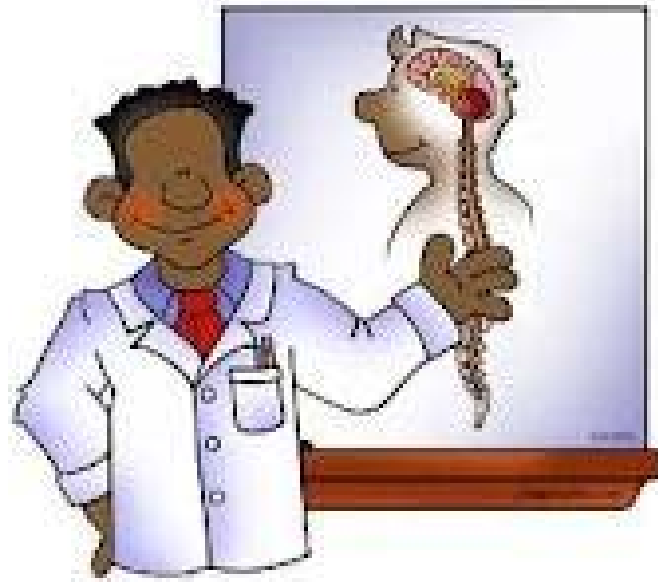


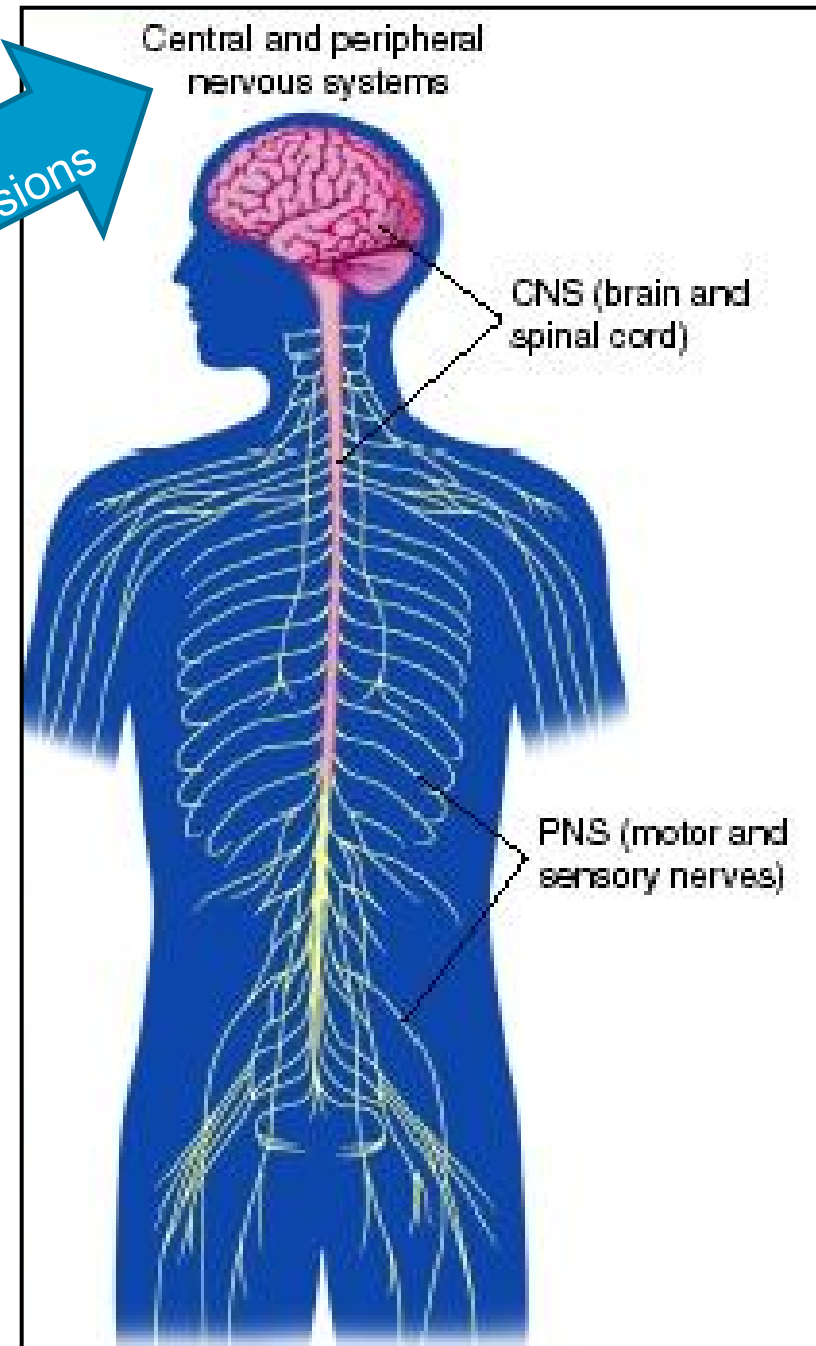
The Importance of the Nervous System



Purpose:

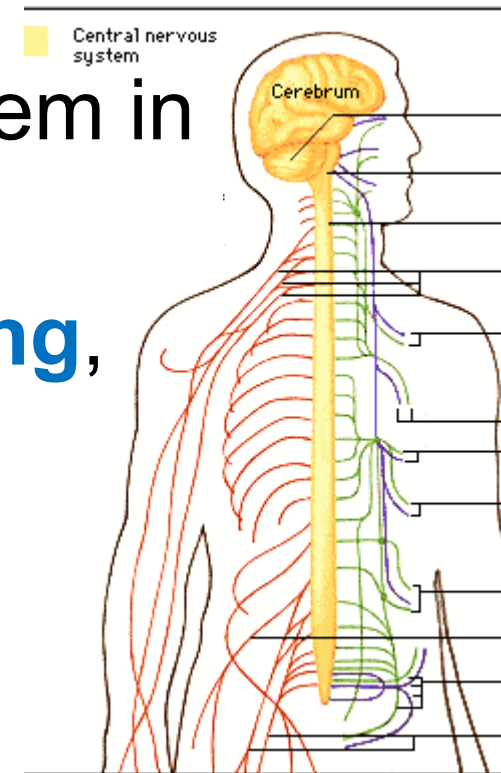
- Response to **change**
- High speed **communication** system
- Adjustments via **electrochemical** messages or **hormones**.

2 Divisions



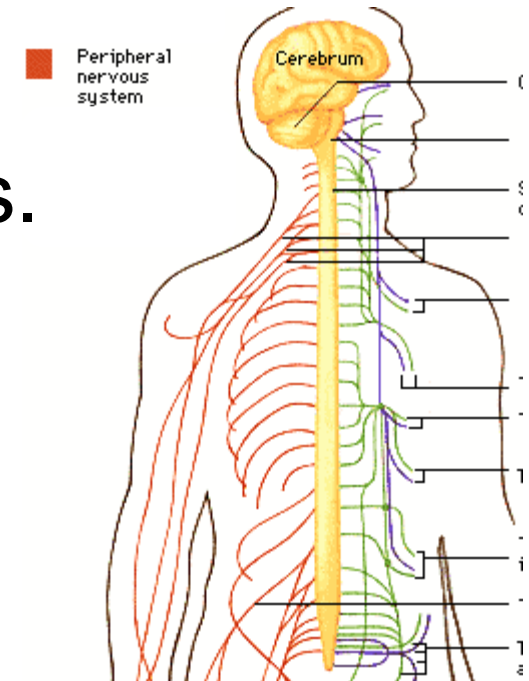
Central Nervous System (CNS)

- Nerves of the **brain** & **spinal cord**.
- Most cells of nervous system in CNS
- Responsible for **processing**, **storage**, and retrieval of information
- **Coordinates** incoming & outgoing information



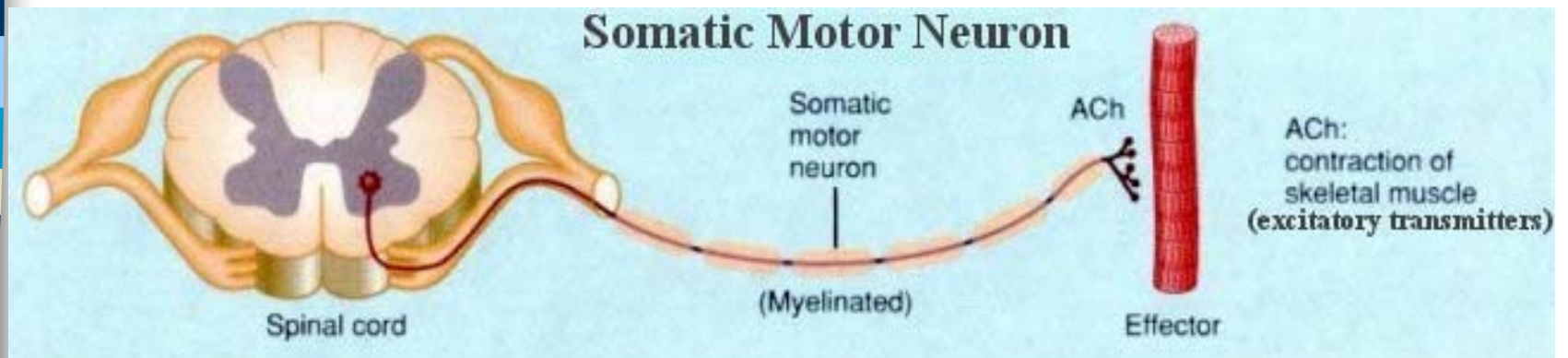
Peripheral Nervous System (PNS)

- Neurons that extend or reside **outside** the brain & spinal cord
- Transmission of information from **sensors** to **CNS** and from **CNS** to the **body**
- Information **between** organs.
- 2 major divisions:
 - **Somatic**
 - **Autonomic**



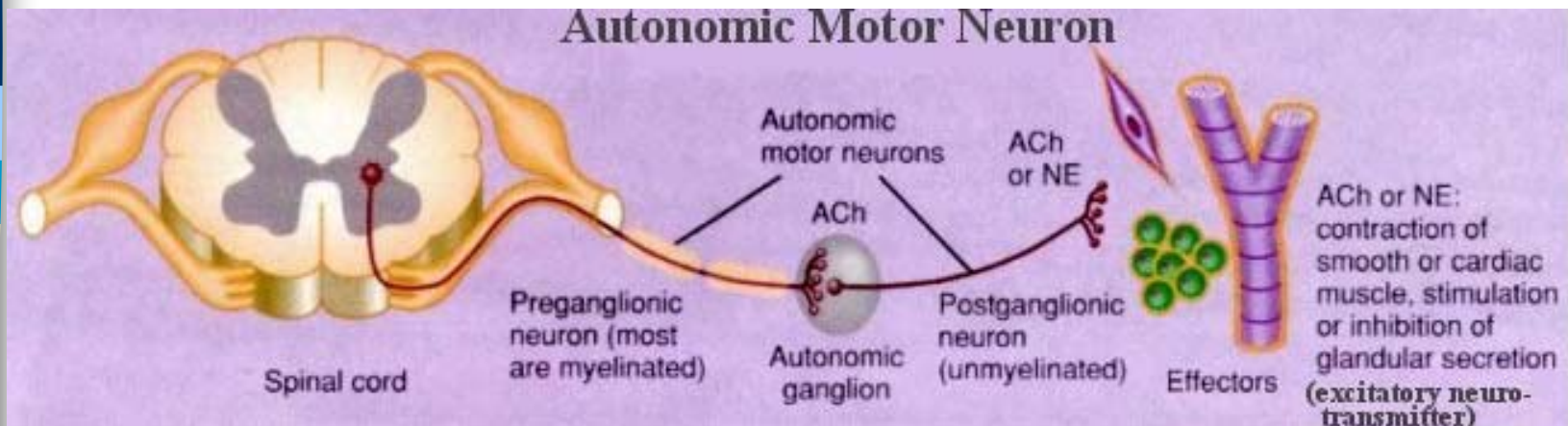
PNS - Somatic Nervous System

- Controls **VOLUNTARY** movements of skeletal muscle, bones & skin.
- **Sensory nerves** – carry information **towards** CNS
- **Motor nerves** – initiate **responses** & carry information **away** from CNS



PNS - Autonomic Nervous System

- Controls **INVOLUNTARY** or automatic body activities
- Controls **internal** organs – heart, lungs, intestines.....
- Includes **sympathetic & parasympathetic nervous system.**



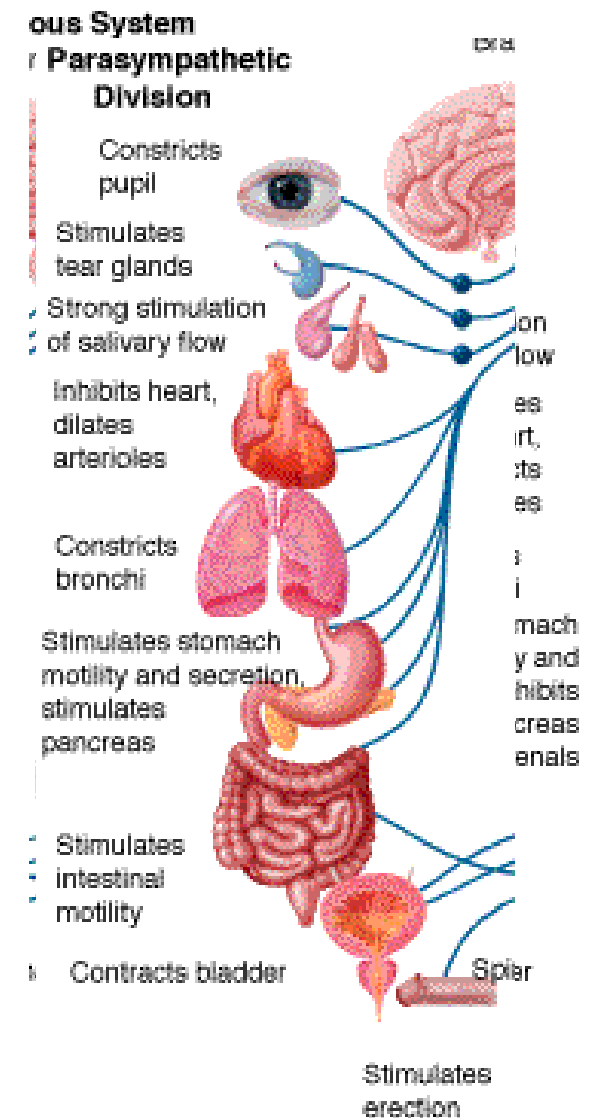
2 Divisions of Autonomic System

Sympathetic:

- **Stress** responses
- Ex. ↑ heart rate, dilate pupils

Parasympathetic:

- **Involuntary** actions under normal conditions
- Ex. stimulates stomach, slows heart rate



2 Divisions within Autonomic System

