

# Extrapyramidal Motor System

## Function = Motor Programming

subconscious patterns of movement  
that occur when carrying out  
Learned/skilled Movements

- \* "smoothly orchestrated movement"
- \* "refining Motor data"

### Major Nuclei

#### ① Basal Ganglia

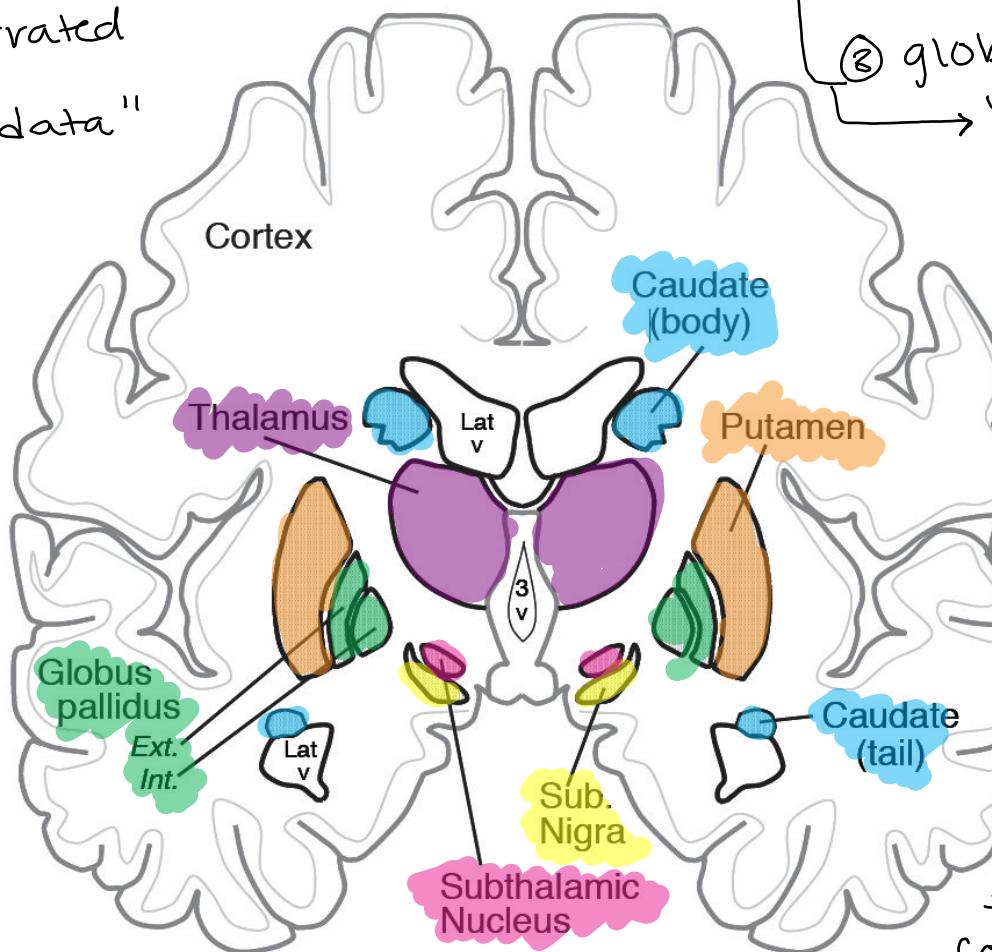
- A. caudate
- B. putamen
- C. globus pallidus
  - Gpi
  - GPe

#### ② Subthalamic Nucleus

#### ③ Substantia Nigra

### Subthalamic Nucleus

- sends excitatory projections to Gpi



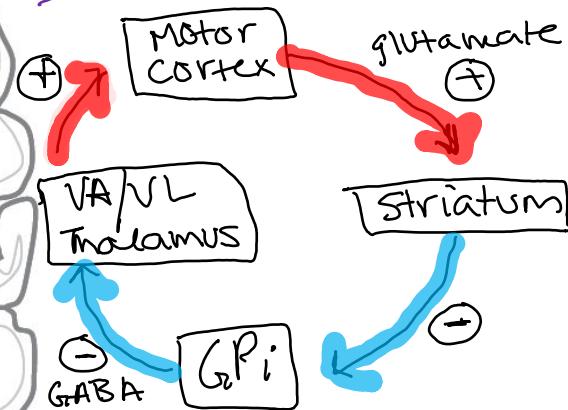
- ### Substantia Nigra
- located in Midbrain
  - contains Melanin
  - releases dopamine

### Basal Ganglia

- ① Caudate
  - ② Putamen
  - ③ globus Pallidus
- "lentiform Nucleus"

"Direct"

### EPS Pathway



\* Overall effect is to increase excitatory thalamic input to the cortex which facilitates normal movement

### \* The Indirect Pathway

decreases excitatory drives & thus balances the excitatory input to facilitate Normal Movement