

Nervous Tissue

Text: Human Biology, by Mader. pp. 276 - 282

1. Introduction to Nervous Tissue

A. Functions

2. Organization

A. Central Nervous System

B. Peripheral Nervous System

i. Afferent System

ii. Efferent System

3. Histology of Nervous Tissue (p. 276 - 277)

A. Neuroglia

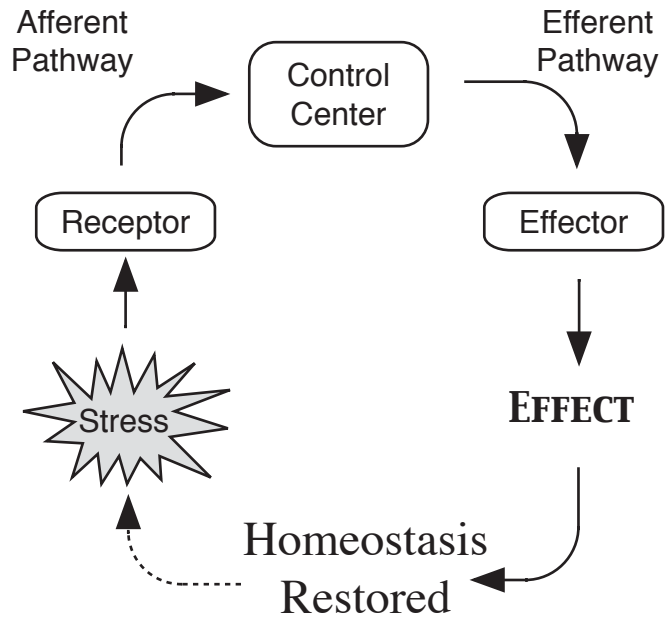
B. Neurons

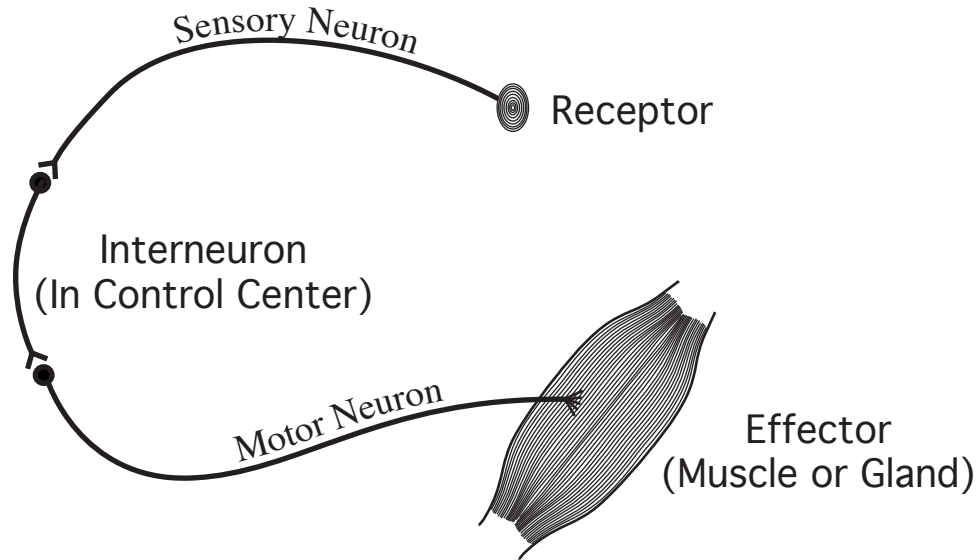
i. Functional Classification

a. Sensory Neuron

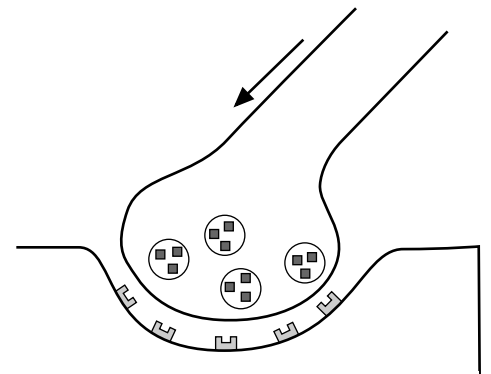
b. Interneuron

c. Motor Neuron





- i. Body
- ii. Dendrites (B)
- iii. Axon (C)
- iv. Synaptic End Bulbs (See, page 280, figure 13.4)
- v. Synaptic Vesicles
 - a. Neurotransmitters



4. Nerve Fiber

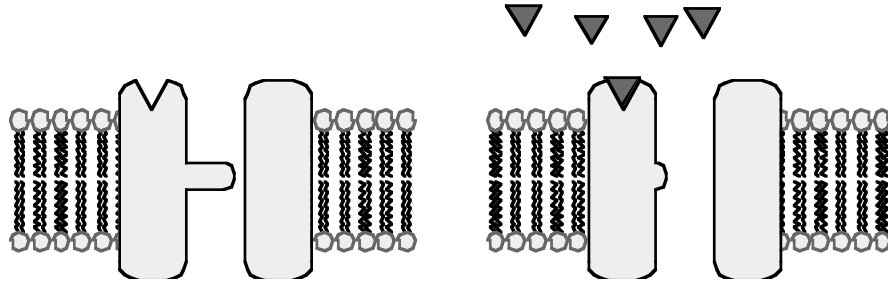
A. Myelin sheath



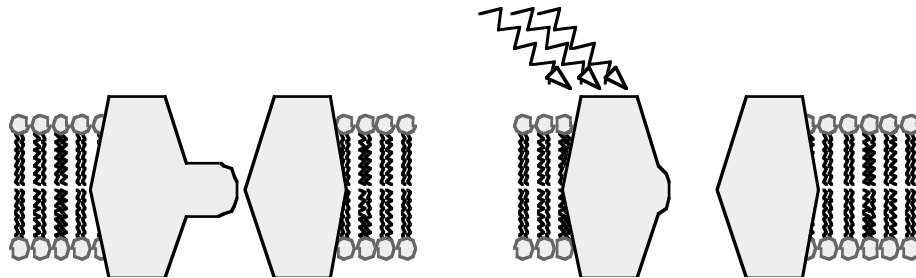
5. Physiology

A. Protein Ion Gates

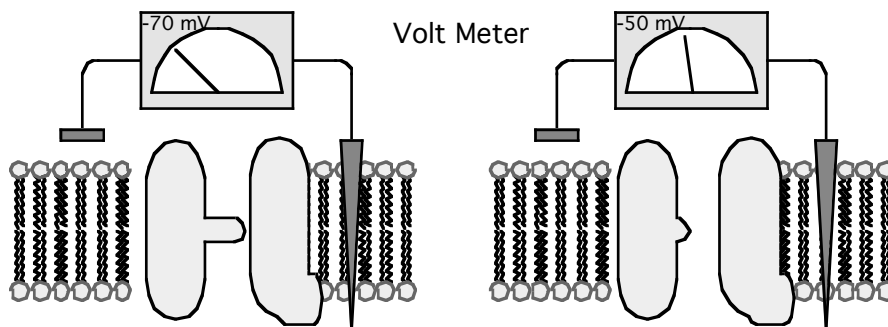
i. Chemically Sensitive Gates



ii. Light Sensitive Gates



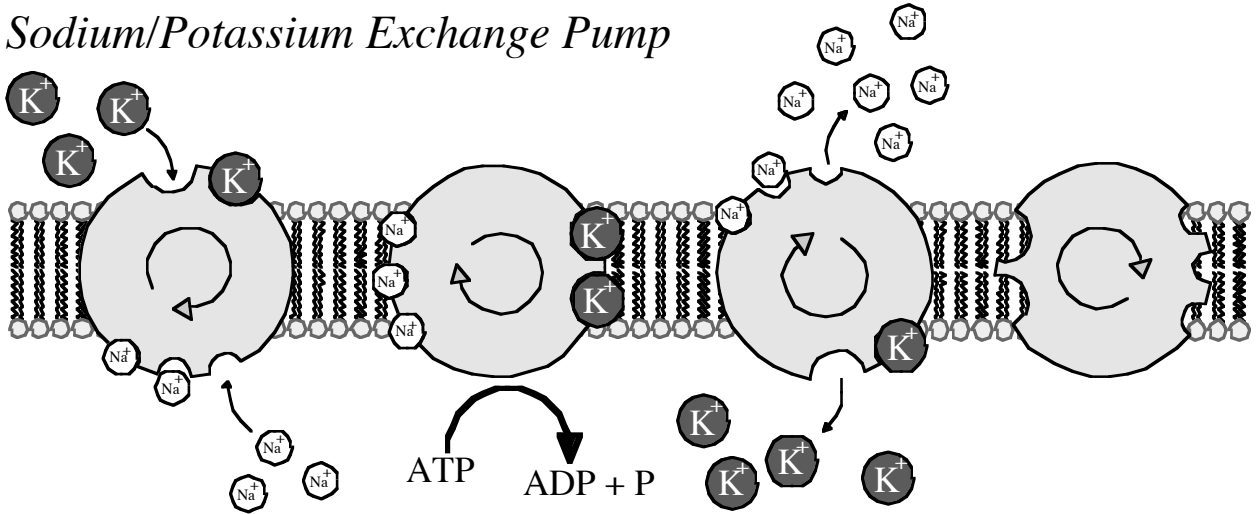
iii. Voltage Sensitive Gates



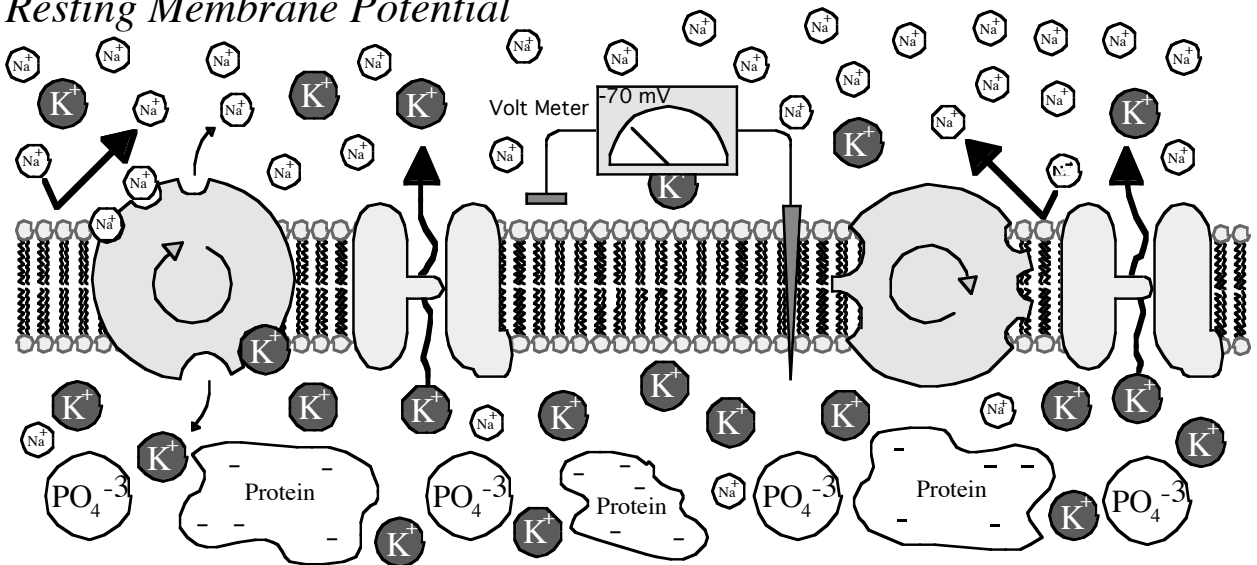
a. All or Non-principle

B. Resting Membrane Potential (p. 277 - 278)

Sodium/Potassium Exchange Pump

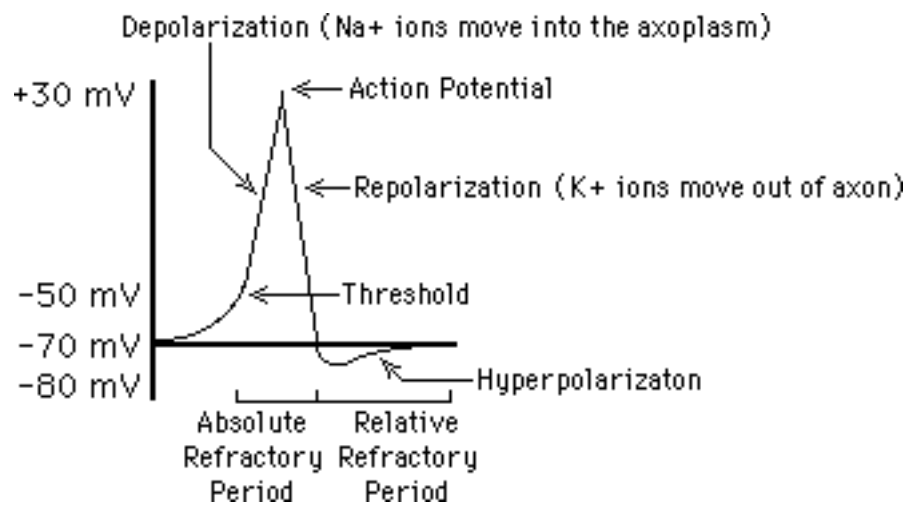


Resting Membrane Potential



C. Excitability

- i. Depolarized
- ii. Threshold
- iii. Action Potential (p. 278 - 280)



6. Conduction Across Synapses

A. Synapse

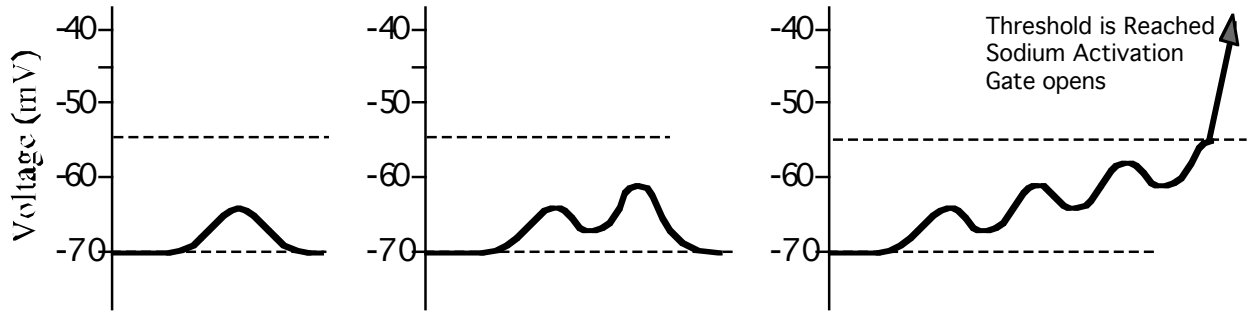
- i. Synaptic Cleft
- ii. Presynaptic Neuron
- iii. Postsynaptic Neuron
- iv. Synaptic End Bulb

B. Physiology

- Acetylcholinesterase (AChE)

7. Types of chemical Synapses and Synaptic Integration (p. 281 - 282)

A. Excitatory Synapses and (EPSPs)



i. Summation

B. Inhibitory Synapses and (IPSPs)

