**If there is any problem plz tell me, I will try to help .   
Revision :**

**\*Level through caudal part of pons (facial colliculus ) :**

* **U can see : 1- superior peduncle , middle peduncle and inferior peduncle .   
   2- trapezoid body : part of auditory nucleus .  
   3- MLF .  
   4- abducent nucleus “ more medial ” + facial nucleus “ lateral to Abd. Nucleus ”   
   5- Pontine nuclei and transverse fibers  
   6- Corticospinal and corticonuclear tracts  
   7- Medial leminiscus ,lateral leminiscus, spinal leminiscus  
   8- Spinal nucleus of trigeminal and its tract**

**\*Level through cranial part (trigeminal nuclei) :**

* **U can see what u see in the caudal part of pons in addition to :   
   1- Motor nucleus of trigeminal n  
   2-Main Sensory nucleus of trigeminal n (*lateral*)  
   3-SCP, MCP  
  >> the sensation that carried by trigeminal nerve is carried by 3 different nuclei :  
  1- main sensory ‘ lateral to motor nuclei ’ , it have an extension to mid brain “ to Mesencephalic nucleus ” and extension to spinal cord “ spinal trigeminal nucleus ”  
  2- motor nuclei   
  3- Spinal nucleus of trigeminal**

**Which make direct second order neuron that cross to the opposite side to form Trigeminal leminiscus   
 which end in thalamus “ leminiscus = tract found in brain stem make crossing ,end in thalamus, carry   
 sensation ” and carry sensation from the face “ all kind , pain ,temperature … ”**

**>>remember that lateral leminiscus carry hearing sensation ;fiber ascend from cochlear nuclei , fiber   
 of the 2nd order neuron will make crossing , this crossed fiber called trapezoid body complete in the   
 contralateralside then make tectum in mid brain “on the inferior colliculus ”then terminate in thalamus   
 in medial geniculate body ; this is the lateral leminiscus .**

**The midbrain :  
\*Lies between the thalamus and the pons**

**\*Tectospinal emerge from tectum that come from sup. Colleculus or inf colliculus**

**\*Colliculus : group of cell bodies make connection with nuclei in thalamus**

**\*Inf. Colliculus >> medial geniculate body**

**\*Sup. Colliculus >> lateral geniculate body**

**\*4th emerge from dorsal aspect of mid brain**

**\* substantia nigra >> mainly dark , it divide the Cerebral peduncle into anterior part crus cerebri and posterior part tegmentum .**

**>>> notice Corticospinal & corticonuclear fibers (middle) Frontopontine fibers (medial) Temporopontine fibers (lateral)**

**>> how to discriminate the level of the section ? Either Level of inf. Colliculus or Level at superior colliculus?**

**\* Because the fiber emerge from dorsal aspect of mid brain and \* the decussating fiber indicate that u r in the trochlear level. ( واحدة من ثنتين يا اما تشوف الرد نكليس وتحكم عليه انه من السوبيريور لفل اوانك تشوف الديكسيشن وهاي بتكون انفيريور لفل)**

**\*At the site of aqueduct, there id nucleus for trigeminal nerve.**

**\*U can see MLF.**

**\*Level at superior colliculus , instead of decussating fiber , 2 round nuclei will appear called red nucleus.**

**\*At lateral side of cerebral aqueduct there will be mesencephalic nucleus of trigeminal nerve .**

**\*Substantia nigra : any defect will lead to Parkinson disease during rest because Substantia nigra control muscle tone**

**and movement >>> so there will be a connection between the Substantia nigra and any structure control motor movement ( cerebral cortex, spinal cord , cerebellum , basal ganglia “it will discuss later ”**

**\*Slide 41 : blue lines and dot : sensory nuclei   
 red lines and dot : motor nuclei**

**\*Slide 42 : open medulla >> central canal opens on 4th venrtricel**

**\*Slide 46 >> through medulla >> go back to slide 42 to discriminate the structure .   
 5 >> not included**

**\* Slide 47 >> go back to 45   
 6 >> trigeminal nerve   
 2 >> occulomotor nerve   
 5 >> medial leminesus   
 4 >> corticospinal of crus cerbi  
 3 >> not included   
…..   
u should keep in ur mind what is mentioned in the “ brainstem\_sections\_pons-midbrain PPt ”   
dr said that u should keep all thing either within box or no !!**

**“Respect is a two-way street, if you want to get it, you've got to give it.”   
― R. G. Risch**