

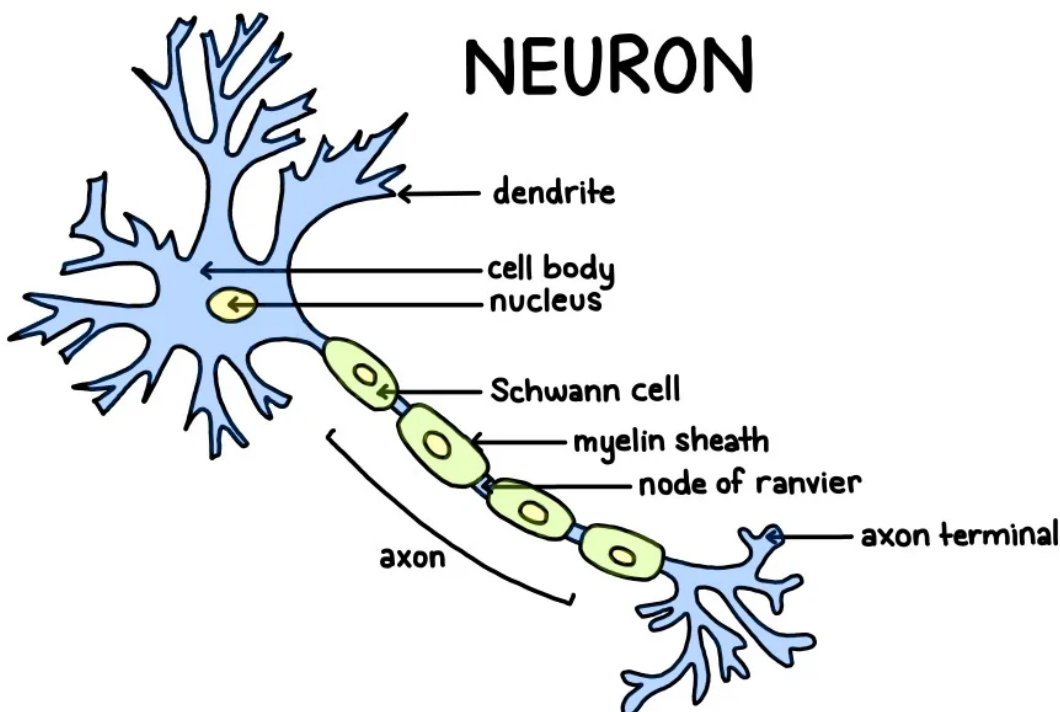


Connectome

[Source: TH](#)

The human brain, comprising billions of [neurons](#), forms a complex network vital for our existence and cognition. Understanding this intricate network, known as the **connectome**, offers profound insights into brain function and neurological disorders.

- Connectome Concept represents a comprehensive **map of neural connections**, akin to a **blueprint illustrating the electrical and chemical signals** exchanged between neurons.
- A neuron consists of a **cell body containing the nucleus**, **dendrites for receiving** input, and an **axon for sending messages**, sometimes enveloped by a **myelin sheath** for faster signal transmission.
 - Neurons communicate through synapses, where dendrites **receive chemical signals**, **convert them to electrical impulses**, and transmit them through axons to other neurons.
- Despite the brain's complexity and data volume, the **connectome simplifies scientists' understanding**, facilitating advancements in neuroscience and neurological health research.
- Mapping the connectome aids in comprehending brain function and the impact of conditions like [Attention deficit hyperactivity disorder \(ADHD\)](#) and [Alzheimer's disease](#) on neural processes.



Read more: [Brainware](#), [Mysterious Cells in Human Brain](#)

PDF Refernece URL: <https://www.drishtias.com/printpdf/connectome>

