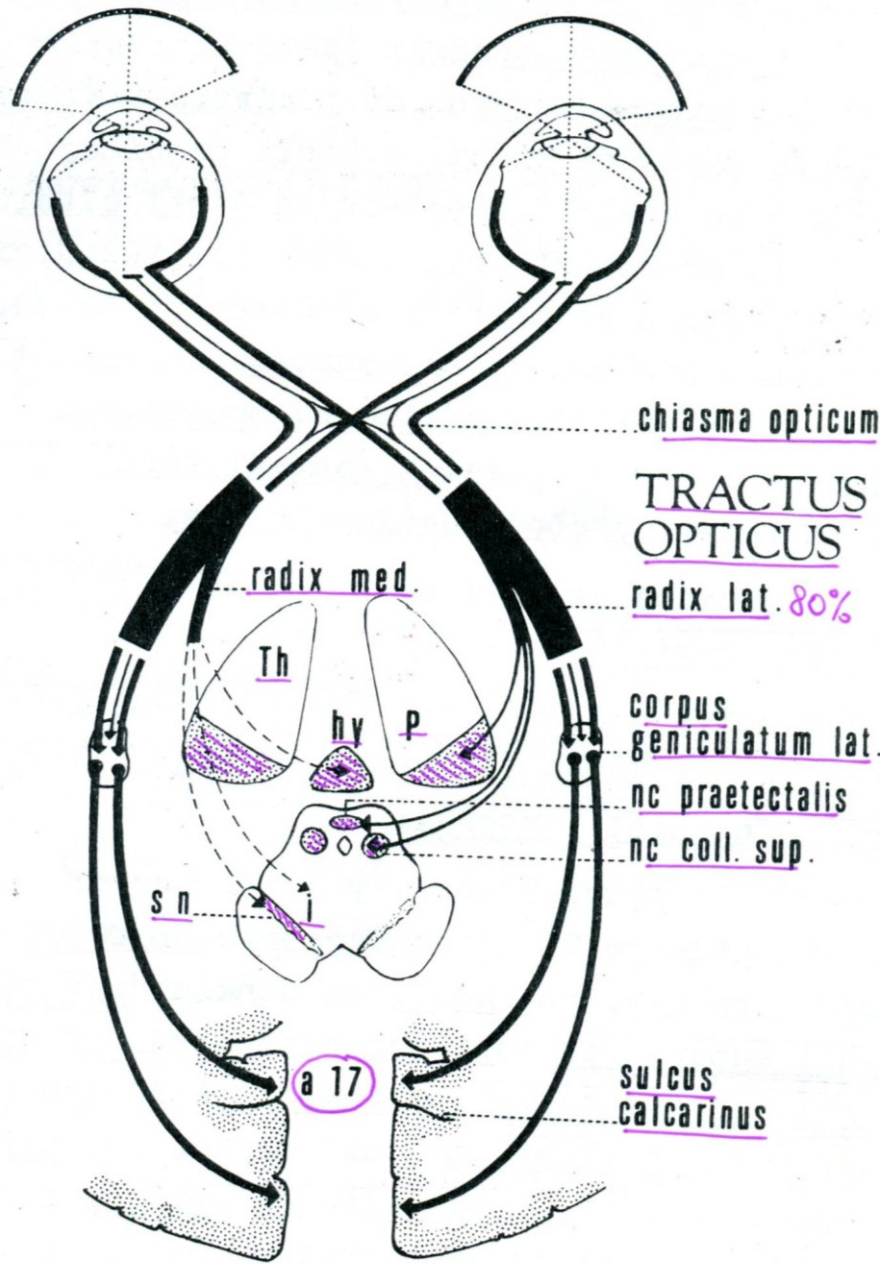
MESENCEPHALON



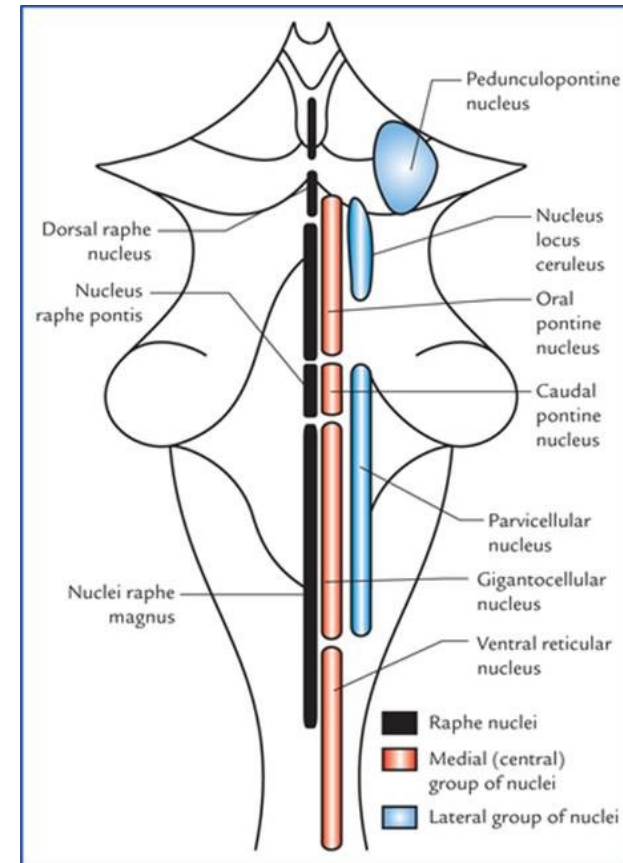
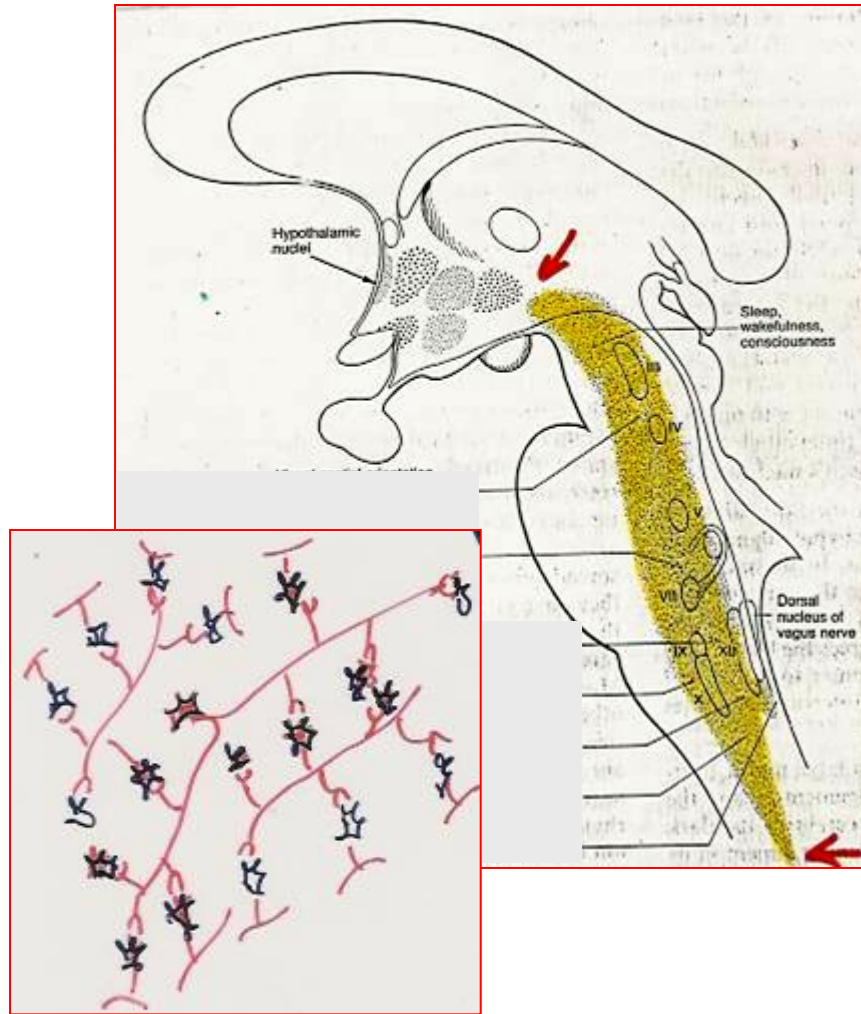
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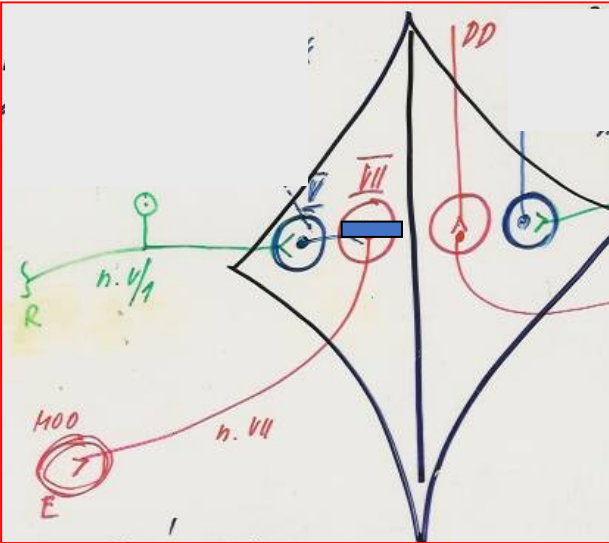
RETICULAR FORMATION (RF) OF THE BRAINSTEM



FUNCTIONS OF RF

connections of the cranial nerve nuclei:

involvement of RF in reflexive arcs - mediation of **defensive and vital reflexes**



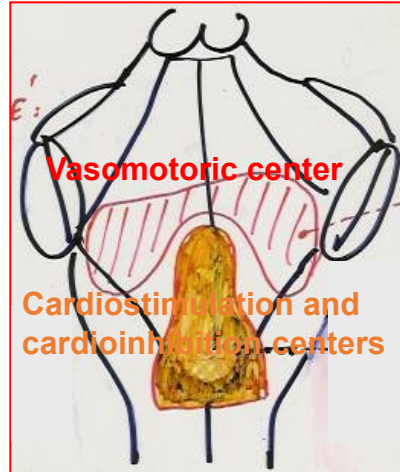
Low pain – poorly localizable

Descending system of FR

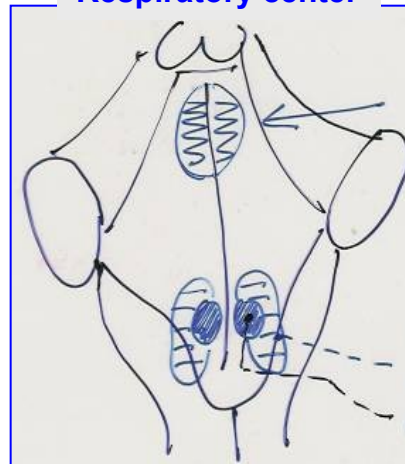
Motor system of descending long RF fibers, connected to the control of the movement. The central regulator of muscle tonus - the connections between the higher sections of the CNS affecting muscle tonus and motoneurons of the anterior horns of the spinal cord. Increases the tension of antigravity muscles (functionally extensors) while reduces the tension of flexors. It allows upright position.

Vegetative centers: to control vital functions:

breath, heart beat, blood pressure

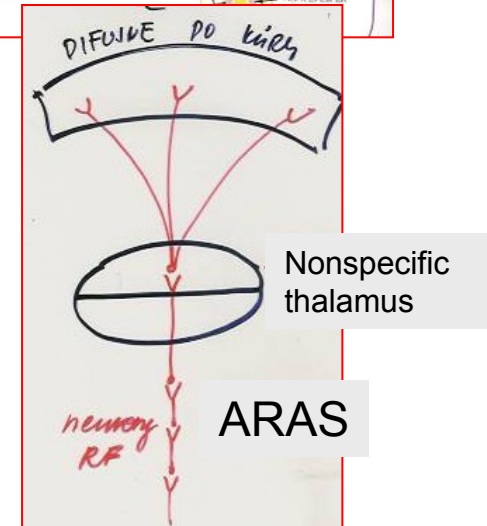
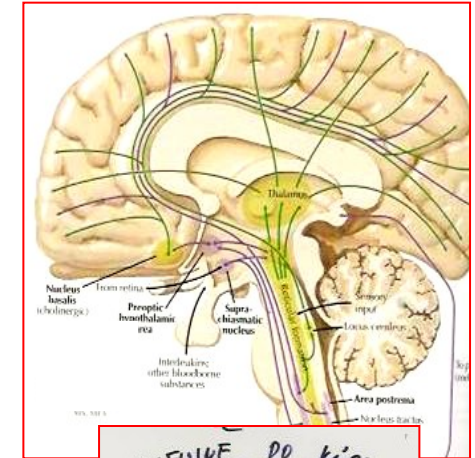


Respiratory center

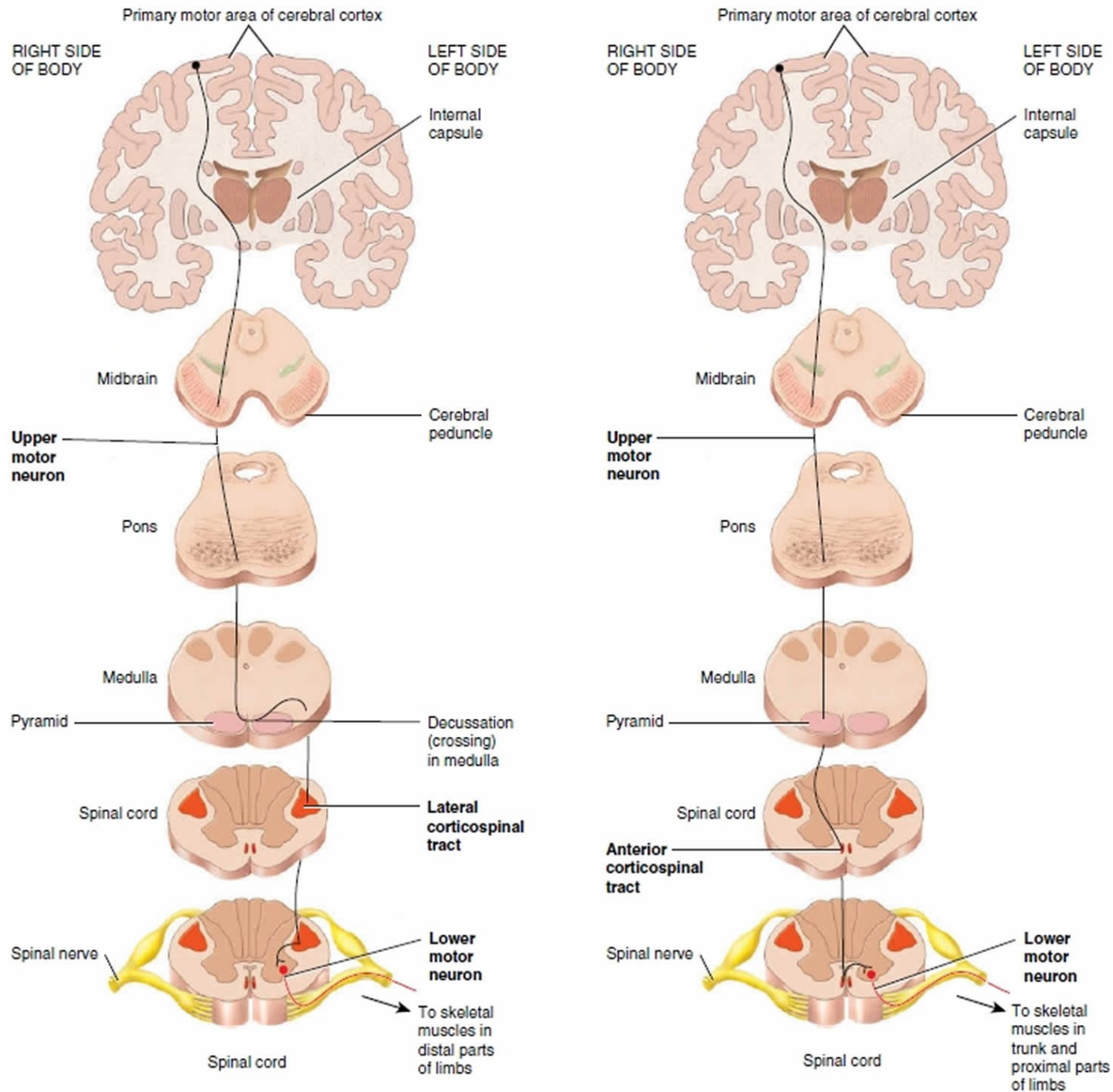


ARAS - ascending activating system

Connections with nonspecific thalamus and cortex telencephali - regulation of wakefulness and sleep



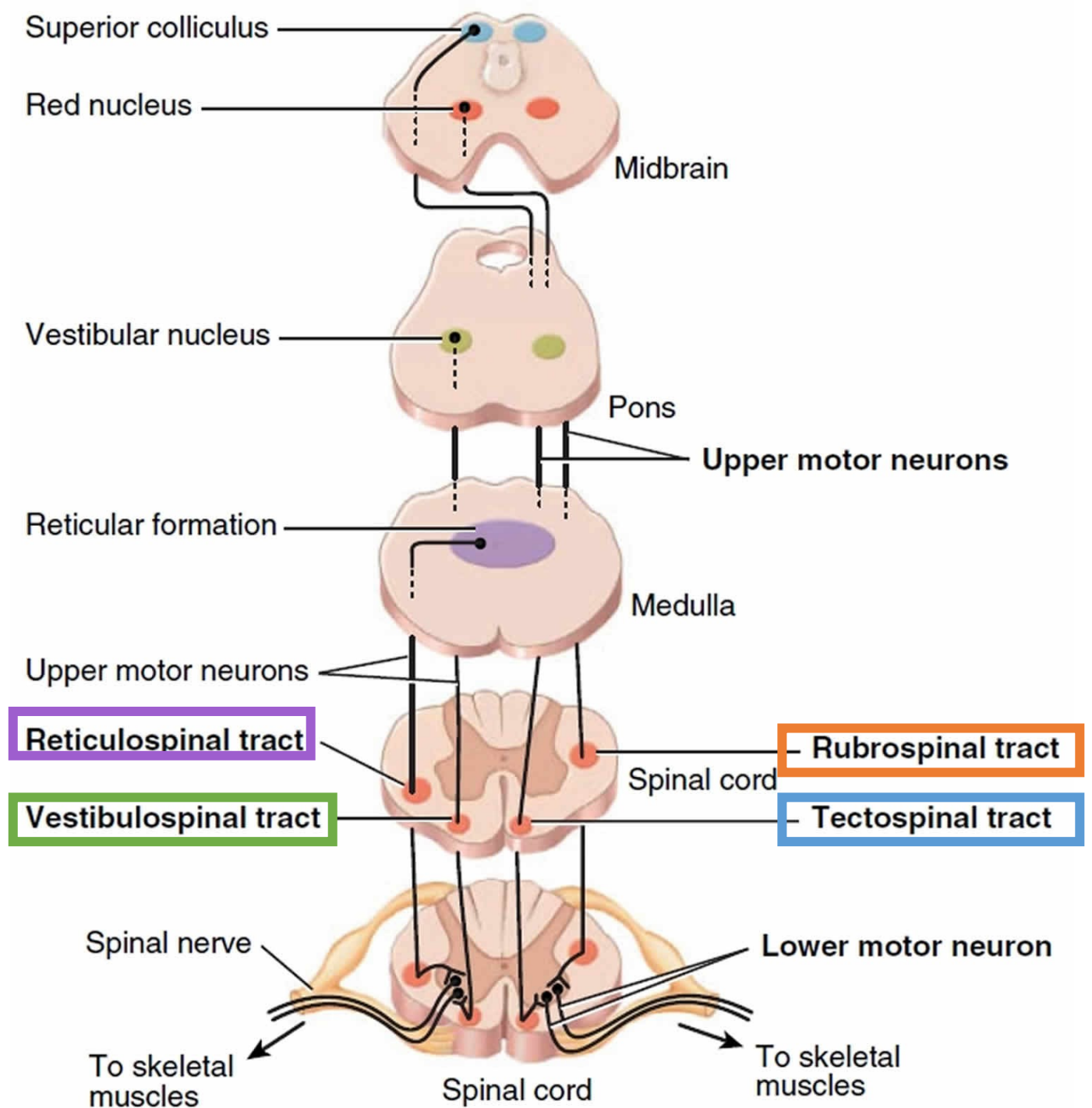
**MOTOR (DESCENDING)
PYRAMIDAL (DIRECT)**



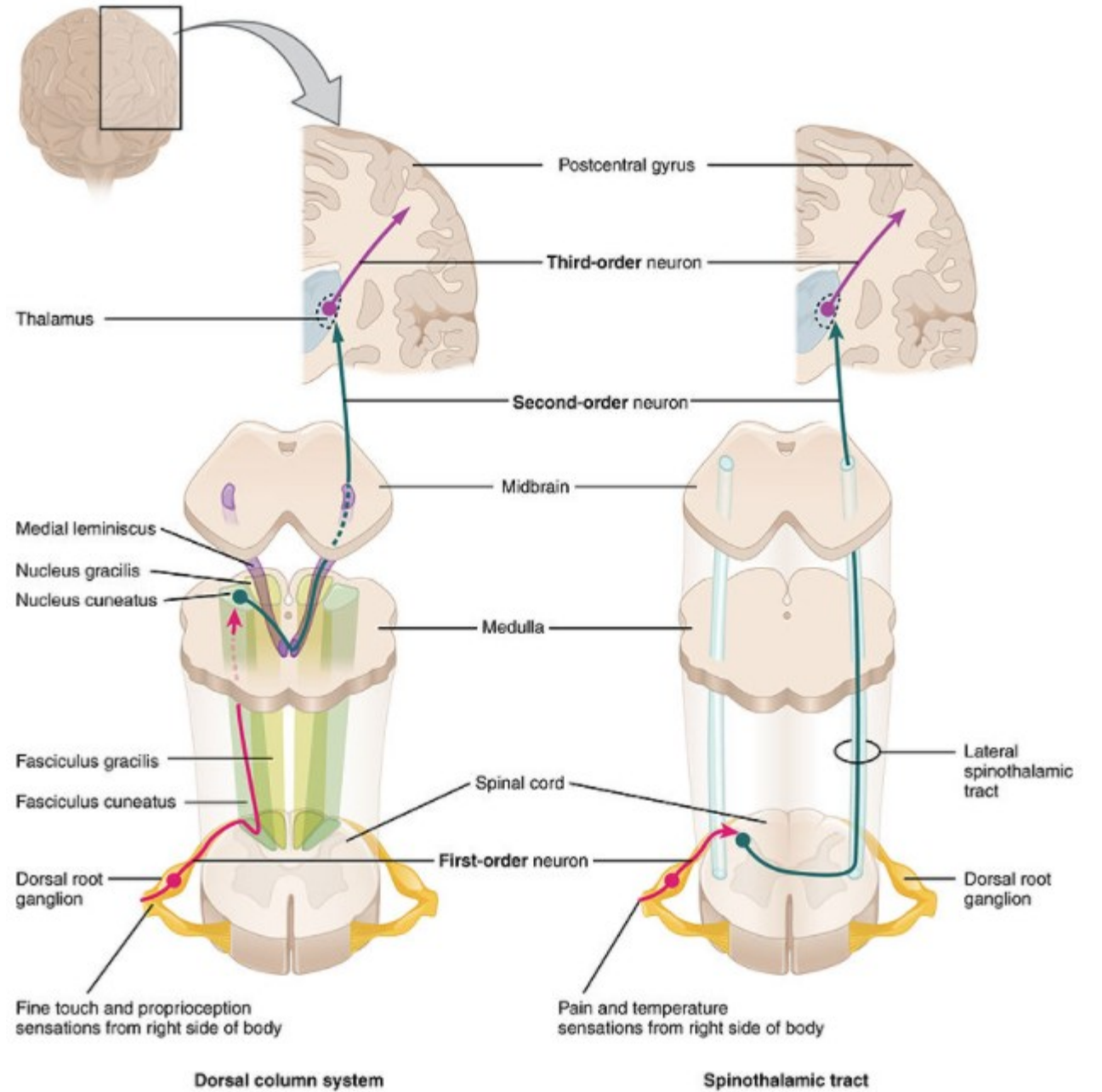
(a) The lateral corticospinal pathway

(b) The anterior corticospinal pathway

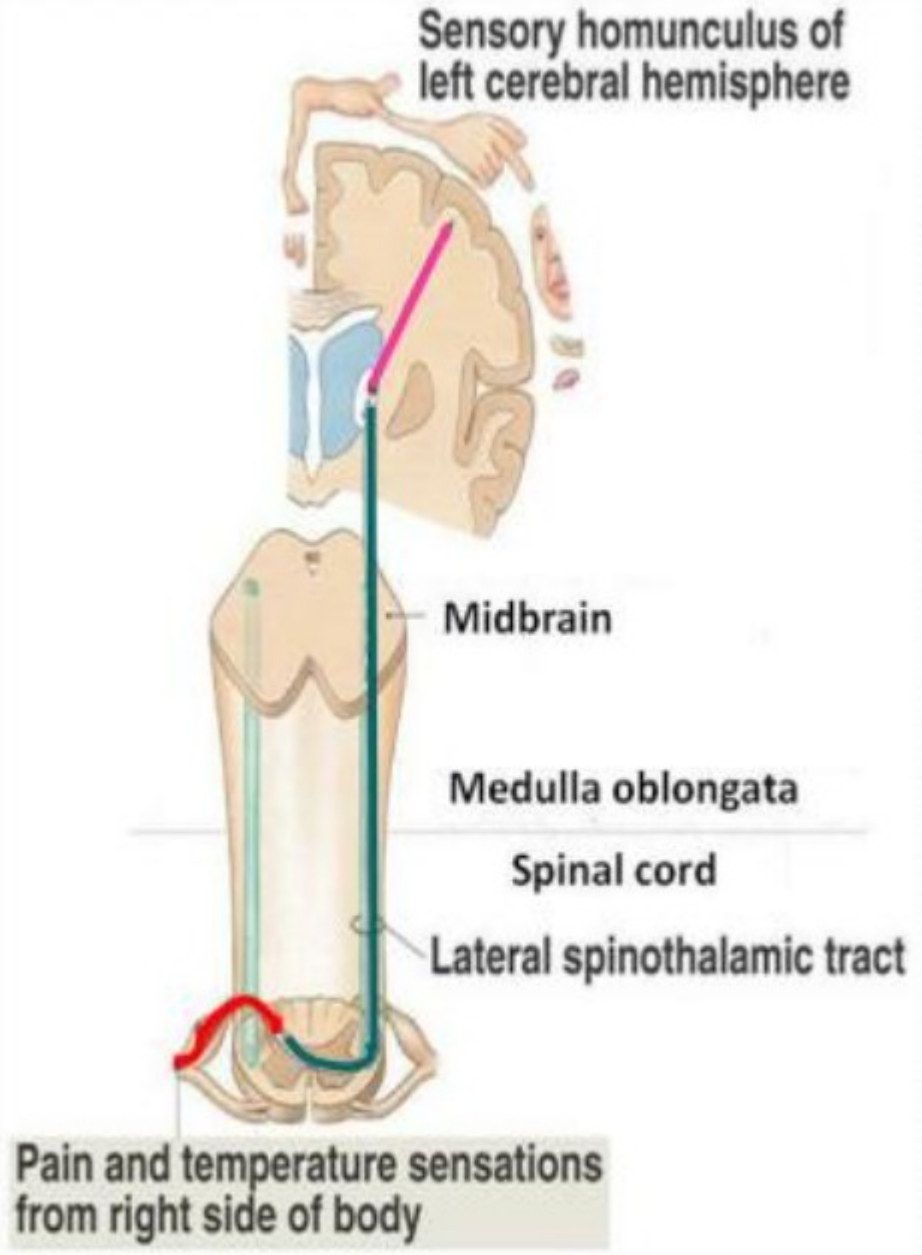
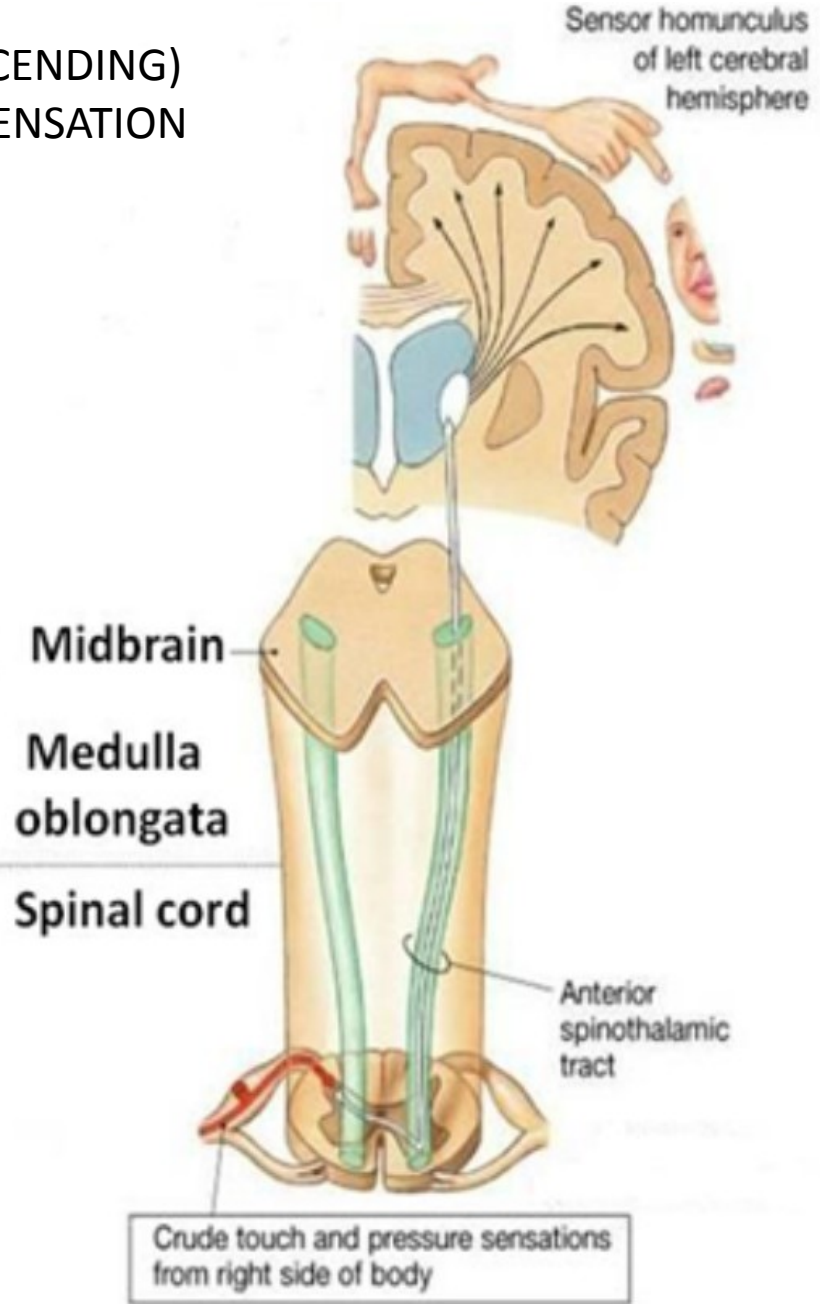
MOTOR (DESCENDING)
EXTRAPYRAMIDAL (INDIRECT)

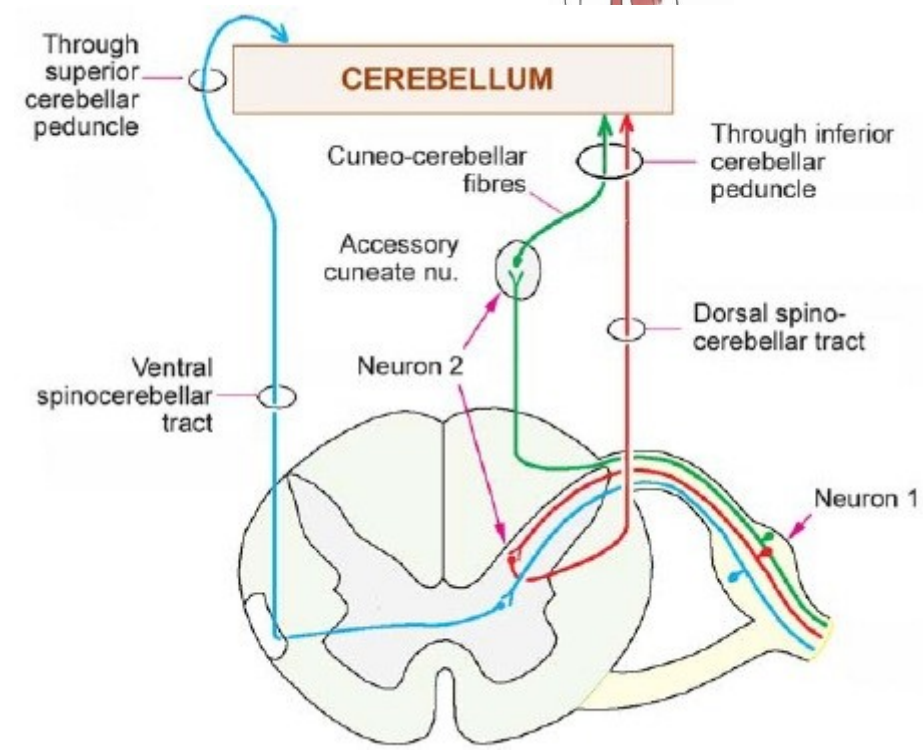
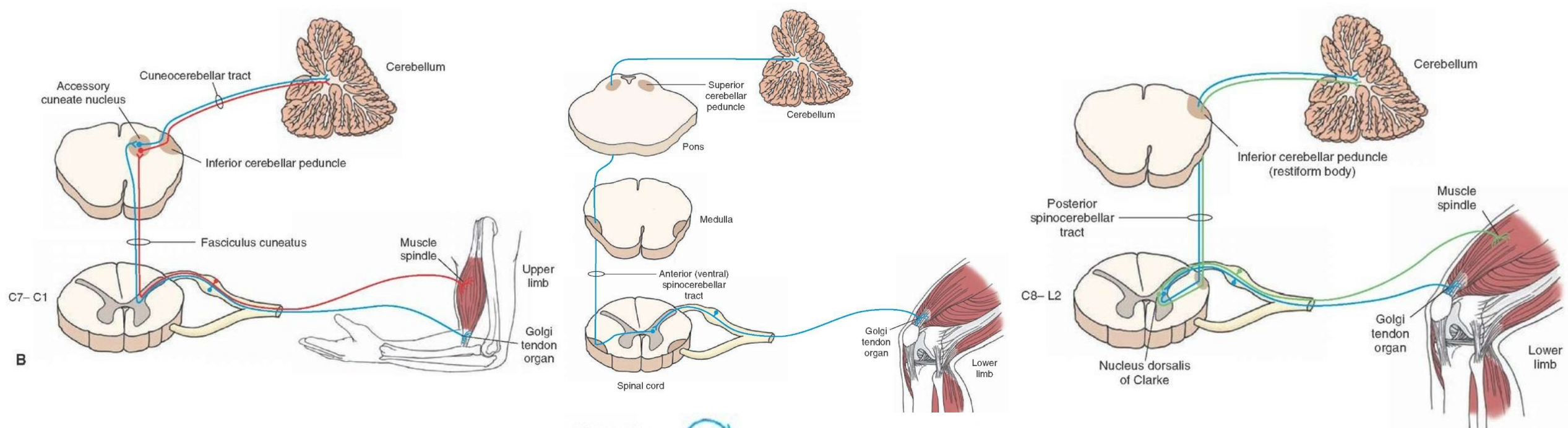


SENSORIC (ASCENDING)
EPICRITIC AND PROTOPATIC SENSATION



SENSORIC (ASCENDING)
PROTOPATIC SENSATION





**SENSORIC (ASCENDING)
PROPRIOCEPTION**