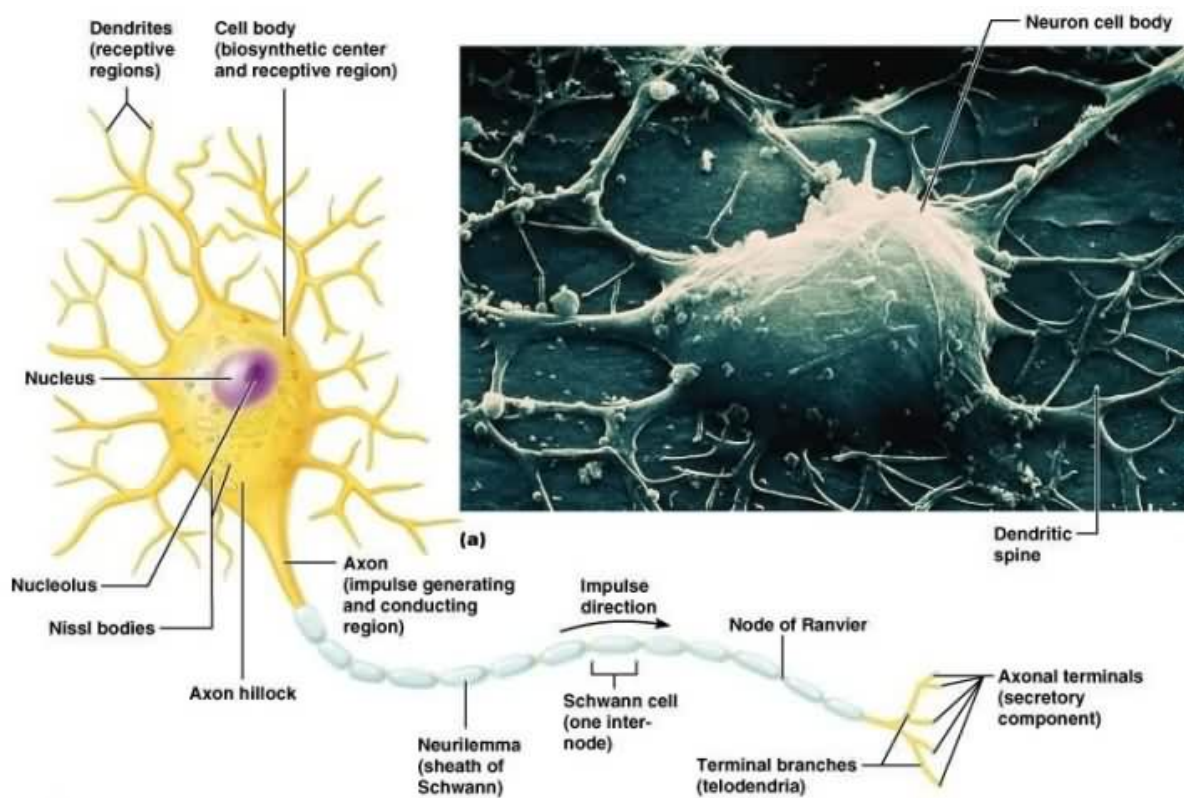
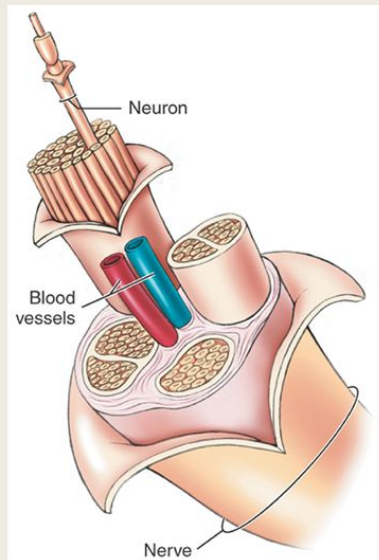


7.2: Nervous Tissue - Structure and Function



7.2: Nervous Tissue - Structure and Function

Nerve vs. Neuron



- Neuron: A single nerve cell
- Nerve: Bundles of neurons with fascia and blood supply

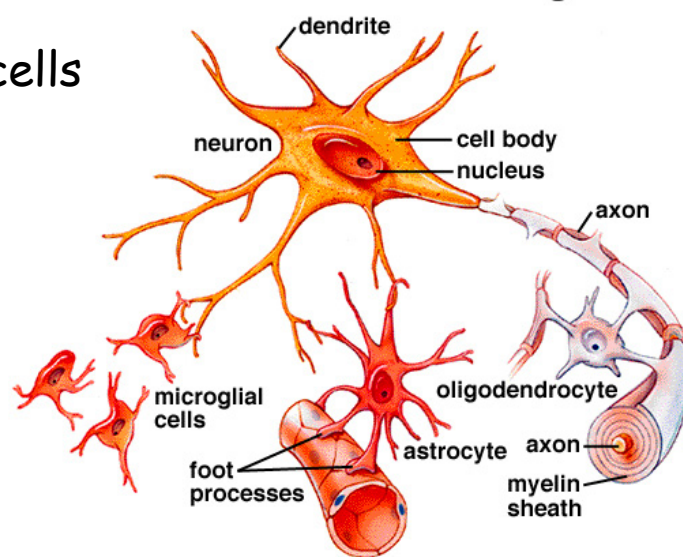
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13

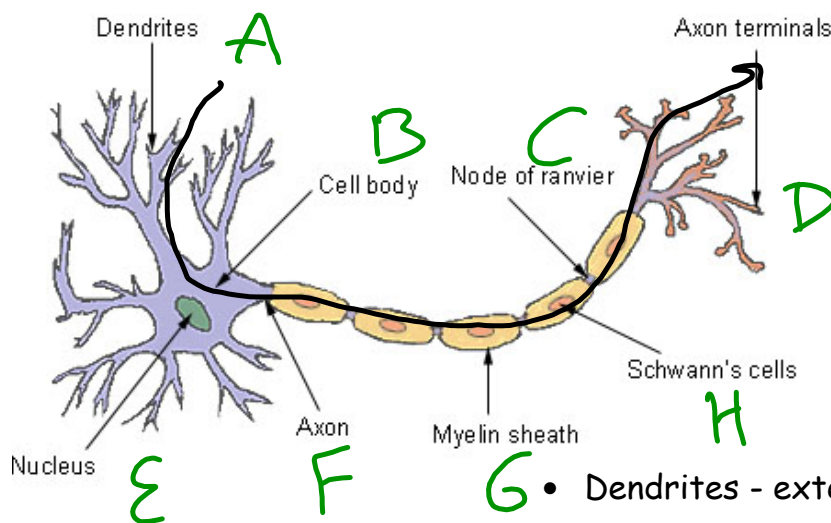
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Neurons and neuroglia

Neuroglia - Support cells

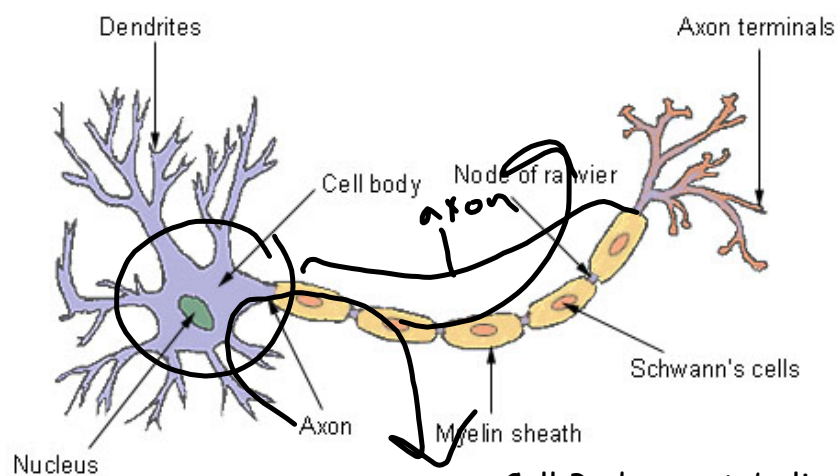


Structure of a Typical Neuron



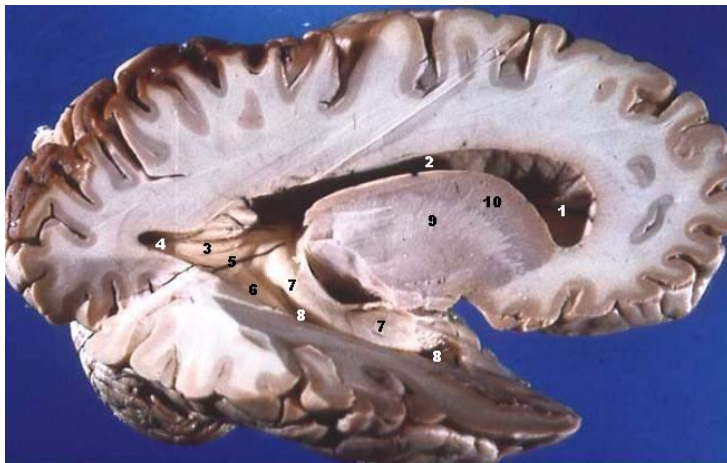
- Dendrites - extend from cell body; receive impulse (info.)
- Axon - long section; transmits impulses
- Axon terminals - release impulse

Structure of a Typical Neuron



- Cell Body - metabolic center
- Nucleus - genetic material
- Myelin sheath - insulates axon (made of schwann's cells)
- Node of ranvier - gaps in myelin sheath (allow flow of ions)

White vs. Gray Matter



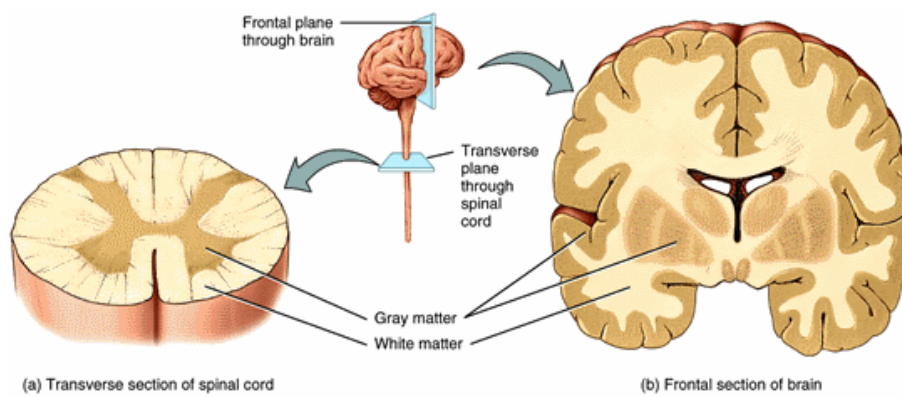
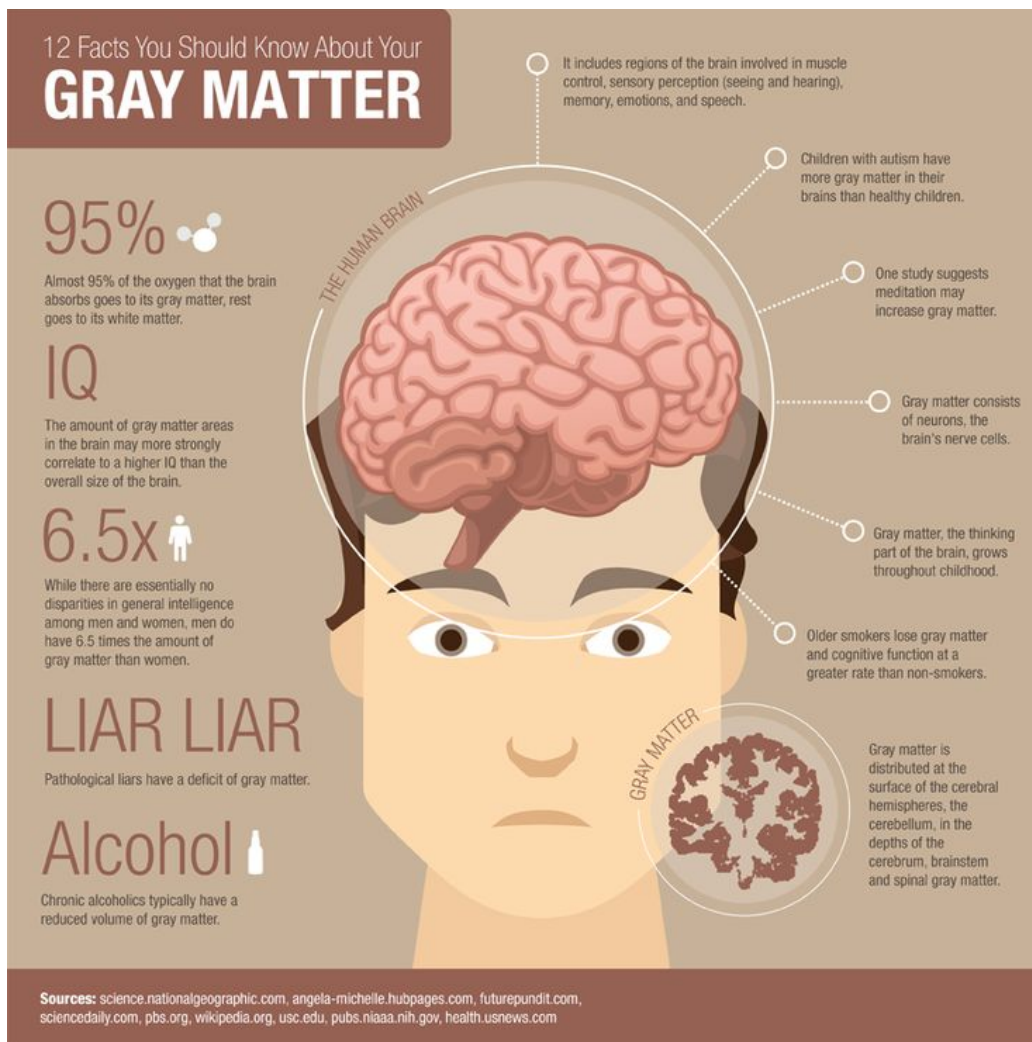


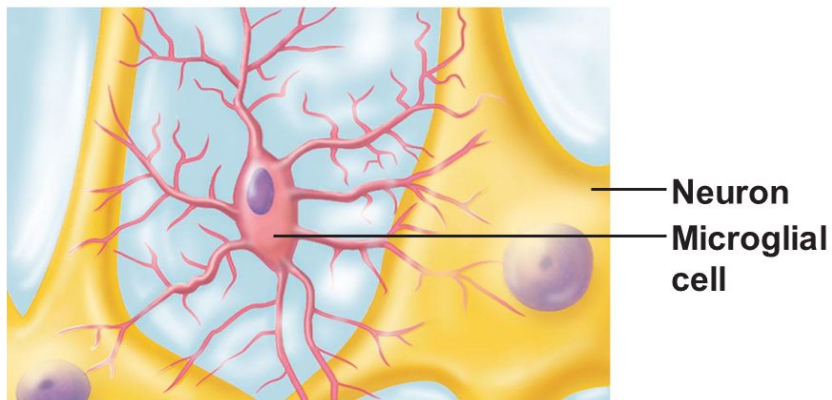
Figure 17.09a Tortora - PHA 11/e
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White Matter - Myelinated Axons concentrated
Gray Matter - Non-myelinated cell body concentrated.



Neuroglia - Support cells

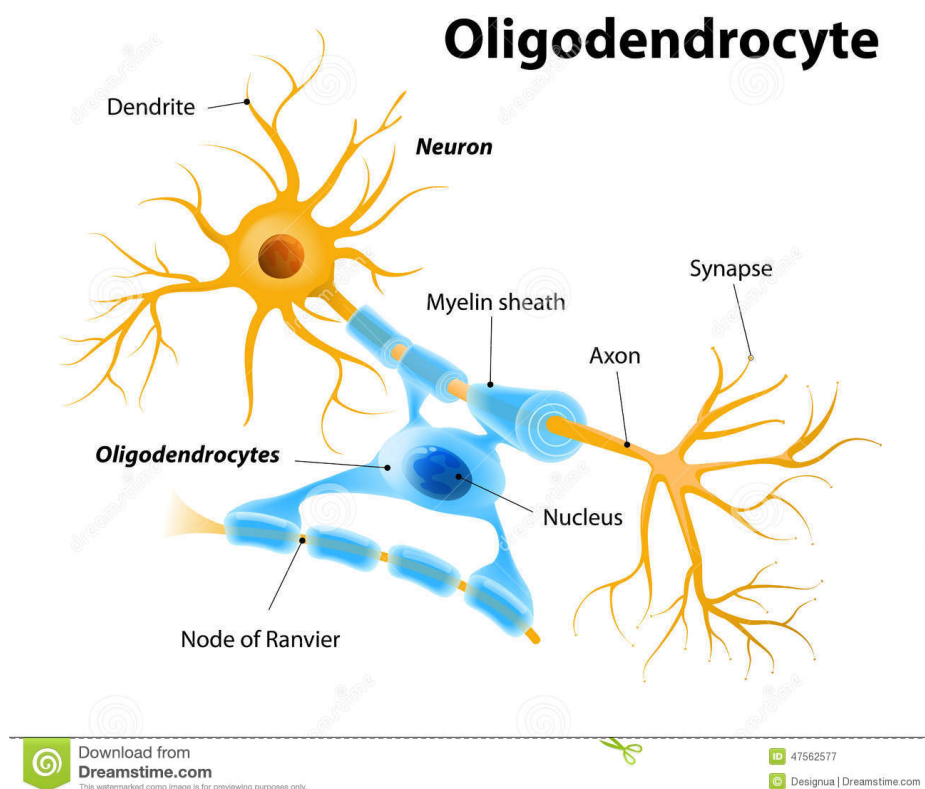
1) Microglial cells - digest debris and bacteria



(b) Microglial cells are defensive cells in the CNS.

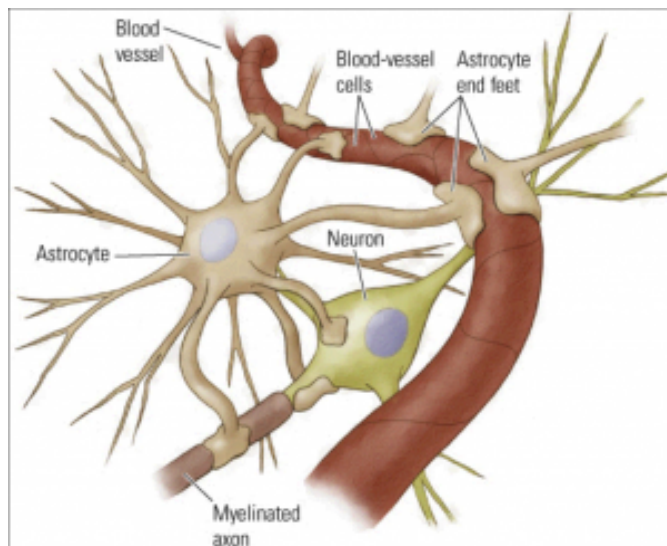
Neuroglia - Support cells

2)Oligodendrocytes - makes the myelin sheath



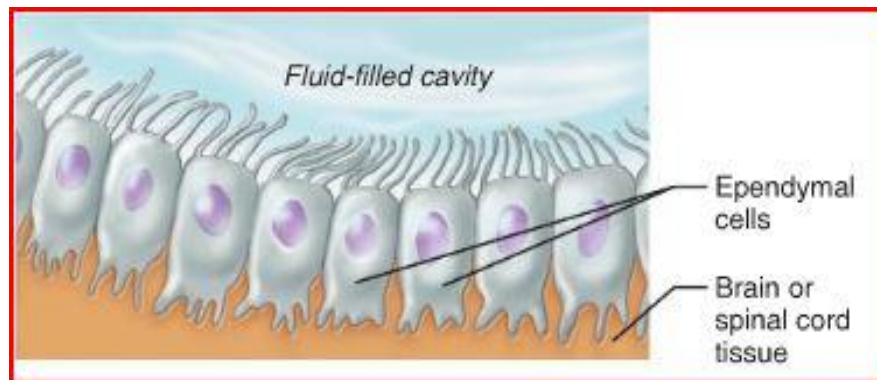
Neuroglia - Support cells

3)Astrocytes - connect blood vessels to neurons



Neuroglia - Support cells

4)Ependemyl Cells - forms a membrane



Neuroglia - Support cells

5) Schwann Cells - forms myelin sheath

