



SECTION
29.5

BRAIN FUNCTION AND CHEMISTRY

Study Guide

KEY CONCEPT

Scientists study the functions and chemistry of the brain.

VOCABULARY

addiction	tolerance	stimulant
desensitization	sensitization	depressant

MAIN IDEA: New techniques improve our understanding of the brain.

Organize your notes on technologies used to study the brain in this three-column chart.

Imaging Technology	What scans the brain?	What is shown in the image?
1. Computerized tomography (CT)	x-rays	
2.		activity in the brain
3.		

MAIN IDEA: Changes in brain chemistry can cause illness.

Write the word(s) that completes each sentence.

- Chemicals called _____ allow neurons in the brain to communicate with one another.
- The _____ of neurotransmitter in an area of the brain affects how stimulated that area will be.
- The PET scans in Figure 29.15 show what areas of the brain are _____.
- Depression and Alzheimer’s disease are examples of mental illness linked to _____ in the brain.
- Drugs that treat mental illness affect the _____ that neurons generate.

Section 29.5 STUDY GUIDE CONTINUED

MAIN IDEA: Drugs alter brain chemistry.

9. What are some of the effects drugs can have on a person's behavior?

10. What are the two ways that drugs affect the brain's chemistry?

11. What in the brain do drugs have an effect on?

12. How does the brain's ability to adapt when it experiences long periods of too much or too little neurotransmitter help it maintain homeostasis?

13. How does a stimulant affect brain function?

14. How does a depressant affect brain function?

Vocabulary Check

For each of the word pairs, write a sentence or two that explains how the two terms are different from one another.

15. Addiction, Tolerance

16. Desensitization, Sensitization

17. Stimulant, Depressant
