

LEARNING OBJECTIVES

- Describe the structure of a neuron: cell body, axon, dendrites, terminal
- Describe the structure of a nerve: endoneurium, perineurium, epineurium, fascicle, fibers
- Differentiate between the three types of neurons: motor, sensory, interneuron
- Differentiate between the five types of supporting, or glial, cells
- Explain the process and function of myelination
- Differentiate between gray and white matter

I. NEURONS**A. General structure of a neuron**

1. Dendrites

2. Cell body

3. Axon hillock

4. Axon

5. Axon terminus

B. Synapse

1. Definition of a synapse

TEXT: _____

FIG: _____

2. Types of synapses

3. Events at a synapse

C. Classes of neurons

1. Functional classes in a reflex arcs

a) *sensory neurons*

b) *interneurons*

c) *motor neurons*

2. Anatomical classes

a) *pseudounipolar*

b) *multipolar*

II. GLIAL CELLS

A. Glial cells identified

1. Astrocytes

2. Microglia

3. Ependymal
4. Oligodendrocytes
5. Schwann
6. Satellite

B. White and gray matter of CNS

1. White matter
2. Gray matter

III. ORGANIZATION OF THE NERVOUS SYSTEM

A. The nervous system is divided into two divisions based upon anatomical and functional differences

1. Central nervous system
2. Peripheral nervous system

B. The peripheral nervous system involves incoming signals carried by sensory neurons and outgoing signals carried by motor neurons

4. Compare the sensory and motor divisions of the peripheral nervous system: which direction do they send nerve impulses? which classes of neurons are present in each?

SUMMARY