

Steroids: Big Muscles, Bigger Problems

INTRODUCTION

This Teacher's Guide provides information to help you get the most out of *Steroids: Big Muscles, Bigger Problems*. The contents of this 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.

PROGRAM DESCRIPTION

Teenagers, young adults, and professional athletes can all face a similar dilemma—how to dramatically improve appearance and physical performance and gain a competitive edge. Unfortunately, the solution to this challenge is too often the use of steroids. This program highlights the dangers of steroid use in a straightforward, factual manner—viewers see and hear first hand the negative physical and psychological effects of steroid use, and what they might risk in deciding to rely on steroids personally. Unflinching and honest, *Steroids: Big Muscles, Bigger Problems* provides viewers with accurate information to make informed decisions about steroid use, and challenges the notion that steroids are a quick fix to a common dilemma.

LEARNING OBJECTIVES

After viewing the program, students will be able to:

- Understand the physical and psychological effects of steroid use.
- Articulate the significant and sometimes permanent negative outcomes stemming from steroid use.
- Explain why some teens, young adults, and professional athletes choose to use steroids despite the consequences.
- Make informed decisions when using over-the-counter supplements to achieve improved physical appearance or athletic performance.
- Understand how families and friends are affected by the steroid use of their loved ones.

EDUCATIONAL STANDARDS

To view the educational standards to which this video correlates, visit its page at http://ffh.films.com/id/19702/Steroids_Big_Muscles_Bigger_Problems.htm.

PROGRAM OVERVIEW

So getting a better body and improving my athletic performance is as easy as taking a pill or giving myself an injection? Why wouldn't I give it a try? This program, *Steroids: Big Muscles, Bigger Problems*, explains precisely and effectively why using steroids to achieve physical and athletic improvement is in fact a very poor decision. It illustrates the specific physical and emotional affects steroids have on the body and mind, from organ damage to severe depression. Additionally, it highlights the negative impact steroids have on the professional sporting world and the stringent testing and monitoring activities implemented to identify and ban steroid use by athletes. The topics of legal stimulants and over-the-counter supplements are also addressed. Finally, it captures the very real consequences that steroids can have not just on the user, but also on his or her family and friends. After viewing this program, students will have a clear understanding of why steroid use is a negative, dangerous choice to make at any point in their lives.

MAIN TOPICS

Topic 1: Introduction

To begin, the program introduces basic information on steroids—what they are, how they work, and some historical background.

Topic 2: Types of Steroid Use

Here, the program covers how and why steroids are used—including both legal and illegal usage.

Topic 3: The Damage of Steroid Use

The negative physical effects of steroid use are significant and lasting. In this section, the program covers the ways in which steroids affect the body.

Topic 4: Psychological Effects of Steroids

Along with dangerous physical effects, steroid use can also lead to serious psychological struggles. Here, the program reviews how steroids affect the mind.

Topic 5: Dangers of Legal Supplements

Finally, the program examines the availability, wide usage, and potential dangers of legal supplements like caffeine and bodybuilding powders.

FAST FACTS

- Steroids work by increasing protein synthesis and building muscle mass.
- The first documented use of anabolic steroids in sports occurred in the 1940s when they were administered to a racehorse.
- In the early 1970s, East Germany and other Soviet bloc countries began to administer steroids to their female athletes. This led to noticeable physical changes in these women, such as lower voices and an increase in physical size. It also helped these women win more competitions.
- Steroids were actually created for use by medical doctors in treating patients with serious illnesses, such as cancer. Taking anabolic steroids as prescribed by a physician is legal.
- Surprisingly, 5% of teenage girls use steroids, and these teens are more likely than their peers to smoke marijuana, use cocaine, and carry a gun.
- Although people think of using steroids to increase size and stature, they can actually stunt growth in teens by prematurely closing the growth plates in the body.
- Some studies suggest that male steroid users experience fertility problems and are more likely to see birth defects in their offspring.

- Negative physical consequences of steroid use include high blood pressure, liver damage, and cholesterol imbalance.
- Buying unregulated anabolic steroids over the Internet can be particularly dangerous—they may be contaminated, have additional ingredients, or be a different product altogether from what you thought you had purchased.
- Even legal 'over-the-counter' supplements can be dangerous—sometimes they can even be spiked with anabolic steroids.

VOCABULARY TERMS

Adonis Complex: Male body image distortion; viewing the body as smaller than it actually is and taking extreme measures to continue to get bigger.

Anabolic: promotes growth.

Androgenic: making the body more masculine.

Anabolic Androgenic Steroids: synthetic, human-made substances derived from the male hormone testosterone.

Caffeine: powerful, legal stimulant used for energy. Found in coffee, energy drinks, and soda.

Human Growth Hormone (HGH): hormone used to stimulate growth. HGH is used by some to maximize the effects of steroids.

Legal Supplements: Over-the-counter pills/vitamins/powders sold at health food and sports stores to enhance athletic performance and/or appearance.

Performance Enhancing Drugs: substances used by athletes at all levels to improve their abilities and performance. Includes steroids, as well as a broader range of substances such as stimulants and diuretics.

Roid Rage: Anger and mood swings caused by the use of potent steroids.

Testosterone: the natural male hormone that triggers the development of boys into men through puberty.

PRE-PROGRAM DISCUSSION QUESTIONS

1. Why do men take steroids? Why do women take steroids?
2. Have you known a friend or relative who took steroids? What effects did you witness from his or her steroid use?
3. It's frustrating when two people do the same types of exercise and eat the same type of diet, yet one makes more progress on health and fitness goals. Have you had to deal with this type of frustration? How did you handle it?
4. What effects has steroid use had on professional sports? Are some sports more affected than others?
5. How would you feel or react if you found out a close friend or sibling was using steroids?

POST-PROGRAM DISCUSSION QUESTIONS

1. Knowing the significant negative consequences of steroid use, why do you think athletes still want to use them?
2. What are the differences between unregulated steroid use for athletic performance and appearance, and steroid use as prescribed by a doctor?
3. What negative consequences from steroid use do you find most surprising? Most shocking?
4. Are over-the-counter supplements sold at nutrition and vitamin stores always safe? Are they effective?
5. What are some alternatives to steroid use for increased athletic performance?

SUGGESTED ACTIVITIES

As the program mentions, the vast majority of young people have never had a parent, coach, or teacher talk to them about the dangers associated with using performance-enhancing drugs. Now that you have more information on the topic, create a presentation to share with younger students. What should they know? What advice would you give them? Where might they encounter steroid use and how should they respond? Your presentation should be as creative as possible—you could make and screen a short informative video, create an online presentation, or present in person to a younger class using visuals. Regardless of the format, ensure you include compelling evidence as to the dangers of steroid use, and realistic tips for saying no to synthetic performance enhancement.

This program highlights anabolic steroid use by both men and women, something that might surprise some viewers who associate steroids with men hoping to bulk up and develop significant muscle mass. Research more information on why both men and women utilize steroids—do they have common goals or use these illicit substances for different reasons? Continue your research to determine the physical and psychological effects on men and women who use steroids. What are negative effects specific to men? To women? What negative effects would both sexes experience? Present your findings in a research paper and, if appropriate, share back this information with your classmates.

Performance enhancing drugs have been in the headlines quite frequently in the past 5-10 years. Why? Who is admitting to using them? What are the legal and ethical consequences and questions? How are certain professional sports affected? Review the headlines and stories about steroids from major newspapers over the past decade (you may choose to limit your research to a particular sport). What are the major cases and famous names in the news? What legal consequences—if any—have been applied? What guidelines and rules have changed in professional sports due to these cases? What are the key takeaways from these cases and stories? Share your findings and analysis back with your classmates.

Steroid use is so tempting in part because amateur and professional athletes alike are eager to achieve a competitive edge and distinctive performance. What are some ways in which to achieve differentiated results without steroid or supplement use? If possible, invite a personal trainer and a nutritionist to present to the class on this topic. What are training and dietary choices students can make to see improvements in both physical appearance and athletic performance? How can training and nutrition advice be customized to achieve specific goals and results? How do trainers and nutritionists account for different body types and varying fitness levels? If hosting guest speakers is not possible, interview these professionals and share their advice and ideas back with the class, or host a live web chat with them.

ASSESSMENT QUESTIONS

Q1: Anabolic androgenic steroids are derived directly from

- a) animals
- b) testosterone
- c) estrogen
- d) East Germany

Q2: How do those using steroids minimize detection by drug testing?

- a) combining steroids with marijuana
- b) using steroids developed for horses
- c) taking smaller doses
- d) ordering steroids over the internet

Q3: Perceiving yourself to be smaller and less-muscled than you actually are and taking drastic measures to increase your size is known as

- a) Adonis Complex
- b) Anorexia
- c) Roid Rage
- d) Testosterone

Q4: Over ____ of steroids purchased over the Internet are counterfeit.

- a) one-tenth
- b) 75%
- c) one-half
- d) one-third

Q5: True or False: Some steroids are prescribed by a doctor and taken for legitimate medical purposes.

- a) TRUE
- b) FALSE

Q6: The feeling of extreme excitement and aggression experienced by some steroid users is called:

- a) Roid Rage
- b) depression
- c) testosterone
- d) androgenic

Q7: True or False: The majority of teenage girls who use steroids do so to improve athletic performance.

- a) TRUE
- b) FALSE

Q8: Which of the following contains caffeine?

- a) coffee
- b) energy drinks
- c) soda
- d) all of the above

Q9: The first recorded use of steroids in sports occurred when

- a) East German swimmers used them at the Olympics
- b) they were administered to a racehorse
- c) they were used by Russian wrestlers
- d) bodybuilders used them ahead of photo shoots

Q10: True or False: Steroid use by men can lead to infertility and birth defects.

- a) TRUE
- b) FALSE

ASSESSMENT QUESTIONS ANSWER KEY

Q1: Anabolic androgenic steroids are derived directly from

- a) animals
- b) testosterone
- c) estrogen
- d) East Germany

A1: (b) testosterone

Feedback: Testosterone is the main natural male hormone, thus steroids have a masculinizing affect on the body.

Q2: How do those using steroids minimize detection by drug testing?

- a) combining steroids with marijuana
- b) using steroids developed for horses
- c) taking smaller doses
- d) ordering steroids over the internet

A2: (c) taking smaller doses

Feedback: Participating in professional and even amateur sports now requires drug testing. By utilizing smaller doses of steroids, users hope to build muscle mass while avoiding being caught.

Q3: Perceiving yourself to be smaller and less-muscled than you actually are and taking drastic measures to increase your size is known as

- a) Adonis Complex
- b) Anorexia
- c) Roid Rage
- d) Testosterone

A3: (a) Adonis Complex

Feedback: Those taking steroids often suffer from body image distortion and view themselves as much smaller and weaker than they actually are.

Q4: Over ____ of steroids purchased over the Internet are counterfeit.

- a) one-tenth
- b) 75%
- c) one-half
- d) one-third

A4: (d) one-third

Feedback: Steroids sold over the internet are not regulated, so they could be counterfeit, include additional ingredients, or simply be oil.

Q5: True or False: Some steroids are prescribed by a doctor and taken for legitimate medical purposes.

- a) TRUE
- b) FALSE

A5: (a) TRUE

Feedback: Steroids are legally and legitimately used to treat serious illnesses such as AIDS and cancer.

Q6: The feeling of extreme excitement and aggression experienced by some steroid users is called:

- a) Roid Rage
- b) depression
- c) testosterone
- d) androgenic

A6: (a) Roid Rage

Feedback: Not only do steroids have significant psychological consequences while someone is taking them (such as roid rage), but these consequences can continue even when the user stops taking steroids. For instance, depression is a common experience when stopping steroid use.

Q7: True or False: The majority of teenage girls who use steroids do so to improve athletic performance.

- a) TRUE
- b) FALSE

A7: (b) FALSE

Feedback: In fact, teenage girls who use steroids are less likely than peers to play on a school athletic team. Steroid use by young females is generally to achieve improved appearance.

Q8: Which of the following contains caffeine?

- a) coffee
- b) energy drinks
- c) soda
- d) all of the above

A8: (d) all of the above

Feedback: We can consume significant amounts of caffeine in a day without realizing it. Caffeine, though legal, is a powerful stimulant and we should be aware of how much we ingest and how it affects us.

Q9: The first recorded use of steroids in sports occurred when

- a) East German swimmers used them at the Olympics
- b) they were administered to a racehorse
- c) they were used by Russian wrestlers
- d) bodybuilders used them ahead of photo shoots

A9: (b) they were administered to a racehorse

Feedback: Steroids were given to this racehorse in the 1940s. However, the concept of enhancing one's performance through substances has existed for thousands of years.

Q10: True or False: Steroid use by men can lead to infertility and birth defects.


- a) TRUE
- b) FALSE

A10: (a) TRUE

Feedback: Even years later, steroid use can affect you and your loved ones. Keep in mind that steroids do not only affect users; they affect family, friends, and even future generations.

ADDITIONAL INFOBASE LEARNING RESOURCES


Attack of the Mutants: Will Genetic Doping Replace Steroids?

In the not-so-distant future, athletes and other physically active people won't use needles, pills, or stick-ons for extra strength and endurance—those traits will be cultivated genetically. But one person's athletic utopia is another's sci-fi nightmare, and the World Anti-Doping Agency is already raising the alarm. This program examines the controversy in the wider context of biomedical advances as well as in the arena of sports. Featured case studies include gene therapy experiments with mice conducted by famed researcher Dr. Nadia Rosenthal and several other genetically relevant medical examples. Renowned geneticist Dr. Theodore Freidmann is also interviewed. Contains brief posterior nudity related to steroid use testing. (52 minutes) © 2010 

Item#: [BVL43856](#)

DVD (Chaptered) ISBN 978-1-61733-772-7

Steroids

This video examines the use and abuse of anabolic steroids and GHB, a synthetic steroid-like substance and date-rape drug. Former NFL player Charles Hunt and a pharmacist, a police officer, an addiction counselor, a trainer, a swim coach, a recovering abuser, and others explore the history and biological effects of steroids, using case studies and personal experience to probe anabolic steroid abuse and the drug's many side effects. Some of these side effects include impotence, liver tumors, renal failure, and "roid rage," which can lead to violence and even suicide. A Cambridge Educational Production. (24 minutes) © 1999 

Item#: [BVL9294](#)

DVD (Chaptered) ISBN 978-1-4213-1462-4

Steroids and Sports

The increasing use of steroids to improve athletic performance has physicians, trainers, sports officials, and families of athletes worried. Those who use steroids have an unfair competitive advantage over those who don't; they also take the considerable risk of steroid-induced cancer, heart disease, and infertility. This program features a woman body-builder who discontinued the use of steroids after she stopped competing; a child who, for medical reasons alone, was given growth hormone to correct stunted growth; and an endocrinologist who offers guidelines on when and under what conditions the administration of hormones is medically indicated. (19 minutes) © 1900

Item#: BVL1372

DVD ISBN 978-1-4213-3683-1

ADDITIONAL INTERNET RESOURCES

NIDA InfoFacts: Steroids (Anabolic-Androgenic)

<http://www.drugabuse.gov/infofacts/steroids.html>

Office of National Drug Control Policy–Steroids

<http://www.whitehousedrugpolicy.gov/drugfact/steroids/index.html>

NIDA for Teens

http://teens.drugabuse.gov/facts/facts_ster1.php

Office of Diversion Control–Steroid Use

<http://www.deadiversion.usdoj.gov/pubs/brochures/steroids/public/index.html>

Taylor Hooton Foundation

<http://taylorhooton.org/>