



Drugs: The Straight Facts

MARIJUANA

Introduction

This Instructor's Guide provides information to help you get the most out of *Marijuana*, part of the five-part series *Drugs: The Straight Facts*. The contents of the guide will allow you to prepare your students before using the program and to present follow-up activities to reinforce the program's key learning points.

Marijuana has the distinction of being the most widely used illicit drug in the United States. This video traces the history of marijuana and goes on to explain some of the many uses of the hemp plant; the effects of THC — the primary psychoactive chemical in marijuana, sinsemilla, hashish, and hash oil — on the body; the short- and long-term health implications of marijuana abuse; and teenage attitudes toward marijuana. In addition, the video investigates the concept of psychological dependency and considers whether marijuana is a gateway drug.

Drugs: The Straight Facts correlates to National and State Educational Standards, including the NCLB Act. The series includes:

- *Marijuana*
- *Alcohol*
- *Cocaine and Crack*
- *Inhalants*
- *Narcotics*

Learning Objectives

After viewing the program, students will understand:

- The history of marijuana use, both legal and illegal
- The properties and effects of cannabinoids
- The physical and psychological effects of using marijuana
- How THC affects the brain
- Factors that influence how marijuana affects different users
- Concerns about long-term effects

Main Topics

Topic 1: Marijuana Past and Present

The program begins with a brief history of marijuana use, both legal and illicit.

Topic 2: Properties and Effects

This section defines cannabinoids, then outlines the short-term psychological and physiological effects of using them. It lists factors that influence how cannabis works on different users, including the various routes of administration.

Topic 3: Marijuana and the Brain

The psychoactive effect of THC on the brain as it raises dopamine levels by binding to cannabinoid receptors is explained in this section.

Topic 4: Long-term Effects and Addiction

The program's final section discusses some evidence that smoking pot may lead to problems with the respiratory, immune, and reproductive systems; and whether or not marijuana is addictive.

Fast Facts

- Hemp has been used as both a recreational drug and medically for thousands of years. One variety was grown as a cash crop in the U.S. and used to make fabric, paper, and ropes and sails for ships.
- Marijuana was introduced to the U.S. as part of the patent medicine industry in the late 1800s.
- There are over 25,000 eco-friendly uses for hemp, including food, beauty products, insulation, textiles, paper, paints, oils, and soaps. Hemp seeds for sale at grocery stores are highly nutritious, and contain little, if any, THC (they've also been sterilized, meaning they won't grow if planted).

- The Marihuana Tax Act of 1937 made cannabis illegal, although smoking pot was popular among jazz musicians in the 1930s and 40s.
- Marijuana (and THC) is now the most widely used illicit drug in the U.S., and has been for at least 25 years.
- The University of Mississippi's Potency Monitoring Project, funded by the National Institute on Drug Abuse, reports that the THC content of commercial-grade marijuana rose from an average of 3.71 percent in 1985 to an average of 5.57 percent in 1998. In 2007 the THC content was estimated at 9.6%.
- Many researchers point to five factors that can predict the likelihood of marijuana use by teenagers: awareness, access, motivations for use, reassurance about safety, and a willingness to break social norms by violating the law.
- Survey data indicates that the majority of teens who smoke pot do so in order to have fun with friends, fit in with the crowd, to relax, or due to boredom. Teens who use it daily though seem to smoke pot due to underlying psychological issues (depression, anger, loneliness, problems with school or family) — and these teens are more likely to become dependent users of the drug.
- Studies indicate that about 10% of people who try marijuana become dependent on it at some time during their four or five years of heaviest use. This is similar to the risk of alcohol dependency (15%), although nicotine has a much higher risk (32%). Teen most at risk of marijuana dependency include those who experience high levels of family stress, and those with cognitive differences such as ADD or extraordinary intelligence who use it to gain acceptance by peers.
- Marijuana is classified as a Schedule I drug, meaning that (a) it has a high potential for abuse, (b) it has no currently accepted medical use in the U.S., and (c) it has not been proven safe to use medically. Dronabinol (sold under the name Marinol[®]), however, is a synthetic form of THC which is prescribed to alleviate nausea and stimulate appetite in cancer patients.
- Using scientifically based information to teach teens the consequences of marijuana use has been shown to be more effective in preventing its use than scare tactics or the 'zero tolerance' approach.

Vocabulary Terms

addiction: Compulsive physiological and psychological need for a habit-forming substance, characterized by tolerance and by well-defined physiological symptoms upon withdrawal.

bong: A type of water pipe used for smoking marijuana or other substances.

cannabinoid: Any of the chemical compounds that are primarily responsible for the psychoactive and medical properties of the hemp plant. THC is a cannabinoid.

cannabinoid receptor: Receptor sites found throughout the body and brain to which THC binds, mimicking the actions of endocannabinoids. Cannabinoid receptors were not discovered until 1988.

cannabis: The hemp plant (*Cannabis sativa*), or, any of the psychoactive preparations derived from hemp, such as hashish, marijuana, and THC.

dopamine: A chemical released by the brain that produces a feeling of well-being.

endocannabinoid: Chemical produced within the brain which activates cannabinoid receptors. THC is similar to the brain's endocannabinoids.

ganja: Marijuana, especially a strong, resinous preparation usually ingested by smoking.

hash: Slang term for hashish.

hash oil: A sticky resin made by dissolving hashish or marijuana in a solvent such as acetone or butane. The potent oil is then smoked by placing a few drops onto a tobacco or marijuana cigarette.

hashish: Resin from the hemp plant that is collected and pressed into cakes or lumps, to be smoked or eaten.

hemp: The *Cannabis sativa* plant; also the tough fiber of this plant used for making rope and fabric.

marijuana: The dry, shredded mix of flowers, stems, seeds, and leaves derived from the hemp plant *Cannabis sativa*. Marijuana is neither a stimulant nor a depressant, but it has characteristics of both.

Marinol®: The trade name for dronabinol, a synthetic form of TCH in pill form used to alleviate nausea and stimulate appetite in cancer patients.

psychoactive drug: A drug that can produce mood changes and distorted perceptions by acting on the central nervous system.

sinsemilla: Marijuana from seedless female hemp plants that contain very high levels of THC.

spliff: A marijuana cigarette, especially a very large or potent one.

THC: The main psychoactive substance found in the buds and flowers of the cannabis plant, and in hashish and hash oil.

Pre-Program Discussion Questions

1. Is marijuana a gateway drug? What might cause a person to progress from pot to harder drug use?
2. Is marijuana addictive?
3. What are some reasons people use marijuana?
4. Does smoking pot have any long-lasting negative effects, either psychological, behavioral, or physical?
5. Are there any good uses for marijuana, hemp, or THC?

Post-Program Discussion Questions

1. What are some of the behaviors a person may exhibit after smoking pot?
2. What are some of the factors that influence how cannabis will affect a user?
3. What might be the physical, social, and legal consequences of smoking pot on a regular basis?
4. What is the difference between addiction and dependency?
5. What do you think is the most important aspect of understanding marijuana and its use?
6. After viewing this film, has your attitude about this drug changed at all?

Student Projects

- Create a brochure to teach younger students about the use and abuse of marijuana. Before you begin though, think about what kind of approach might be most successful in convincing kids to 'stay straight.' Has the 'Just Say No' campaign worked? Scare tactics? Would the threat of fines or incarceration be more persuasive? How about social aspects, such as being shunned by people you'd like to befriend; or growing up and being unable, due to dependency or addiction, to hold a job, maintain a relationship, or live independently?
- Write a report on 'Marijuana and the Juvenile Justice System,' focusing on your community's penalties and laws. What might be the legal consequences of being caught in possession of marijuana — even a small amount — or giving some to a friend? How about having a marijuana pipe in your pocket, or even just being in the company of someone who is in possession of illegal drugs?
- Make a poster illustrating the various ways that using marijuana works on different parts of the body (e.g., THC's action on the brain and the resultant behavioral changes, the loss of coordination of limbs, damage to the lungs, etc.).
- Participate in a class discussion about drug use and addiction, considering the following questions:
 - Has your attitude about this drug changed at all after viewing this film?
 - Do you think that most people in your school have used illicit drugs?
 - Do you think your parents smoked pot? If so, what reasons might they have to advise you against doing it?
 - Do you feel that the historical, legal use of marijuana drug was OK, but that in modern society using it could be problematic? Or, could it be safe if used in moderation? Why or why not?
 - Does the media and entertainment industry glamorize drug use in its portrayal of athletes, musicians, and actors who use drugs, and who may even have problems with addiction?
 - Does society encourage drug abuse by prescribing medication for hyperactivity, high blood pressure, insomnia, social anxiety, stress, etc., encouraging a 'pop a pill' attitude over lifestyle and psychological changes?
 - Would crime rates drop if some drugs were legal; or would legalizing some drugs encourage dangerous behavior?

- With other students, participate in role-playing exercises in which you find yourselves in the situations listed below. Rehearse responses to these situations that seem realistic, especially if the 'offerer' downplays the danger, tries to embarrass you via peer pressure to be cool, or is especially persistent.
 - Being offered drugs after school
 - Being offered drugs at a party
 - Being offered drugs while on a date
 - Being asked by a friend to hide or transport drugs
 - Being offered the opportunity to make some quick cash by selling drugs

- In the form of a poster, brochure, or Web page, develop a resource to help students who are having problems with drugs. This could include contact information for addiction treatment centers, Web sites, books, hotlines, and even guidance counselors and other resources in your school and community.

Assessment Questions

1. THC is _____.
 - a) a street name for marijuana
 - b) the active ingredient in marijuana
 - c) a legal form of marijuana
 - d) a crystallized form of marijuana

2. Marinol is _____.
 - a) a prescription preparation of THC used for medicinal purposes
 - b) a form of hemp used by sailors in the 1800s to make ropes and sails
 - c) the slang word used by jazz musicians in the 1940s for marijuana
 - d) the active ingredient in the cannabis plant

3. Factors that influence the way marijuana will affect a user include environment (the setting, and the user's mood); dosage; and _____.
 - a) where the original plant came from
 - b) the drug's route of administration (the way in which it is ingested)
 - c) both of the above
 - d) neither of the above

4. The faster a drug gets to the brain, the faster and more serious are its effects. The fastest way for marijuana to get to the brain is _____.
 - a) drinking it as a brewed tea
 - b) ingesting it after cooking it into food
 - c) smoking it
 - d) sniffing hashish oil

5. The short-term effects of ingesting cannabis may include _____.
 - a) euphoria, laughter, relaxation, and heightened sensory experience
 - b) anxiety, increased heart rate, impaired coordination and problem-solving abilities
 - c) both of the above
 - d) neither of the above

6. True or False? While marijuana has many psychological effects on a user, it does not actually alter brain chemistry.

7. Marijuana contains _____.
 - a) the same harmful ingredients as tobacco
 - b) a mild sedative that leads to a feeling of relaxation
 - c) nearly 200 different kinds of toxic chemicals
 - d) over 400 toxic chemicals

8. People who become addicted to marijuana and then try to quit may experience _____.
 - a) withdrawal, anxiety, and craving
 - b) both auditory and visual hallucinations
 - c) obesity or anorexia
 - d) none of the above; marijuana is not addictive

9. True or False? Whether someone becomes addicted to marijuana varies from person to person, and depends on several factors.

10. The long-term effects of marijuana use are still being studied, but current research points to an increased likelihood of _____.
 - a) brain damage
 - b) respiratory problems
 - c) digestive disorders
 - d) alcoholism

Assessment Questions Answer Key

1. THC is _____.

- a) a street name for marijuana
- b) the active ingredient in marijuana
- c) a legal form of marijuana
- d) a crystallized form of marijuana

A: (b) the active ingredient in marijuana

2. Marinol is _____.

- a) a prescription preparation of THC used for medicinal purposes
- b) a form of hemp used by sailors in the 1800s to make ropes and sails
- c) the slang word used by jazz musicians in the 1940s for marijuana
- d) the active ingredient in the cannabis plant

A: (a) a prescription preparation of THC used for medicinal purposes

3. Factors that influence the way marijuana will affect a user include environment (the setting, and the user's mood); dosage; and _____.

- a) where the original plant came from
- b) the drug's route of administration (the way in which it is ingested)
- c) both of the above
- d) neither of the above

A: (c) both of the above

4. The faster a drug gets to the brain, the faster and more serious are its effects. The fastest way for marijuana to get to the brain is _____.

- a) drinking it as a brewed tea
- b) ingesting it after cooking it into food
- c) smoking it
- d) sniffing hashish oil

A: (c) smoking it

5. The short-term effects of ingesting cannabis may include _____.
a) euphoria, laughter, relaxation, and heightened sensory experience
b) anxiety, increased heart rate, impaired coordination and problem-solving abilities
c) both of the above
d) neither of the above

A: (c) both of the above

6. True or False? While marijuana has many psychological effects on a user, it does not actually alter brain chemistry.

A: False. The THC in marijuana binds to cannabinoid receptors throughout the brain and body, and raises dopamine levels.

7. Marijuana contains _____.
a) the same harmful ingredients as tobacco
b) a mild sedative that leads to a feeling of relaxation
c) nearly 200 different kinds of toxic chemicals
d) over 400 toxic chemicals

A: (d) over 400 toxic chemicals

8. People who become addicted to marijuana and then try to quit may experience _____.
a) withdrawal, anxiety, and craving
b) both auditory and visual hallucinations
c) obesity or anorexia
d) none of the above; marijuana is not addictive

A: (a) withdrawal, anxiety, and craving

9. True or False? Whether someone becomes addicted to marijuana varies from person to person, and depends on several factors.

A: True.

10. The long-term effects of marijuana use are still being studied, but current research points to an increased likelihood of _____.
- a) brain damage
 - b) respiratory problems
 - c) digestive disorders
 - d) alcoholism

A: (b) respiratory problems

Additional Resources

Information on Marijuana

www.marijuana-info.org

marijuana addiction.info

www.marijuana-addiction.info

National Institute on Drug Abuse

The Science of Drug Abuse & Addiction

www.drugabuse.gov

Freevibe: National Youth Anti-Drug Media Campaign

www.freevibe.com

Just Think Twice

Drug Enforcement Administration: Demand Reduction/Street Smart Prevention

www.justthinkt看twice.com

NIDA for Teens

Facts, Stories, Brain Games

<http://teens.drugabuse.gov>

U.S. Department of Health and Human Services

Substance Abuse & Mental Health Services Administration

Alcohol & Drug Information

<http://ncadi.samhsa.gov>

The Partnership for a Drug-Free America

www.drugfree.org

Drug Policy Alliance Network

www.drugpolicy.org

www.streetdrugs.org

www.streetdrugs.org

Monitoring the Future: A Continuing Study of American Youth

www.monitoringthefuture.org

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Cannabis: The Evil Weed? (DVD/VHS)

How addictive is cannabis? Does it lead to harder drug use, or is it an underappreciated herbal medicine? Can it cause mental illness? This program explores the science and the public debate surrounding the world's favorite illegal drug. Tracing the birthplace of the humble plant to Kazakhstan in Central Asia, addiction specialist Dr. John Marsden guides viewers through several topics and issues — including links between THC and schizophrenia; experiments on mice suggesting cannabis-related cognitive impairment; the development of Sativex, a cannabis-derived medicine; and California's medical dispensary system, which bears some resemblance to the legalization of marijuana. A BBC Production. (51 minutes) © 2009 (# 40398)

Cannabis: Satanic Herb or Healing Potion (DVD/VHS)

As has occurred with most drugs, the neurological effects of cannabis have only recently been fully identified and understood. This program presents many of the latest findings, including new investigations into the clinical applications of the drug. Focusing on studies of the nerve-related mechanisms triggered by the action of cannabis, the program highlights potential changes in the social perceptions and medical uses of the substance. New approaches in the treatment of pain, obesity, anxiety, and even multiple sclerosis are suggested. The scientific contributions of Jean-Pol Tassin, Dieter Kleiber, Rafael Maldonado, and others are explored. (51 minutes) © 2005 (# 36368)

Drug Dangers: Medical, Legal, and Social (DVD/VHS)

What causes addiction? Is experimenting with drugs just a dangerous gamble or an expressway to the gutter? Can common sense override the urge to rebel and the yearning to fit in? This four-part series reveals the pitfalls of substance abuse in terms of health threats and psychological problems as well as the many ways an addict can run afoul of the law and society. Featuring commentary from medical and legal experts and candid testimonials from current and former users, the series shows how easily addiction can occur and explores ways to help those afflicted break their deadly habits. Viewable/printable educational resources are available online. The series includes *Introducing Cannabis: Risks, Laws, and Habits* | *Introducing Tobacco: Risks, Laws, and Habits* | *Stuff You Need to Know about Party Drugs* | *Drink Spiking: Awareness and Avoidance*. (25-30 minutes each) © 2008 (# 40380)

Addiction: The HBO Series (DVD/VHS)

Featuring valuable case studies and expert commentary, this 14-part series offers a wide-ranging look at the science and the human face of addiction. Personal stories from drug users and their family members are combined with in-depth perspectives from leading psychologists, drug counselors, and other experts on substance abuse. Educators will find the series format — beginning with a comprehensive overview followed by 13 short documentaries — helpful for both group discussions and lectures. Contains mature themes, occasional explicit language, and some graphic injury footage. An HBO Production.

The series includes *Addiction: A Comprehensive View* | *What Is Addiction?* | *Understanding Relapse* | *The Search for Drug Treatment: A Challenging Journey* | *The Adolescent Addict* | *An Interview with Nora D. Volkow, M.D.* | *An Interview with Mark L. Willenbring, M.D.* | *An Interview with Michael L. Dennis, Ph.D.* | *An Interview with Kathleen T. Brady, M.D., Ph.D.* | *Getting an Addict into Treatment: The CRAFT Approach* | *Treating Stimulant Addiction: The CBT Approach* | *Opiate Addiction: Understanding Replacement Therapy* | *South Boston Drug Court* | *A Mother's Desperation: Resorting to the Law*. (21-87 minutes each) © 2006 (# 39791)

Altered States: A History of Drug Use in America (DVD/VHS)

Whether it's caffeine, nicotine, or morphine, drugs of choice have defined our lives and history, with sometimes benevolent, sometimes tragic results. This program focuses on the history of America's drug use and abuse, from the days when the early European settlers became enamored of tobacco, through Prohibition, and up to today. The problems we see today existed in other forms and with other drugs throughout our history. The reasons for using drugs have also remained constant: to ease pain, alleviate boredom, or to expand our consciousness. The program traces the patterns of American drug use and abuse and documents the cultural, social, and political movements that impacted, or were impacted by, the use of drugs. (58 minutes) © 1993 (# 5863)

If ... Drugs Were Legal (DVD/VHS)

The year is 2015. A coalition of European countries has decriminalized most stimulants, narcotics, and hallucinogens. But has legalization made drug use—or the streets of London—any safer? This program depicts a future in which police officers, Big Pharma executives, and recreational drug consumers would, depending on one's perspective, either reap the benefits or suffer the consequences of a reversal in drug policy. Interwoven with the fictional narrative are real-world interviews highlighting both sides of the debate. Former chief constable Francis Wilkinson and Transform Drug Policy Foundation director Danny Kushlick argue for legalization, while toxicology expert John Henry and former customs investigator David Raynes warn against it. A BBCW Production. (61 minutes)
© 2005 (# 37525)

Twelve: Young Addicts Speak from the Heart (DVD/VHS)

Kat grew up in an alcoholic home. John made drinking the center of his life at a young age. Rene's parents divorced when he was five, while Chris and Dante both seemed to have everything they wanted—but all became substance abusers. Through detailed, candid conversations, this program goes inside the childhood memories and emotional lives of recovering addicts who started their habits at, or close to, age 12. Their stories reveal unique qualities and experiences as well as patterns seen over and over again among alcoholics and drug abusers—often involving crime and social isolation. In addition to their pain and regret, the participants also discuss the most daunting challenge of all: the ongoing process of recovery. (45 minutes) © 2008 (# 40034)

Straight Talk: Alcohol and Other Drugs (DVD/VHS)

This reality TV-style docudrama is made up of the candid comments of 19 teens and young adults who have taken a wrong turn into dependency and have survived to enter recovery. Section one addresses pre-addiction issues: dysfunctional home life, negative early school experiences, low self-esteem in early childhood, and special education placement. Section two addresses addiction issues: drugs of choice, abusive relationships, sexual acting out, and suicidality. And section three addresses recovery issues: fighting to stay straight, coping with relapse, dealing with the past, and regaining a vision of a brighter future. A 95-page discussion guide with interview transcripts, interviewee profiles, a glossary of “the language of recovery,” and more is included. (90 minutes) © 2005 (# 40113)

Drugs: A Destructive Force (Eight 17" x 22" posters)

How can substance abuse educators combat the allure of cocaine, LSD, tobacco, and other killers? By communicating the downside of drugs in no uncertain terms. This eight-poster series speaks directly to young people about the alarming risks and all-too-frequent tragedies linked with drug abuse. In addition to several types of dangerous substances — including prescription and over-the-counter medication — the deadly pitfalls of drunk driving are also examined. A Cambridge Educational Product. The set includes: *Cocaine* | *Alcohol* | *Marijuana* | *Smoking* | *Prescription/OTC Drugs* | *Hallucinogens* | *Inhalants* | *Drunk Driving*. © 2007 (# 37035)



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