

PERFORMANCE PLAYBOOK

The Consequences of Anabolic Steroid Abuse

DAVID R. LAMB, Ph.D., is a Professor Emeritus of exercise physiology at The Ohio State University.

Many young athletes are convinced that the only way to become a champion is by using anabolic steroids. Coaches and other sports health professionals can begin to counteract the attraction of these drugs by helping educate the athletes about the potential harmful consequences of anabolic steroid use.

Liver Damage

Nearly all of the anabolic steroids taken by mouth cause abnormal liver function. These abnormalities range from the common, but usually harmless, leakage of enzymes from the damaged liver tissue into the blood to rare, but very serious, liver cancer and liver bleeding.

The appearance of liver enzymes in the blood ordinarily ceases when athletes stop using steroids, but liver cancer and bleeding have caused deaths among a few athletes who have abused anabolic steroids.

Risk of Heart Disease

Many athletes who abuse anabolic steroids have high blood pressure (hypertension). They also have decreased amounts of HDL-cholesterol, the so-called "good cholesterol," that helps the body avoid the buildup of fat in the walls of the arteries. Both high blood pressure and low HDL-cholesterol increase the chances of having a serious heart disease at a relatively early age.

Sexual and Reproductive Disorders

Many male athletes who take large doses of anabolic steroids have shrunken testicles. They also have such poor sperm production that virtually all of them who have used steroids for six months or more are sterile. Sperm count may not return to normal for seven months or more after discontinuing steroid use.

In many men, steroid abuse leads to a feminizing growth of the nipples, which can be corrected with surgery. In most women, on the other hand, steroid abuse causes shrinkage of the breasts to masculine proportions.

Other masculinizing effects of anabolic steroid use by females are very common, including growth of facial hair, thinning of head hair and possible

baldness, deepening of the voice, irregularity or absence of menstrual cycle, and shrinkage of the uterus. Baldness, growth of facial hair, and deepening of the voice usually cannot be reversed, even when steroids are no longer used. These are permanent changes.

Psychological Disorders

Among the more commonly reported psychological effects of steroid abuse are increases or decreases in sex drive, increased aggressive behavior, mood elevation or depression, and "psychological addiction" to the drugs.

More rare are schizophrenia and psychotic behavior patterns. For example, steroid abusers have been known to head-butt the windshields out of cars or to purposely crash their cars into trees.

Effects on Growth

The long bones of young people – up to 18 years old and sometimes older – are still growing. If young athletes abuse anabolic steroids, the growth plates of those bones may close earlier than usual. This diminishes the height they could have reached as adults had they not taken steroids.

Conclusion

Athletes should be told that very few individuals are known for certain to have become seriously ill or to have died from steroid abuse and that habits such as smoking tobacco or driving while intoxicated are probably far more deadly. On the other hand, they should also be told that few, if any, steroid abusers escape all of the potential harmful effects of these drugs.

Finally, coaches should regularly remind their athletes that hard training, skill improvement, and good nutrition will have far greater positive effects on athletic performance than will the use of any drug.

