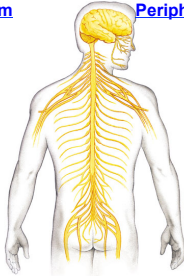


### 2 Parts to the Nervous System

**Central Nervous System**

- Brain
- Spinal Cord



**Peripheral Nervous System**

- Peripheral Nerves

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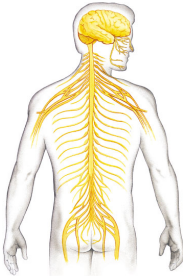
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### Functions of the Nervous System

- **Main Job:** Communication and coordination
  - Adapt and respond to changes from both inside and outside the body
- **Parts:** Two main divisions
  1. **Central nervous system** (CNS): brain and spinal cord
  2. **Peripheral nervous system** (PNS)- the nerves



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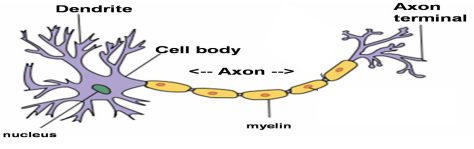
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### Neuron

- Basic structural unit of the nervous system
- Passes signals throughout the body



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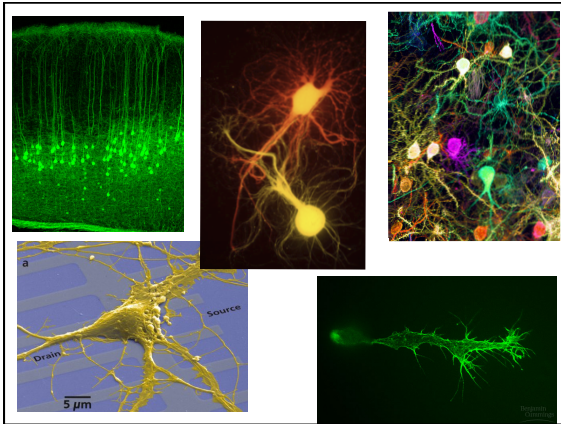
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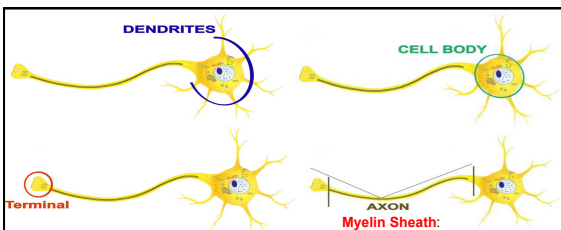
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**Parts of a neuron**

- Cell body**- contains the nucleus and other organelles
- Dendrites**- transmit electrical impulses TO the cell body
- Axon**- transmits impulse AWAY from the cell body axons can be several feet long
- Myelin Sheath**: Protects and insulates the axon so the nerve signal doesn't escape!

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**How are neurons connected?**

- **Synapses**
  - The Gap Between Neurons

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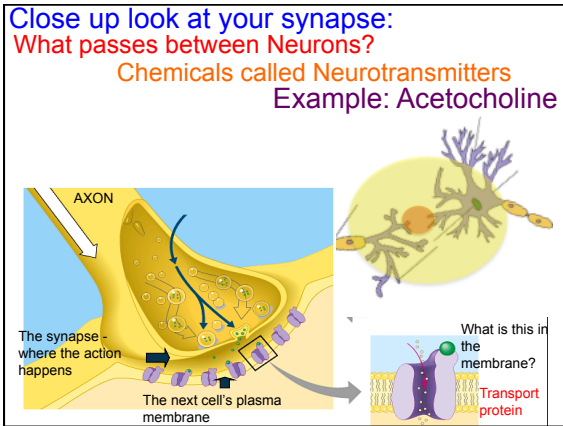
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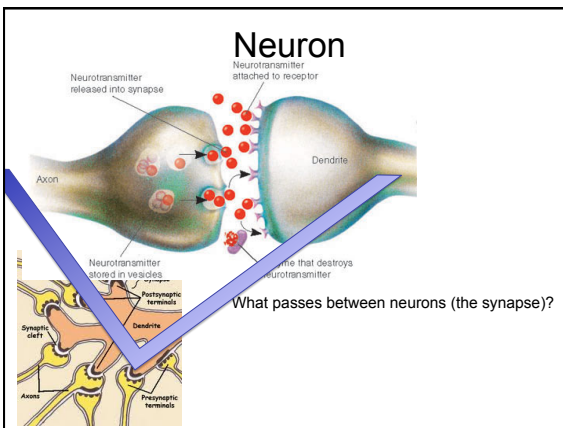
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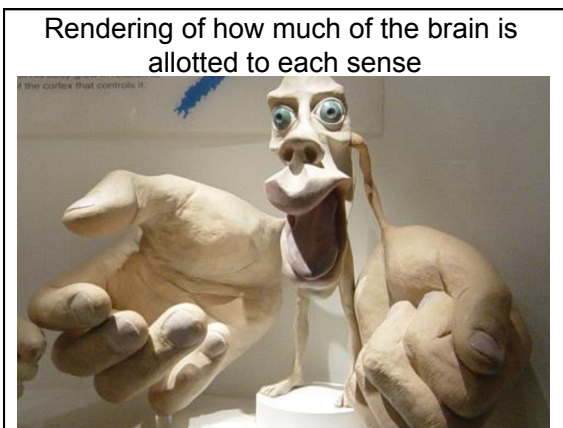
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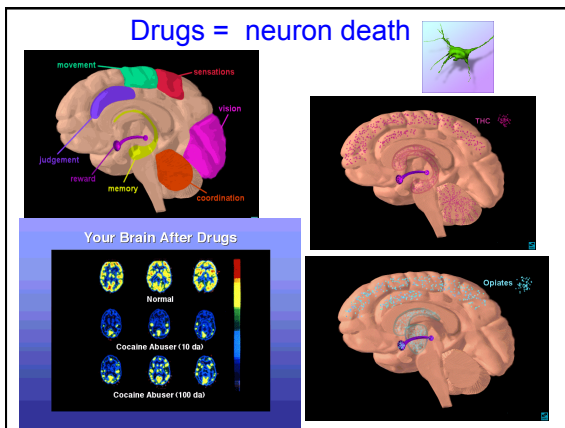
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