**Nervous System Review**

1. What are neurons?
2. What is a synapse?
3. 
4. How does communication between neurons occur?
5. What are the three basic functions of the nervous system?
6. What are the two functions of the nervous system, and what is included in each?
7. What are the four types of neuroglial cells found in the CNS, and what is their function?
8. How can the PNS be divided? What is the function of each?
9. Compare and contrast the somatic and autonomic nervous systems.
10. What are the two types of neuroglial cells found in the PNS, and what is their function?
11. What is the difference between white and gray matter?
12. Identify what structural neuron is present in each.



1. What are the three functional classifications of neurons?
2. What is an action potential?
3. What is a threshold?
4. What is the “all or none” principle?
5. Label and explain the following on the action potential graph below: hyperpolarization, depolarization, repolarization, and resting potential.



1. Put the following steps of an action potential in order.

\_\_\_\_\_ Potassium rushes out of cell to balance out differences in membrane potential

\_\_\_\_\_ Action Potential reaches axon terminal and calcium channels open

\_\_\_\_\_ Neurotransmitters bind to receptors on dendrites

\_\_\_\_\_ Vesicles with neurotransmitters inside travel to end of axon terminal

\_\_\_\_\_ Neuron is at resting potential (-70 mV)

\_\_\_\_\_ Membrane potential becomes more positive ( +30mV)

\_\_\_\_\_ Membrane potential goes to -100 mV but then goes back to -70 mV

\_\_\_\_\_ Vesicles release neurotransmitters into synaptic cleft

\_\_\_\_\_ Causes sodium to rush into cell body

\_\_\_\_\_ Continues along the length of the axon

\_\_\_\_\_ Calcium enters axon terminal and binds to vesicles

\_\_\_\_\_ Sodium channels close

\_\_\_\_\_ Neurotransmitters travel through synaptic cleft and bind to next neuron

1. What is a mixed nerve?
2. What are the three layers that make up the meninges in the nervous system?
3. What is a spinal tap and when would it be done?
4. What is a spinal block, and when would it be used?
5. Label the layers that surround individual nerve fibers.



1. What is a reflex? Where do most reflexes occur?
2. What are the four layers of protection of the brain, from outside in?
3. What is the function of the CSF?
4. What are the three major parts of the brain, and what is their function?
5. What structures are included in the brainstem, and what is their function?
6. 
7. What is the function of each lobe?
8. What is the function of the pituitary gland?
9. What is the function of the hippocampus?
10. What is the limbic system, and what is included in it?