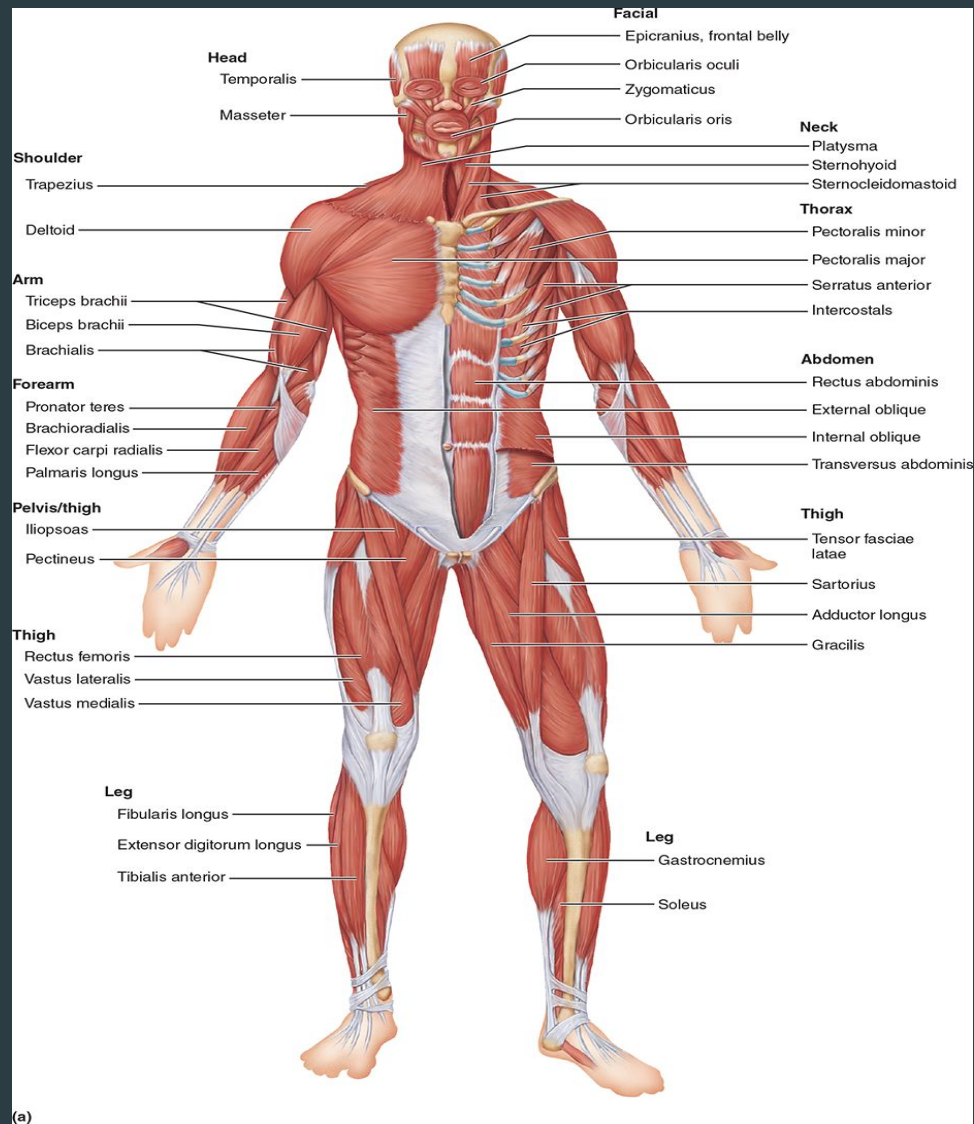


Motor System-I

Dr.R.S.Inamdar

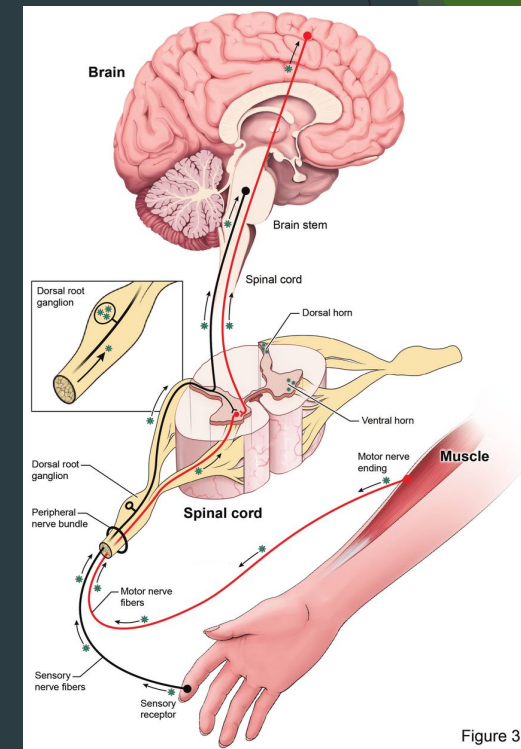
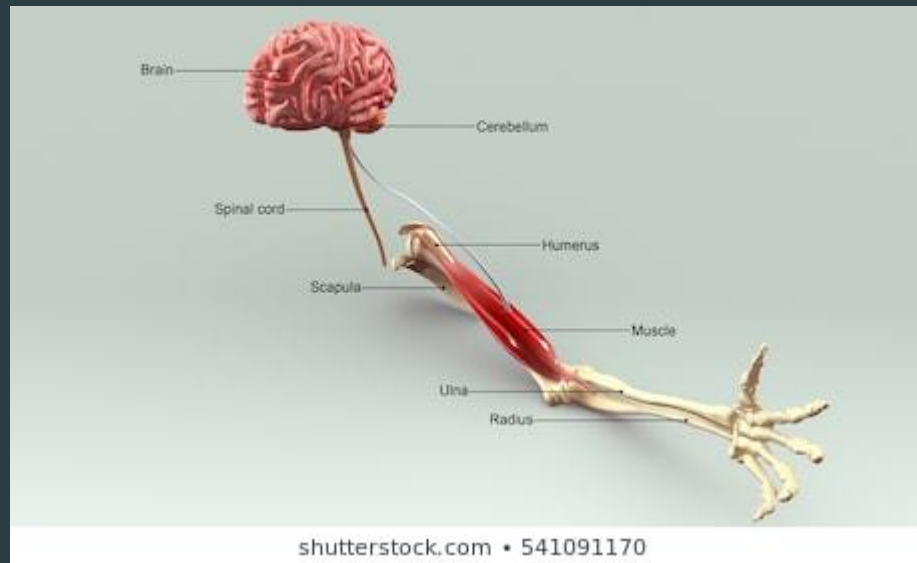
Motor System & Motor Tracts



What is Motor Activity ?

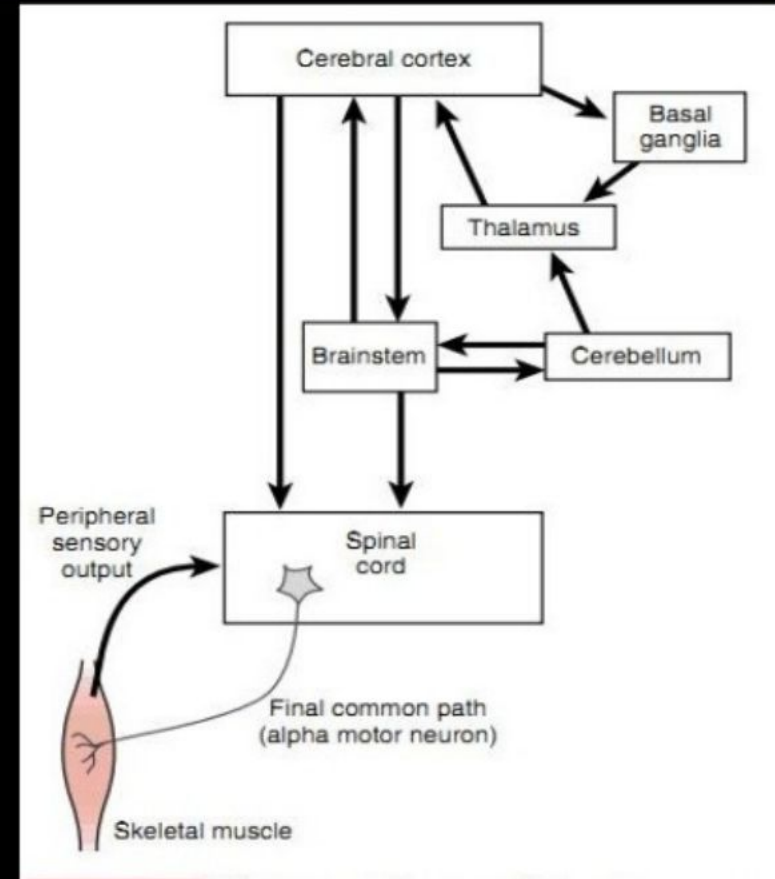


Effector organ of Somatic Motor Activity-**Skeletal Muscle**



CONTROL OF SOMATIC MOTOR ACTIVITY.

- **3 Tier System** to control.
- **Highest level** – Cerebral Cortex for generation of ideas & giving motor commands.
- **Middle level** – for Supervising.
- **Lower level** – for Execution.



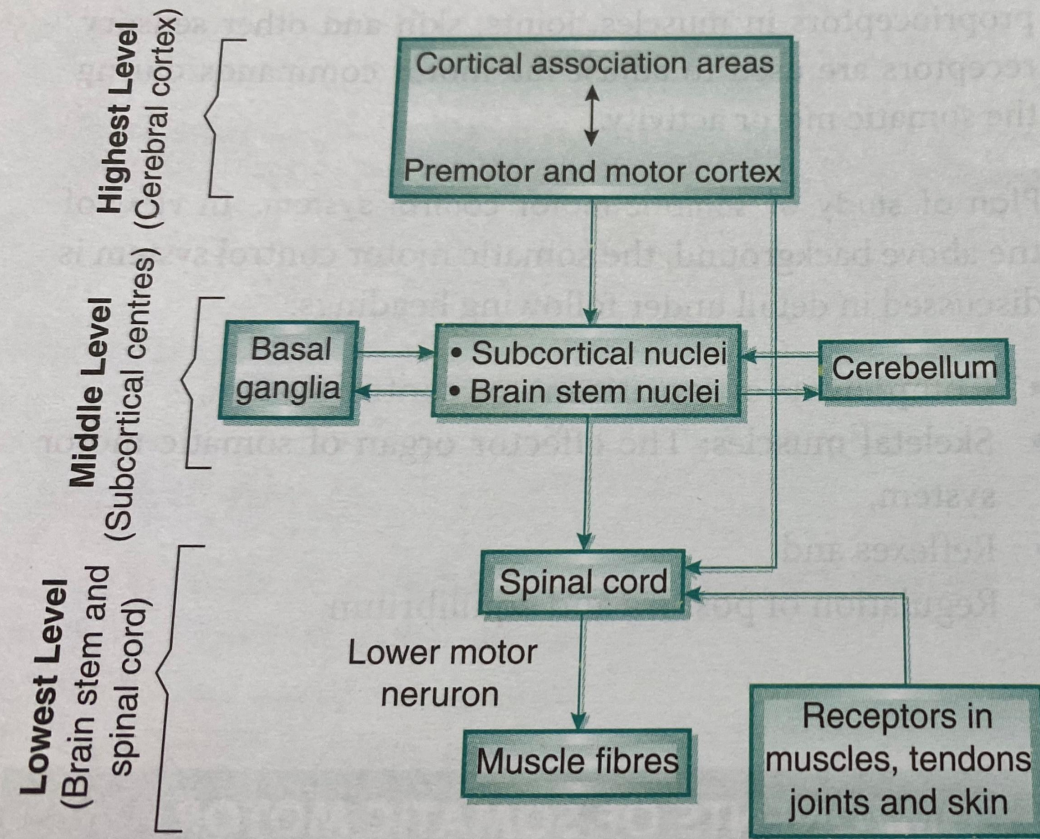
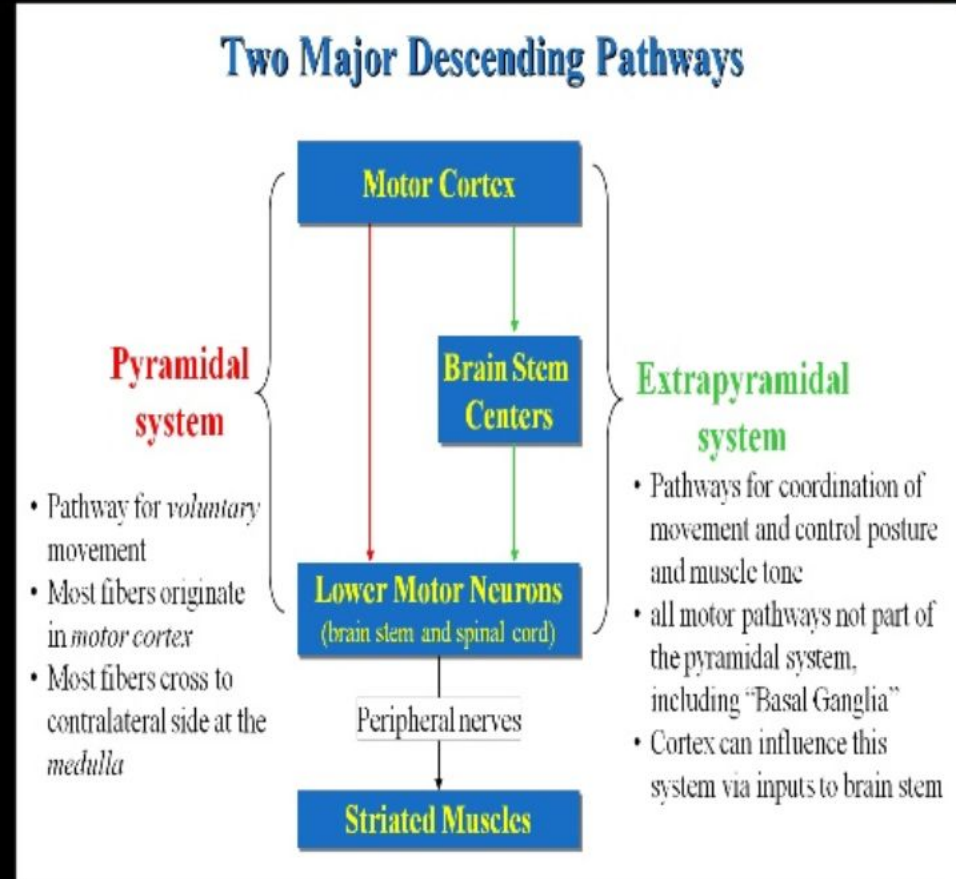


Fig. 10.9-1 Integration of highest, middle and lowest level of somatic motor control system.

DESCENDING MOTOR PATHWAYS FROM MOTOR CORTEX.

- **Pyramidal tracts**
- **Extra-pyramidal tracts**



Classification of descending motor systems

- ❑ The descending motor pathways have commonly been divided into “*pyramidal*” and “*extrapyramidal*” tracts.
- ❑ This classification is based on the finding that the motor tract which originates from the cerebral cortex and descends to the spinal cord (the corticospinal tract) passes through the pyramids of the medulla, and therefore has been called the “*the pyramidal tract*”.
- ❑ The rest of the descending motor pathways do not travel through the medullary pyramids, and are therefore collectively gathered under the heading: “*the extrapyramidal tracts*”.

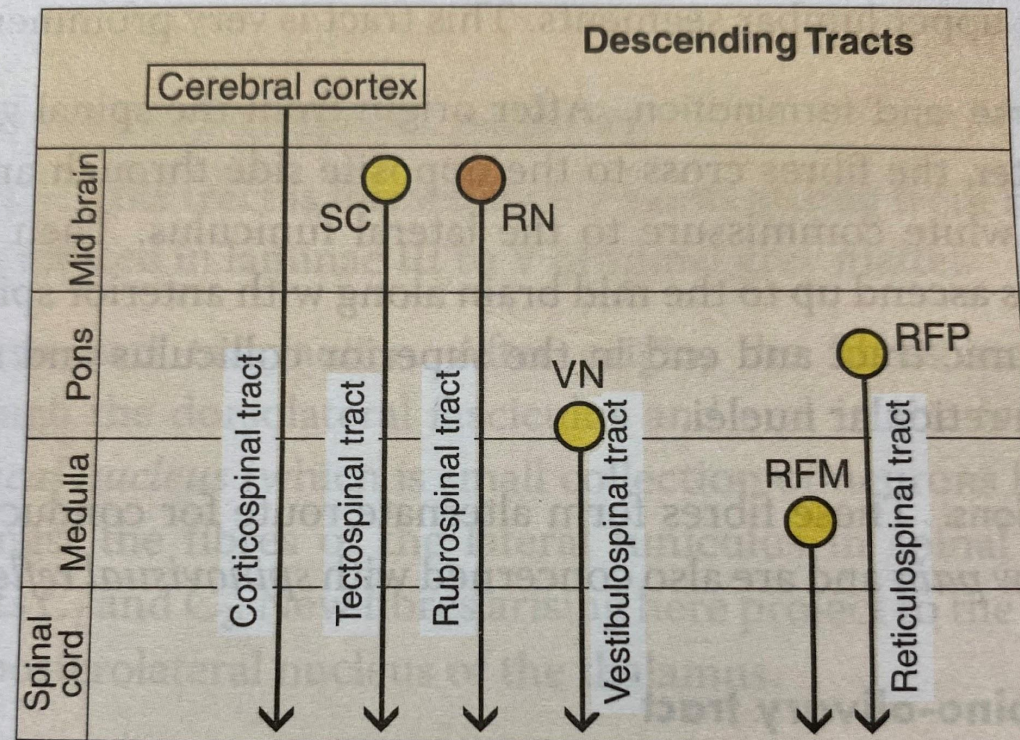


Fig. 10.1-13 Schematic drawing to show the various descending tracts ending in the spinal cord and brain stem. (SC = Superior colliculus; RN = red nucleus; VN = vestibular nucleus, RFP = reticular formation of pons; RFM = reticular formation of medulla.)

□ *There are five important sets of descending motor tracts, named according to the origin of their cell bodies and their final destination:*

- 1) the **corticobulbospinal tract**, (= **Pyramidal tract**)
 - 2) the **rubrospinal tract**,
 - 3) the **reticulospinal tracts**,
 - 4) the **vestibulospinal tracts**, and
 - 5) the **tectospinal tract**.
- } **Extrapyramidal tracts**

CRITERIA TO DESCRIBE TRACTS

- **Synonyms**
- **Origin**
- **Course**
- **Crossing**
- **Termination.**
- **Function.**
- **Applied physiology.**

