



Neurons are specialized cells that transmit information throughout the nervous system. They consist of a cell body (soma) containing the nucleus, dendrites that receive signals, and an axon that carries signals to other neurons or muscles. The axon is often covered by a myelin sheath, which speeds up the transmission of electrical impulses.



A synapse is the point of contact between two neurons where they can pass information from one to the other. It consists of an axon terminal from one neuron and a dendrite from another neuron. Inside the axon terminal are synaptic vesicles that contain neurotransmitters. When an action potential reaches the axon terminal, it causes the vesicles to release their contents into the synaptic cleft, where they bind to receptors on the dendrite, triggering a new action potential.