

Success Without Steroids

**A curriculum for student athletes, parents,
and coaches**

**Assembled by
IHSA Sports Medicine Advisory Committee**

Educational objectives

- What are steroids?
- Who uses steroids? Why?
- Do steroids work?
- What are the health risks associated with using steroids?
- What are the myths about steroids?
- What are the healthy ways to achieve my goals without using steroids?

What are steroids?

- Powerful drugs that many people use as a short cut to boost their athletic performance or improve their appearance
- Sometimes called “Roids”, “Juice”, “Hype”, “Pump”
- Properly called *anabolic-androgenic steroids*

What do “anabolic” and “androgenic” mean?

- *Anabolic* = “building body tissue”
 - Anabolic-androgenic steroids help to increase muscle mass and body weight, and speed up bone maturation
- *Androgenic* = “promoting male characteristics”
 - Anabolic-androgenic steroids promote development of facial hair, deeper voice, balding, and other male characteristics
- **All “anabolic” steroids are also “androgenic”**

What do steroids do?

- Doctors sometimes prescribe low doses of anabolic-androgenic steroids to treat people with serious medical conditions
- Example = A man's testosterone level decreases due to a testicular tumor
 - Dose prescribed is only enough to bring the testosterone level back up to normal
 - Testosterone levels and side effects are monitored closely by the doctor

Examples of anabolic-androgenic steroids

- Testosterone (Depo-testosterone)
- Nandrolone (Deca-durabolin)
- Methandrostenolone (Dianabol)
- Oxandrolone (Oxandrin/Anavar)
- Oxymetholone (Anadrol)
- Stanzol (Winstrol)
- Trenbolone (Finaplix)
- Boldenone (Equipoise)
- Tetrahydrogestrinone
- Norbolethone
- Madol

What are corticosteroids?

- Medications prescribed by doctors to treat medical conditions such as asthma and arthritis
 - Examples = Prednisone, Medrol
- Corticosteroids are not anabolic or androgenic
- Corticosteroids have no muscle-building effects

Why do people use steroids?

- To make muscles bigger and stronger
- To be a better athlete
- To get an edge over the competition
- To look better
- Pressure from friends or coach



Who uses steroids?

- *Not just professional athletes!*
- 20% of college students ¹
- **4-12% of high school students** ²⁻¹⁰
- 2-3% of middle school students ^{11,12}
- Highest rates of steroid use among teens are seen in football players ^{2-5,12}

Who uses steroids?

- *High school students in Illinois*
- 1990 survey of 3047 high school freshman and seniors ¹³
 - 3% of boys and 0.9% of girls reported steroid use
 - 14% identified teacher/coach as source of steroids

Who uses steroids?

- *Not just men!*
- Up to 2.9% of middle and high school girls ^{11,12}

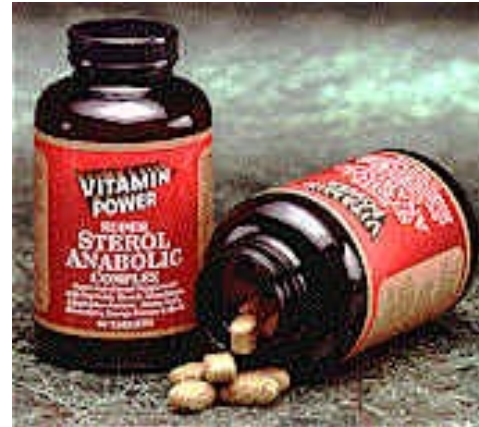


Who uses steroids?

- *Not just athletes!*
- 25% of teens who report steroid use do not participate in organized athletics ¹⁴

How do people take steroids?

- Pills
 - Injections
 - Gels or creams
-
- Taken in doses 10-40 times higher than prescription doses to treat medical conditions



How do people get steroids?

- *It is illegal to buy, sell, or possess steroids without a doctor's prescription!*
- Penalties range from 5 months to 6 years in jail

Where do people get steroids?

- People buy steroids illegally from
 - Friends or teammates
 - Teachers or coaches
 - Doctors
 - Pharmacists
 - Veterinarians
 - Internet

Illegally purchased steroids

- Not monitored for quality or purity
 - 10-15% are counterfeit (contain no steroids at all!)
 - Many are contaminated with substances like motor oil
 - Sellers only care about making money – they do not care about the buyer's health

Do steroids work?

- Steroids will increase muscle size and strength when used with intense strength training
- But your body will pay a hefty price!!
- **The medical dangers of steroid use far outweigh the advantage of gains in muscle mass and strength**

What are the health risks?

- ***Steroids have harmful side effects on every system of the body***
 - Side effects range from mild to serious
 - Some side effects are reversible and go away once steroid use is stopped, but many are permanent
 - A few side effects are life-threatening

Harmful side effects

- Skin and hair
 - Severe acne on face and back *
 - Baldness *
 - Stretch marks *
 - Being bloated
 - Skin infections at injection sites



* These side effects can be permanent

Harmful side effects

- Muscles and joints
 - *Aching joints*
 - *Muscle cramps*
 - *Tendon rupture*
- Liver
 - Liver damage
 - Liver cancer
- Heart
 - High blood pressure
 - High cholesterol
 - Heart disease
 - Heart attack
- Brain
 - Headaches
 - Stroke

Harmful side effects

- Gastro-intestinal

- Nausea
- Vomiting
- Diarrhea

- Infection

- Can get HIV/AIDS and hepatitis if needles are shared to inject steroids

- Psychological

- “Roid rage”- aggressive and violent behavior
- Anger/irritability
- Severe mood swings
- Paranoia
- Anxiety
- Panic attacks
- Depression
- Suicide

Psychological side effects

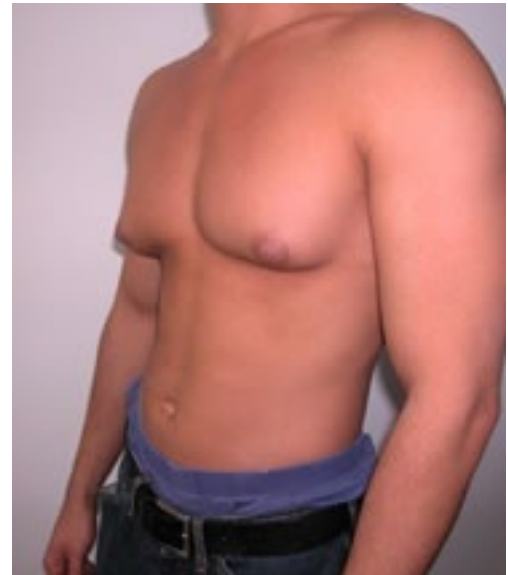
- Can last for up to a year after steroids are stopped



Side effects for males

- Testicles shrink
- Breasts become larger*
- Sperm count goes down
- Infertility

* Can be permanent!



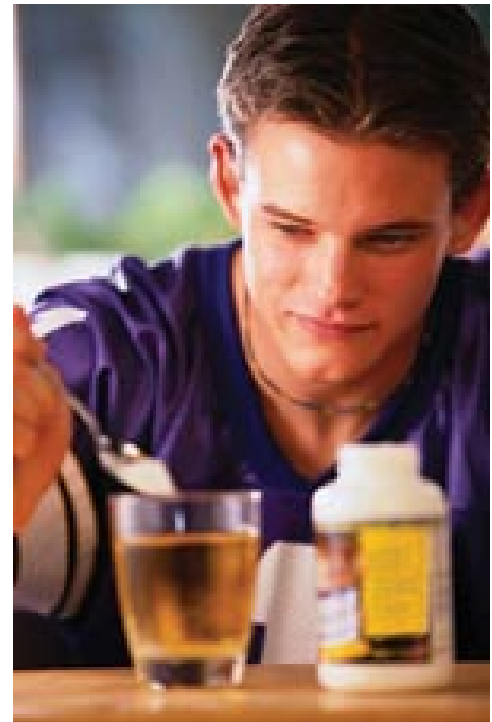
Side effects for females

- Girls develop masculine characteristics
 - Facial hair *
 - Deeper voice *
 - Smaller breasts *
 - Irregular periods
 - Infertility

* Can be permanent!

A special danger for teenagers

- Steroids cause your bones to stop growing
- You will not reach your full height potential
- *Using steroids can stunt your growth*



Myths and facts about steroids



Myth or fact?

Steroids will make me a better athlete.

The truth

- Steroids **CANNOT** improve your
 - Agility
 - Athletic skills
 - Endurance



Myth or fact?

You can't get addicted to steroids.

The truth

- Users can become addicted
- Steroid users are also more likely to become addicted to alcohol and other drugs



Myth or fact?

The newer steroids are safer and have fewer harmful side effects.

The truth

- All steroids have harmful side effects

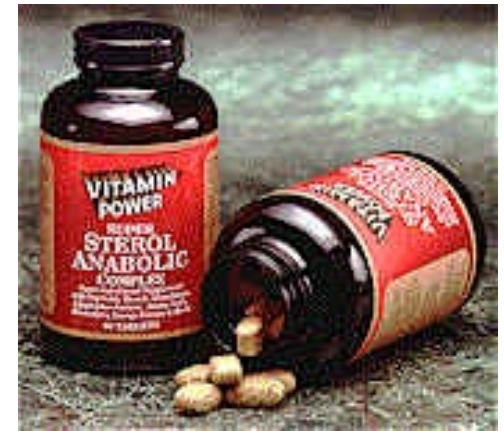


Myth or fact?

Steroids are safe if you use them carefully.

The truth

- Even small doses of steroids are harmful
- Users may try “pyramiding” and “cycling” to reduce side effects
 - No method eliminates the dangerous effects



Myth or fact?

You can't get strong without using steroids.

You can't keep up with your competitors without using steroids.

The truth

- You can get strong and beat your competitors without steroids
- Steroids are
 - Illegal
 - A form of cheating
 - Dangerous to your health
- Short cuts are not the way to achieve your long-term goals



How to succeed without steroids

- Success takes talent, skill, and most of all, practice and hard work
- There are many healthy ways to build strength and improve your appearance:
 - Proper conditioning and training
 - Get supervision and advice from a qualified professional
 - Good, sound nutrition

Nutrition tips for athletes

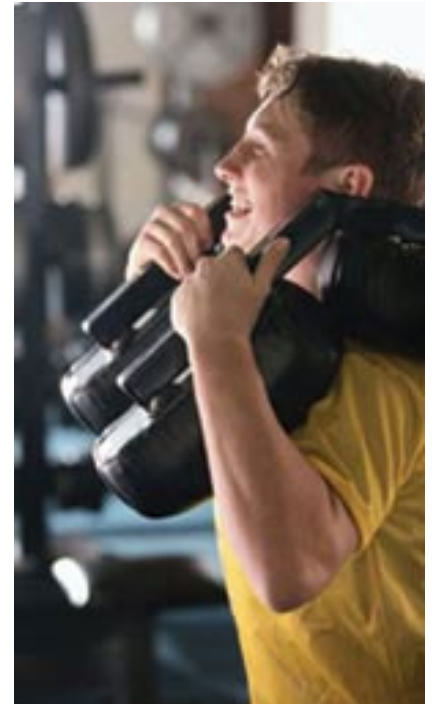
- The best fuel for performance is a balanced diet that includes a variety of whole foods
- There is no one “miracle food,” vitamin, nutritional supplement, or energy bar that can supply ALL of your nutritional needs

What's a balanced diet for an athlete?

- Ideal balance of nutrients:
 - Carbohydrates (60-70% of daily calories)
 - Protein (20% of daily calories)
 - Fat (10% of daily calories)
- Ideal balance of food groups:
 - 2 servings of dairy (milk, cheese, yogurt)
 - 2 servings of meat (fish, poultry, beans)
 - 4 servings of fruits and vegetables
 - 4 servings of grains or cereal

Nutrition tips for building muscle strength

- *Eat more calories!*
- Young athletes trying to build strength should eat an extra 500 calories each day
- These extra calories should come from carbohydrates and protein



Nutrition tips for building muscle strength

- ***Eat more carbohydrates!***
 - The most important nutrient for building strength is carbohydrate
- An athlete's daily carbohydrate needs
 - 3.5-4.5 grams per pound of body weight
- Eating carbohydrates during a workout builds strength
 - A sports drink during a workout provides carbs

Nutrition tips for building muscle strength

- *Eat more protein!*
- Athletes building strength need more protein than athletes in endurance sports
 - 0.7-0.9 grams per pound of body weight per day
 - Eating more than this will not build additional muscle and will only harm your kidneys
- For optimal muscle growth and recovery, eat a snack that has BOTH protein and carbohydrate about 30-60 minutes after exercise.

Sources of protein

- Athletes can easily eat enough protein without using additional protein or amino acid supplements or switching to a high-protein diet.
- The protein found in food is of better quality and is absorbed better by the body than the protein found in supplements.
- Healthy protein sources include lean meat, poultry, fish, dairy products, eggs, low-fat cheese, nuts, and dried beans.

How to succeed in sports without using steroids

- Train hard
- Eat right
- Play safe
- Play fair



For more information

- National Institute on Drug Abuse
 - www.nida.nih.gov
- National Center for Drug-Free Sport
 - www.drugfreesport.com
- World Anti-Doping Agency
 - www.wada-ama.org

For more information

- International Olympic Committee (IOC)
 - www.olympic.org
- National Collegiate Athletic Association (NCAA)
 - www.ncaa.org
- Taylor Hooten Foundation
 - www.taylorhooten.org