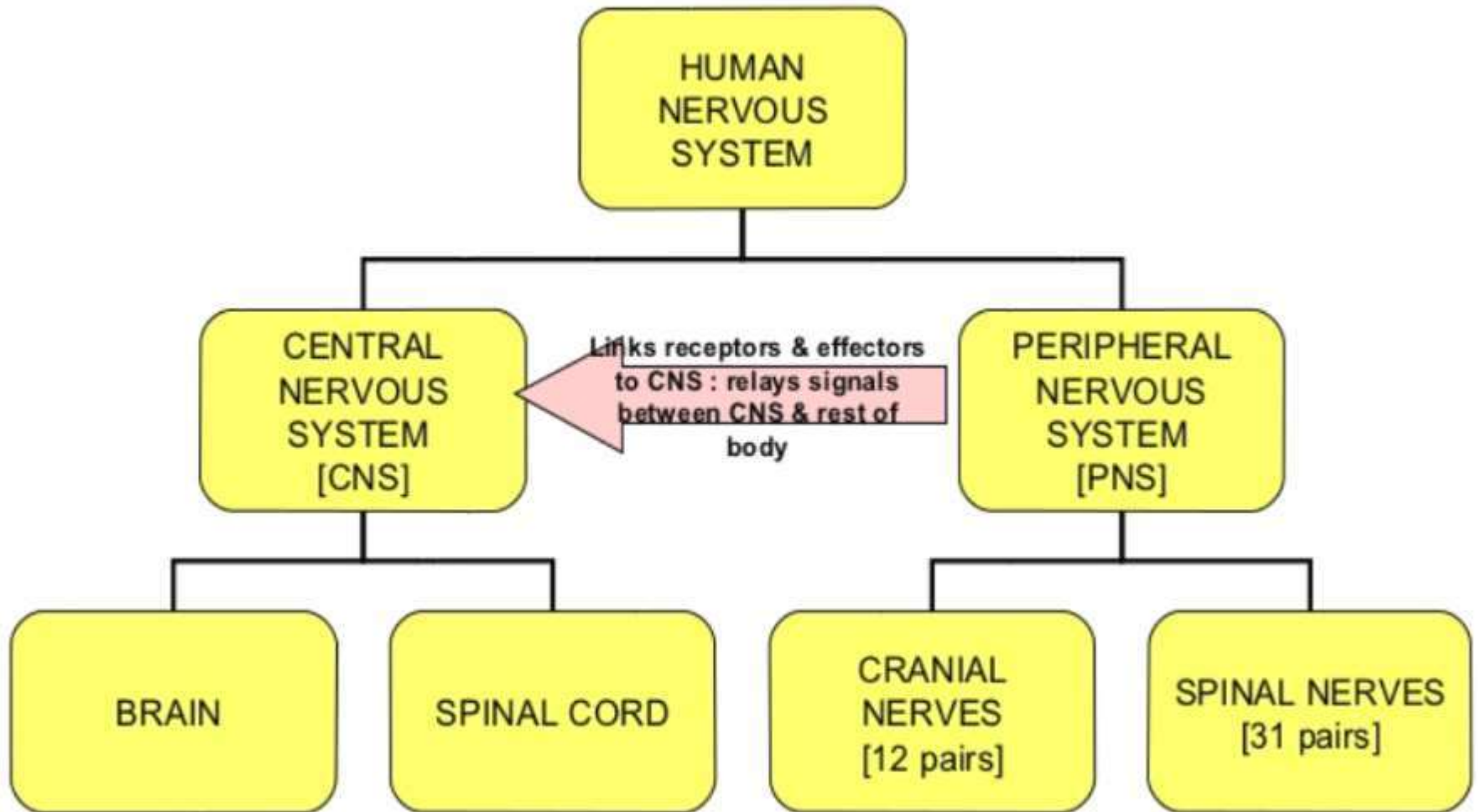


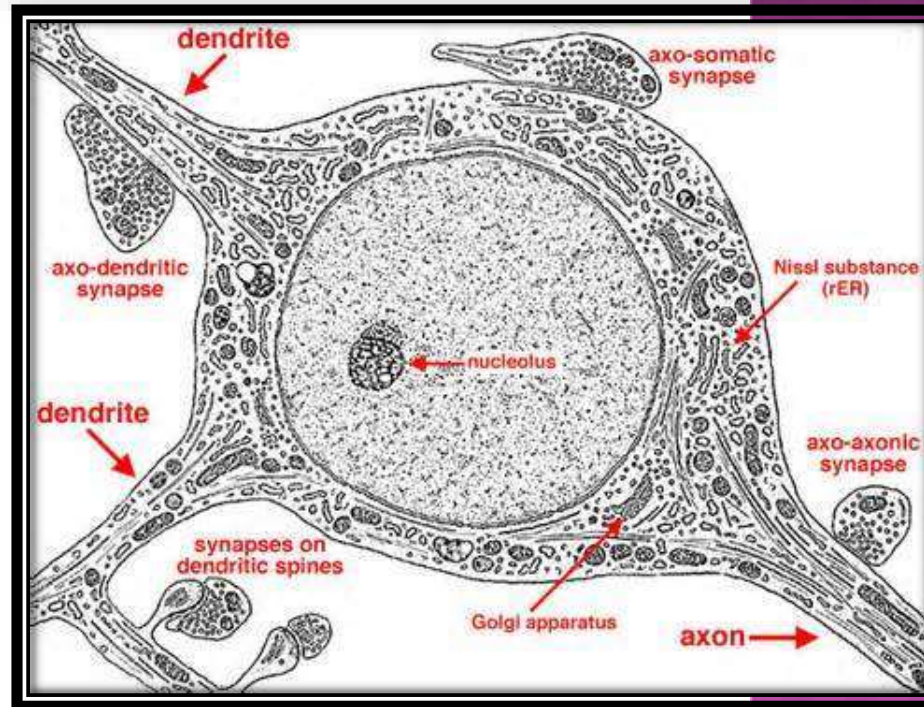
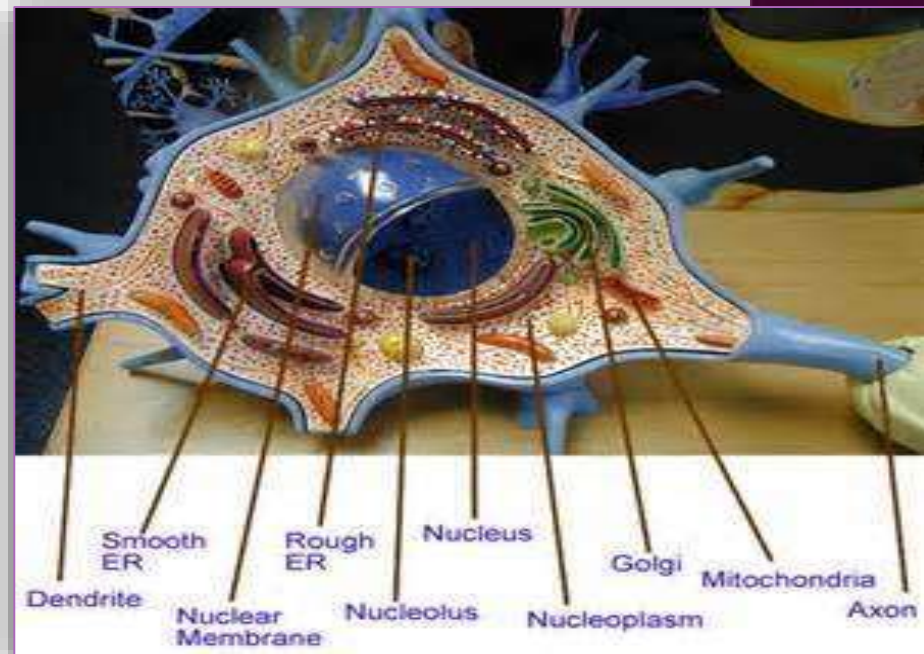
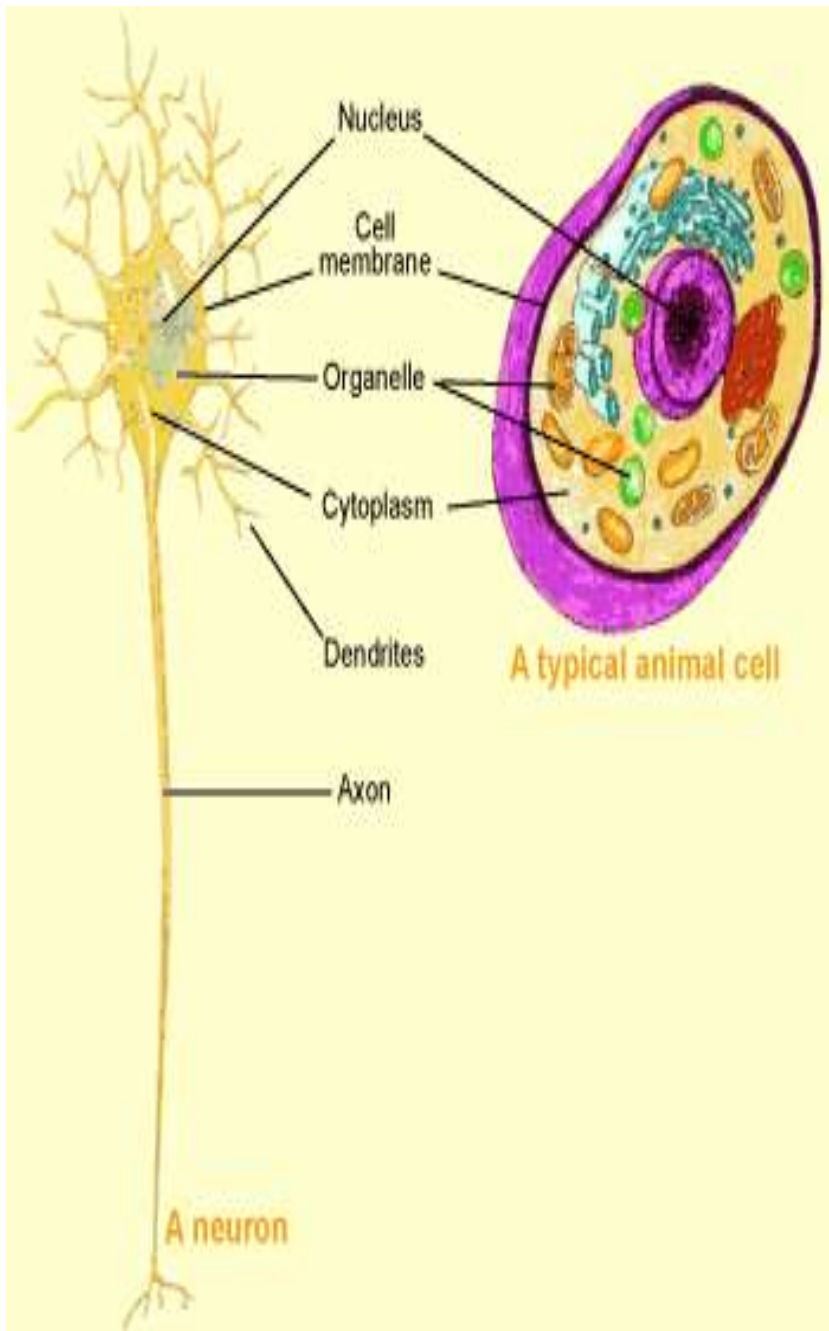


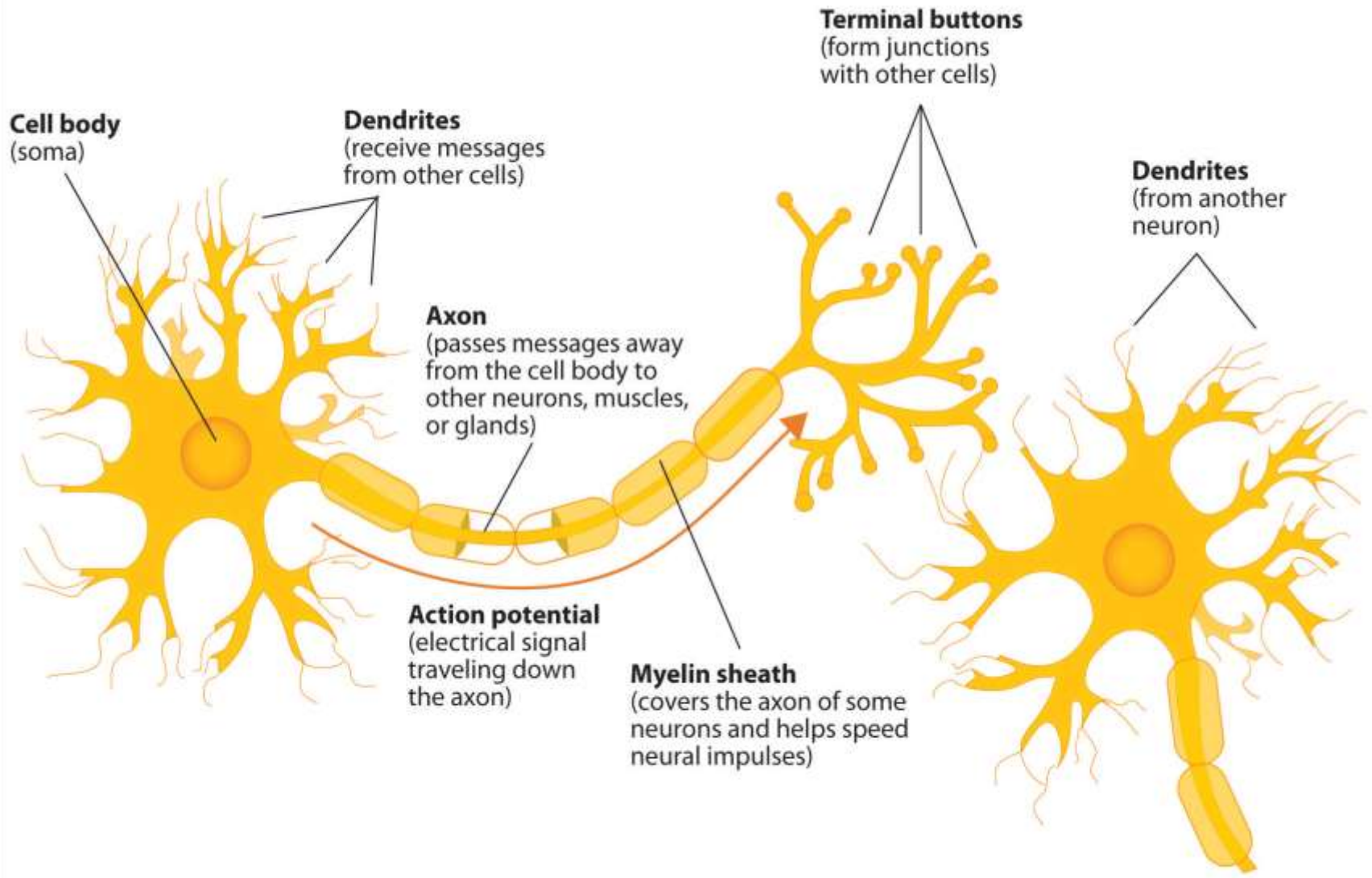
# Human Anatomy & Physiology

# ORGANISATION OF THE NERVOUS SYSTEM



- Nervous tissues is a group of nerve cells(neurones) together with neuroglia/supporting cells, which transmits electro-chemical messages called impulses along their membrane
- Neurone (nerve cell) is the basic functional units of the nervous system
- Neurones are cells specialized to generate and transmit nerve impulses (action potentials)





# TYPES OF NERVES:-

Nerve consists of many neurons bound together by connective tissue

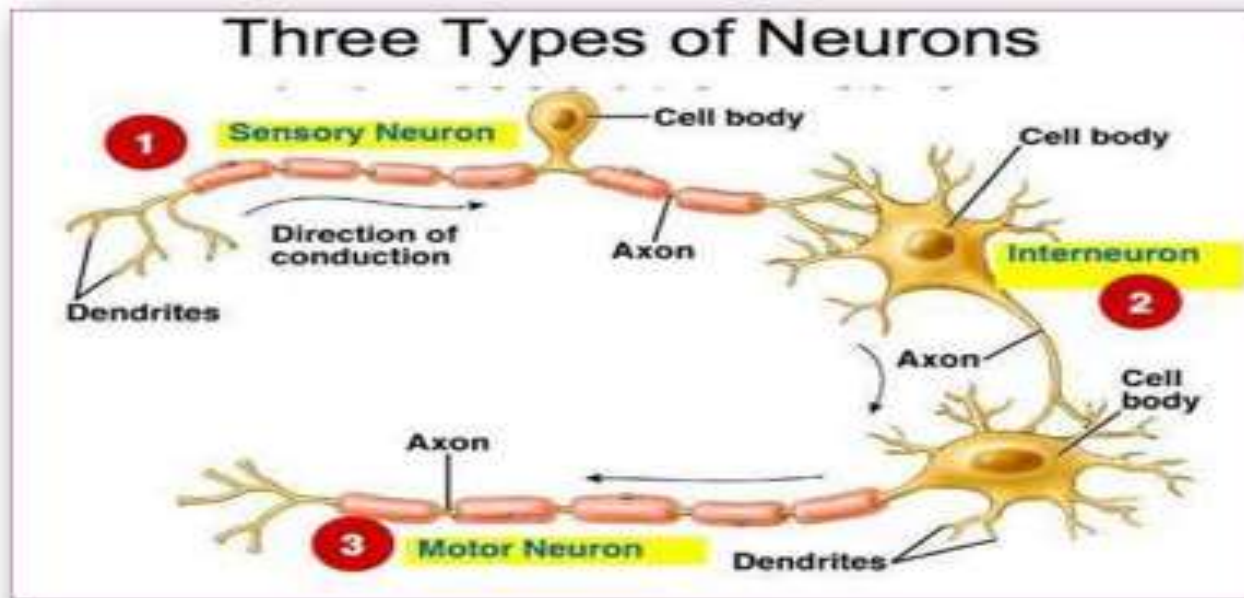
- ❖ Sensory nerve contain only sensory neurones
- ❖ Motor nerve contain only motor neurones
- ❖ Mixed nerve contain both sensory and motor neurones

Neuroglia do not generate or transmit impulses but function to support and protect neurons.

## **Types of neuroglia cell:**

- ❖ Astrocytes, oligodendrocytes, microglial, Ependymal cells, satellite cells, schwann cells form myelin sheath of axons in the peripheral nervous system

# TYPE OF NEURONS

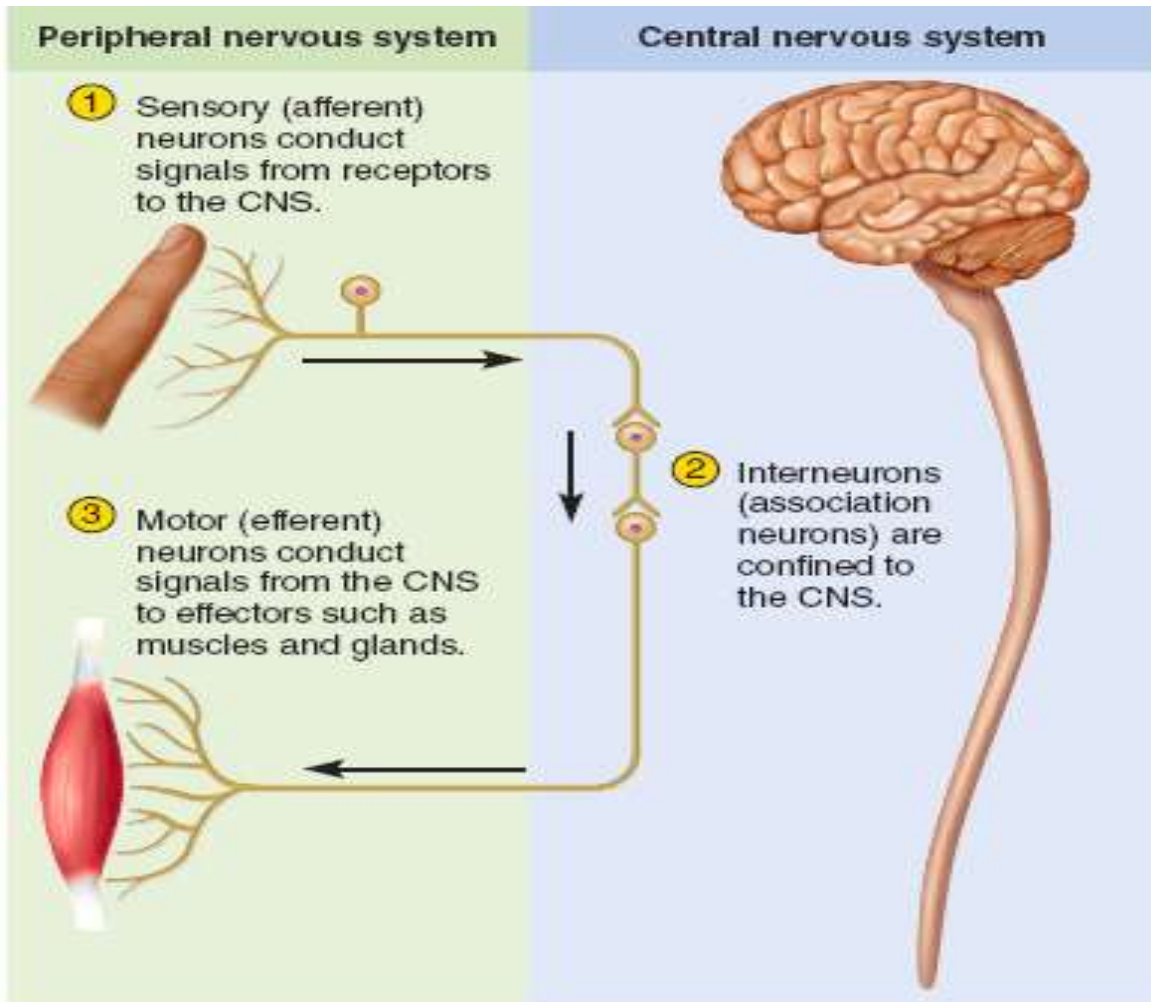


# A. SENSORY (AFFERENT) NEURONE

- ❑ A sensory neuron is an electrically excitable cell that processes information taken from one of the five senses: sight, hearing, taste, smell, and touch.
- ❑ This sensory information travels along afferent nerve fibers in a sensory nerve to the brain via spinal cord.

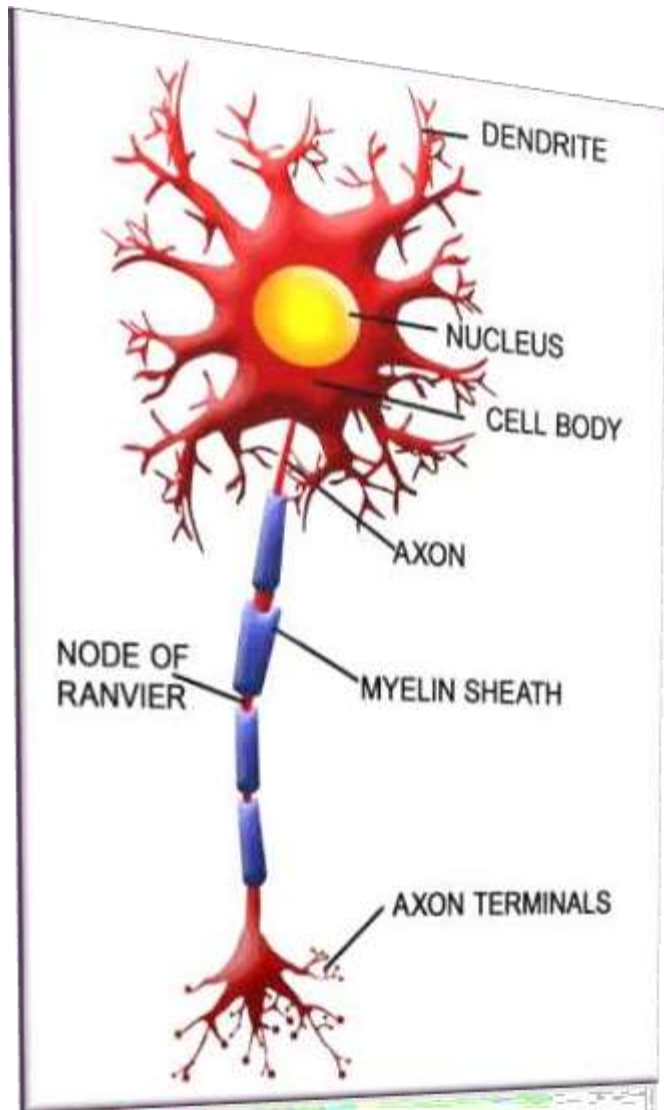
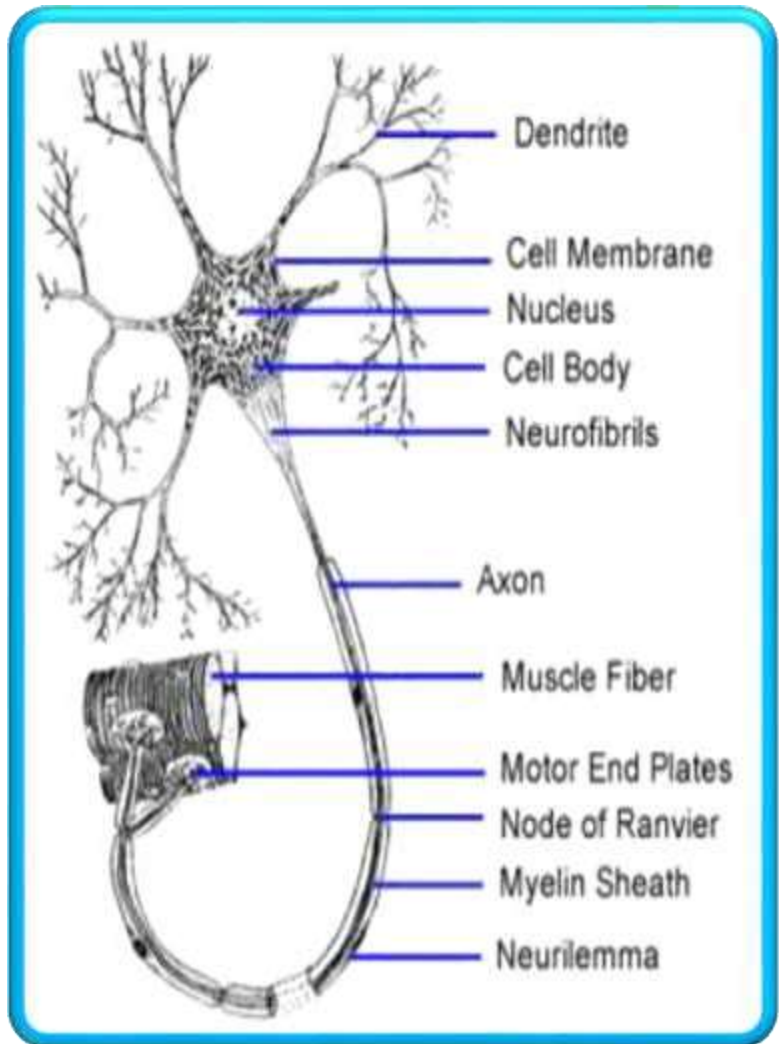


# B. INTERNEURONE



- An interneuron (also called relay neuron, association neuron, connector neuron or local circuit neuron) is one of the three classifications of neurons found in the human body.
- Interneurons create neural circuits, enabling communication between sensory or motor neurons and the central nervous system (CNS).
- Receives impulse from the sensory neurons and transmits it to motor neurone
- Found in brain and spinal cord
- Some generate impulses and some transmit impulses

# C. MOTOR (EFFERENT) NEURONE



- A **motor neuron** (or **motoneuron**) is a nerve cell (neuron) whose cell body is located in the spinal cord and whose fiber (axon) projects outside the spinal cord to directly or indirectly control muscles.
- Motor neurons are efferent nerves (also called effector neurons), that carry signals from the central nervous system (CNS) (spinal cord) to the effector such as gland and muscles to produce (effect) movement
- They have short dendron and long axon for transmitting impulse from CNS to muscles