What You Should Know About Steroids

For the past few years, it's been all over the news - stories about athletes, steroids, and body image. In 1998, there was plenty of talk about home-run king Mark McGwire and his controversial use of androstenedione (which he has since stopped using). Professional wrestlers are much admired by kids and teens for their bulked-up appearance and strength. Female athletes are becoming more visible role models for teen girls, who are more aware than ever of a "buffed" muscular body type.

Unfortunately, many professional athletes use various forms of anabolic steroids (illegally, in some sports) and admit that they believe they are bigger and stronger, and perform better, when they do. This undoubtedly influences many teen boys and girls, who think that they too will be bigger, better athletes if they use supplements and steroids. Recent studies indicate that as many as 5% of teen males and 2.5% of teen females are using some form of anabolic or androgenic steroids in the United States.

As a parent, you're probably concerned about the increasing use of steroids by young athletes and you may even be concerned about your own child's health. What do you need to know about steroids and how can you talk to your child about them?

What Are Steroids?
Drugs commonly referred to as "steroids" are classified as anabolic, androgenic, and corticosteroids. Corticosteroids, such as cortisone, are drugs used to control inflammation, and are not the steroids that build muscle and receive so much media attention. Rather, it is the anabolic steroids that are used by athletes and bodybuilders to bulk up and improve athletic performance.

Anabolic steroids are synthetic hormones that cause the body to produce muscle and prevent muscle breakdown. (The word "anabolic" is derived from a Greek word that means to "build up.") Some athletes take steroids in the hopes that they will improve their ability to run faster, hit farther, lift heavier weights, jump higher, or have more endurance. You should be aware that anabolic steroids are a drug like any other. In the United States, it is against the law to use anabolic steroids without a prescription.

Androstenedione, or "andro," is a weaker anabolic androgenic steroid, and, like other anabolic steroids, it is taken by athletes who want to build muscle. It has been suggested in some recent studies that if andro is taken in very large daily doses, it can significantly increase levels of testosterone and muscle proteins that would be extremely harmful to every body system.

How Do Anabolic Steroids Work?
The human body produces many forms of steroids naturally. Anabolic steroids are drugs that resemble the chemical structure of the body's natural sex hormone testosterone. Androstenedione is a steroid hormone that can be broken down into testosterone. Testosterone is naturally made by the bodies of males and, in much smaller amounts, females. The hormone directs the body to produce or add male characteristics such as increased muscle mass, facial hair, and deep voices, and is an important part of male development during
When athletes take anabolic steroids, these drugs stimulate the muscle tissue in their bodies to grow larger and stronger, exaggerating the effects of testosterone on the body. The effects of too much testosterone circulating in the body is harmful over time.

**Dangers of Anabolic Steroids**

Steroids are dangerous for two reasons: they are illegal, and they can damage a person's health, especially if used in large doses over time.

Although they may build muscle, steroids can produce very serious side effects in both males and females. Using steroids for a long time can negatively affect the reproductive systems. In males, steroids can reduce the amount of sperm produced in the testicles and even reduce the size of the testicles. Steroids also can cause impotence in males.

Females who use steroids may have problems with their menstrual cycles because steroids can disrupt the maturation and release of eggs from the ovaries. This disruption can cause long-term problems with fertility.

Steroids taken for an extended period of time can also:

- stunt growth in teens by causing the growth plates in the bones to mature too fast and fuse
- cause irreversible liver damage
- enlarge the heart muscles
- cause violent, aggressive mood swings
- contribute to heart disease and increase cholesterol and lipid levels
- increase breast growth in males, especially teens
- create irreversible stretch marks
- heighten a person's tendency to lose hair
- cause muscles to ache

In addition to these, teen girls and women risk additional side effects:

- permanent effects of male hair growth or male-pattern baldness
- deepening of the voice
- enlargement of the clitoris

The health problems caused by steroids may not appear for years after the steroids are taken. The risk of steroids causing bones to fuse early and preventing a teen from reaching full growth potential is significant - and at an all-time high. The National Institutes of Drug Abuse estimates in recent studies that 325,000 teenage boys and 175,000 teenage girls are using steroids.

"A testosterone measurement of more than 200 nanograms per milliliter would signal steroid abuse, and I have seen athletes with levels in the thousands," says Larry Bowers, MD, a steroid expert. "Although it may take 20 years, case studies of long-term steroid use indicate negative effects on almost every system of the body."
Steroids may give your child the sense that he or she is stronger and more athletic, but the consequences are too dangerous to risk. The chance that your teen's growth and long-term health could be jeopardized by steroids is especially worrisome. Help your child stay away from steroids by encouraging a healthy lifestyle that is followed by your entire family. And be sure to promote your child's self-esteem so that body image doesn't take over your child's self-worth.

Updated and reviewed by: Kim Rutherford, MD
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NCAA Banned-Drug Classes
2004-2005

(b) Anabolic Agents:
anabolic steroids
androstenediol
androstenedione
boldenone
clostebol
Dehydrochloromethyltestosterone
dehydroepiandrosterone (DHEA)
dihydrotestosterone (DHT)
nandrolone
norandrostenediol
norandrostenedione
norethandrolone
oxandrolone
oxymesterone
oxymetholone
dromostanone
fluoxymesterone
gestrione
mesterolone
methandienone
methyltestosterone
tetrahydrogestrinone (THG)
trenbolone
stanozolol
Testosterone2 and related compounds
other anabolic agents
clenbuterol
methenolone
(f) Peptide Hormones and Analogues
chorionic gonadotrophin (HCG-human chorionic gonadotrophin)
corticotrophin (ACTH)
growth hormone (HGH, somatotrophin)
All the respective releasing factors of the above-mentioned substances also are banned.
erythropoietin (EPO)
Sermorelin

Note: All information on KidsHealth is for educational purposes only. For specific medical advice, diagnoses, and treatment, consult your doctor.

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