

Heads Up: Real News About Drugs and Your Body

Brought to you by Scholastic and the scientists at the National Institute on Drug Abuse, *Heads Up* gives students the facts about the real effects of drugs on the teen brain and body. Check out the lessons and worksheets inside to get the latest news so students can make informed choices about their health and their futures.

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To order additional copies of the accompanying *Heads Up Student Edition Compilation* at no charge, call **1-877-643-2644** and refer to **NIH Pub No.: 11-7649** or visit **www.nida.nih.gov/scholastic.html**.

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Dear Teacher:

This *Heads Up* installment highlights the unique one-on-one interview I had with a teen reporter on the timely issue of prescription-drug abuse.

Although overall teen drug use continues to decline, levels of prescription-drug abuse remain unacceptably high among teens, according to NIDA's latest *Monitoring the Future* survey. Your students may mistakenly believe that prescription drugs are safer to abuse than illegal ones because a doctor prescribes them. While prescription drugs are beneficial when used properly, teens need to know how powerfully addictive and dangerous these medications can be when abused. They also need to know where they can get reliable, science-based answers to their questions.

My discussion with teen reporter Marie French highlights the risk of addiction to prescription drugs and the negative effects addiction can have on a person's health, family, and friends. The student worksheet contains additional helpful information to answer other questions teens might have regarding prescription medications.

We hope you share this important



article and lesson with your students and encourage them to use the facts they learn to make smart choices.

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

In This Installment:

- **Student article:** Q&A with Dr. Nora D. Volkow discussing the dangers of prescription-drug abuse among teens.
- **Student worksheet:** Students apply factual information regarding prescription medications to respond to critical-thinking questions.

STRAIGHT TALK ON PRESCRIPTION DRUGS

Lesson Overview: The student article and this accompanying lesson/student worksheet should be used together to encourage students to ask questions about prescription-drug abuse and apply the facts to discuss why this can be dangerous.

Alignment with National Standards

- *Science (NSES):* Life Science: Regulation and behavior; Science in Personal and Social Perspectives: Personal and community health
- *Life Skills (McREL):* Self-Regulation; Thinking and Reasoning

Student Article

Discussion Questions: Choose from the questions below to guide discussion before and after reading "Straight Talk on Prescription Drugs."

Before-Reading Discussion: Explain to students that the article is based on an interview conducted by a teen reporter. Discuss the following questions:

- Why is it important for teens to ask questions? How might answers to questions from another teen be helpful to you?
- What is a myth? How are myths generated and perpetuated?
- Think of sources where you might go to seek out information about drugs. Are these sources reliable or not?
- Have you heard information about prescription drugs that you think might be a myth? How would you find out if the information is true? What are some safe, reliable sources for answers?

After-Reading Discussion:

- What surprised you most about prescription-drug abuse?
- What effects of prescription drugs were unknown to you?

- Did the article change your opinion about prescription drugs and how they should be used?

- What other questions would you ask Dr. Volkow?

Writing Prompts:

- What do you think are the responsibilities of each of the following groups in combating teen prescription-drug abuse: parents, doctors, teens?
- What actions do you think teens can take to keep themselves safe from prescription-drug abuse?

Student Worksheet

Before-Worksheet Discussion: When you are prescribed a drug by your doctor, what information are you given on how to take the medication? Do you always follow those guidelines exactly?

Worksheet: Have students read the Q&A, and then answer the critical-thinking questions.

After-Worksheet Activity:

- **Oral Argument:** Have students choose one critical-thinking question and present a persuasive oral argument on the topic.

More Information

- More facts about prescription-drug abuse and addiction can be found at www.drugabuse.gov/infofacts/PainMed.html.
- For more frequently asked questions about prescription-drug abuse, visit http://teens.drugabuse.gov/facts/facts_rx1.php.
- For additional *Heads Up* articles on prescription drugs and addiction, check out www.scholastic.com/headsup.

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 or www.scholastic.com/HEADSUP.



Assignment: You may hear information about prescription drugs in the news, online, or from friends. How do you know what's true? There's a lot to consider, and many teens have questions. Read on for answers to some frequently asked questions from teens.

medications can be abused when not taken as directed.

Q: Are prescription drugs safer than illegal drugs such as cocaine?

A: Abusers of prescription medications may mistakenly believe that because the drugs come from a pharmacy and not from a drug dealer they are safer to take, even at high doses or without a prescription. The fact is that if someone takes prescription medications in a manner that is not as a doctor intended, he or she could face serious health risks—and for certain medications those risks could be addiction and death. Also, abusing prescription drugs—including sharing prescriptions with friends—is illegal.

Q: How can prescription drugs cause death?

A: Opiates, such as Vicodin® and OxyContin®, can depress respiration [slow down a person's breathing] or stop it altogether. They can shut down the part of your brain that tells you to breathe. That's how people die from an overdose. Mixing certain prescription drugs, and even over-the-counter medicines, with alcohol is especially dangerous. If both substances depress respiration, they may amplify each other's effects when taken together—meaning the risk of serious harm or death becomes much greater than when either one is taken alone.

Q: What exactly is a prescription?

A: A prescription is a doctor's written order that authorizes a pharmacist to supply a specific medication for a patient, with instructions on its use. It says who can take the medication, in what amount, and for what length of time. Used exactly according to a doctor's instructions, prescription drugs are usually safe and effective.

Q: How does a doctor determine the prescription a person needs?

A: A doctor writes a prescription based on a patient's medical history, symptoms, and other factors. The doctor asks questions such as, "Are you allergic to any medications?" and "Are you currently taking any other medicines?" These questions help the doctor decide which medications to prescribe and which ones not to.

Q: Doctors prescribe prescription medications, so how can they be unsafe?

A: Prescription medications are powerful drugs. Doctors and pharmacists each take several steps to keep prescription medications safe for people who need them.

Doctors custom fit a prescription to a patient's medical history, age, weight, allergies, and other factors. Pharmacists dispense medication and help patients understand instructions for taking them. Oftentimes, this includes warning labels like: "Take with food" or "Avoid prolonged sunlight" or "Federal law prohibits the transfer of this drug to any person other than the patient for whom it was prescribed." When a friend gives you a prescription—whether it's to cure a sore throat or to get you high—there can be serious health consequences because the medication is tailored to your friend's needs, not yours.

Q: When is someone abusing prescription drugs?

A: Prescription-drug abuse is when someone takes a medication that was prescribed for someone else or purposely takes his or her own medication in a manner or dosage other than what was prescribed. Abuse can include taking a friend's or a relative's prescription to get high, to help you study, to lose weight, to build up muscle, or to treat pain. Even over-the-counter

CRITICAL-THINKING QUESTIONS

Answer the following questions on a separate piece of paper or discuss in a group.

1. Why is it important to tell your doctor about any medical conditions you have and all the medications you take, including prescription drugs, over-the-counter medicines, and dietary supplements?
2. What would you say to someone who asked you for pills that were prescribed only for you?
3. At a party a friend offers you alcohol and a pill. What would you do, and why?
4. Explain why the following statement is a myth: Prescription drugs come from a doctor and a pharmacy, so they must be safe.
5. Explain why the following statement is a myth: It's OK for me to use a prescription from the medicine cabinet that was prescribed for someone else in my family.



Dear Teacher:

This latest *Heads Up* installment focuses on prescription pain medications—what they are, how they work, and why they can be dangerous to abuse.

According to the *Monitoring the Future* survey, prescription pain medicines are among the most commonly abused drugs by teens after tobacco, alcohol, and marijuana. In fact, in 2009, 9.7 percent of 12th-graders reported nonmedical use of Vicodin®.

One reason that teens may be abusing prescription medications is misperceptions about their safety. Since doctors prescribe prescription painkillers, teens may assume they are safer than “street” drugs. This edition’s student article and lesson will help to dispel this myth by giving facts about prescription painkillers and how abuse can lead to addiction and other serious adverse health effects.

I urge you to share this important article with your students.



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

In This Installment:

- **Student article:** Facts about how prescription pain medications affect the body and why abusing them is dangerous
- **Student worksheet:** A quiz to reinforce key facts and concepts presented in the student article

PRESCRIPTION PAIN MEDICATIONS

Overview: The lesson below and reproducible worksheet on the reverse side reinforce comprehension of facts and concepts in the student article “Prescription Pain Medications.”

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:

- What do you know about the difference between pain medicine you might take for a headache and prescription pain medicine?
- Why do you think pain medications such as Vicodin® and OxyContin® require a prescription?

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

- How do opioid medications help control severe pain? (*They mimic the body’s natural pain-relieving chemicals but they’re more powerful and longer lasting.*)
- What factors does a doctor consider when writing a prescription? (*A patient’s other medical conditions or medications; drug-use history; whether an opioid pain reliever will safely and effectively treat the pain, etc.*)
- In what ways are prescription medications most often abused? (*Taking someone else’s medicine; taking a medicine to get high; taking a different dosage, etc.*)
- Why is it dangerous to abuse prescription pain medications? (*Abuse has serious health risks, including*

adverse interactions with other medicines, overdose, and addiction.)

Critical Thinking:

- If a pain medication prescribed to your friend is safe for him to use, why would it be unsafe for you to take?
- What would you say to a friend who tells you that abusing prescription painkillers is a “safer” way to get high?

Student Worksheet

Use the quiz to reinforce comprehension of facts about prescription pain medications. Answers: 1. A; 2. B; 3. B; 4. A; 5. B; 6. B; 7. D; 8. E; 9. D; 10. C; 11. D

Writing Extensions:

- 1) *Research/Essay assignment:* Research true stories of celebrities or athletes who abused and/or became addicted to prescription painkillers. Drawing upon facts about abuse and addiction, write an essay commenting on the person’s story.
- 2) *Creative writing:* Write a story, poem, or play that depicts facts about prescription drug abuse and addiction. Outline why your main character starts taking a prescription medication, how he or she abuses the medicine, its effects on the body, signs of addiction, and how he or she gets help.

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.

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 or www.scholastic.com/HEADSUP.



Name _____ Date _____

What Do You Know About Prescription Pain Medications?

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

- Opioid medications relieve pain by mimicking the body's natural pain-relieving chemicals.
(A) True (B) False
- Opioids require a prescription because they are expensive.
(A) True (B) False
- Prescription drugs are safer to abuse than illegal "street" drugs because a doctor prescribes them.
(A) True (B) False
- Taking opioid medications by methods other than how they are prescribed can lead to their reaching the brain very rapidly, increasing the risk of addiction and overdose.
(A) True (B) False
- Prescription painkillers include medications from a class of drugs called:
(A) stimulants
(B) opioids
(C) inhalants
(D) steroids
- The body's natural opioid system includes special receptors called opioid receptors, which bind natural pain-relieving chemicals as well as prescription opioids. Which of the following is NOT a part of the body where opioid receptors are found?
(A) brain
(B) hair
(C) spinal cord
(D) all of the above
- Before writing a prescription for pain medication, a doctor first evaluates:
(A) any medical conditions you have
(B) any past drug use
(C) other medications you are taking
(D) all of the above
- Opioids include the following drugs:
(A) Vicodin®
(B) Advil®
(C) OxyContin®
(D) A and B
(E) A and C
- Which of the following can be an adverse effect of opioids?
(A) nausea
(B) constipation
(C) overdose
(D) all of the above
- Which of the following is NOT an example of abusing prescription painkillers?
(A) Taking a drug prescribed for you in higher doses than directed
(B) Taking a drug with a friend to get high
(C) Taking a drug prescribed for you according to instructions from your doctor
(D) Taking a drug that was prescribed for your friend
- A doctor monitors safe use of prescription medications by:
(A) giving you warning signs of a bad reaction to look out for
(B) telling you what other drugs you cannot take at the same time as the medication
(C) giving you instructions on how to safely take the medication
(D) all of the above

Image: diamond-shaped road sign. © Alex Stobockin/iStockphoto.



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.

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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

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Teacher Editions

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