



## Dear Teacher:

The final installment of this year's *Heads Up* series focuses on prescription stimulants and why abusing them is dangerous.

When taken as prescribed by a doctor, prescription stimulants can safely and effectively treat disorders such as ADHD, improving the lives of millions of kids (and adults). But teens are also abusing these drugs. For example, Adderall® is one of the drugs most frequently abused by high school seniors, with 6.5 percent of them reporting nonmedical use in the past year.

By sharing this article with your students, you will help them to learn how these medications work, and why it is dangerous for them to take these drugs to get high, lose weight, or stay awake to study.

I encourage you to use the article and the exercises to help your students understand the dangers of prescription drug abuse.



Sincerely,

Nora D. Volkow, M.D.  
Director,  
National Institute on Drug Abuse

## In This Installment:

- **Student article:** Facts about prescription stimulants, how they can safely treat ADHD, and why abusing them is dangerous
- **Student worksheet:** A quiz to reinforce key facts and concepts presented in the student article

# PRESCRIPTION STIMULANTS

**Overview:** The lesson below and the reproducible worksheet on the reverse side reinforce student comprehension of key facts and concepts in the article "Prescription Stimulants."

### Alignment With National Standards

- *Science (NSES):* Life Science: Structure and Function in Living Systems; Science in Personal and Social Perspectives: Personal and Community Health
- *Life Skills (McREL):* Self-Regulation; Thinking and Reasoning

## Student Article

### Before-Reading Questions:

- You may have ADHD, know someone with ADHD, or have learned about it in the news. What does ADHD stand for? What do you know about ADHD?
- What do you know about prescription stimulants such as Adderall® or Concerta®? What are some of the ways in which stimulants are used?

### After-Reading Questions (factual responses in *italics*):

- How do prescription stimulants help to treat symptoms of ADHD? (*They have a calming effect that helps people with ADHD focus; doctors prescribe a dosage that is sufficient to decrease ADHD symptoms.*)
- Why can abusing prescription stimulants be just as dangerous as abusing an illicit drug like cocaine? (*Both prescription stimulants and cocaine increase levels of dopamine in the brain. However, when prescription stimulants are taken in high doses, or in ways that get the drug to the brain quickly (e.g., snorting, smoking, or injecting), they can produce abnormally high levels of dopamine in the brain, resulting in intense feelings of euphoria. This increases the risk of repeated use and also addiction.*)

### Critical Thinking:

- Behavioral therapies can help treat people with prescription stimulant addiction. Considering this and other facts in the article, what do you think the center illustration in the article represents? Why do you think the artist included a single leaf on the tree on the abuse side?
- Imagine your friend is taking prescription stimulants to lose weight or because he or she believes it helps with studying. What are some facts you might share with your friend to explain why this behavior is risky?

## Student Worksheet

Use the quiz to reinforce comprehension of facts about prescription stimulants in the student article. Answers: 1. A; 2. A; 3. B; 4. E; 5. C; 6. C; 7. B; 8. A; 9. D; 10. D

## Poster Activity

Have students create a poster that shows facts about prescription stimulants and the health risks associated with abusing them. The poster should include a headline, images, and facts from the student article or additional independent research. Have students present their posters to the class.

### More Information

- For more facts about prescription-drug abuse, visit <http://teens.drugabuse.gov/peerx/>.
- For more facts about drugs, drug abuse, and addiction, visit <http://teens.drugabuse.gov> and [www.drugabuse.gov](http://www.drugabuse.gov).

For printable past and current articles in the **HEADS UP** series, as well as activities and teaching support, go to [www.drugabuse.gov/parent-teacher.html](http://www.drugabuse.gov/parent-teacher.html) or [www.scholastic.com/headsup/teachers](http://www.scholastic.com/headsup/teachers).



Name \_\_\_\_\_ Date \_\_\_\_\_

# What Do You Know About Prescription Stimulants?

Answer the questions below to find out what you learned about prescription stimulants.

1. Prescription stimulants and cocaine are from the same class of drugs.  
(A) True  
(B) False
2. Many people use prescription stimulants to safely and effectively treat ADHD, narcolepsy, and sometimes depression.  
(A) True  
(B) False
3. Using someone else's prescription stimulants to help you study for a test is not drug abuse.  
(A) True  
(B) False
4. Which of the following is a prescription stimulant?  
(A) dopamine  
(B) methylphenidate  
(C) amphetamine  
(D) A and B  
(E) B and C
5. According to the 2010 *Monitoring the Future* survey, what percent of high school seniors have reported nonmedical use of Adderall® in the past year?  
(A) 22.6 percent  
(B) 85 percent  
(C) 6.5 percent  
(D) 1 percent
6. Which of the following is NOT an effect of stimulants on the body?  
(A) increased energy  
(B) increased alertness  
(C) increased appetite  
(D) increased attention
7. Prescription stimulants are prescribed to treat ADHD because they:  
(A) can decrease appetite so that people with ADHD can lose weight.  
(B) can have a calming effect on people with ADHD that helps them focus.  
(C) can help with feelings of anxiety, irritability, and paranoia.  
(D) all of the above
8. Which of the following is NOT an example of abusing prescription stimulants?  
(A) taking a prescription stimulant per doctor's orders  
(B) taking a prescription stimulant not prescribed to you to help you lose weight  
(C) taking a prescription stimulant that was prescribed for your friend  
(D) taking a prescription stimulant to get high
9. Taking high doses of prescription stimulants can result in \_\_\_\_\_.  
(A) a stroke  
(B) death  
(C) a heart attack  
(D) all of the above
10. People who repeatedly abuse prescription stimulants may experience withdrawal symptoms when they stop using them, including:  
(A) depression.  
(B) disturbed sleep patterns.  
(C) fatigue.  
(D) all of the above