



# THE MYTH OF "MEDICAL MARIJUANA"

**Overview:** The lesson below and the reproducible work sheet on the reverse side reinforce student comprehension of key facts and concepts in the article "The Myth of 'Medical Marijuana.'"

## 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

## Lesson

### Before-Reading Questions:

- What do you know about "marijuana as a medicine"?
- What is an ingredient in marijuana that has "medicinal" qualities? What symptoms can it help relieve?
- How do people know that the medicines they take are safe and effective?

- How does marijuana meet, or not meet, current FDA standards for prescription medications? (*Marijuana does not meet current standards because it is a plant, so its ingredients are inconsistent from plant to plant; it contains more than 400 different chemicals, many with unknown effects; it has not been shown to have clinical benefits that outweigh its risks.*)

### After-Reading Questions

Distribute the student work sheet, and discuss the answers to the following questions as a class (factual responses in *italics*):

- What U.S. government agency is responsible for approving medications? Why is this agency necessary? (*The Food and Drug Administration [FDA]. To protect citizens by making sure that drugs actually do what the drug manufacturers say they do; that the benefits outweigh any negative side effects; that medications are consistent from dose to dose.*)
- What are key stages involved in the approval process for prescription medications in the United States? (*Nonclinical testing in laboratories; applying to the FDA; clinical testing in humans; FDA approval*)
- How does Marinol® (synthetic THC) meet FDA standards? (*Marinol® is a synthetic version of THC that has been approved as a medication because its ingredients can be carefully measured and reproduced; Marinol® has proven effects in clinical trials for relieving nausea and vomiting from cancer chemotherapy and reversing severe weight loss in patients suffering from AIDS.*)
- What are some other differences between marijuana and THC in an approved form? (*Smoking marijuana causes health problems such as chronic cough and increased risk of bronchitis; prescription medications with THC do not have the same respiratory effects as smoked marijuana.*)

## WORK SHEET ANSWER KEY

1. c; 2. d; 3. a; 4. c; 5. d; 6. True; 7. True; 8. False; 9. True; 10. True; 11. False

## More Information

- For more information on drugs, go to <http://teens.drugabuse.gov> or [www.scholastic.com/headsup](http://www.scholastic.com/headsup).
- For immediate help with a crisis, call **1-800-273-TALK**.
- To locate a treatment center, call **1-800-662-HELP** or visit <http://findtreatment.samhsa.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).

## Dear Teacher:

This year's *Heads Up* articles highlight myths versus facts about marijuana.

This third and final article in the series focuses on the myth of "medical marijuana," a topic that is drawing debate across the country. Because marijuana has been legalized for medicinal use in more than a dozen states and the District of Columbia, students may think that it is indeed medicine and poses few health risks.

This article helps students understand why marijuana is not medicine by focusing on the criteria and process for approving medications in the United States.

I hope you will use this article, as well as the accompanying lesson plan and work sheet, to help your students become more knowledgeable about the facts surrounding this timely issue.



Sincerely,

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

## In This Installment:

- **Student article:** Why marijuana is not medicine, and how medications are approved in the United States.
- **Student work sheet:** Identifying key facts and concepts regarding the myth of "medical marijuana."

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

# What Do You Know About “Medical Marijuana”?



Answer the following questions to show what you learned in the student article.

- Which of the statements below is **not true**?
  - The FDA must approve any medicine before it can be sold in the United States.
  - Marinol<sup>®</sup>, an FDA-approved medication, is a synthetic (i.e., human-made) version of THC.
  - A new drug must pass only one phase of clinical testing to be approved by the FDA as a medicine.
  - Drug companies must prove to the FDA that they can produce a medication of a consistent quality.
- Phase 2 clinical testing of a drug involves testing the drug in \_\_\_\_\_.
  - the general population
  - teenagers
  - the elderly
  - patients with the disease or condition the drug is meant to treat
- The process for getting FDA approval for a new medication can take more than \_\_\_\_\_.
  - 15 years
  - 15 months
  - 15 weeks
  - 2 years
- Which of the following is a **true** statement?
  - THC is the plant name for marijuana.
  - THC stands for *top health concern*.
  - THC is one of the active ingredients in marijuana.
  - THC is a slang term used for marijuana.
- Why hasn't marijuana been approved as a medicine by the FDA?
  - Using marijuana in its raw plant form may pose more risks than benefits.
  - Marijuana does not have well-defined and measurable ingredients that are the same each time it is used.
  - Marijuana has not gone through the FDA approval process to show that it offers more benefit than harm.
  - All of the above are correct.
- Clinical testing of new drugs in humans is done on both healthy people and sick patients.
  - True
  - False
- Drug companies must prove that the benefits of a drug outweigh any harmful side effects before it can be FDA-approved.
  - True
  - False
- The first step toward approval of a new medication is testing it on several hundred people.
  - True
  - False
- Marijuana contains more than 400 different chemicals, including THC.
  - True
  - False
- Marijuana is not a medicine, but some of the chemicals found in marijuana are used in medicines.
  - True
  - False
- The U.S. government recognizes marijuana as a legal medication.
  - True
  - False