

**Section 8.3- Peripheral Nervous System  
Regular Anatomy**

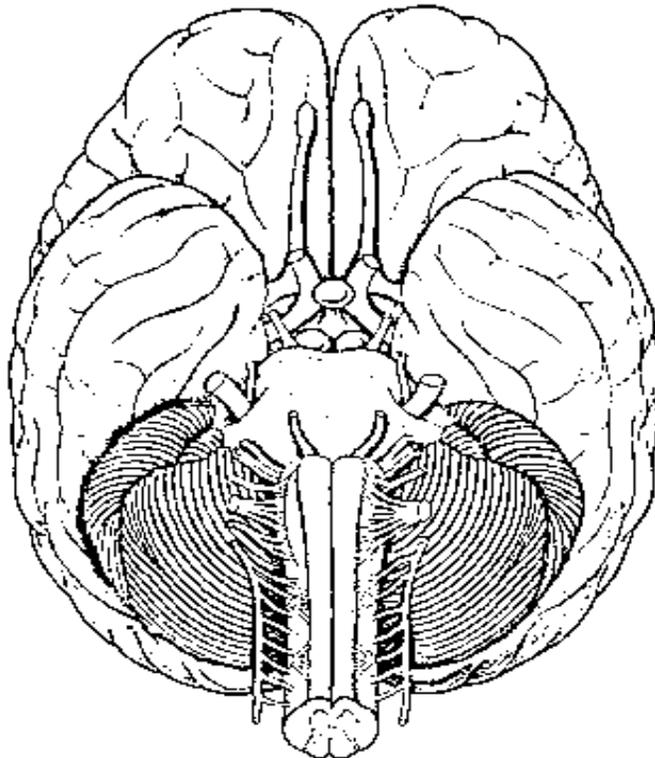
1. \_\_\_\_\_ are bundles of myelinated axons.
2. \_\_\_\_\_ are swellings associated with nerves that contain collections of cell bodies.

**Cranial Nerves**

**Match the cranial nerves to their functions.**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>_____ 3. Olfactory (I)</li> <li>_____ 4. Optic (II)</li> <li>_____ 5. Oculomotor (III)</li> <li>_____ 6. Trochlear (IV)</li> <li>_____ 7. Trigeminal (V)</li> <li>_____ 8. Abducens (VI)</li> <li>_____ 9. Facial (VII)</li> <li>_____ 10. Vestibulocochlear (VIII)</li> <li>_____ 11. Glossopharyngeal (IX)</li> <li>_____ 12. Vagus (X)</li> <li>_____ 13. Spinal Accessory (XI)</li> <li>_____ 14. Hypoglossal (XII)</li> </ol> | <ol style="list-style-type: none"> <li>A. Sense of taste anterior tongue; controls facial muscles and glands</li> <li>B. Sensory information from internal organs; controls actions of internal organs</li> <li>C. Sensory information from sense of sight</li> <li>D. Sensory information from sense of balance and hearing</li> <li>E. From the midbrain, controls muscles for eye movements</li> <li>F. Controls actions of tongue</li> <li>G. Sensory information from pharynx; controls swallowing</li> <li>H. Sensory information from sense of smell</li> <li>I. Controls actions of neck and back muscles</li> <li>J. From the pons, controls muscles for eye movements</li> <li>K. Controls muscles for eye movements, including eye lids and pupils</li> <li>L. Sensory information from teeth, eyes, skin and tongue; controls jaw muscles</li> </ol> |
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**Using the list below, color and label the cranial nerves of the peripheral nervous system.**



- |                                        |                                      |                                                |                                             |
|----------------------------------------|--------------------------------------|------------------------------------------------|---------------------------------------------|
| <input type="radio"/> Olfactory (I)    | <input type="radio"/> Trochlear (IV) | <input type="radio"/> Facial (VII)             | <input type="radio"/> Vagus (X)             |
| <input type="radio"/> Optic (II)       | <input type="radio"/> Trigeminal (V) | <input type="radio"/> Vestibulocochlear (VIII) | <input type="radio"/> Spinal Accessory (XI) |
| <input type="radio"/> Oculomotor (III) | <input type="radio"/> Abducens (VI)  | <input type="radio"/> Glossopharyngeal (IX)    | <input type="radio"/> Hypoglossal (XII)     |

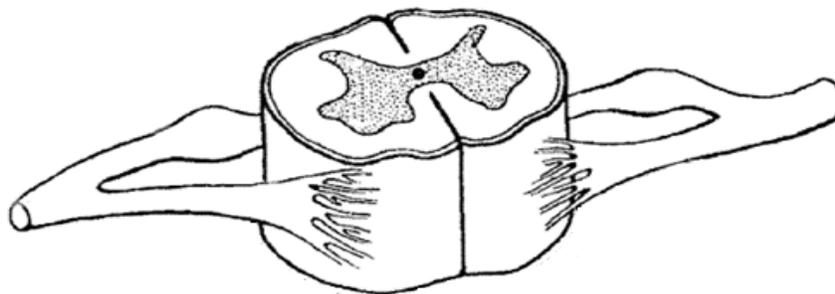
## Spinal Nerves

### Match the spinal nerves to their functions.

- \_\_\_\_\_ 1. Musculocutaneous nerves
- \_\_\_\_\_ 2. Radial nerves
- \_\_\_\_\_ 3. Median nerves
- \_\_\_\_\_ 4. Ulnar nerves
- \_\_\_\_\_ 5. Phrenic nerves
- \_\_\_\_\_ 6. Intercostal nerves
- \_\_\_\_\_ 7. Femoral nerves
- \_\_\_\_\_ 8. Sciatic nerves

- A. Supply muscles of the forearm and hands, and skin of hands.
- B. Supply muscles and skin of the thighs, legs, and feet.
- C. Supply muscles of the arms on the anterior sides, and skin of the forearms.
- D. Supply intercostal muscles, abdominal muscles, and skin of trunk.
- E. Supply muscles and skin of the thighs and legs.
- G. Supply the diaphragm.
- H. Supply muscles of the arms on the posterior sides, and skin of the forearms and hands.
- I. Supply muscles of forearms, and muscles and skin of hands.

### Using the list below, color and label the different parts of the spinal cord.

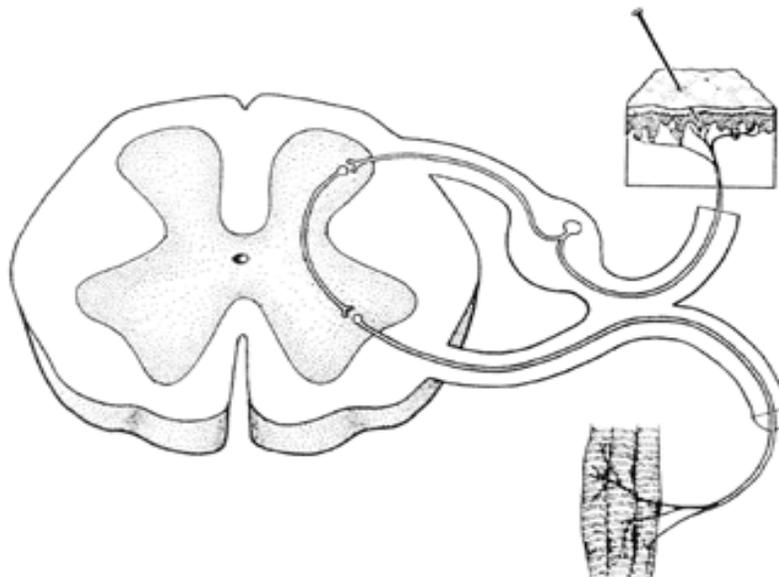


- dorsal root
- dorsal root ganglion
- spinal nerve
- ventral root

## Somatic Nervous System

16. Most actions of the somatic nervous system are under \_\_\_\_\_ control meaning that we can consciously control the action. However, there are some automatic involuntary responses called \_\_\_\_\_ that respond to changes occurring inside or outside the body.

### Using the list below, color and label the different parts of a reflex arc.

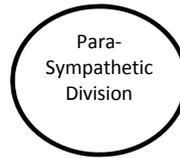
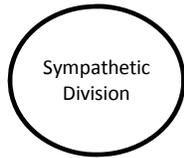


- dorsal root ganglion
- dorsal root ganglion
- effector organ
- interneuron
- motor neuron
- receptor
- sensory neuron
- ventral root

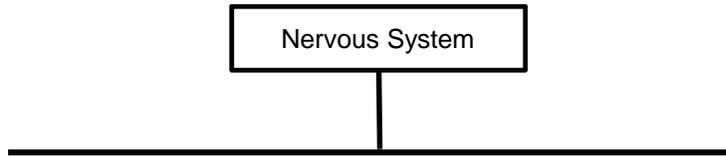
**Autonomic Nervous System**

18. The autonomic nervous system is under \_\_\_\_\_ control meaning that the actions created are not under conscious control, they are automatic.

**Create a double bubble comparing and contrasting the two divisions of the autonomic nervous system.**



Using the list below, create a tree map illustrating the divisions and subdivisions of the human nervous system.



Autonomic Nervous System

Central Nervous System

Nervous System

Parasympathetic Division ("Rest and Digest")

Peripheral Nervous System

Reflexes

Somatic Nervous System

Sympathetic Division ("Fight or Flight")