



Types of Neuron:

- ⇒ There are three types of Neuron.
- (i) Sensory neurons :- These carry impulses from receptors to the brain or the spinal cord.
 - (ii) Motor ~~neurons~~ neurons :- These carry impulses from brain or spinal cord to effectors (muscles or gland).
 - (iii) Association neurons :- It ^{connects} connects sensory ~~neuron~~ neuron to motor neuron.
- * Synapse :- The neurons never touch each other. They simply pass impulses from one neuron to another through a small junction (gap) which is called Synapse.

Kinds of nerve

(i) Sensory nerve :- It contains only sensory neuron.

(ii) Motor nerve :- It contains only motor neurons.

(iii) Mixed nerve:- It contains both sensory and motor neurons.

* Spinal Cord ⇒ (i) It is a soft tube which is cylindrical that extends from Medulla oblongata.

(ii) It is protected by back bone.

(iii) The grey matter is inside the spinal cord and white matter is outside.

Functions :- (i) It controls the reflexes below the neck.

(ii) It carries messages from receptors from to the brain.

(iii) It carries messages from brain to effectors.

Reflex action:- Reflex action is the quick immediate and automatic ^{involuntary} response to a stimulus without the involvement of the brain.

Reflex arc:- The shortest pathway of the nerve impulse from a receptor to the effector which makes a reflex action possible is called a reflex arc.

Types of Reflexes

There are two types of Reflex action.

- (i) Natural reflex
- (ii) Conditioned reflex

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* Stimulus: - Any change in the environment that usually results in change in the activity of the body.

* Response: - The activity of the body due to the stimulus.

Impulse: - A wave of electrical disturbance that runs through the nerves.

* Receptors: - The sense organs which receive the stimulus.

* Effector: - Any muscle or gland where the response occurs.

Natural reflex

- i) It does not require any previous experience.
- ii) These are inborn.
- iii) These are inherited from the parents.
- iv) Also called inborn reflex.
- v) e.g. Sneezing, vomiting, Blinking, etc.

Conditioned reflex

- It develops during life time by learning.
- These are not inborn.
- Not inherited from parents
- Also called acquired reflex.
- e.g. Playing a musical instrument, Riding bicycle