# NEURON AS STRUCTURAL AND FUNCTIONAL UNIT OF NEURAL SYSTEM

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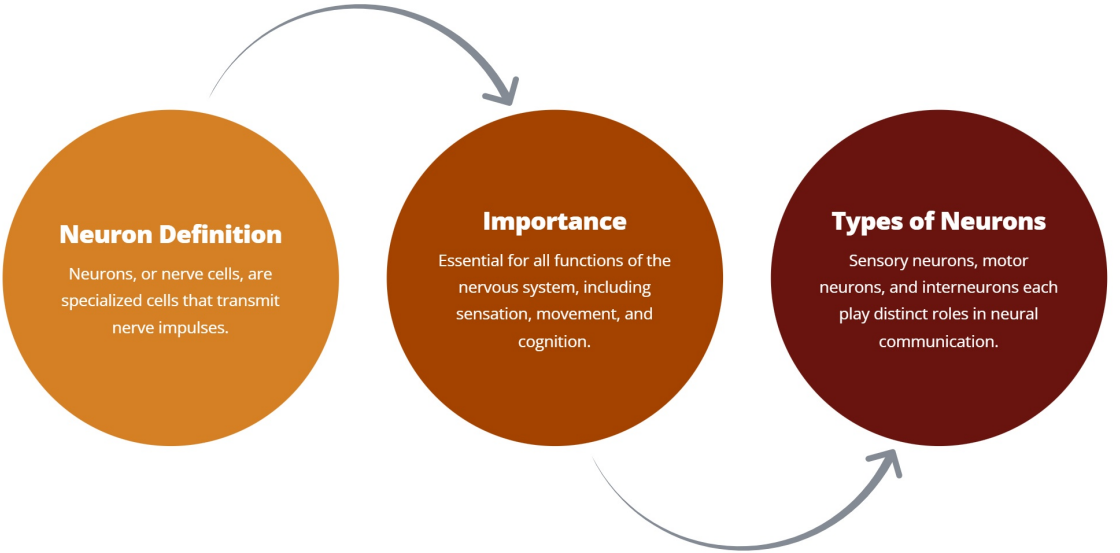
# INTRODUCTION TO NEURONS: BUILDING BLOCKS OF THE NERVOUS SYSTEM

Neuron as Structural and Functional Unit of Neural System



# STRUCTURAL COMPONENTS OF NEURONS

Understanding the key elements that make up neurons

### Cell Body (Soma)

Contains the nucleus and is responsible for maintaining the cell and its functions.

### Dendrites

Branch-like structures that receive messages from other neurons and convey this information to the cell body.

### Axon

A long, slender projection that transmits electrical impulses away from the cell body to other neurons, muscles, or glands.

### Myelin Sheath

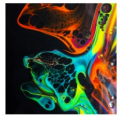
A fatty layer that covers the axon, speeding up the transmission of electrical impulses.

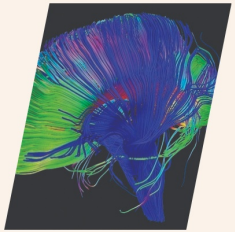
### Synapses

Junctions between neurons where neurotransmitters are released to pass signals to other neurons.

# FUNCTIONAL ROLES OF DIFFERENT TYPES OF NEURONS

Understanding the Structural and Functional Units of the Neural System



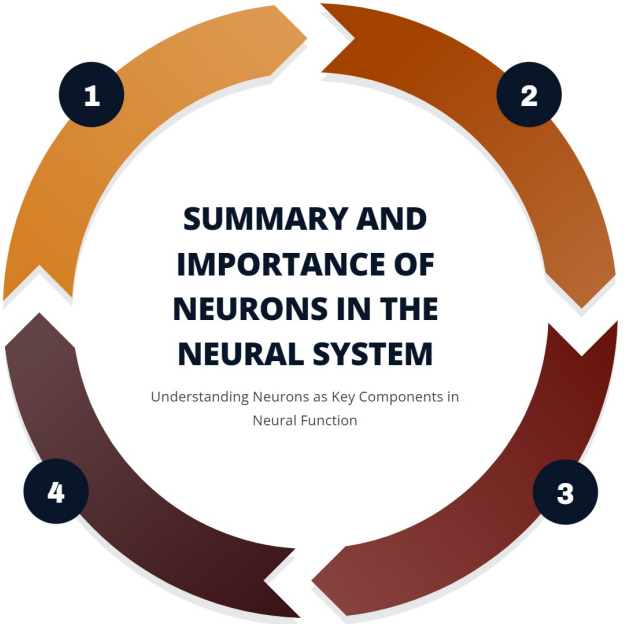


**Types and Functions:**

Overview of the three main types of neurons and their distinct roles.

# SUMMARY AND IMPORTANCE OF NEURONS IN THE NEURAL SYSTEM

Understanding Neurons as Key Components in Neural Function




### Neurons as Structural Units

They form the physical basis of the neural network, providing support and organization.

### Neurons as Functional Units

Essential for signal transmission and information processing, enabling communication throughout the body.

### Neural Pathways

Understanding pathways helps in comprehending how the brain integrates and processes information.

### Types of Neurons

Sensory, motor, and interneurons each contribute uniquely to neural function.

# THANK YOU

Any Questions....