



STEROIDS AND SUPPLEMENTS: SAFETY CONCERNS FOR TEACHERS AND COACHES?

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What Are (Anabolic Androgenic) Steroids?

- Anabolic
 - ▣ Muscle building
- Androgenic
 - ▣ Increase male sexual characteristics
- Steroids
 - ▣ A class of drugs that can be legally prescribed to treat a variety of health conditions
 - ▣ Also have ergogenic (performance-enhancing) effects because they are chemically similar and related to testosterone
 - ▣ Are illegal when used for nonmedical purposes
 - Performance enhancement
 - Vanity and self-image



Potential Adverse Effects - Males

- ❑ Shrinking testicles and reduced sperm count
- ❑ High blood pressure and cholesterol
- ❑ Enlarged prostate and liver malfunction
- ❑ Breast development and acne
- ❑ Increased risk of prostate cancer
- ❑ Aggression
- ❑ Infertility
- ❑ Baldness





Potential Adverse Effects - Females

- Growth of facial hair
- Male-pattern baldness
- Changes in or cessation of menstrual cycle
- Enlargement of clitoris
- Deepened voice



Additional Problems

- Long-term Effects
 - HIV/AIDS
 - Liver failure
 - Cardiovascular problems
 - Stunted growth
 - Ligament and joint injuries
 - Neurological issues
- Withdrawal Symptoms
 - Mood swings and depression
 - Fatigue and insomnia
 - Loss of appetite
 - Reduced sex drive
 - Restlessness



Steroidal Supplements / Prohormones

- Substances that when digested are converted to active anabolic hormones
- The anabolic compounds they convert to would be considered anabolic steroids if taken in the already converted form
- These include:
 - ▣ Androstenedione (Andro)
 - ▣ Tetrahydrogestrinone (THG)
 - ▣ TREN-Xtreme
 - ▣ MASS Xtreme
 - ▣ ESTRO Xtreme
 - ▣ TT-40-Xtreme



Supplements: An Overview

- What is a supplement?
 - ▣ Products used to enhance health or athletic performance that may include vitamins, minerals, amino acids, herbs, or botanicals (plants)
- How are supplements available?
 - ▣ Generally over the counter without a prescription in stores or over the internet
- How prevalent supplement use?
 - ▣ About 114 million Americans consume supplements

Supplements: Applicable Federal Regulations

- Dietary Supplement Health and Education Act (DSHEA)
 - Passed in 1994, this act codified regulation of supplements
 - Prior to 1994, herbal products were considered food additives and their manufacturers were required to show proof of safety before marketing them
 - Broadened definition of supplements beyond vitamins and minerals to include proteins, herbals, etc.
 - There are no provisions in this law for the FDA to approve supplements before they reach consumers
 - Further, the burden is on the FDA to prove that a product is unsafe before it can remove the product

Supplements: Applicable Federal Regulations

- Anabolic Steroid Control Act of 1990
 - ▣ Added steroids to Schedule III of the Controlled Substances Act (CSA)

- Anabolic Steroid Control Act of 2004
 - ▣ Amended the CSA to replace the definition of anabolic steroid and made it possible to add new supplements to the list of illegal substances
 - ▣ Listed 59 specific substances (Andro, THG, etc.) as being anabolic steroids
 - ▣ Despite some progress, the administrative process is still lengthy to add substances

Supplements: Critical Issues

- Are largely unregulated
- May contain “designer” steroids and other dangerous or undisclosed ingredients
- Little to no scientific research to validate claims
- Use linked to many serious health problems
 - ▣ Liver damage, testicular cancer, etc.
- Labeling not adequate
 - ▣ These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

Supplement Roulette

- <http://www.supplementsafetynow.com/>

