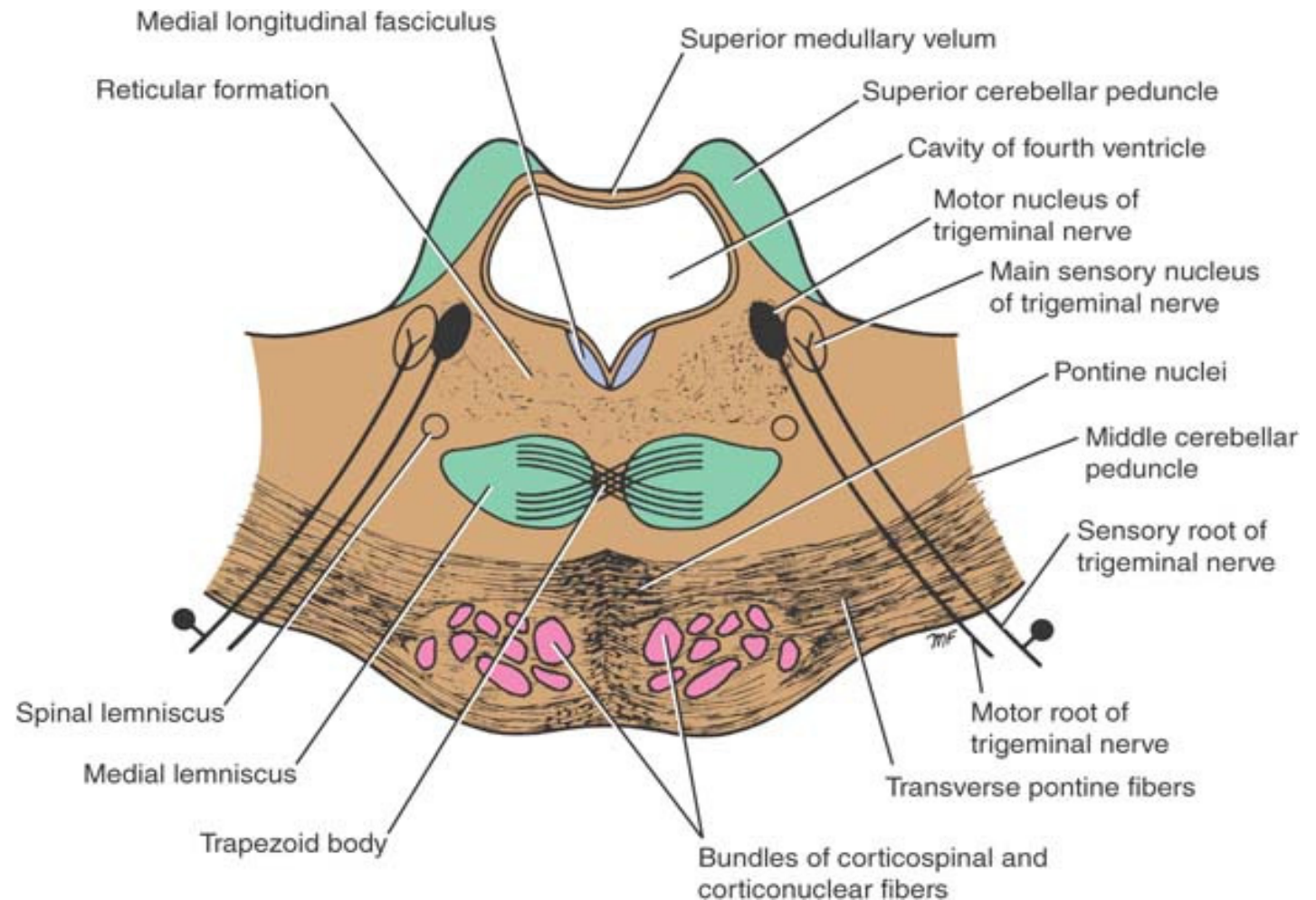
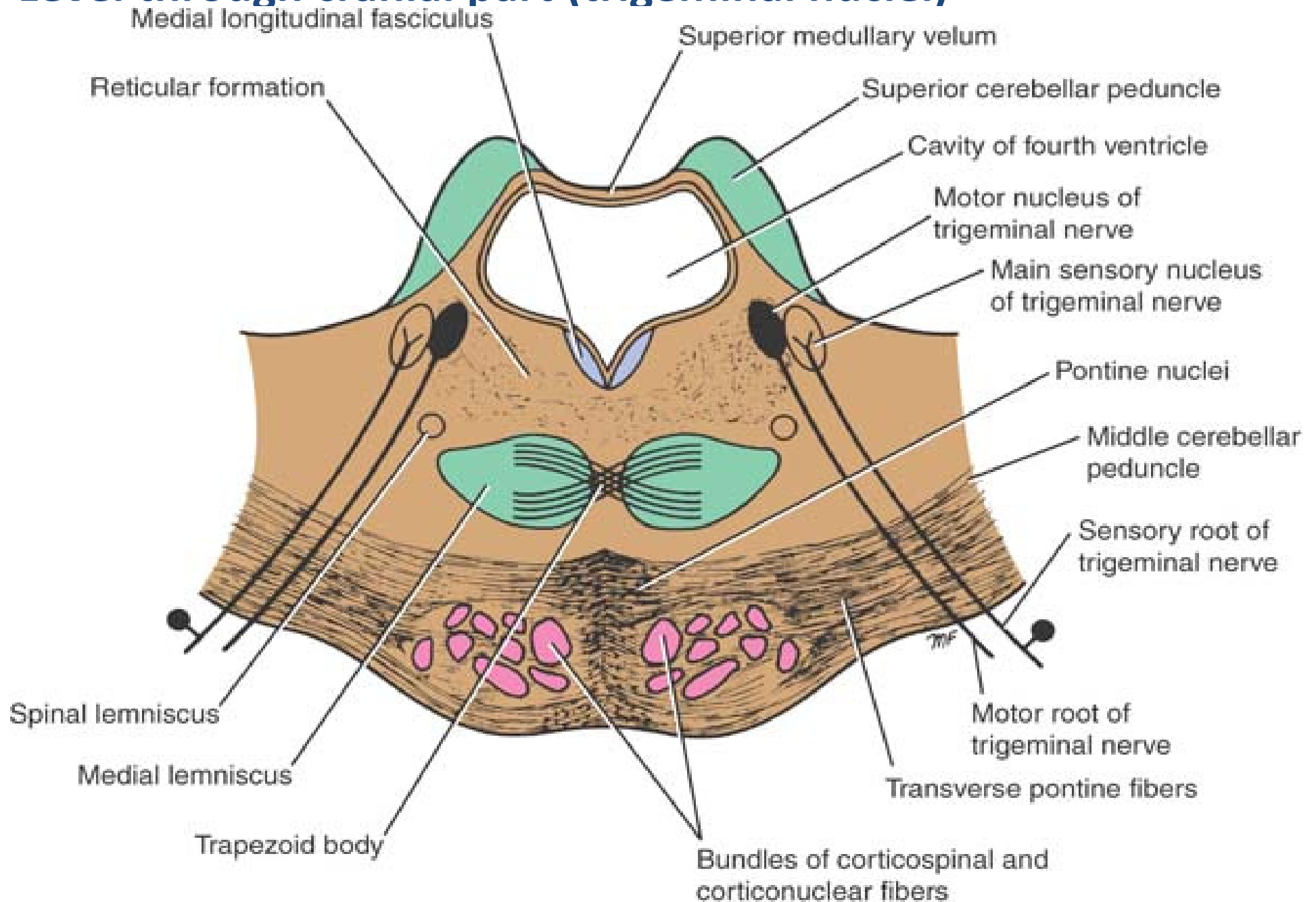


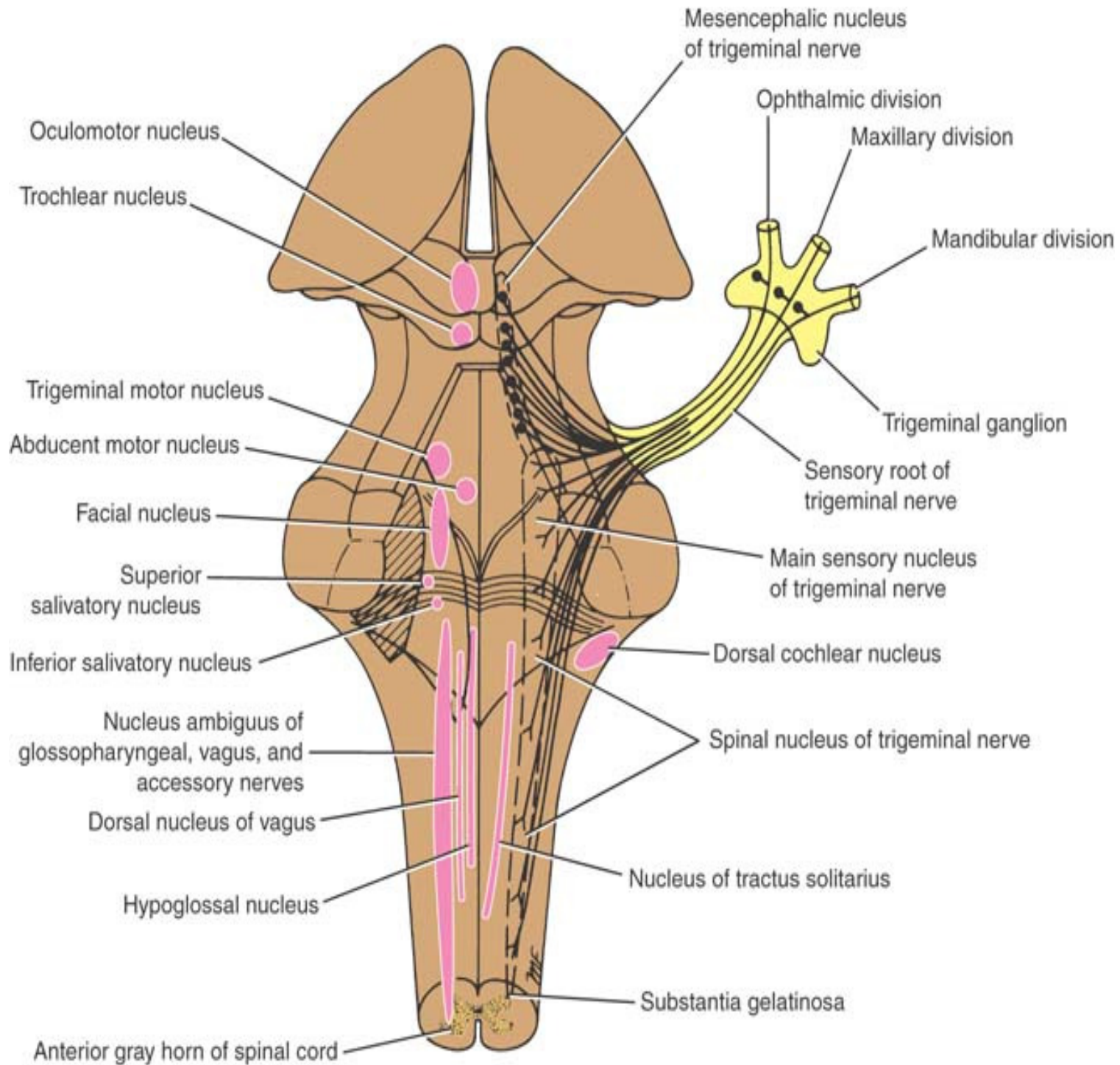
## Level through cranial part (trigeminal nuclei)

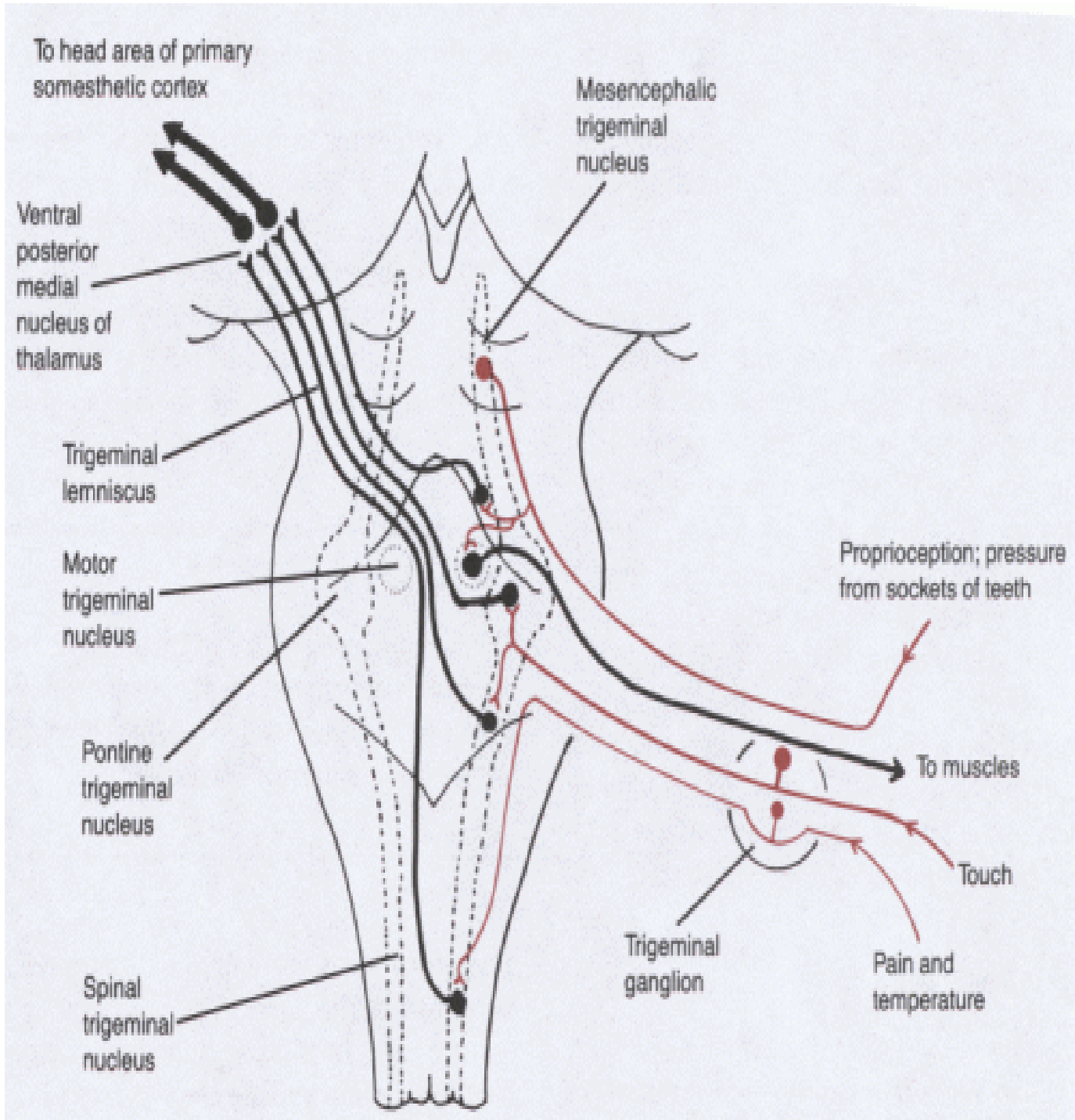
- **Motor nucleus** of trigeminal n: beneath the lateral part of the fourth ventricle within the reticular formation
- **Main Sensory nucleus** of trigeminal n (*lateral*)
- **SCP:** posterolateral to the motor nucleus of V
- **Trapezoid body**
- **Medial lemniscus**
- **Lateral lemniscus, Spinal lemniscus:** lateral extremity of the medial lemniscus



# Level through cranial part (trigeminal nuclei)

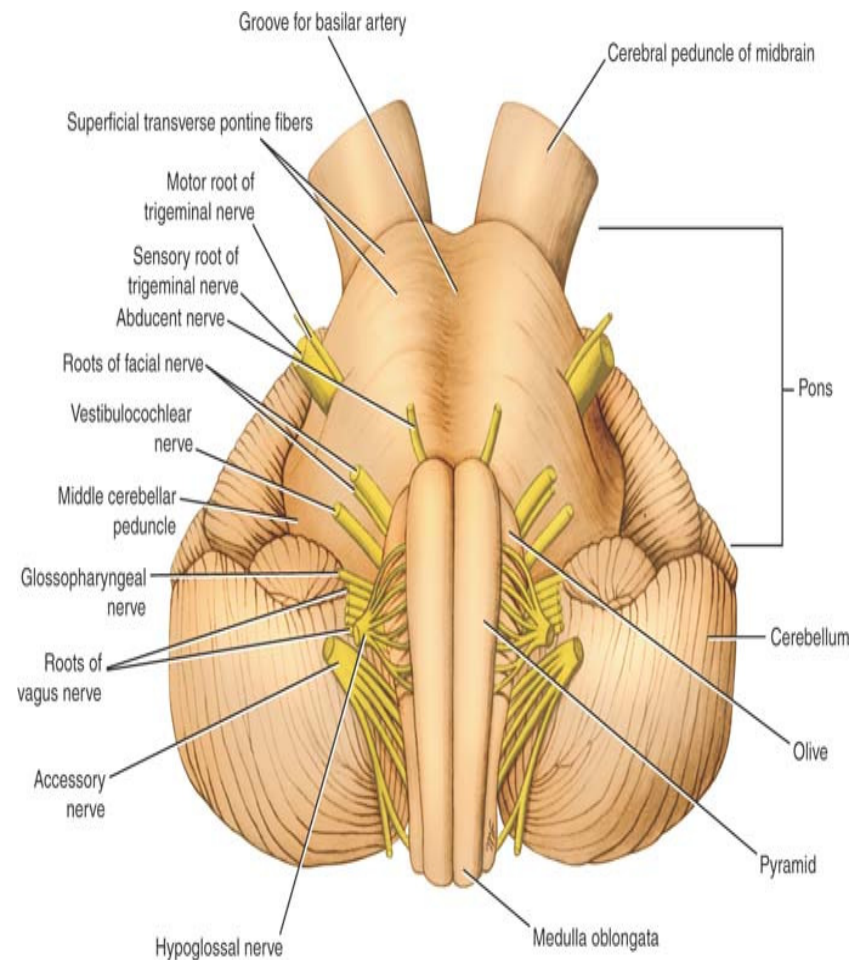




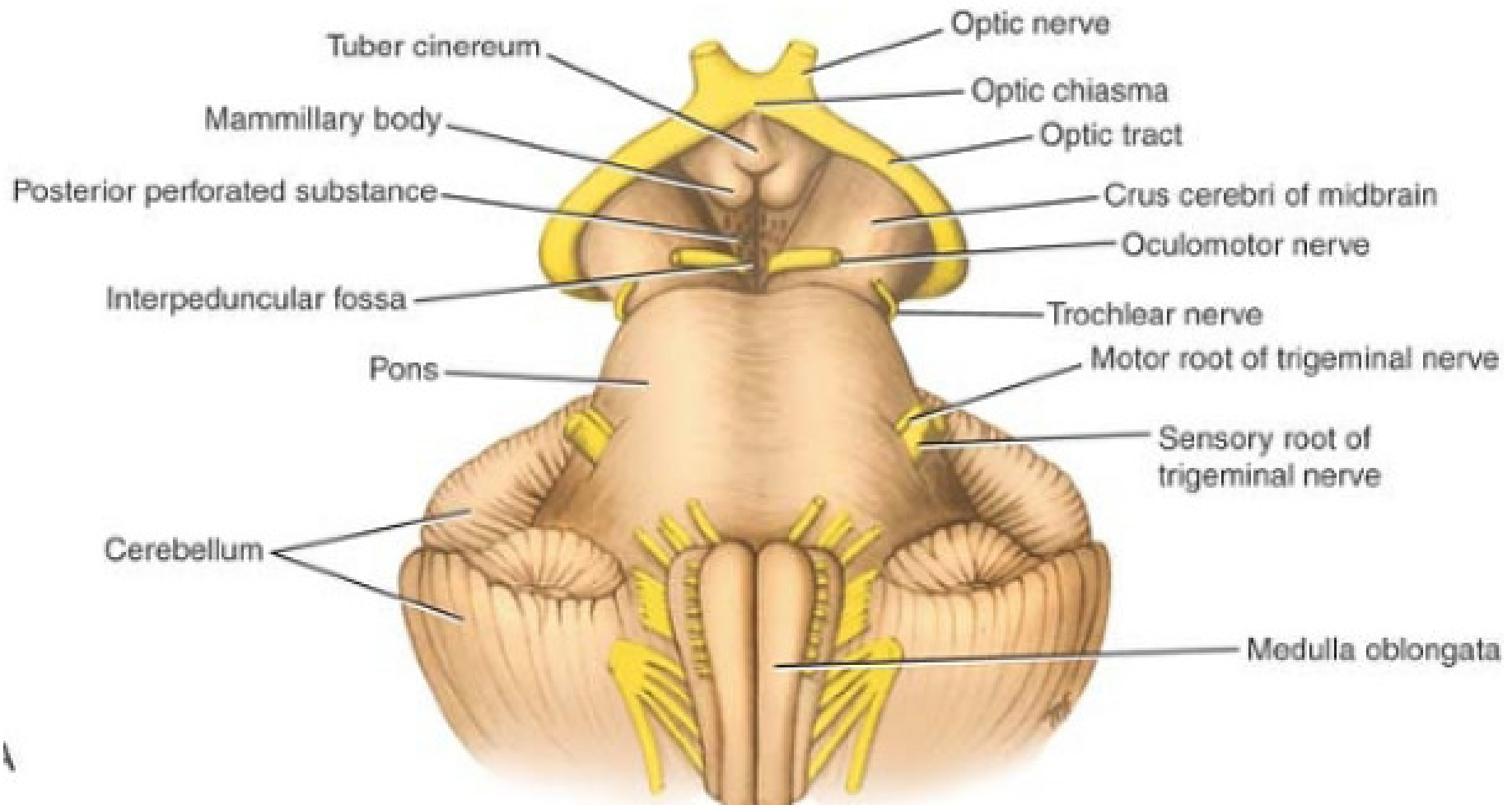


# The Brain Stem – The Midbrain

- Lies between the diencephalon and the pons
- Central cavity – the **cerebral aqueduct**
- Cerebral peduncles located on the ventral surface of the brain divided by the **substantia nigra** into:
  - **Crus cerebri: Anterior**
  - **Tegmentum: Posterior**
    - Contain pyramidal (corticospinal) tracts
- Superior cerebellar peduncles
  - Connect midbrain to the cerebellum



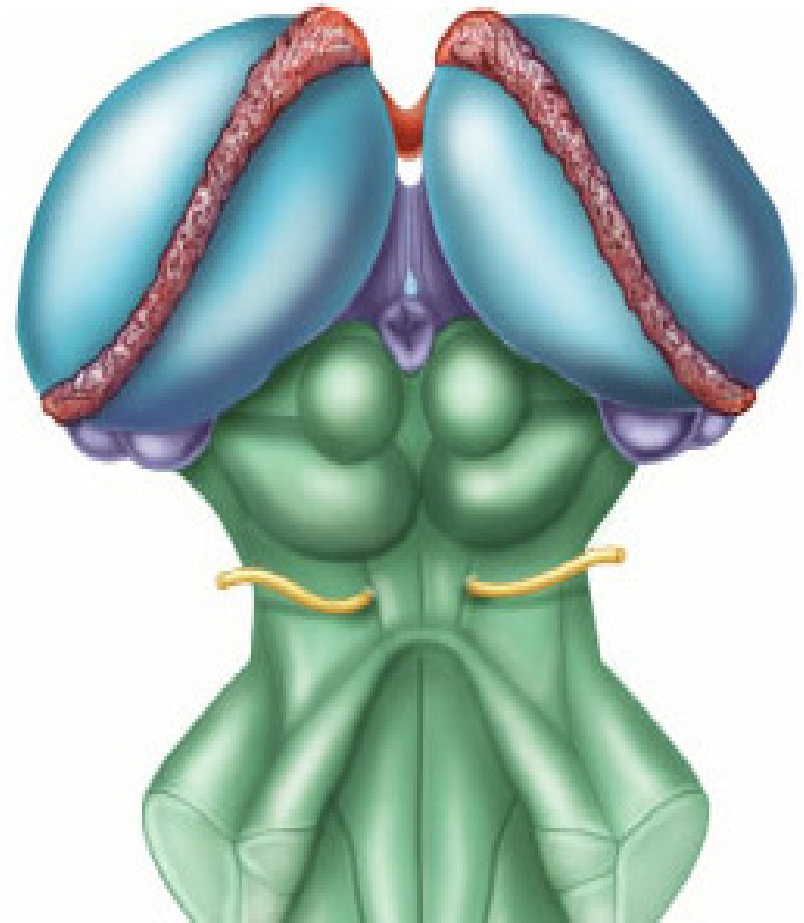
## Midbrain ant. View



- Interpeduncular fossa
- Crus cerebri
- 3<sup>rd</sup> nerve emerges from medial side of crus cerebri in the interpeduncular fossa

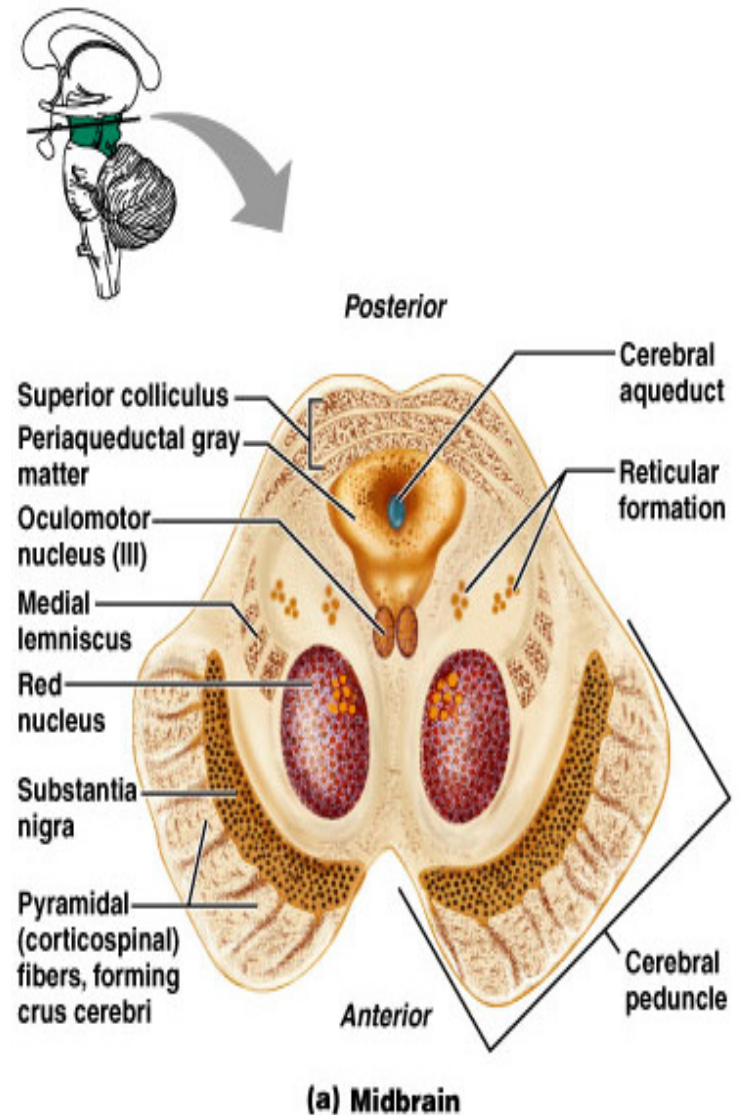
# The Midbrain-posterior view

- Corpora quadrigemina – the largest nuclei
  - Divided into the superior and inferior colliculi
    - Superior colliculi – nuclei that act in visual reflexes
    - Inferior colliculi – nuclei that act in auditory reflexes
- Trochlear nerve emerges below the level of inf. Colliculus (from posterior surface)
- Oculomotor nerve emerges at the level of sup. colliculus
- Sup.brachium (to lateral geniculate body)
- Inf. Brachium (to medial geniculate body)
- 4<sup>th</sup> emerges



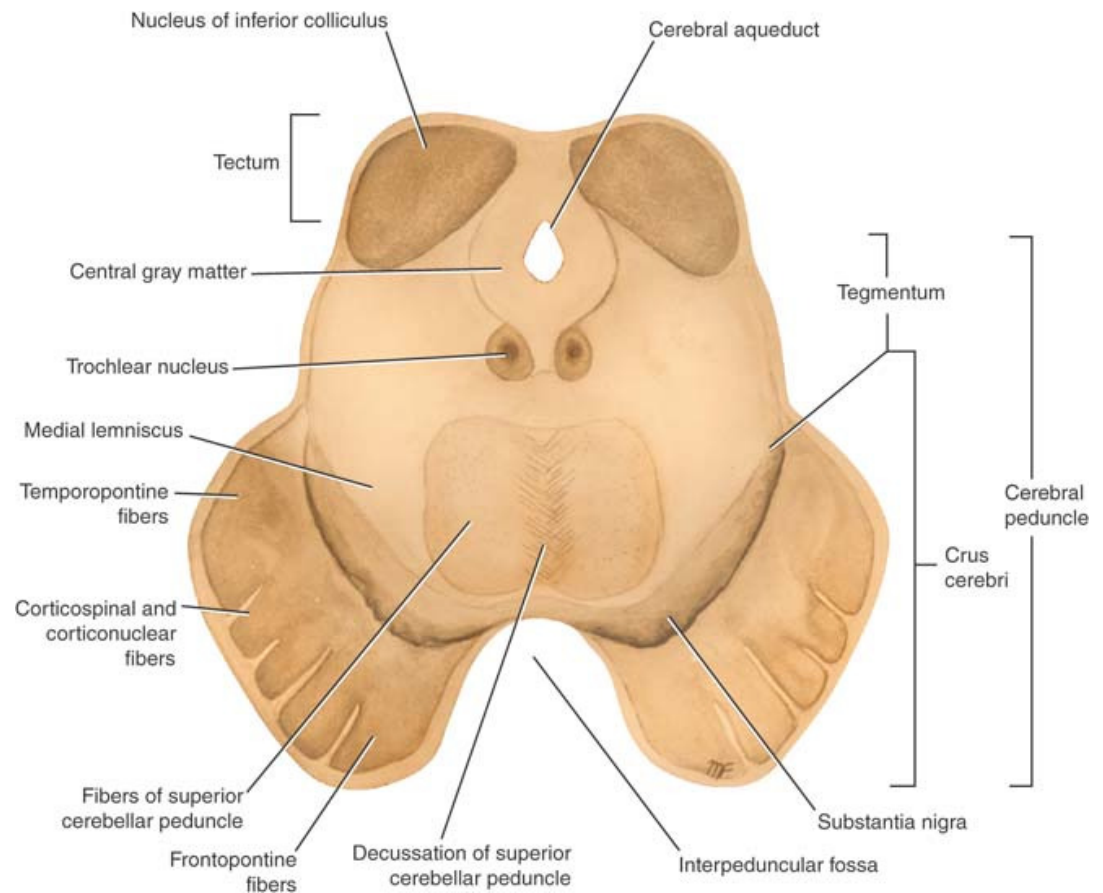
# The Brain Stem – The Midbrain

- Imbedded in the white matter of the midbrain
  - Two pigmented nuclei
    - Substantia nigra – neuronal cell bodies contain melanin
      - Functionally linked to the basal nuclei
    - Red nucleus – lies deep to the substantia nigra
      - Largest nucleus of the reticular formation





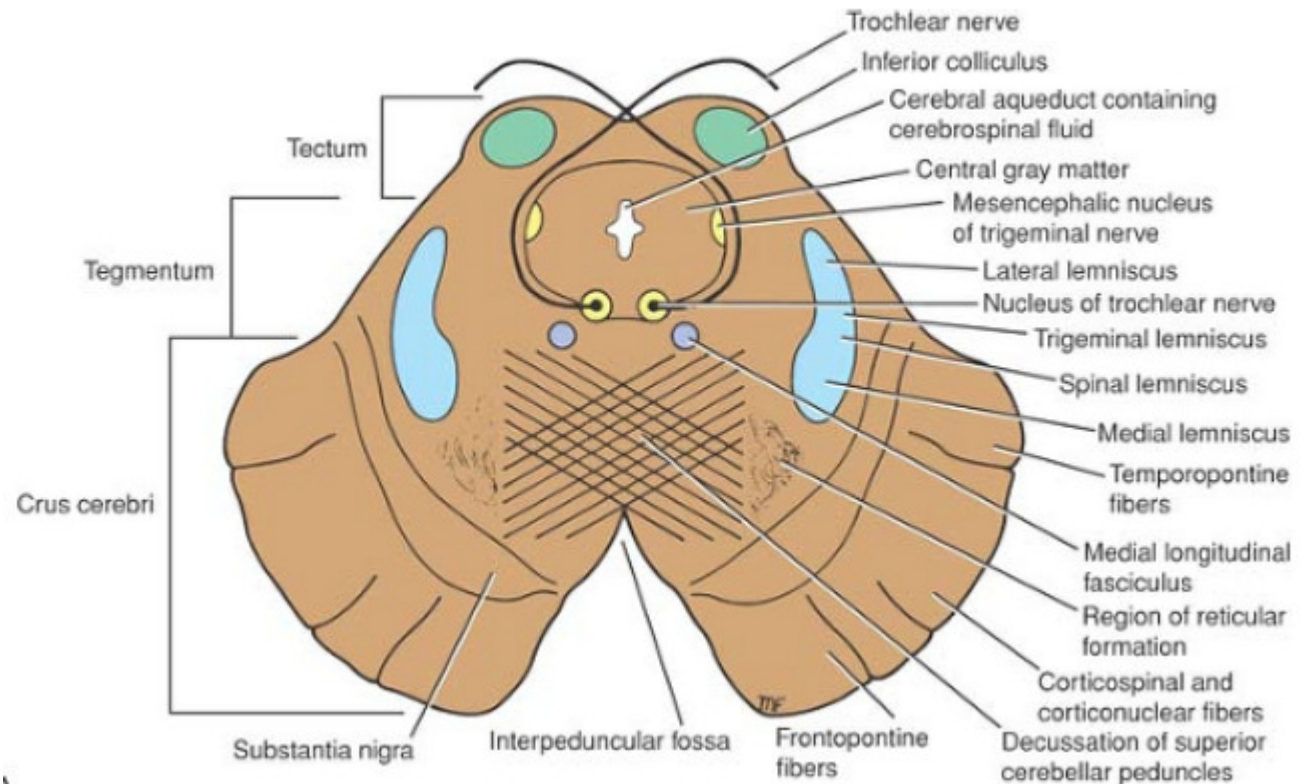
Cerebral peduncle is divided into crus cerebri (ant) & tegmentum (post)  
Tectum is post to cerebral aqueduct



*Substantia nigra is situated between the tegmentum and crus cerebri*

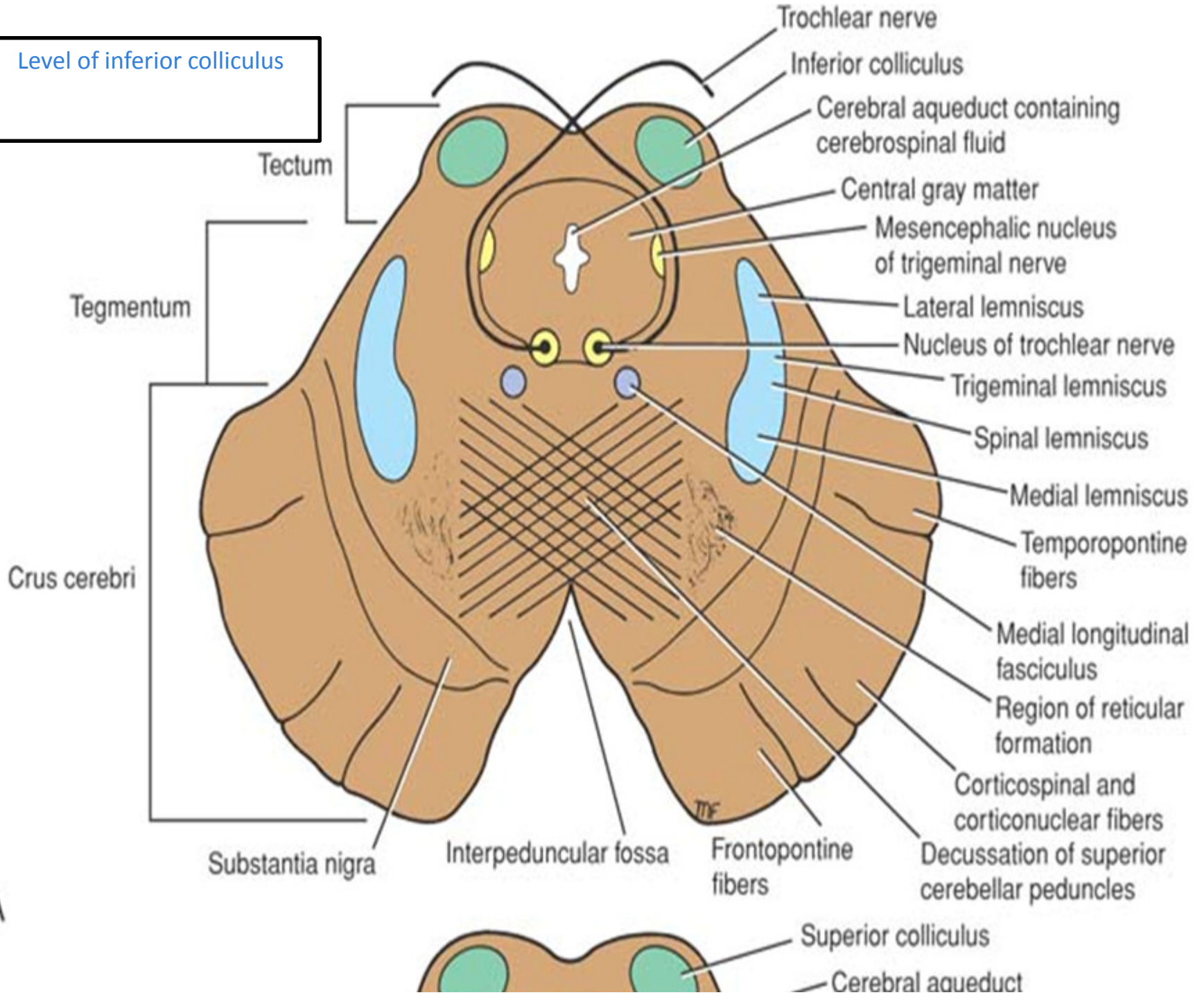
- Trochlear nucleus lies close to midline in the central gray matter (posterior to MLF)
- Trochlear nerves decussate in the superior medullary velum
- Decussation of sup. cerebellar peduncles (central part of the tegmentum anterior to the cerebral aqueduct)
- RF is lateral to decussation
- Medial, spinal, trigeminal & lateral lemnisci (Posterior to Substantia nigra)

## Level of inf. colliculus



- Substantia nigra
- Crus cerebri
- Mesencephalic nucleus of trigeminal (*lateral to cerebral aqueduct*)
- MLF

Level of inferior colliculus



A