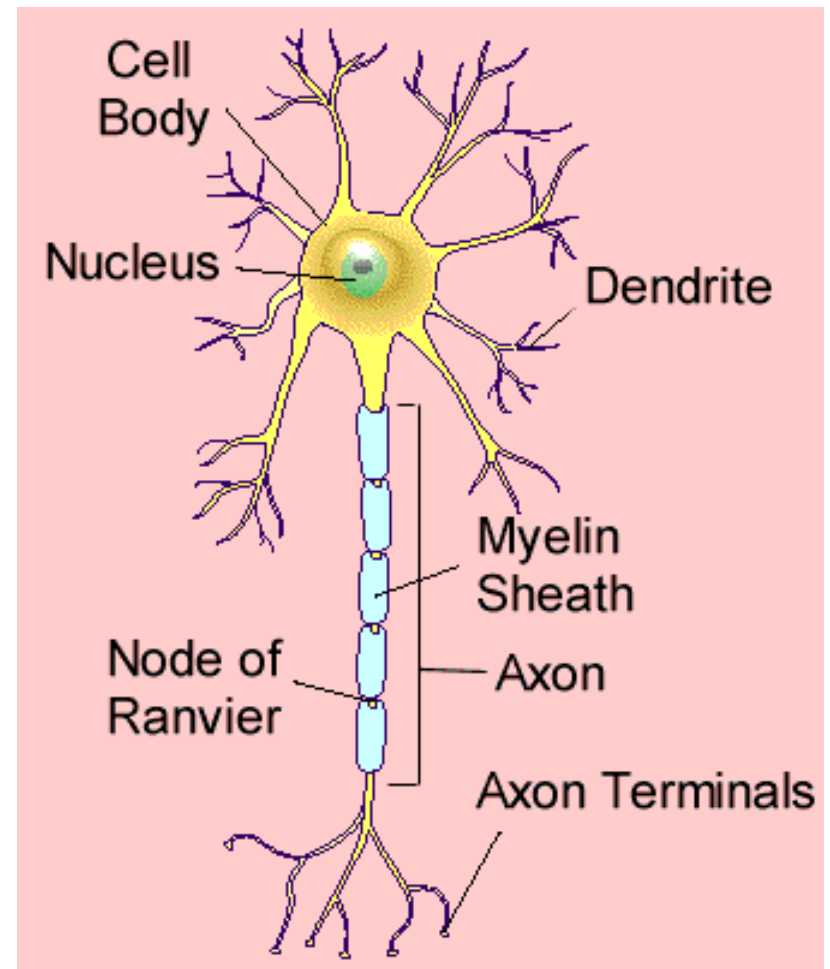


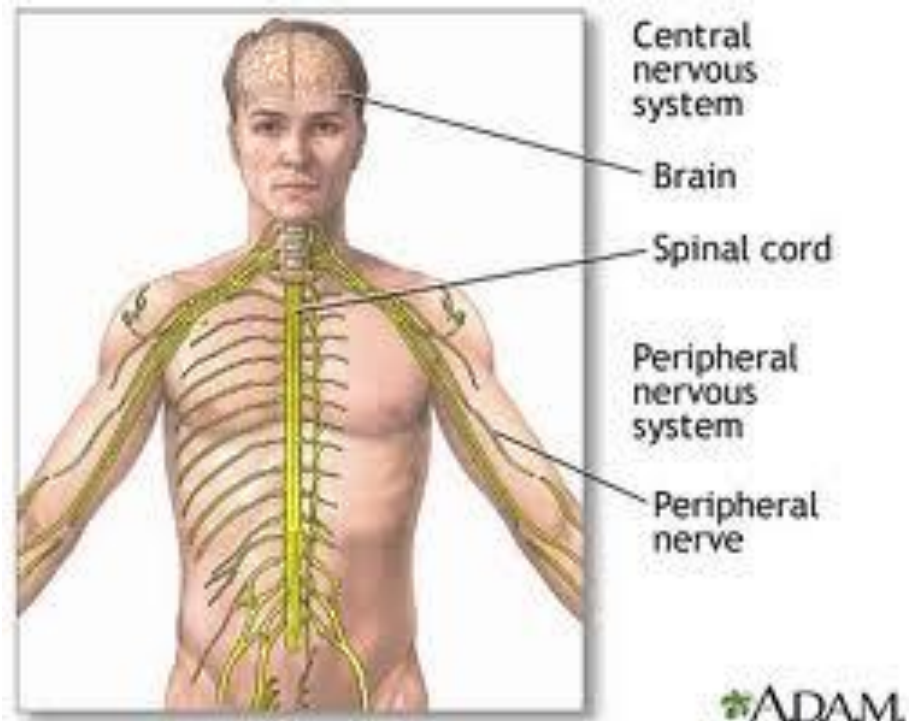
Nervous System

The nerve cell or neuron is the functional (basic) unit of the nervous system.



Nervous System

Central Nervous System consists of the brain and spinal cord



Peripheral Nervous System delivers information to the CNS and carries messages from the CNS to other organs through communication lines called nerves.

Three Main Types of Neurons

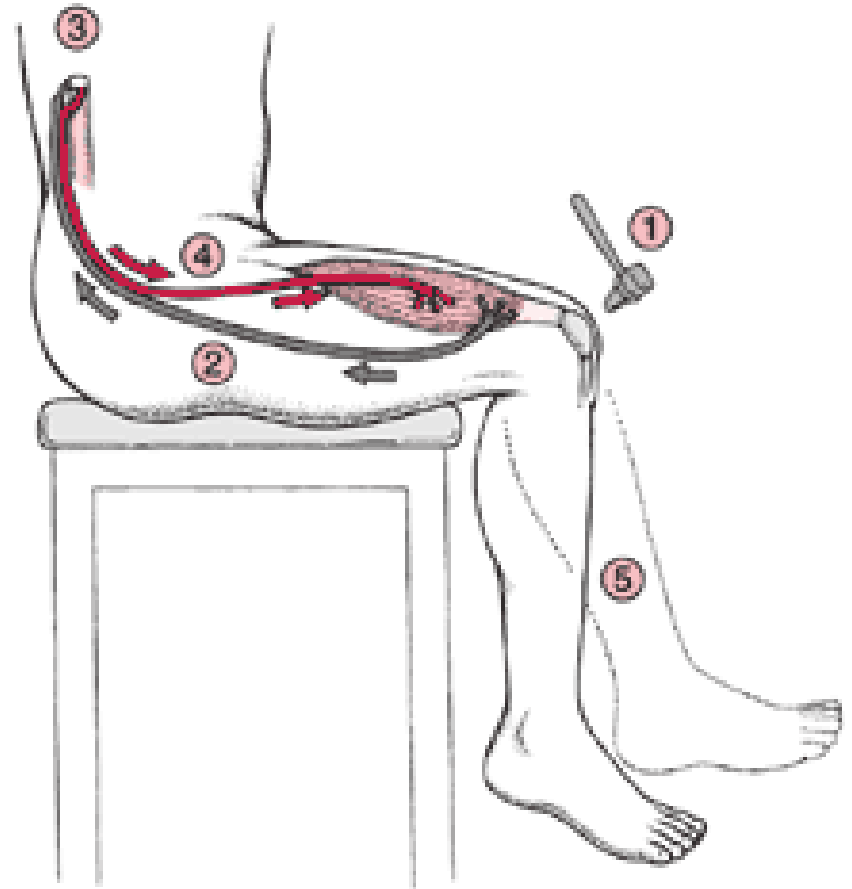
- Sensory- Conduct information from receptors to CNS
- Intermediate- inter connnections
- Motor- Leave- CNS and stimulate muscles or glands

The Reflex Arc

The three types of neurones are arranged in circuits and networks, the simplest of these types of which is the reflex arc.

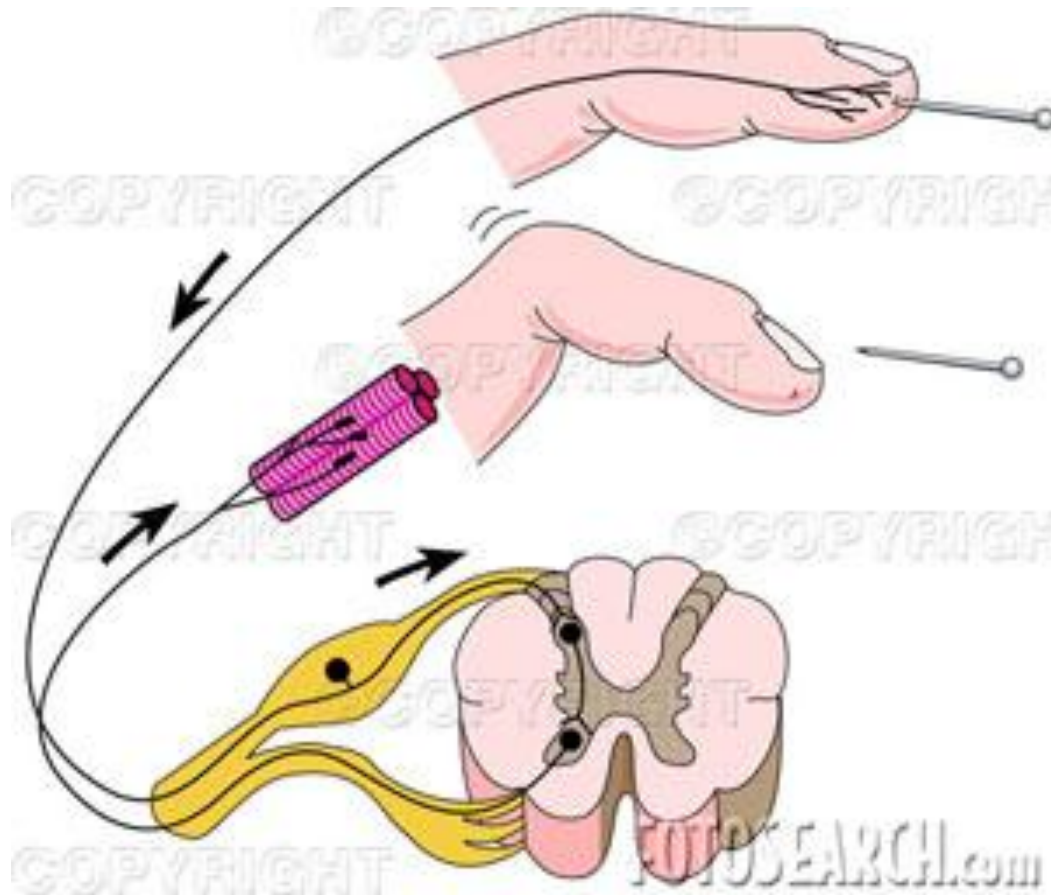
A rapid response to a stimulus that provides protection from harm to an organism. Under involuntary control.

Example.....



Knee Jerk Reflex

Reflex Arc (Sharp object)

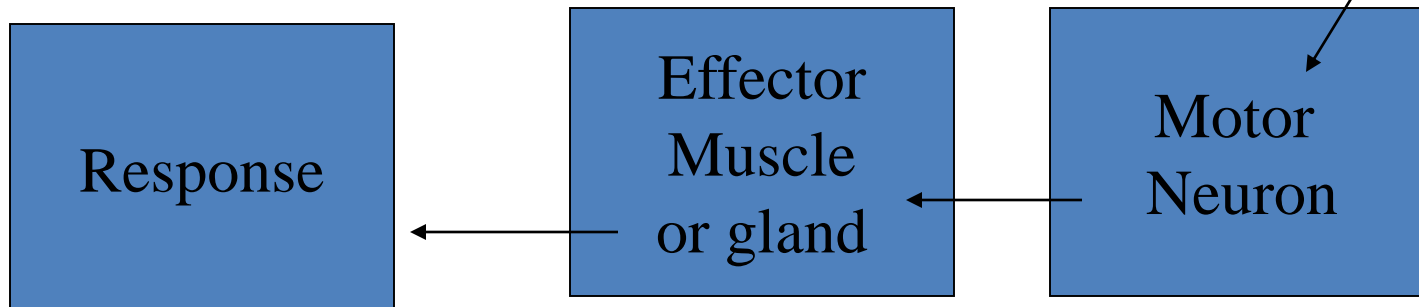
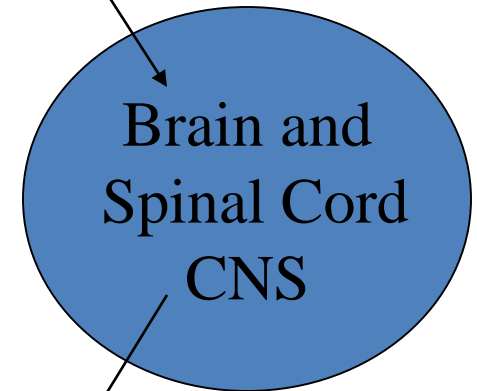


Sensory Input



The nervous system in action

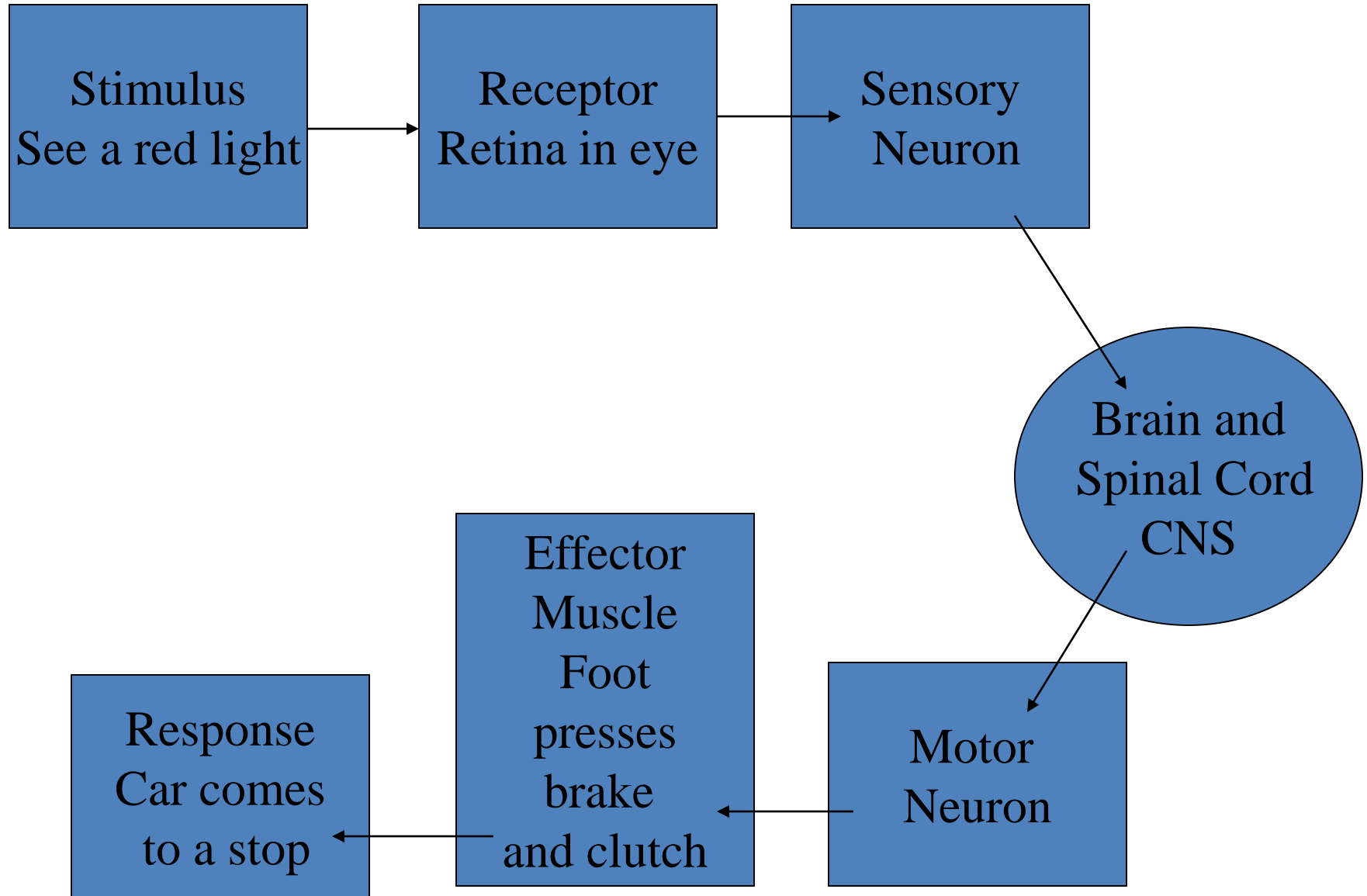
Processing



Motor output

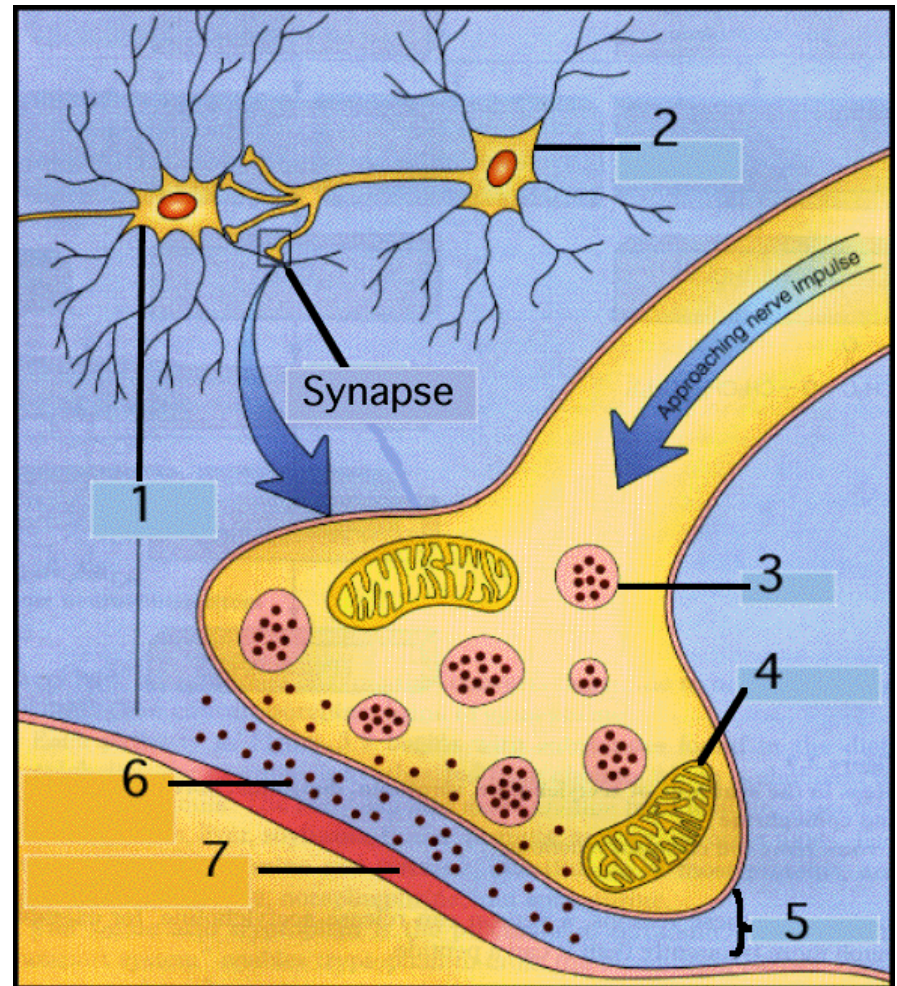
What is going on with the nervous system when you are driving and you see a red light?





Neurotransmitters

These are chemicals that cross the gap (synapse) from one neuron to the next thus transmitting nervous signals.



Action Potential

Release of a neurotransmitter usually follows arrival of an action potential at the synapse.

How an action potential works

<http://www.youtube.com/watch?v=ifD1YG07fB8>

