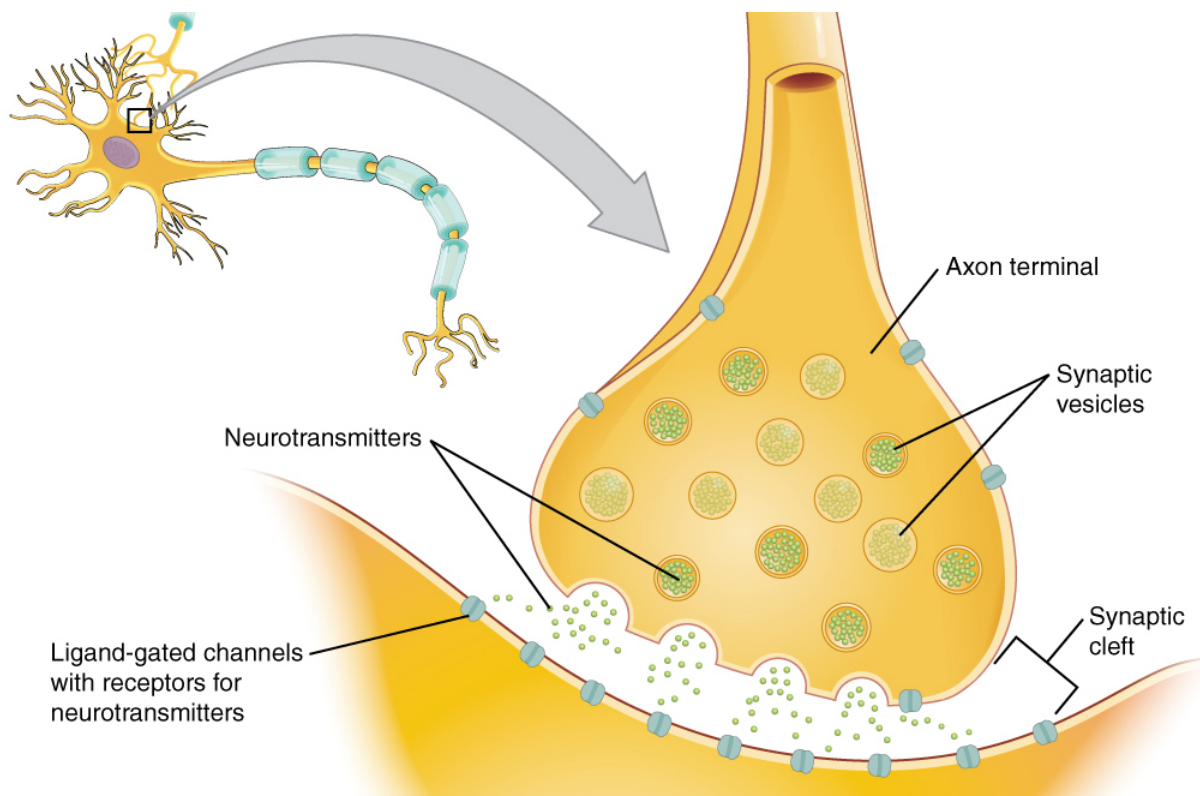


What are Neurons and Why do they Matter?

Brain cells ("neurons") are lined up in order to pass messages from one cell to another. **They do not touch each other, so they are unable to pass the message directly.** These chemicals in your brain that carry messages are called *neurotransmitters*.



Each neuron has three major parts: the dendrite, the cell body, and the axon. The dendrite receives the message. And the cell body is the command center and contains your unique "blueprint" referred to as DNA for interpreting the information. The axon consists of fibers that prepare the message to be sent on to the next neuron. The space between each neuron is called the **synapse**. The axon releases the "message carriers" or neurotransmitters into the synapse and carries the information to the dendrites of the next neuron. The dendrite is like a tree branch.

Messages must attach to a specific spot on a specific branch. Once the message is attached to the next dendrite, the neurotransmitters return home to the axon via a "reuptake pump."