

# MEDULLA

## CAUDAL (closed)

Crossed by the Central Canal.

### Motor Decussation

= PYRAMIDAL DECUSSATION

pyramidal fibers

Direct: non cross  
form the ventral corticospinal tract.

Cross to the opposite side  
the lateral corticospinal tract.

(75-90%)

They descend in the lateral white column of the spinal cord as

Spinal Nucleus of Trigeminal (Trigeminal sensory nucleus)\*:

### Nucleus

- large sensory nucleus
- brain stem

Substantia Gelatinosa of spinal cord

### The Nucleus Extends:

- Through the whole length of the brain stem and into upper segments of spinal cord.
- It lies in all levels of M.O, medial to the spinal tract of the trigeminal.

### tract

- in all levels of M.O
- is formed of descending fibers that terminate in the trigeminal nucleus.

## MID MEDULLA

- ❖ Traversed by Central Canal.
- ❖ Larger size Gracile & Cuneate nuclei.
- ❖ Axons of Gracile & Cuneate nuclei form the **arcuate fibers; Sensory Decussation.**
- ❖ Pyramids are prominent ventrally.

### Medial Lemniscus

Lies adjacent to the middle line ventral to the central canal

Terminates in thalamus.

## ROSTRAL (open)

### On the ventral aspect

The pyramid is clear, with medial lemniscus on either sides of middle line dorsal to the pyramid

Inferior Olivary Nucleus:

- \* gray matter.
- \* posterolateral to pyramids
- \* lateral † medial lemniscus

### Its dorsal surface forms:

Lower part of the floor of the 4<sup>th</sup> ventricle.

The Inferior Cerebellar Peduncle is connecting M.O. with cerebellum. (dorsal and ventral) to the Inferior cerebellar peduncle lie the Cochlear nuclei

Beneath the floor of 4<sup>th</sup> ventricle lie:

5. Nucleus Ambiguus: (motor nucleus): 9, 10

\* glossopharyngeal N. vagus N.  
† dorsal to olivary nucleus

6. Solitary nucleus (sensory nucleus): lies ventrolateral to dorsal nucleus of vagus.

2. Dorsal Nucleus of Vagus lateral to the hypoglossal nucleus.

1. Hypoglossal Nucleus.

3. Medial longitudinal fasciculus, it is important association tract, lies close to the midline, ventromedial to the hypoglossal nucleus.

4. Vestibular nuclei complex

7. Tectospinal tract: between tectum of midbrain and spinal cord (involved in head movements during visual and auditory tracking).