



The American Orthopaedic  
Society for Sports Medicine

## SPORTS TIP

# Anabolic Steroids

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Anabolic steroids are dangerous and illegal athletic performance enhancing drugs. While some Olympic and professional athletes have been caught using these or similar drugs, the potential problems in children and adolescents go beyond the legal risks. As many as four million American children and teens are using performance enhancing drugs. Anabolic steroids can permanently alter growth and can permanently damage the liver or damage other organ function. Yet children see their sports heroes using these drugs and getting results. It's a powerful message: "Win at all costs! Bigger is better. Even if taking drugs breaks the law, pro and Olympic athletes are willing to take these drugs, so why shouldn't I?"

Young athletes have too much to lose by risking their health for sport.

### What are anabolic steroids?

Anabolic steroids are synthetic derivatives of the male sex hormone testosterone. The steroids help with the construction of new proteins and increase muscle size and strength. This is something that already takes place in the body, but the steroids simulate or increase this normal biologic activity. Performance enhancing drugs are easily available in communities, weight rooms, or even via the Internet.

Steroids can either be taken orally or by an injection. Anabolic steroids in and of themselves are not effective. However, when used in conjunction with strength training they may cause gains in size and strength, along with dangerous side effects.

### What are the side effects of anabolic steroids?

Performance enhancing drugs do have the ability to make athletes bigger and stronger but users face potentially deadly health risks. Many of the side effects of performance enhancing drugs continue even after stopping the drugs. Users also are likelier to engage in risky behavior, such as taking other illegal drugs, or engaging in dangerous sexual practices.

Signs of anabolic steroid use include:

- Acne, often severe, and seen on the back and face
- Severe mood swings, extreme aggression, and even suicidal behavior
- Premature balding, irreversible breast enlargement, and smaller testicles in boys
- Deeper voice, shrinking breasts, and clitoral enlargement in girls
- Dangerous enlargement of the heart, that may increase bad cholesterol and blood pressure
- Often irreversible liver damage
- In children, premature closure of the growth plates, stopping normal growth of bones.

### Is there ever a reason to take anabolic steroids?

Anabolic steroids are invaluable to people who have lost testicular function, such as men with testicular tumors. Anabolic steroids are also used in some types of anemia to stimulate the bone marrow.

### How can we prevent children from using anabolic steroids?

Do not think that performance enhancing drugs are only a problem of the elite athletes. Our children are exposed to these drugs on a daily basis in our hometowns. Get involved with your children. Ask them about what they know about these drugs. Ask them if they know if any of their classmates are using these drugs. Ask them if they know the potential dangers of performance enhancing drugs.

If you think your child may be experimenting with these drugs, talk to your doctor.

It is also important to talk with the coaches and ask if yearly physicals are required by the league or school for athletic participants. A pre-participation physical by a physician is an invaluable way to screen for potential performance enhancing drug use in athletes. Ask the coaches if they know if any of their athletes have experimented with performance enhancing drugs.

Do not delay. Winning is not worth permanent damage to your child's health.