

Anabolic steroids - it's pharmacological agents that mimic the action of the male sex hormone - testosterone and dihydrotestosterone . Anabolic steroids accelerate protein synthesis within the cells, which leads to pronounced muscle hypertrophy (in general, this process is called anabolism), whereby they are widely used in body building. Effect of anabolic steroids is conventionally divided into two areas: the anabolic activity and androgenic activity . The word "anabolic" comes from the Greek "anabolein", which translates as "to build", the word "androgen" comes from the word "andros" and "genein", which translates as "making a man" or "omuzhestvlyat".

90-95% of all cases of steroid use are men, while, according to a study , the main motivation is to obtain a competitive advantage in the face of sexual partners, as well as improving their social status, power and self-affirmation.

The history of anabolic steroids

The use of anabolic steroids dates back to their identification and isolation. Medical use of an extract of the testicles of animals began in the late 19th century. In 1931, Adolf Butenandt managed to isolate 15 mg of androstenone of 10 000 liters of urine. This anabolic steroid was subsequently synthesized Leopold Ruzicka in 1934.

In the 1930s, it was already known that the extract of testes contained a more powerful anabolic steroid than androstenone. Three groups of scientists, funded by competing pharmaceutical companies, three from different countries: the Netherlands, Nazi Germany and Switzerland began to search for more powerful components. For example, in May 1935, Karoly Gyula David, E. Dingemans, J. Freud and Ernst Laqueur succeeded in isolating crystalline testosterone . Hormone got its name based on its origin: the dough - egg, sterol - steroid structure, and ending -one, which suggests that the substance is a ketone.

The chemical synthesis of testosterone from cholesterol was produced in the same year Butenandt and G. Hanisch. Within a week after the event, the third group Ruzicka and A. Wettstein has made an application for patenting a new method for the chemical synthesis of testosterone. Ruzicka and Butenandt received for his invention, the Nobel Prize in 1939.

Clinical trials on humans, including oral administration of methyltestosterone and testosterone propionate injection, began in 1937.

The first mention of an anabolic steroid strength sports history dates back to 1938, when it comes to testosterone propionate in a letter to the editor of Strength and Health magazine. There are rumors that Nazi Germany used anabolic steroids on soldiers, in order to increase aggression and stamina, but at present these facts have no official confirmation. However, the very Adolf Hitler received injections of anabolic steroids, according to his personal physician. Anabolic steroids were used by the Nazis in experiments on concentration camp inmates. In other countries, anabolic steroids used for the treatment and rehabilitation of malnourished prisoners, who were released from the camps.

Modern history

Improvement of the anabolic properties of testosterone conducted in the 1940s in the Soviet Union and Eastern Bloc countries such as East Germany, where anabolic steroids were being used to improve the performance of Olympic weightlifting. In response to the success of the Russian weight-lifters, the US Olympic team physician, Dr. John Ziegler, started working with chemists to develop an anabolic steroid with less androgenic activity , whereby was obtained Methandrostenolone . The new drug was approved by FDA in 1958. Most often it is prescribed for the treatment of severe burns, and the elderly, but most of methandrostenolone consumed in bodybuilding and other strength sports. Dr. John Ziegler prescribed only small doses to athletes, but he later said that in athletes who exceed the dosage occurred prostatic hypertrophy , and testicular atrophy .

In 1976, anabolic steroids have been banned by the International Olympic Committee, this completes the story of their legitimate use in sport, and 10 years after it had developed special tests for anabolic steroids in urine.