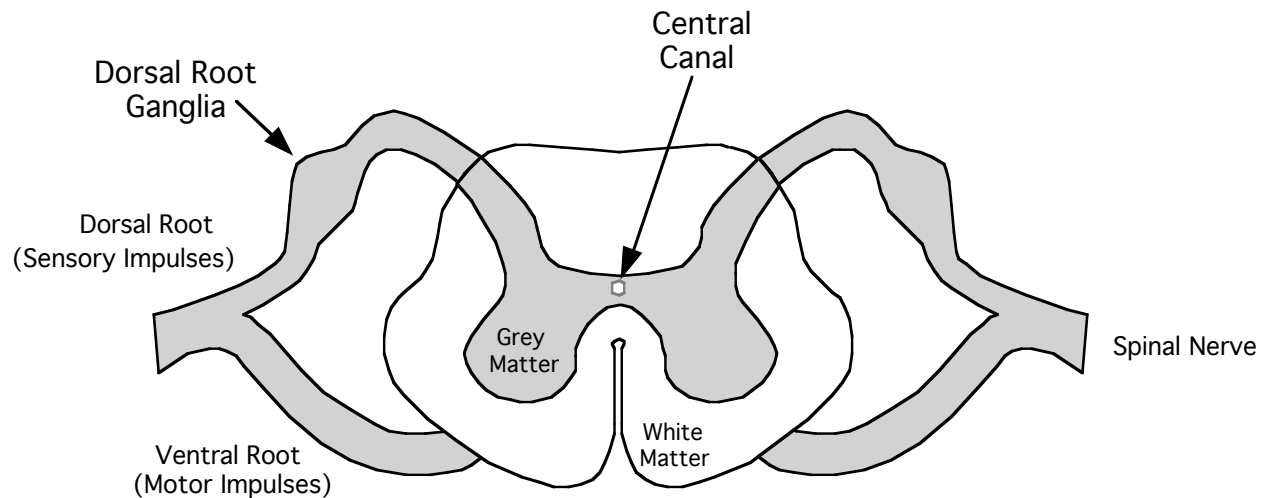


Spinal Cord, Brain & Autonomic Nervous System

Text: Human Biology, by Mader. pp. 232-294

1. Spinal Cord (p. 283 - 284)
2. Anatomical Considerations
 - A. Medulla Oblongata
 - i. Foramen magnum
 - B. Spinal Meninges
3. Cerebrospinal Fluid
 - A. Production
 - B. Flow
 - C. Retrieval
 - D. Functions
 - i. Protection
 - ii. Nutrient and Waste Transport

4. Anatomical Characteristics of a Spinal Cord Cross Section (p. 283)



A. Gray Matter

- Central Canal

B. White Matter

C. Spinal Nerve

D. Dorsal Roots

- i. Dorsal Root Ganglion

E. Ventral Roots

5. Major Functions of Spinal Cord

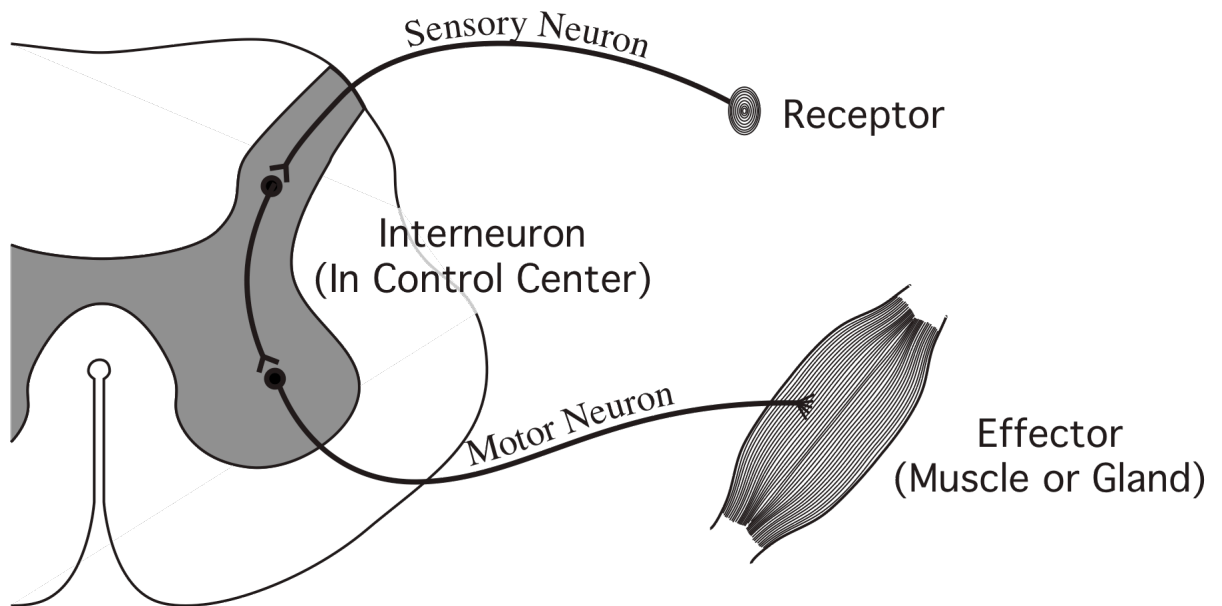
A. Impulse Transmission

B. Reflex Center

C. Reflex Integration

6. Reflex Arc (p. 284; p. 292, see also figure 13.15)

- Conduction Path



- A. Receptor
- B. Sensory Neuron
- C. Center
- D. Motor Neuron
- E. Effector

7. Brain (p. 285 - 290)

A. Cerebrum

i. Cerebral Hemispheres

a. Corpus callosum

ii. Convolutions

a. Sulci

b. Gyri

iii. Cerebral Cortex (p. 286)

B. Major Lobes of the Cerebrum (p. 285 - 287)

i. Frontal Lobe (p. 286)

a. Primary Motor Areas

ii. Parietal Lobe

a. Primary Somatosensory Area

b. Somatosensory Association Area

iii. Occipital Lobe

a. Primary Visual Area

b. Visual Association Area

iv. Temporal Lobe

a. Primary Auditory Area

b. Auditory Association Area

C. Basal Nuclei (Ganglia) (p. 287)

8. Diencephalon of Brain

A. Hypothalamus (p. 287)

i. Primary Functions

B. Thalamus (p. 287)

i. Primary Functions

9. Cerebellum (p. 287 - 288)

A. Structure

B. Functions

10. Reticular Formation (p. 288)

11. Limbic System (p. 288)

A. Amygdala

12. Memory (p. 289)

A. Short Term Memory

B. Long Term Memory

13. Peripheral Nervous System (p. 290 - 291)

A. Spinal Nerves

i. Dorsal Root Ganglion

B. Crainial Nerves

14. Autonomic Nervous System (p. 292 - 294)

A. Sympathetic Division

B. Parasympathetic Division

C. Functional Interplay