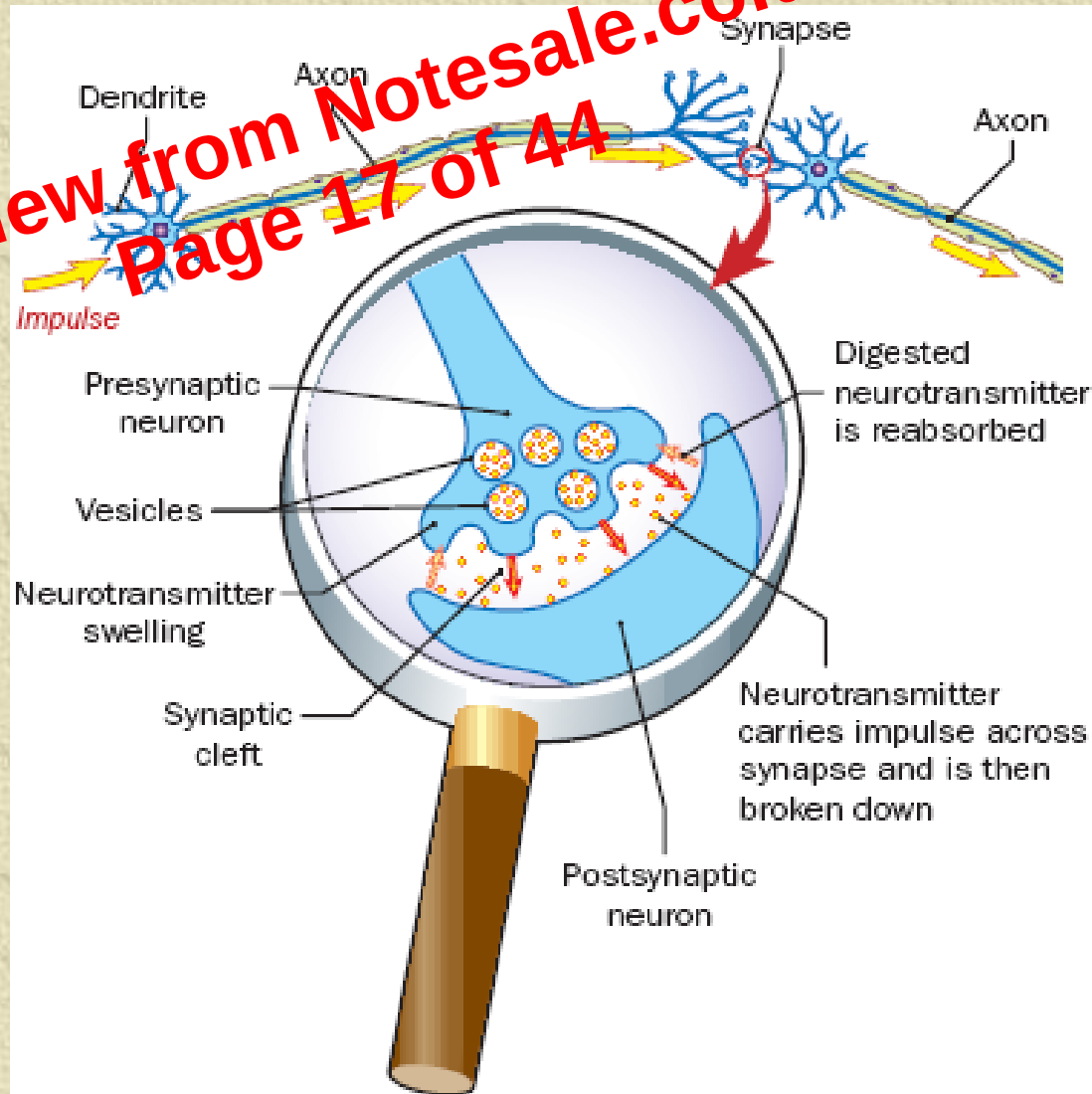


Synapse

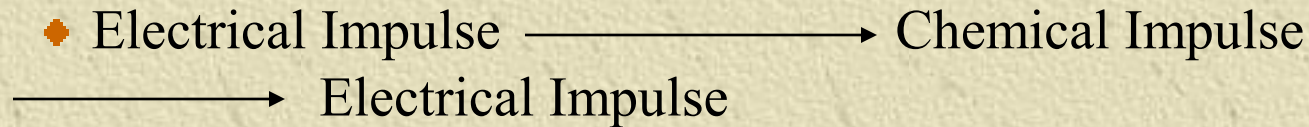
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Synapse

- ✧ Neurotransmitter broken down by enzymes.
- ✧ Digested neurotransmitter reabsorbed back into neurotransmitter swellings.
- ✧ Can be recycled.

✧ At synapse:



Cerebrum

- ✧ Cerebral cortex: Outer part of cerebrum = grey matter.
- ✧ Inner part of cerebrum = white matter.
- ✧ Nerve fibres of white matter connect different areas of cortex and the 2 sides of the brain (connected by corpus callosum).

Cerebellum

✧ Heavily folded.

✧ Functions.

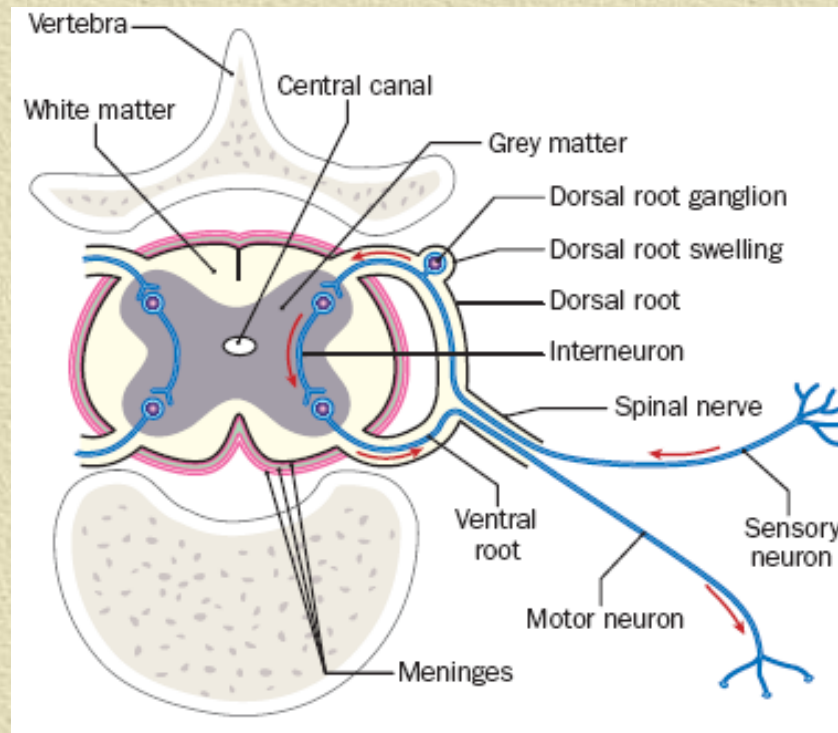
- ◆ Controls muscular coordination.
- ◆ Allows smooth, refined muscular action.
- ◆ Controls balance.

✧ Responses of cerebellum are involuntary, once process initially learned.

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Spinal Cord

- ✧ Composed of nerve tissue.
- ✧ Surrounded by vertebrae for protection.
- ✧ Transmits impulses to and from brain.
- ✧ Controls reflex actions.



Spinal Cord

- ✧ Located in neural canal of vertebrae.
- ✧ Neural canal lined by meninges.
- ✧ White matter (axons) on outside.
- ✧ Grey matter (cell bodies and dendrites) on inside in H-shape.
- ✧ Central canal in centre of grey matter.
- ✧ Contains CSF.

Withdrawal Reflex

- ✧ Receptors in fingers stimulated by hot flame.
- ✧ Sensory neurons carry impulse to spinal cord.
- ✧ Synapses made in spinal cord:
 - ◆ Interneuron carries impulse across spinal cord to motor neuron.
 - ◆ Neuron takes impulse to brain.
- ✧ Motor neuron takes impulse immediately to effector (muscle or gland).
- ✧ Hand is pulled back from hot flame.