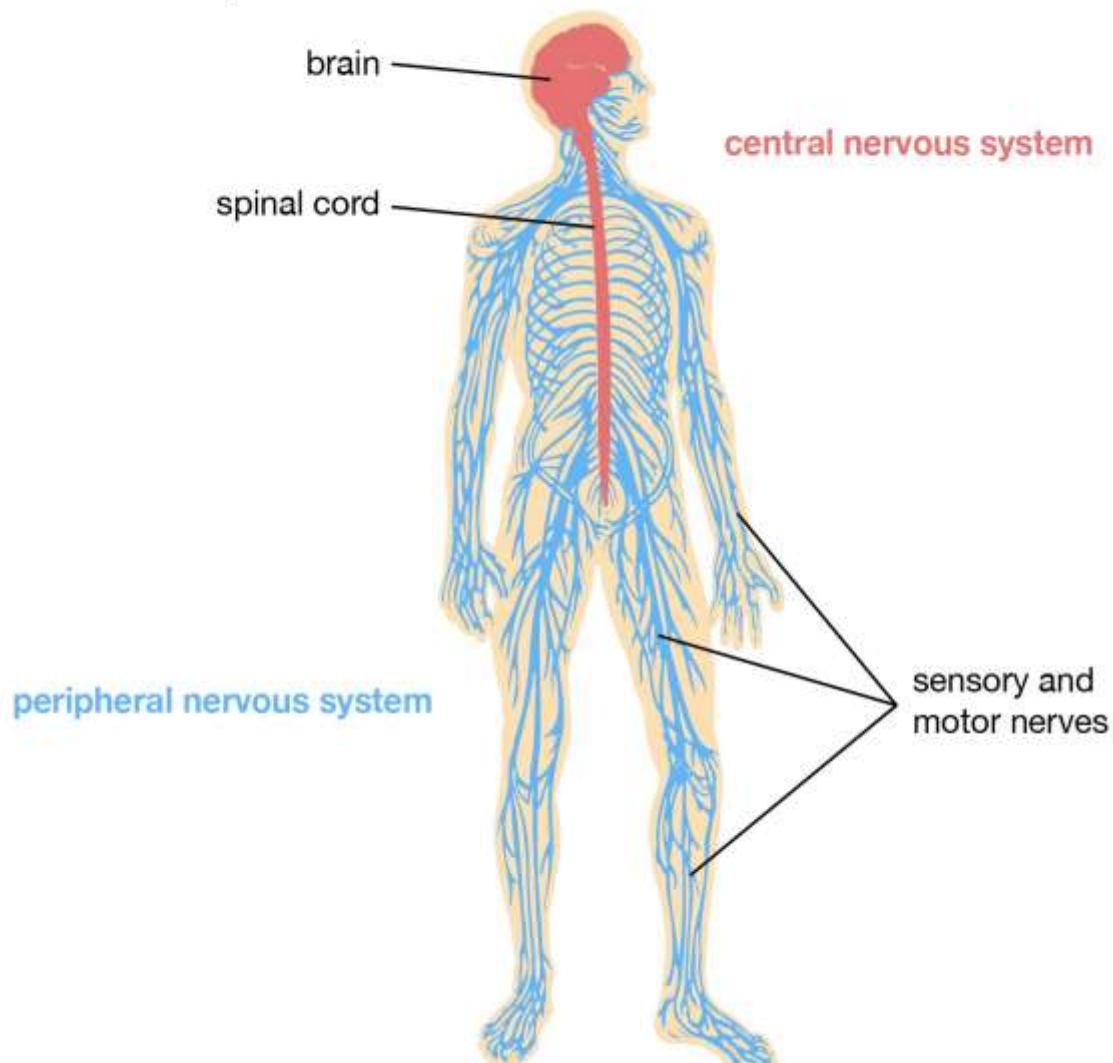




Nervous System

The **nervous system** is a complex network of nerves and cells that transmit signals between different parts of the body. It is responsible for coordinating body activities, responding to external stimuli, and maintaining homeostasis.

The nervous system

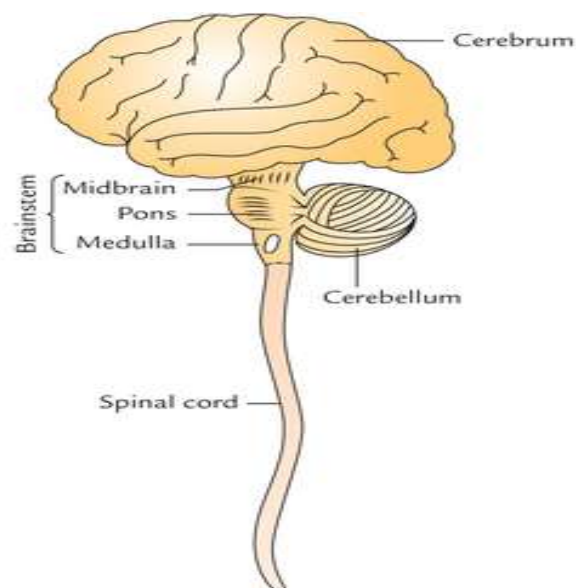
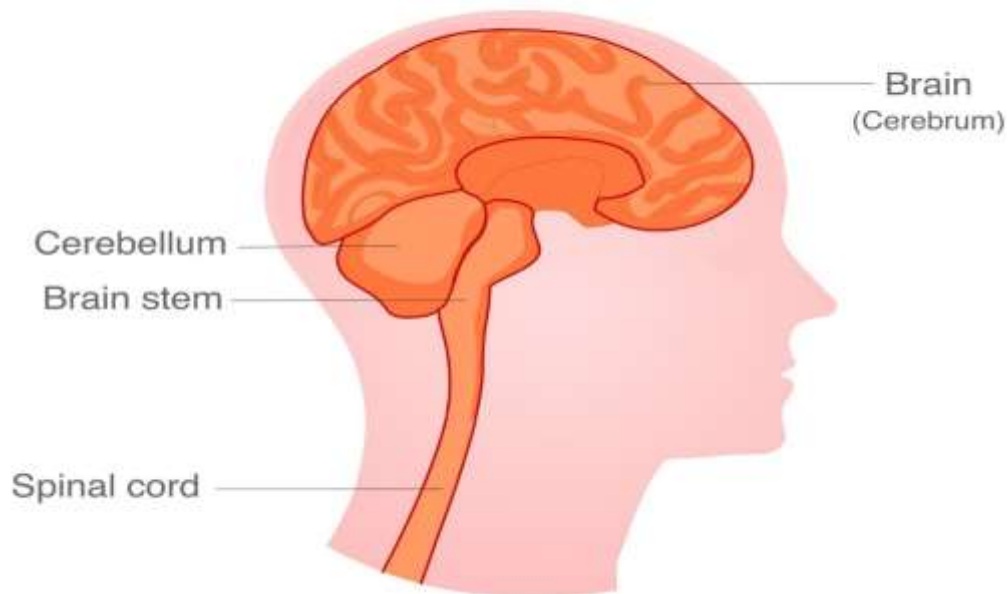




Central Nervous System (CNS)

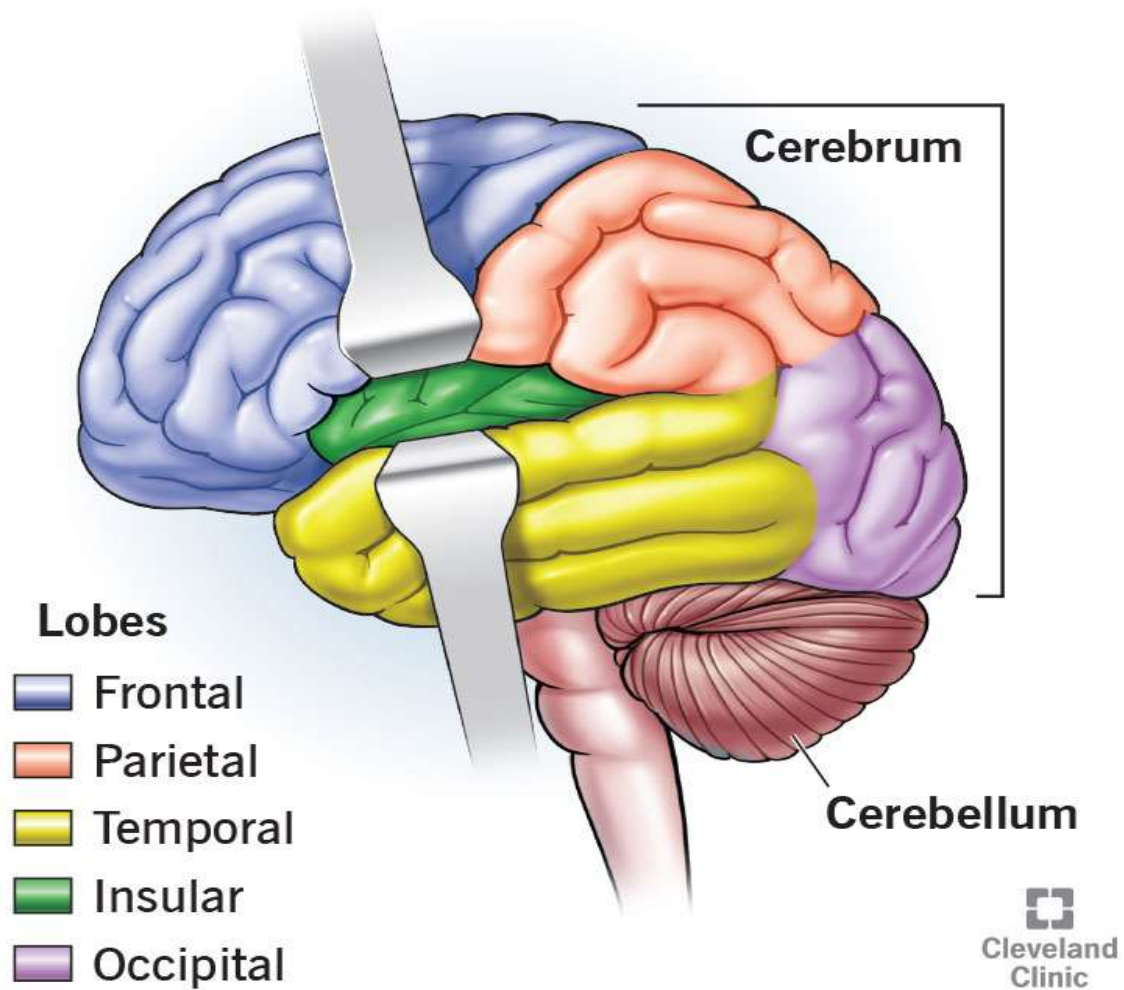
- Composed of the **brain** and **spinal cord**.
- The **brain** processes and interprets information, while the **spinal cord** relays signals between the brain and the body.

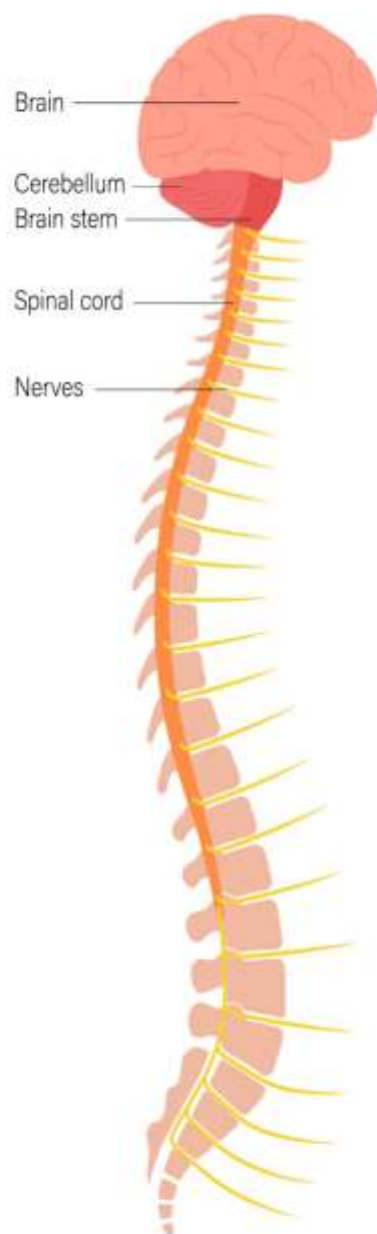
Central Nervous System

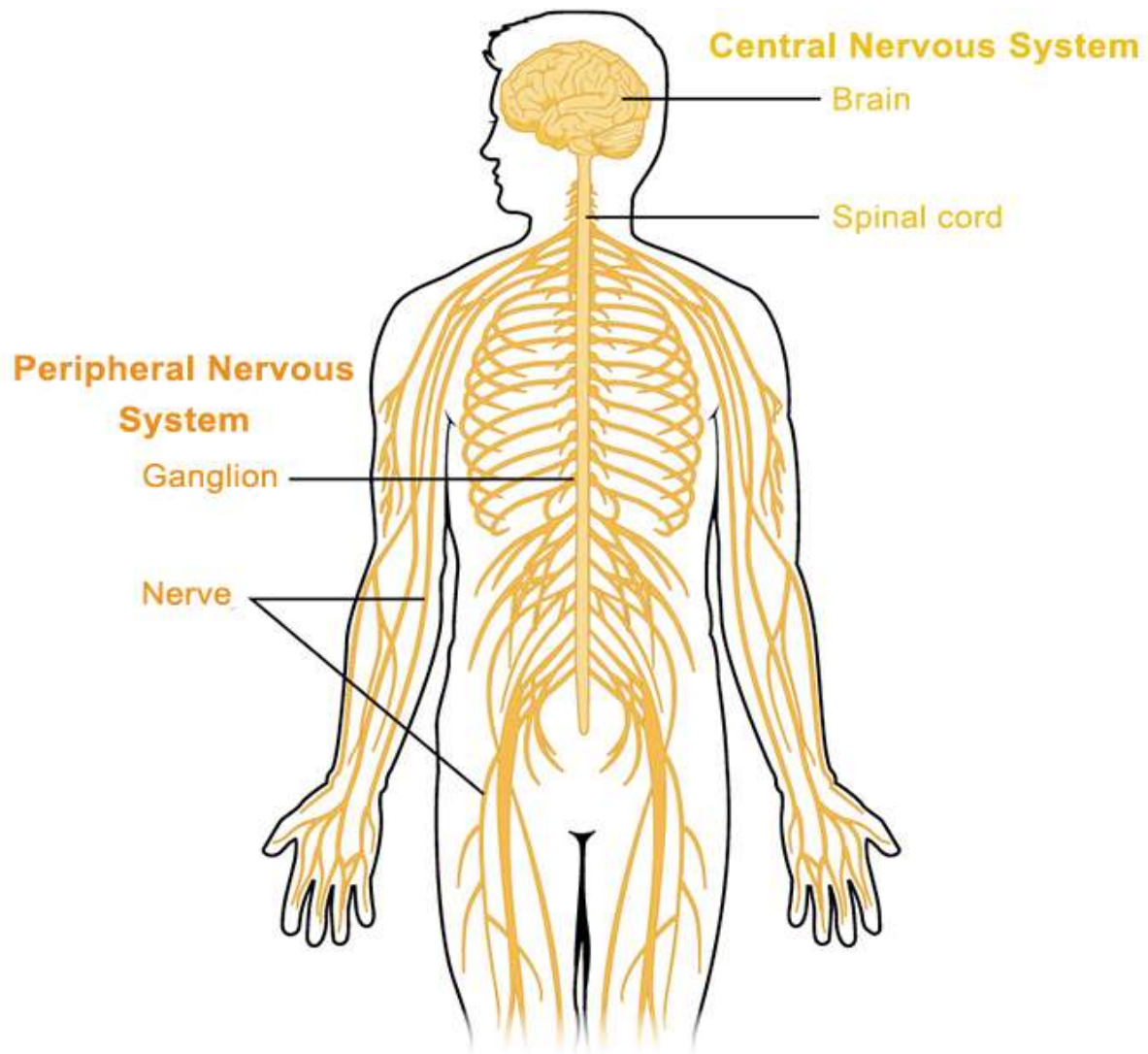




Cerebrum



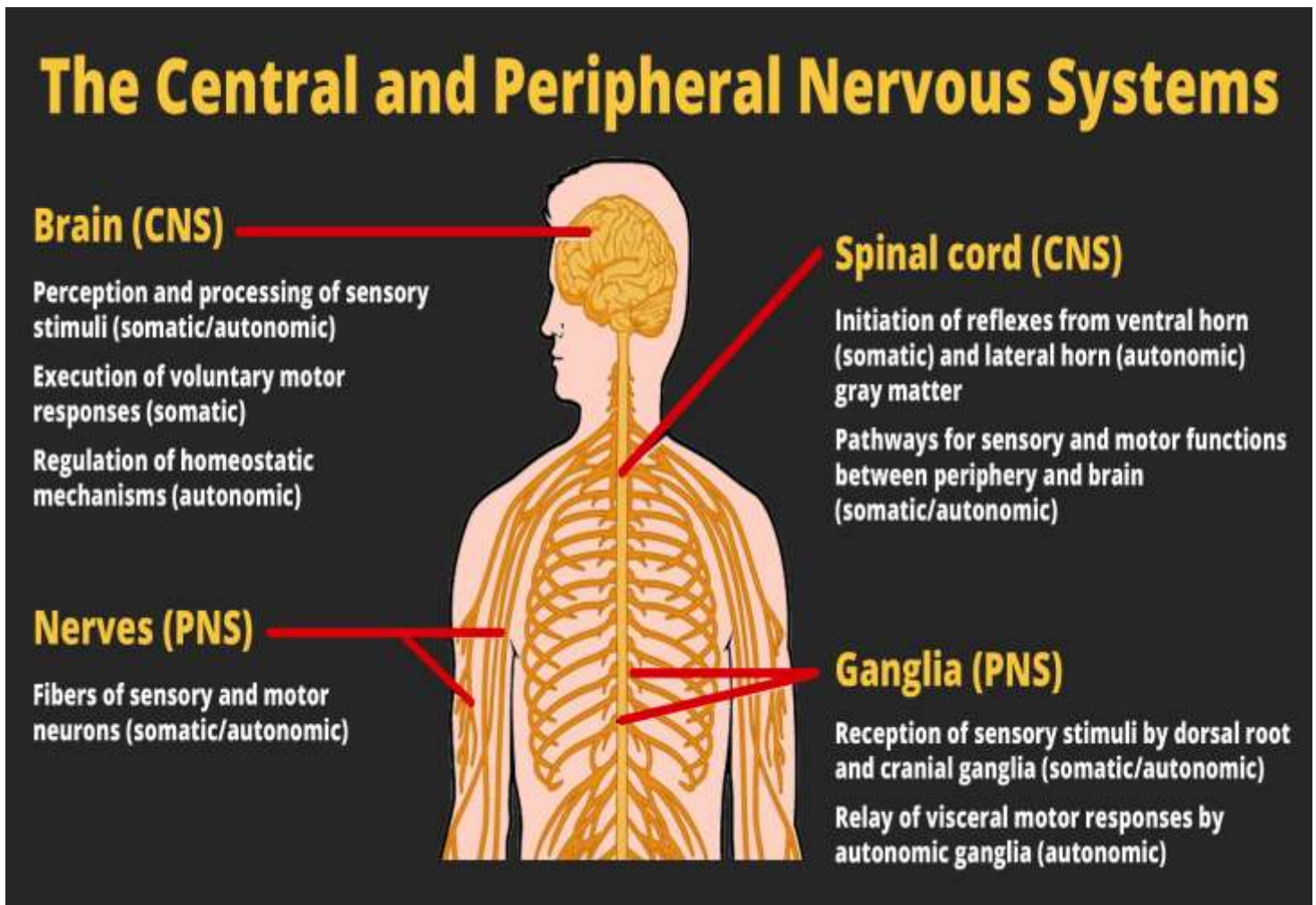






Peripheral Nervous System (PNS)

- Consists of **nerves** that extend from the CNS to the rest of the body.
- Divided into:
 - **Somatic Nervous System (SNS):** Controls voluntary movements (e.g., moving muscles).
 - **Autonomic Nervous System (ANS):** Controls involuntary functions (e.g., heartbeat, digestion).
 - **Sympathetic Division:** Prepares the body for stress ("fight or flight").
 - **Parasympathetic Division:** Restores the body to a relaxed state ("rest and digest")





Neurons: The Basic Unit

Neurons are the fundamental units of the nervous system, specialized in transmitting electrical and chemical signals

