Chapter 13 Review

CNS: Contains the ***brain*** and ***spinal cord***

PNS: Contains all the neural tissue outside the CNS and is divided into two divisions: ***afferent division*** and ***efferent division***

NEURONS: aka a nerve cell; the structural unit of the nervous system

Three basic types of neurons in the human body:

1. ***afferent***
2. ***efferent***
3. ***interneurons***

Afferent Neurons
Also known as *sensory neurons*
Role: *carry information to the CNS*
Structure:

- **Dendrites** synapse with (receive information from) various sensory receptors in the periphery.
- **Cell bodies** located outside the spinal cord in the **dorsal root ganglion**
- Axons: afferent neurons are pseudounipolar, a cell body that bifurcates into an axon and a peripheral fiber (the peripheral fiber ends in dendrites, while the axon ends in axon terminal that synapses with the efferent or interneuron)

Efferent Neurons
Also known as *motor neurons*
Role: *carry information away from CNS (issue motor commands)*
Structure:

- **Dendrites** synapse either (receive information from) sensory neuron or interneuron
- **Cell bodies** located WITHIN the anterior horns of the spinal cord
- Axons of efferent neurons travel from the spinal cord to the (target) where it ends in a **terminal axon** at the **neuroeffector junction**.

ACTION POTENTIAL
The dendrites of a neuron are excited. If enough excitatory stimuli are present, a threshold is reached and an action potential is propagated.

Overview of THE NERVOUS SYSTEM