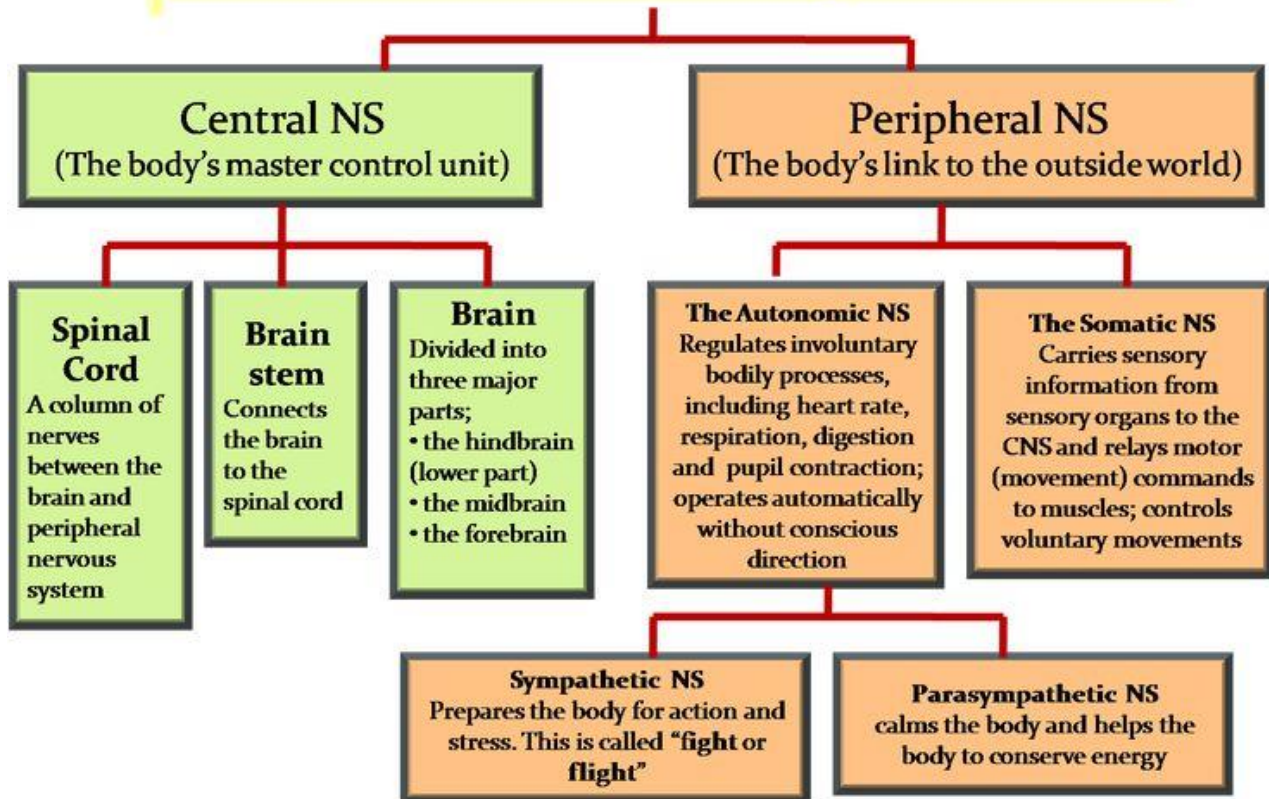


The Nervous System



BRAIN STRUCTURE

The human brain is the control center of the body. It is part of the central nervous system (CNS) and is protected by the skull and meninges.

BRAIN

Forebrain (Prosencephalon)

Cerebrum

Controls voluntary movements, Responsible for intelligence, memory, learning, and reasoning
Interprets sensory information (vision, hearing, touch, etc.)
Controls emotions and behavior

Thalamus

Acts as a relay center for sensory and motor signals
Directs signals to the appropriate area of the cerebrum
Plays a role in consciousness and alertness

Hypothalamus

Regulates body temperature, hunger, and thirst
Controls sleep-wake cycles, Manages emotions
Controls pituitary gland (thus, hormonal balance)

Midbrain (Mesencephalon)

Tectum and related structures

Controls reflex movements of eyes and ears (e.g., turning head toward a sound)
Coordinates motor movement
Maintains posture and muscle tone

Hindbrain (Rhombencephalon)

Cerebellum

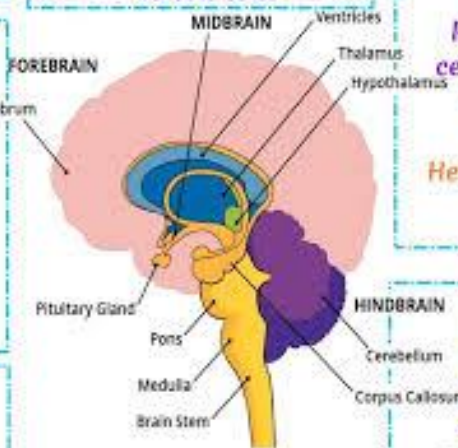
Maintains balance and posture
Coordinates voluntary muscle movements
Helps with motor learning

Pons

Relays signals between cerebrum and cerebellum
Assists in control of breathing
Helps in facial expressions and sensations

Medulla Oblongata

Controls involuntary activities: heartbeat, respiration, digestion, sneezing, and swallowing
Acts as a center for reflex actions



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