

Steroids and Body Health in Athletes

Anabolic-androgenic steroids are synthetic derivatives of the naturally occurring male anabolic hormone testosterone. Such chemicals promote the retention of dietary protein which aids in the growth and development of muscle. The athlete takes steroids primarily to increase muscle mass and strength. Such changes are thought to enhance athletic performance and gain competitive edge for the user. However, anabolic-androgenic steroids can cause serious physical and psychological side effects that may occur soon after use and/or appear years later. Their effects are dose-related; most athletic users take doses far exceeding recommended therapeutic levels.

Steroids are illegal and banned by most major sports organizations. In contrast, controlled doses of steroids prescribed by qualified physicians for specific disease states are often found to be medically beneficial.

Anabolic steroids are introduced into the body in three ways:

- Oral ingestion
- Needle injection
- Skin cream absorption

Remember that replacing depleted levels of circulating anabolic-androgenic steroids, by adding small physiologic doses, under doctor's orders, may have no serious health risk to the body. However, repeated, uncontrolled treatment with high doses of anabolic-androgenic steroids (common in athletic performance enhancement users) have been linked to many negative side effects in athletes of both sexes. Because

of biological variability among humans, an individual may exhibit none, some or all of the known side-effects of steroids.

The following are harmful side-effects of anabolic-androgenic steroids:

Medically accepted negative side effects

- Acne (skin condition)
- Edema (fluid accumulation)
- Weight gain
- Glucose intolerance (insulin resistance diabetes)
- Hair loss
- Liver function abnormality
- Hypertension
- Cholesterol abnormalities: increased LDL (“bad guy”) cholesterol, decreased HDL (“good guy”) cholesterol
- Thickened heart muscle (left ventricular hypertrophy)
- Gynecomastia (enlargement of breast tissue)
- Testicular atrophy and decreased sperm count
- Prostate cancer
- Mood swings and aggressive behavior

Possible side effects

- Increased risk of heart attack and/or stroke
- Increased chance of developing malignancy (cancer)
- Increased susceptibility to acquiring infection