

# Chapter 36

## The Nervous System

### Reinforcement and Study Guide

#### Section 36.1 The Nervous System

In your textbook, read about neurons—basic units of the nervous system.

Complete the table by filling in the missing information in each case.

Structure	Function
1.	carry impulses toward the brain and spinal cord
2. dendrites	
3. motor neurons	
4.	transmit impulses within the brain and spinal cord
5.	carry impulses away from neuron cell bodies

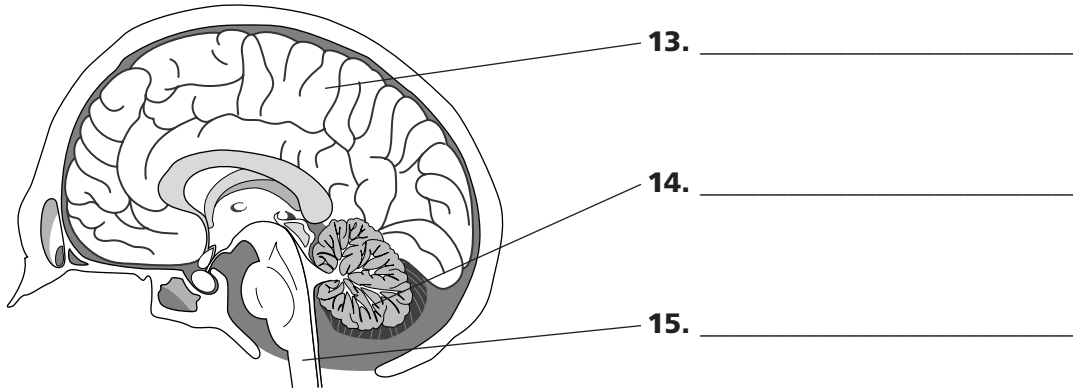
Order the steps in impulse transmission from 1 to 7.

- \_\_\_\_\_ 6. A wave of depolarization moves down the neuron.
- \_\_\_\_\_ 7. The  $\text{Na}^+/\text{K}^+$  pump takes over again, pumping sodium ions out across the membrane, and pumping potassium ions in.
- \_\_\_\_\_ 8. Sodium channels in the neural membrane open.
- \_\_\_\_\_ 9. A neuron receives a stimulus.
- \_\_\_\_\_ 10. As the wave of depolarization passes, sodium channels close and potassium channels open.
- \_\_\_\_\_ 11. The neuron returns to a resting state.
- \_\_\_\_\_ 12. Sodium ions flow into the neuron, causing the inside of the neuron to become positively charged.

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**The Nervous System, continued**
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**Section 36.1 The Nervous System, continued**

In your textbook, read about the central nervous system and the peripheral nervous system.

Label the diagram of the brain to show the cerebrum, cerebellum, and brain stem.



Write the name of the part labeled above that matches each description in the table.

Description	Part
16. Includes the medulla and pons	
17. Controls conscious activities and movement	
18. Important for keeping your balance	
19. If damaged, heart rate might be affected	
20. If damaged, memory might be affected	
21. Ensures that movements are coordinated	

Complete the table by checking the correct column for each description.

Description	Autonomic Nervous System Division	
	Sympathetic	Parasympathetic
22. Controls internal activities when the body is at rest		
23. Increases breathing rate		
24. Tenses muscles		
25. Slows heart rate down		
26. Activates fight or flight response		