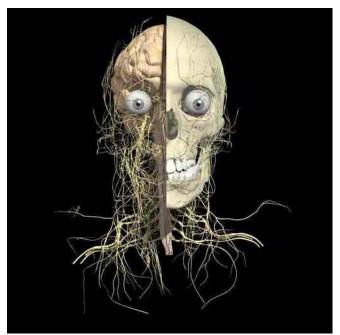
# Nervous System



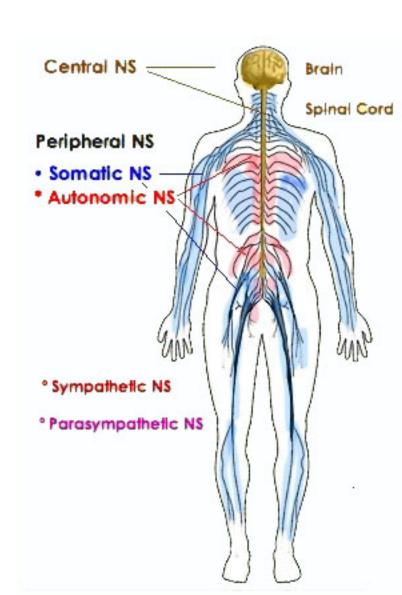






#### Nervous System

- Control center for your body.
- Controls your movements, thoughts, senses, and feelings.
- Made up of brain, spinal cord, and network of nerves.



#### <u>Neurons</u>

- Specialized cells that make up your nervous system. They are the basic building block of the nervous system.
- Longer than other kinds of cells.
- Transmit information through electrical signals called impulses from one part of your body to another. Similar to telephone wires.

#### **How Neurons Work**

- Electrical signals are sent down the length of the neuron.
- Dendrites receive signals from other neurons.

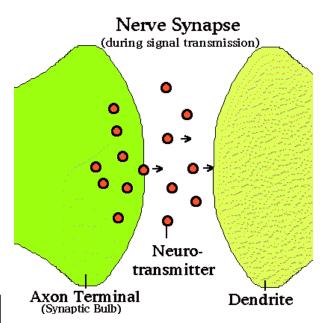
Axon

Terminal buttor

 Axons carry the signal away from the cell body.

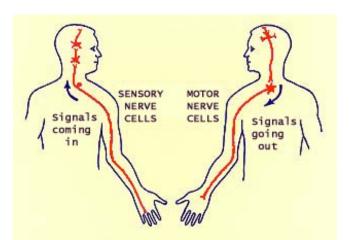
## Synapse

- The gap between neurons.
- It is bridged by neurotransmitters. One neuron produces chemicals that carry the electrical signal to the next neuron.
- The gap between neurons and muscles is also bridged by neurotransmitters.



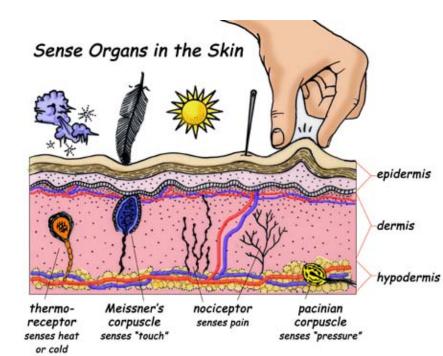
#### Types of Neurons

- Sensory Neurons Transmit signals from sense organs (eyes, ears, skin) to the brain or spinal cord.
- Motor Neurons Transmit signals from the central nervous system to your muscles to tell them to move.
- Interneurons Transmit messages between sensory and motor neurons.



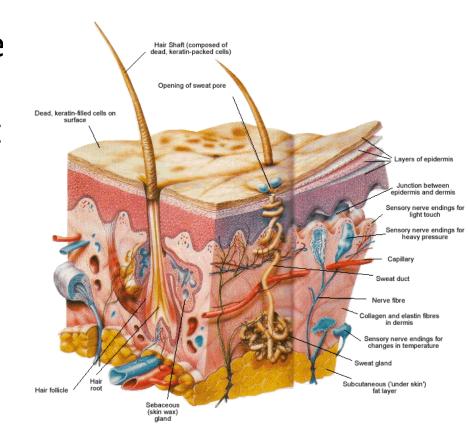
#### **Touch** or Tactile Sensations

- Tiny nerve endings are at the bottom of your skin.
- A nerve cell is stimulated when it is touched. This generates a small electrical impulse.
- The signal travels from nerve to nerve until it gets to the brain.



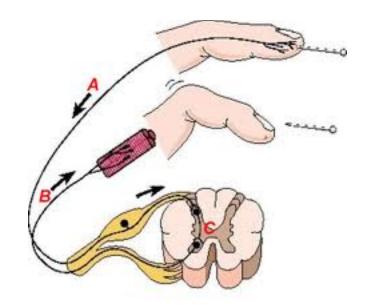
## Nerve Endings or Receptors

- Some parts of your body have more nerve receptors than others.
- Your hands, face, tongue and feet are more sensitive than other part of your body.
- Common types are of receptors are pressure, vibration, temperature, and pain.



#### Reflexes

- Happens without your brain's help.
- Signal goes to the spinal cord, which sends a signal to your muscles to pull away.



### <u>Headaches</u>

- The brain itself does not hurt because it doesn't have pain receptors.
- Muscular headaches occur when the muscles in your face or neck squeeze too hard.

 Vascular headaches occur when blood vessels in your head swell.

