

Objectives

- ◆ To collect contact info from students.
- ◆ To briefly review the policies on the syllabus.
- ◆ To introduce the nervous system.
- ◆ Outline the major components of the Nervous System.
- ◆ To list the types of cells involved in the Nervous System.

Root Words

- Glial – support
- Astro – star
- Oligo – few
- Soma – of the body
- Dendr – branch

Nervous System

Functions:

- Sensory input - Receptors in sensory organs respond to stimuli.
- Integration - The brain makes decisions about information coming in.
- Stimulates Motor Output - Nerve impulses from CNS go to muscles/glands.

Components of the Nervous System

I. Central Nervous System (CNS)

- Brain
- Spinal Cord

II. **Peripheral Nervous System (PNS)**

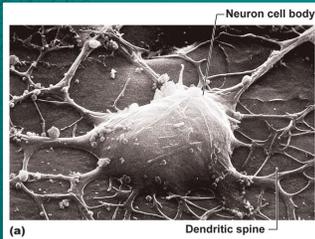
- Somatic
- Autonomic (ANS) – “a law unto itself”
 - > Sympathetic
 - Parasympathetic

Neurons

Cells that conduct electrical impulse within the nervous system.

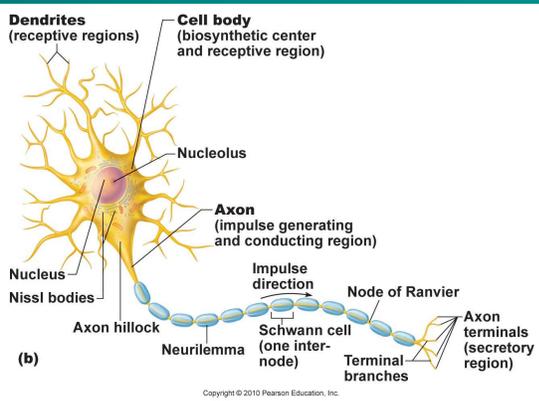
These cells are found in:

- Brain
- Spinal cord
- Nerves



Types of Neurons

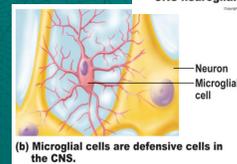
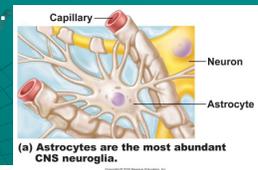
- I. Afferent – carry nerve impulse (NI) Towards the CNS. aka Sensory
- II. Efferent – carry NI away from CNS. Related to motor neurons.
- III. Interneurons – interconnections.



Associated Cell of the Nervous System

Neuroglia – small nerve cells that hold the nervous tissue together.

- 1) Astrocytes
- 2) Microglia
- 3) Oligodendrocytes
- 4) Ependymal
- 5) Schwann
- 6) Satellite



Myelin

- ◆ Fatty (protein-lipid) insulating sheath that surrounds nerve fibers i.e. axons and axon bundles.
- ◆ Role is to insulate and increase the speed of nerve impulse.
- ◆ Formed by Schwann Cells in PNS.
- ◆ Formed by Oligodendrocytes in CNS.