



American College of Medical Toxicology

Physicians Specializing in the Care of Poisoned Patients

## **Anabolic Steroids**

### **What are anabolic steroids and who uses them?**

Anabolic steroids typically include testosterone and testosterone-like products. They are either the same as, or derivatives of, testosterone that is produced naturally in the body. They are often used by men, aged late teens to mid-thirties, to improve strength, performance, and body image (bodybuilders).

### **How are anabolic steroids taken?**

They can either be ingested as pills, injected into muscle as liquid, or applied to skin as a cream.

### **Are there any approved medical uses for anabolic steroids?**

Some men experience low testosterone levels either early or late in life and may be prescribed testosterone by their doctors. There are also “off-label” or non-approved uses for conditions including osteoporosis and to help with weight gain in patients who have severe wasting diseases such as cancer or HIV.

### **Are anabolic steroids illegal?**

Possession of anabolic steroids or other substances used to make anabolic steroids without a prescription is a federal crime.

### **What are the complications of using anabolic steroids?**

Many parts of the body are affected by anabolic steroids. Effects on different organs and systems may include the following:

- Brain
  - Stroke
  - Blood clots
- Heart
  - Enlarged heart
  - Heart attack
  - Decrease in “good” cholesterol
  - Sudden death
- Liver
  - Bleeding around or within the liver; may lead to rupture of the liver’s blood vessels and death
- Reproductive

- Testicle shrinkage, decreased sperm counts
- Development of breast tissue in males (“gynecomastia”)
- Women may have irregular periods, breast atrophy, and development of male characteristics (male pattern hair growth, voice changes)
- Musculoskeletal
  - Tendon and ligament rupture
- Skin
  - Acne
  - Scarring from injection
  - Skin stretching (“striae”)
- Infection
  - Skin or blood infection from injecting
  - Sharing needles may lead to HIV or Hepatitis B and C
- Cancer
  - Testicular and prostate cancer
  - Associated with kidney and liver cancers
- Psychiatric
  - Agitation, aggressiveness (“roid rage”)
  - Depression, anxiety, difficulty concentrating, difficulty sleeping

**If I stop taking anabolic steroids, are there any long-term effects?**

Yes. The effects on the heart and liver can be permanent despite stopping use. Breast tissue development in men is permanent. People may have decreased libido, fatigue, and muscle pain after stopping anabolic steroids.

**How long are anabolic steroids detectable in the urine?**

This may depend on several factors and varies from person to person. Anabolic steroids taken as pills may be detectable for several months, while they may be detectable for days to weeks if injected into muscle.

Created by Scott Lucyk, MD on behalf of the American College of Medical Toxicology