



# X. Steroids

## WHAT ARE STEROIDS?

Anabolic steroids are synthetically produced variants of the naturally occurring male hormone testosterone that are abused in an attempt to promote muscle growth, enhance athletic or other physical performance, and improve physical appearance.

Testosterone, nandrolone, stanozolol, methandienone, and boldenone are some of the most frequently abused anabolic steroids.

## WHAT IS THEIR ORIGIN?

Most illicit steroids are smuggled into the U.S. from abroad. Steroids are also illegally diverted from legitimate sources (theft or inappropriate prescribing). The Internet is the most widely used means of buying and selling anabolic steroids. Steroids are also bought and sold at gyms, bodybuilding competitions, and schools from teammates, coaches, and trainers.



*Depo-Testosterone*



*Testosterone Cypionate Injection, USP*

### What are common street names?

Common street names include:

- Arnolds, Juice, Pumpers, Roids, Stackers, and Weight Gainers

### What do they look like?

Steroids are available in:

- Tablets and capsules, sublingual-tablets, liquid drops, gels, creams, transdermal patches, subdermal implant pellets, and water-based and oil-based injectable solutions

The appearance of these products varies depending on the type and manufacturer.

### How are they abused?

Steroids are ingested orally, injected intramuscularly, or applied to the skin. The doses abused are often 10 to 100 times higher than the approved therapeutic and medical treatment dosages. Users typically take two or more anabolic steroids at the same time in a cyclic manner, believing that this will improve their effectiveness and minimize the adverse effects.

### What is their effect on the mind?

Case studies and scientific research indicate that high doses of anabolic steroids may cause mood and behavioral effects.

In some individuals, steroid use can cause dramatic mood swings, increased feelings of hostility, impaired judgment, and increased levels of aggression (often referred to as “roid rage”)

When users stop taking steroids, they may experience depression that may be severe enough to lead one to commit suicide.

Anabolic steroid use may also cause psychological dependence and addiction.

### What is their effect on the body?

A wide range of adverse effects is associated with the use or abuse of anabolic steroids. These effects depend on several factors including:

→ Age, sex, the anabolic steroid used, amount used, and duration of use

In adolescents, anabolic steroid use can stunt the ultimate height that an individual achieves.

In boys, steroid use can cause early sexual development, acne, and stunted growth.

In adolescent girls and women, anabolic steroid use can induce permanent physical changes, such as deepening of the voice, increased facial and body hair growth, menstrual irregularities, male pattern baldness, and lengthening of the clitoris.

In men, anabolic steroid use can cause shrinkage of the testicles, reduced sperm count, enlargement of the male breast tissue, sterility, and an increased risk of prostate cancer.

In both men and women, anabolic steroid use can cause high cholesterol levels, which may increase the risk of coronary artery disease, strokes, and heart attacks. Anabolic steroid use can also cause acne and fluid retention. Oral preparations of anabolic steroids, in particular, can damage the liver.

Abusers who inject steroids run the risk of contracting various infections due to non-sterile injection techniques, sharing of contaminated needles, and the use of steroid preparations manufactured in non-sterile environments. All these factors put

users at risk for contracting viral infections such as HIV/AIDS or hepatitis B or C, and bacterial infections at the sight of injection.

Abusers may also develop endocarditis, a bacterial infection that causes a potentially fatal inflammation of the heart lining.

### What are their overdose effects?

Anabolic steroids are not associated with overdoses. The adverse effects a user would experience develop from the use of steroids over time.

### Which drugs cause similar effects?

There are several substances that produce effects similar to those of anabolic steroids. These include human growth hormone (hHG), clenbuterol, gonadotropins, and erythropoietin.

### What is their legal status in the United States?

Anabolic steroids are Schedule III substances under the Controlled Substances Act. Only a small number of anabolic steroids are approved for either human or veterinary use. Steroids may be prescribed by a licensed physician for the treatment of testosterone deficiency, delayed puberty, low red blood cell count, breast cancer, and tissue wasting resulting from AIDS.