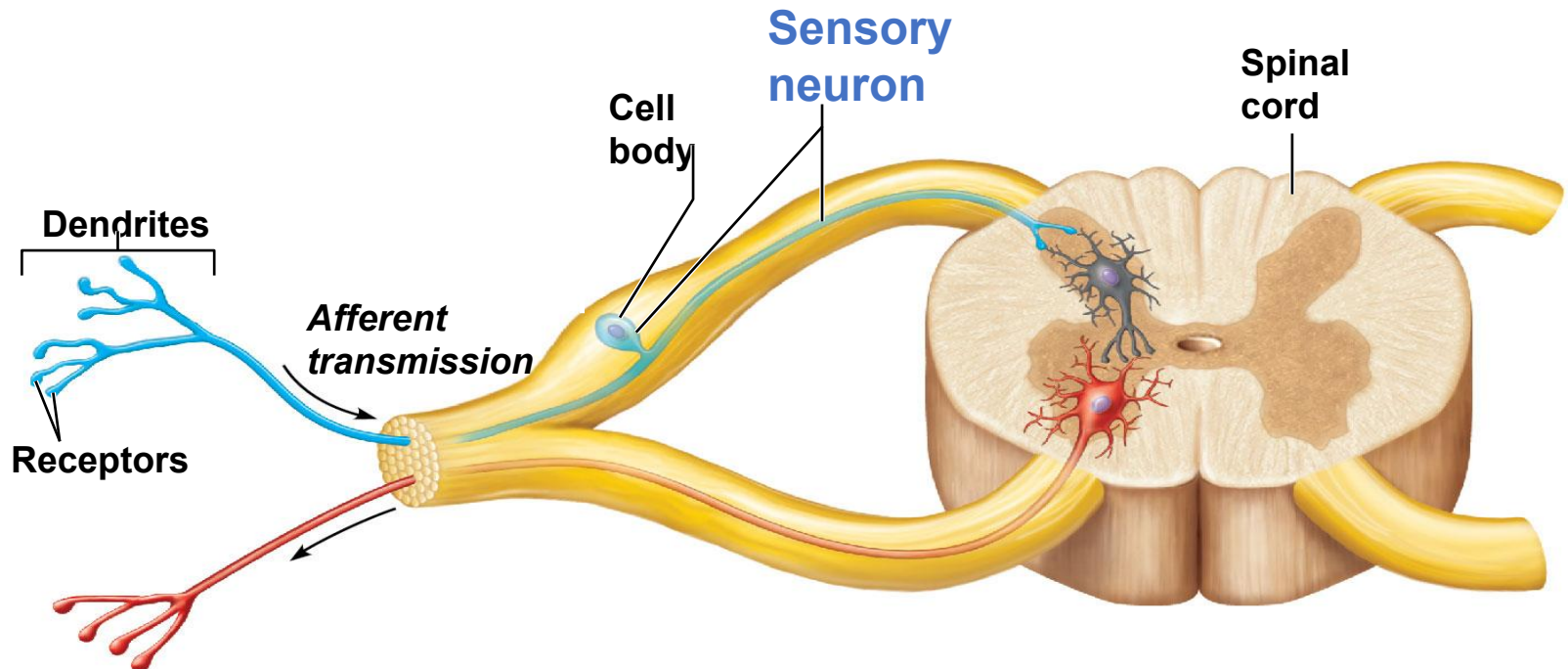


Classification of Neurons

- Neurons are classified based on their function or structure.
 - **Functional Classification:** based on function
 - **Sensory Neurons**
 - **Motor Neurons**
 - **Interneurons**
 - **Structural Classification:** based on number of processes extending from the cell body
 - **Unipolar Neurons**
 - **Multipolar Neurons**
 - **Bipolar Neurons**

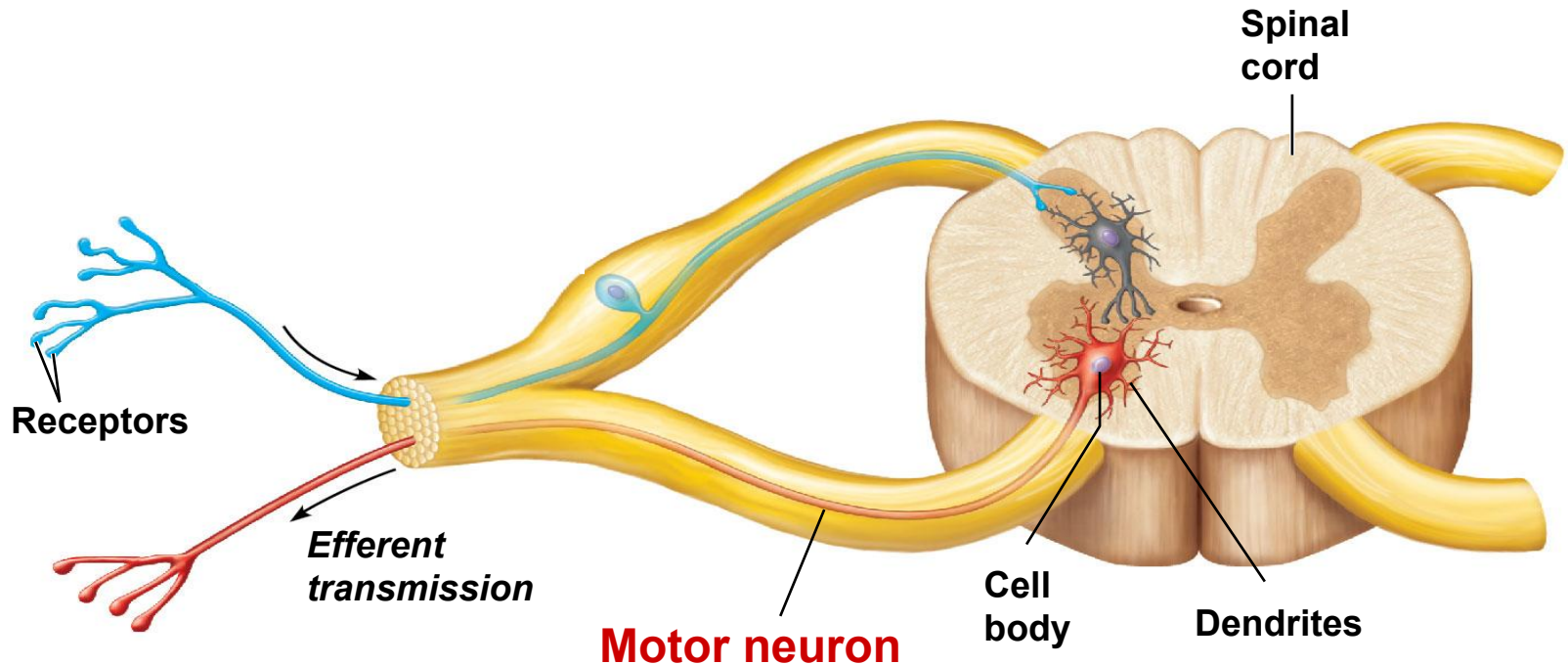
Functional Classification

- **Sensory (Afferent) neurons**
 - Carry impulses from the sensory receptors to the CNS
 - Receptors include:
 - Pain receptors, Temperature receptors, Pressure receptors, Touch receptors



Functional Classification

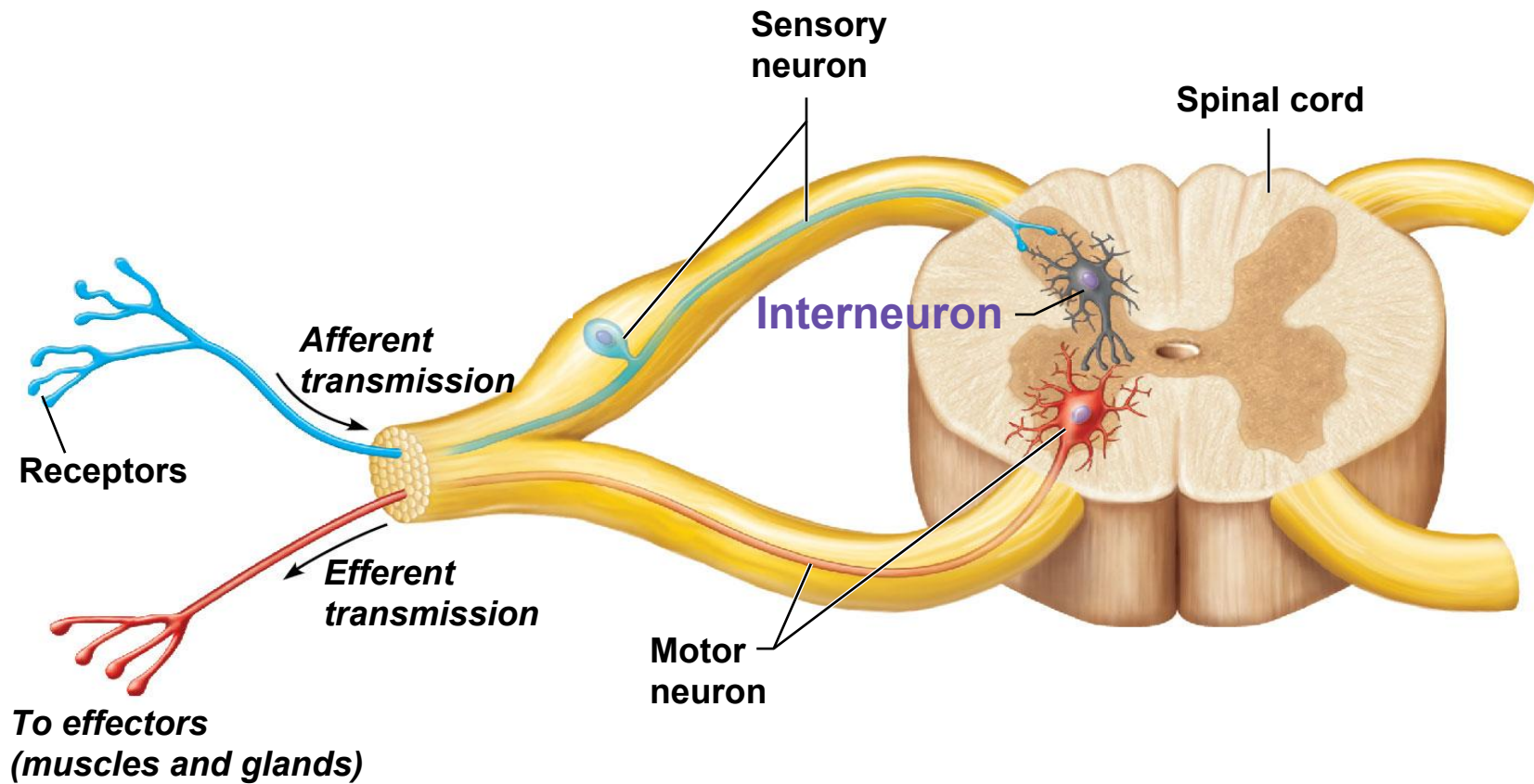
- **Motor (Efferent) neurons**
 - Carry impulses from the CNS to organs and/or muscles and glands



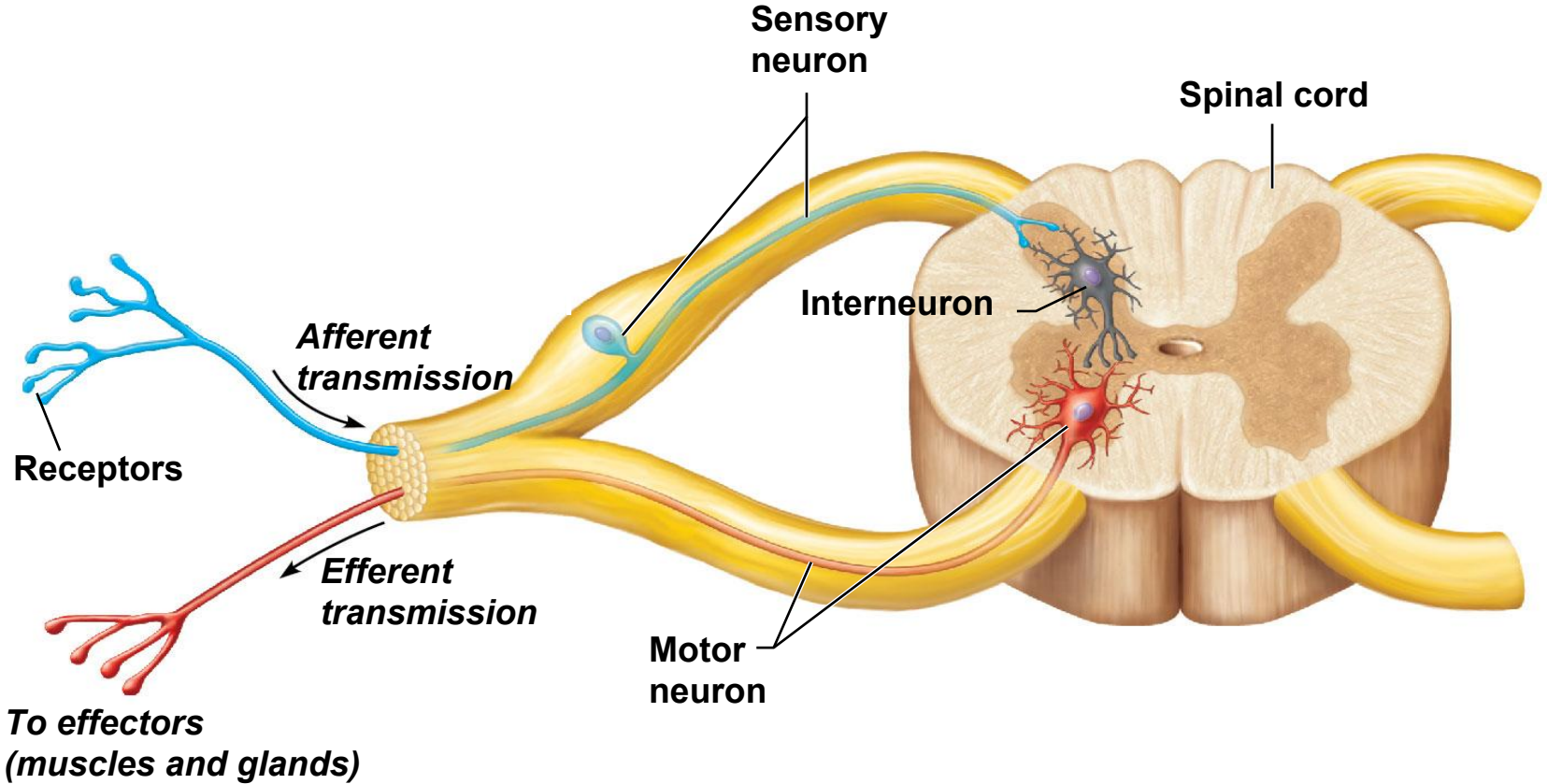
Functional Classification

■ Interneurons

- Cell bodies located in the CNS
- Connect sensory and motor neurons



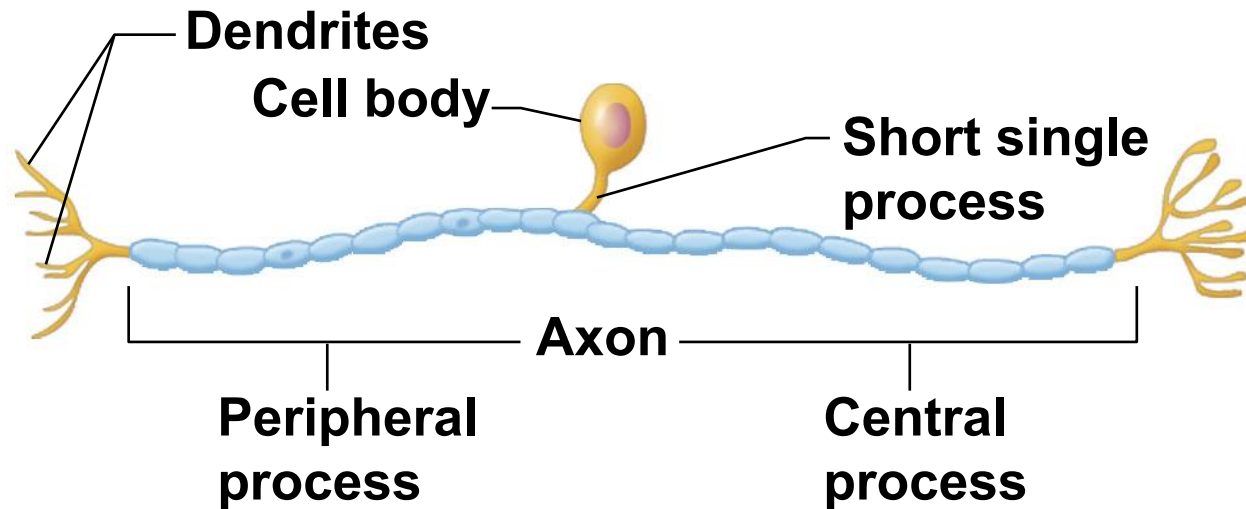
Do you notice any structural differences between sensory, motor, and interneurons?



Structural Classification

■ Unipolar neurons

- Have a short single process leaving the cell body
- Sensory neurons found in PNS

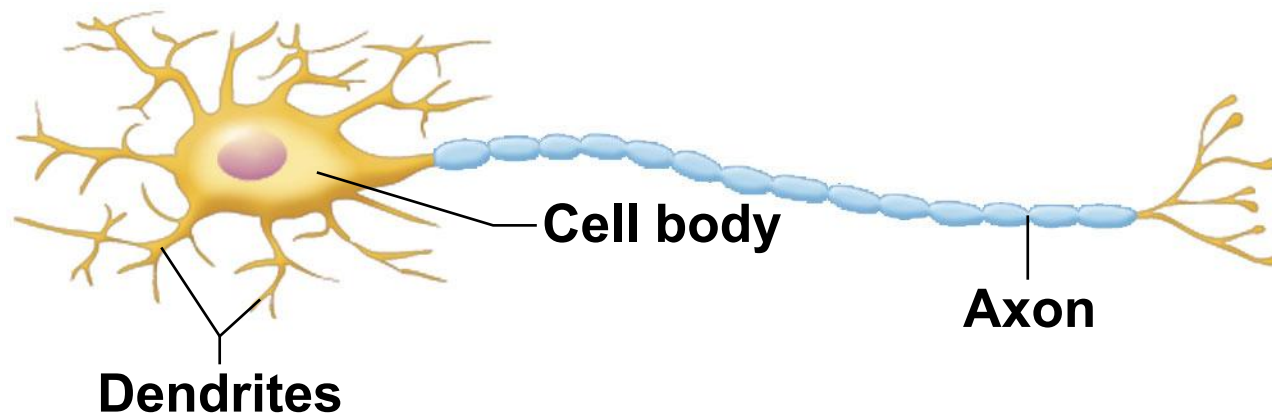


(c) Unipolar neuron

Structural Classification

- **Multipolar neurons**

- Many extensions from the cell body
- All motor and interneurons are multipolar
- Most common structural type

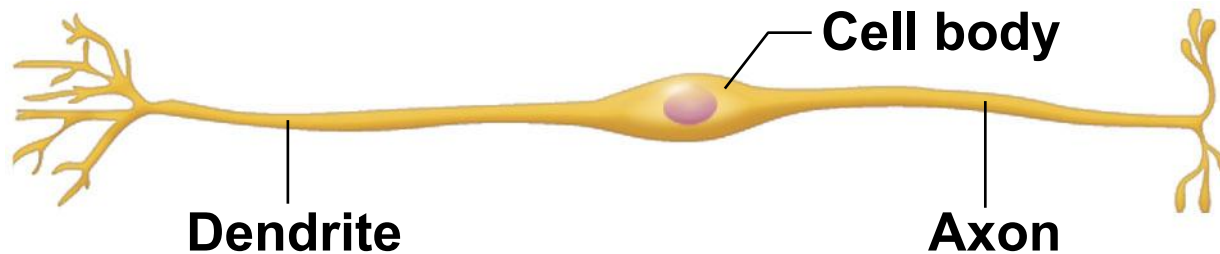


(a) Multipolar neuron

Structural Classification

- **Bipolar neurons**

- One axon and One dendrite
- Located in special sense organs, such as nose and eye
- Rare in adults



(b) Bipolar neuron