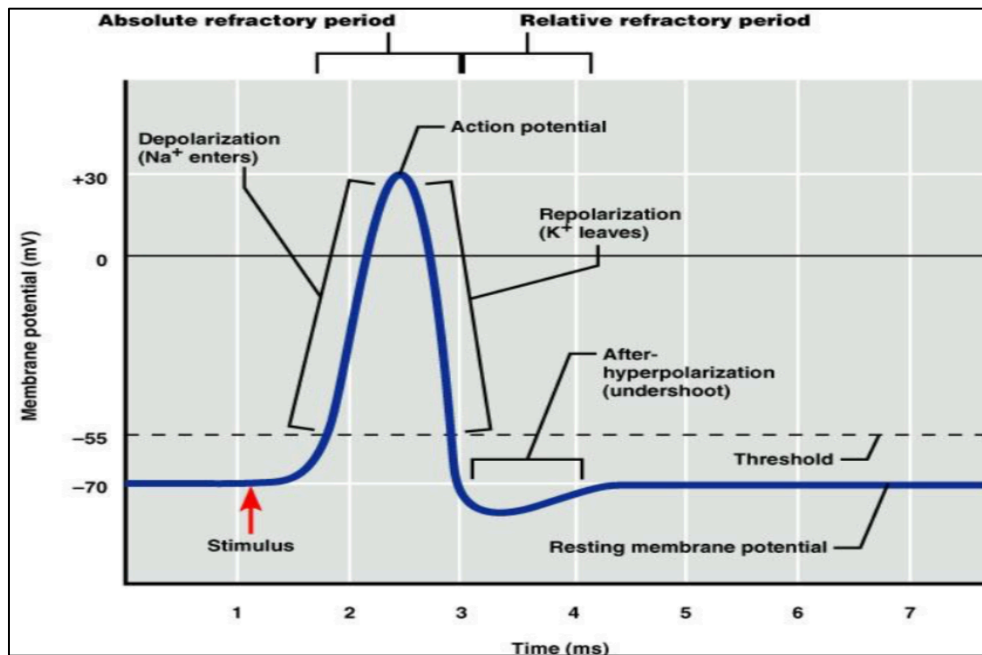


# LECTURE B NOTES

Anything highlighted in Blue is a possible test/exam question

## Changes in Membrane Potential :

- The potential difference across the membrane of a resting neuron is -70mV
- Changes are caused by 3 events
  1. **Depolarization**- inside of the membrane becomes less negative.
  2. **Repolarization**-membrane returns to its resting membrane potential
  3. **Hyperpolarization**- inside of the membrane becomes more negative than the resting potential

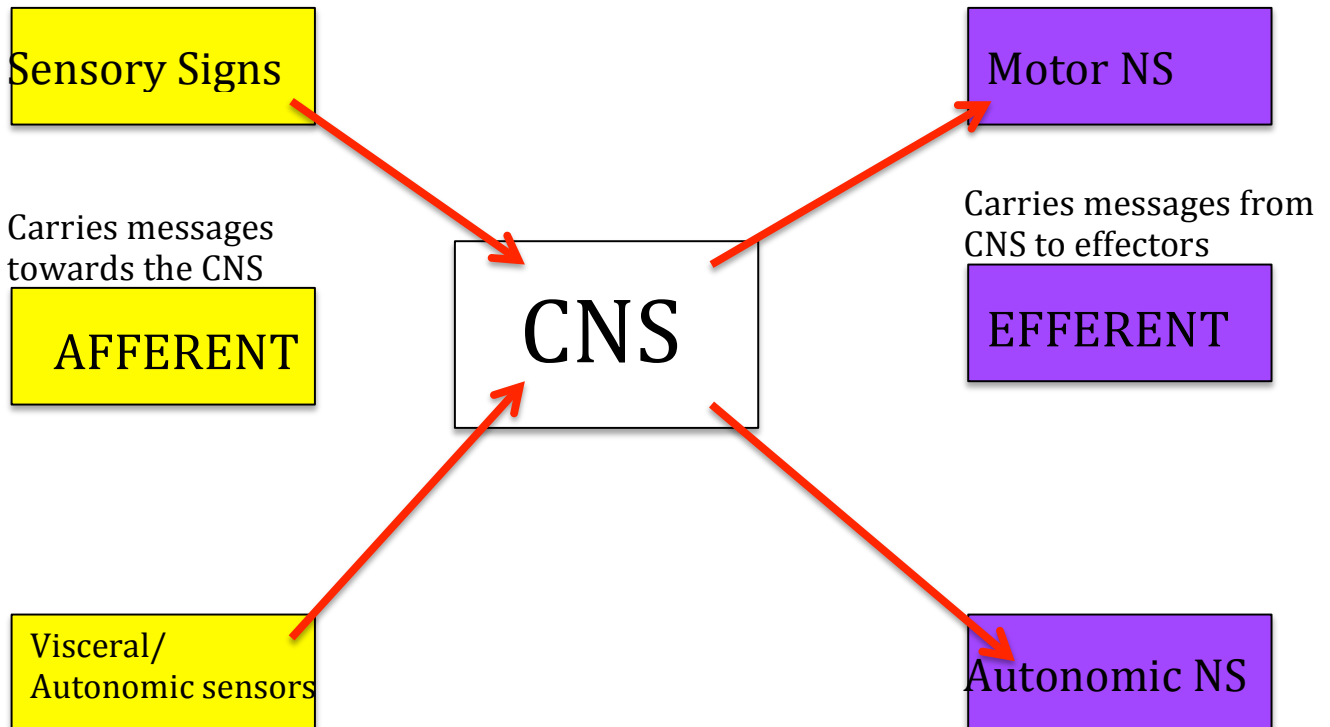


## Fundamentals of the Nervous system and tissues

### Nervous System:

- The master controlling and communicating system of the body
- Functions :
  - **Sensory input**- Monitoring stimuli occurring outside and inside the body
  - **Integration**- interpretation of sensory input
  - **Motor output**- response to stimuli by activating effector organs

### Afferent and Efferent CNS connections:



### Histology of Nerve Tissue:

#### ▪ The 2 principle cell types of the nervous system:

1. **Neurons**-Excitable cells that transmit electrical signals
2. **Supporting cells**- Cells that surround and wrap neurons

### The brain has about 100 billion neurons:

- Action potentials (nerve impulses ) are electrical impulses carried along the length of axons.
- **Anterograde**- towards axonal terminal
- **Retrograde**- Away from axonal terminal
- Dendrites are responsible for the reception of information sent to the integration centre and then sent to the target organs

### Myelin Sheath:

- Whitish , fatty (protein-lipoid) , segmented sheath around most long axons.
- **Functions:**
  - Protect the axon