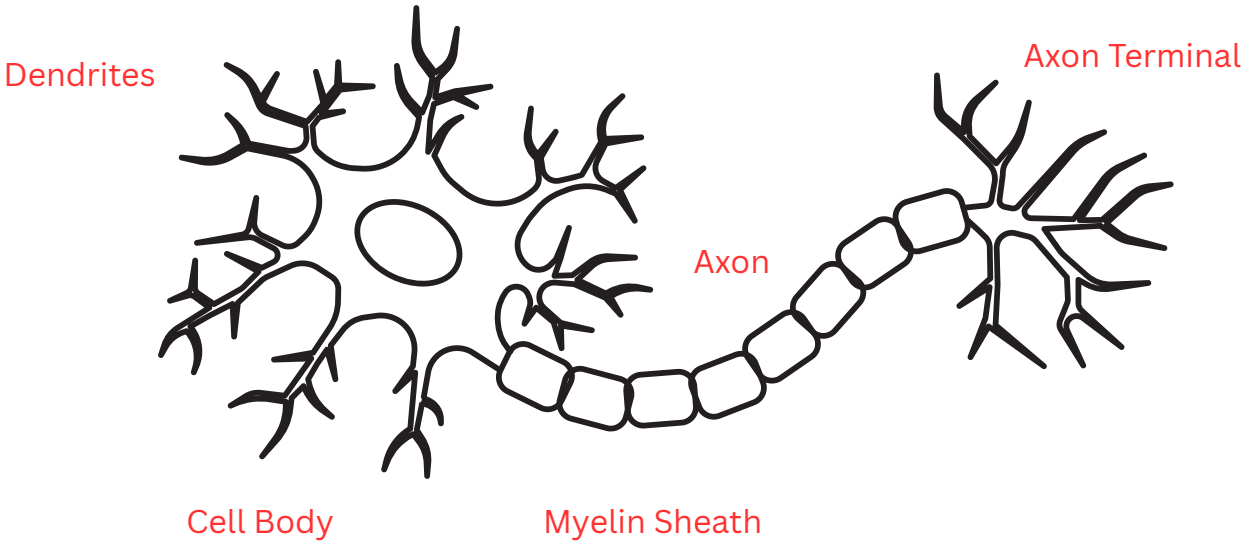
Chapter Three:Neurophysiology

- Label the Neuron



- How does direction information travel through the neuron?
  - Dendrites receives electrical signals, takes signal to cell body, Cell body integrates signal and takes signal to axon, Axon takes signal away from cell body.

- What surrounds the axon and increases the speed of transmission of information?
  - Myelin Sheath which also provides nutrients

- What are the different membrane ion channels and how are the used?
  - Passive: no energy required
  - Active: ATP Energy Required
    - Voltage gated: uses Na/K
    - Chemically: hormones requires key
    - Mechanically gated: Blown open

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- Explain the Sodium Potassium pump in detail.
    - Na/K pump is a positively charged pump. Na is extracellular while K is intracellular, this is an inefficient and never equal way to exchange ion, It is 3 sodiums for every 2 potassium

- Draw the Nervous System Chart and their functions.
    - Nervous System
        - Central nervous System
            - Brain
            - Spinal Cord
        - Peripheral Nervous System
            - Motor Neurons
                - Somatic
                - Autonomic
                    - Sympathetic
                    - Parasympathetic
            - Sensory Neurons

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- What is the primary way the Nervous System communicates? What cells are they?
    - Through Action Potential, only cells with excitable membranes can generate AP,
    - Neurons
    - Muscle Cells

- What is the resting membrane potential?
    - Negative 70 mv
    - Gates are closed while resting
    - This is the charge when nothing is going on

- Draw a Action Potential Graph and label each section, with their functions.