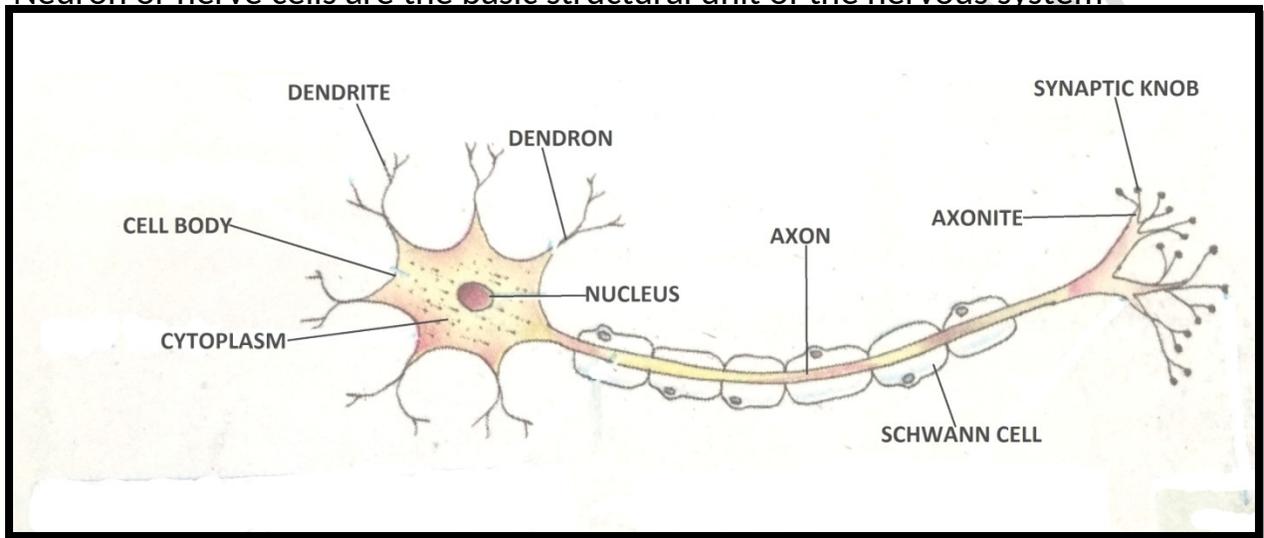


## FOCUS POINT

### SENSATIONS AND RESPONSES

**Nervous system** control and coordinate all rapid actions in our body, it includes brain, spinal cord and nerves.

Neuron or nerve cells are the basic structural unit of the nervous system



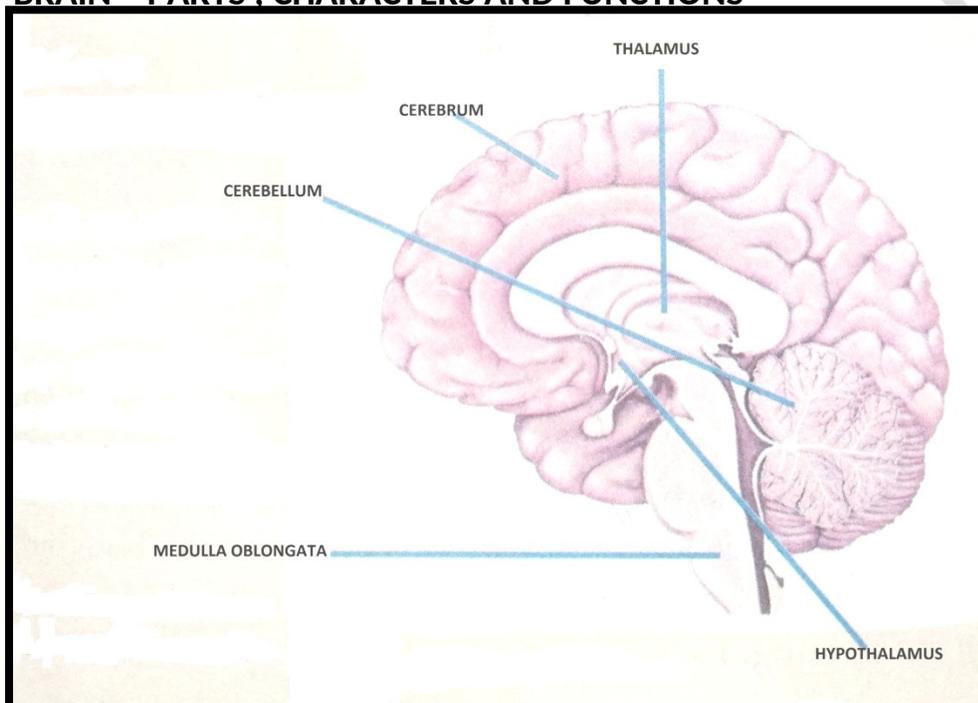
#### NEURON -PARTS CHARACTERS AND FUNCTIONS.

PART	CHARACTERS	FUNCTION
Dendrite	Branches of Dendron	Part that receives impulses from adjacent neuron
Dendron	Short filament from the cell body	Carries impulses from dendrites to cell body
Cell body	Main part with nucleus and cytoplasm	Carries impulses from Dendron to axon
Axon	Longest filament from the cell body	Carries impulses from cell body to outside
Axonite	Branches of axon	Carries impulses to the synaptic knob
Synaptic knob	Tip of Axonite	Secretes neurotransmitters
Schwann cell	Encircles the axon	Forms the myelin sheath in nerves

**NERVES**- Group of axon or nerve fibres covered by connective tissue.

NERVES	PECULIARITIES	FUNCTIONS
Sensory nerve	Formed of sensory nerve fibres	Carries impulses from various parts of the body to the brain and spinal cord
Motor nerve	Formed of motor nerve fibres	Carries impulses from brain and spinal cord to various parts of the body
Mixed nerve	Formed of sensory nerve fibres and motor nerve fibres	Carries impulses to and from the brain and spinal cord

### BRAIN - PARTS , CHARACTERS AND FUNCTIONS



PARTS	CHARACTERS	FUNCTIONS
Cerebrum	Largest part of brain Fissures and folds are present The grey coloured outer part is cortex and white coloured inner part is medulla	Centre of thought, intelligence, memory and imagination. Evokes sensations Controls voluntary movements
Cerebellum	Second largest part of the brain Seen behind the cerebrum as two flaps Fissures and grooves are present	Co ordinates muscular activities and maintain equilibrium of the body
Medulla oblongata	Rod shaped, seen below the cerebrum, located near the cerebellum	Control involuntary actions like heart beat, breathing etc

Thalamus	Situated below cerebrum	Act as relay station to and from the cerebrum Analyse impulses from various parts of the body and sends the important ones to the cerebrum
Hypothalamus	Situated below the thalamus	Plays a major role in the maintenance of homeostasis

### **NERVOUS SYSTEM AND ITS DISORDER**

<b>DISEASE</b>	<b>CAUSES</b>	<b>SYMPTOMS</b>
Alzheimer's	Accumulation of an insoluble protein in the neural tissue of the brain. Neurons get destroyed	Loss of memory, inability to recognize friends and relatives, inability to do routine works
Parkinson's	Destruction of specialized cells ganglions in the brain. Production of dopamine, a neurotransmitter in the brain gets reduced	Loss of body balance, irregular movement of muscles, shivering of the body, profuse salivation
Epilepsy	Continuous and irregular flow of electric charges in the brain.	Epilepsy due to the continuous muscular contraction, frothy discharges form the mouth, clenching of the teeth following which the patient falls unconscious

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