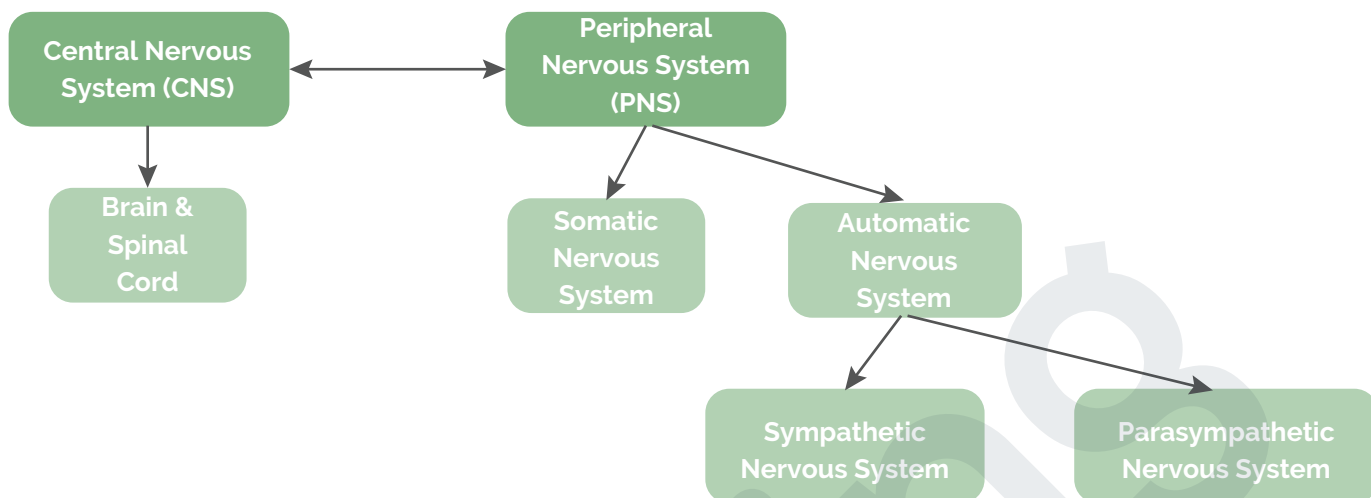


# NERVOUS SYSTEM ANATOMY



## Nervous System Divisions

### Central Nervous System (CNS)

- Contains brain and spinal cord

### Peripheral Nervous System (PNS)

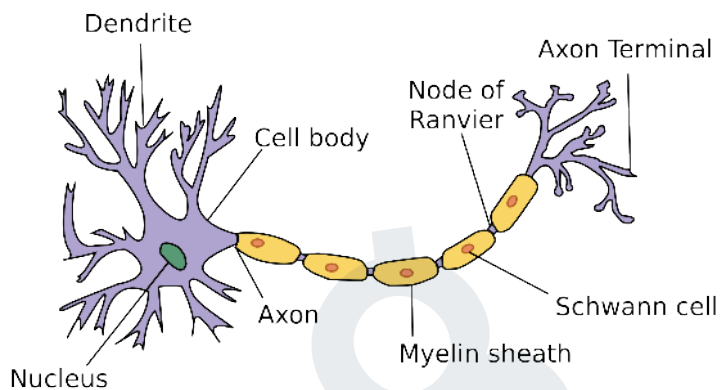
- Somatic Nervous System
  - Skeletal muscle contraction
- Autonomic Nervous System
  - Internal organs
  - Sympathetic Nervous System - *Fight or Flight*
  - Parasympathetic Nervous System - *Rest & Digest*

# NERVOUS SYSTEM ANATOMY

## Neuron Anatomy

### Neuron

- Cannot divide
- Basic unit of the nervous system
  - Dendrite
    - Receives action potential from other neurons
    - Sends action potential to cell body
  - Cell body
    - Location of nucleus and metabolic activity
  - Axon
    - Long fiber that terminates at the axon terminal
  - Axon terminal
    - Transmits action potential to receiving cell via neurotransmitters
- Glial Cell
  - More numerous
  - Have the ability to divide



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## Glial Cells

### Oligodendrocyte

- Produces myelin sheaths in the CNS

### Microglia

- Destroys bacteria and damaged tissue

### Astrocytes

- Attaches to neuron and capillaries (creates the blood brain barrier)

### Ependymal cells

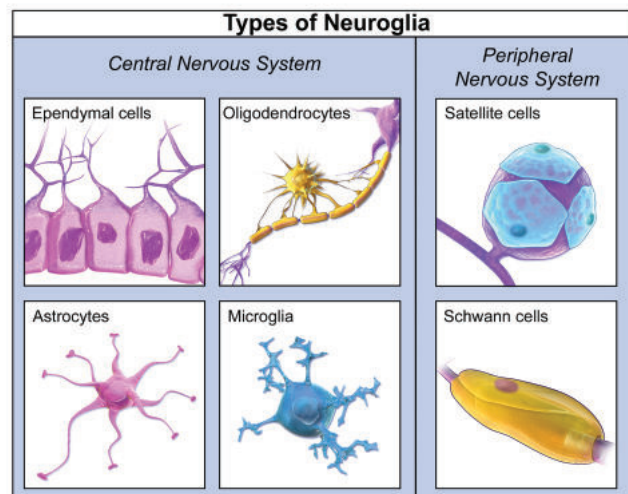
- Creates Cerebrospinal Fluid (CSF)

### Satellite Cells

- Cover neural cell bodies in sensory, sympathetic, and parasympathetic ganglia and regulates the environment

### Schwann Cells

- Creates myelin (insulator) and increases speed of action potential)



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