

Anabolic steroids and human body essay

[Technology](#), [Development](#)



The word anabolic comes from the Greek word anabole, meaning to build up. Anabolic steroids increase protein synthesis, which is the process in which the cells create protein from individual amino acids. When protein synthesis increases it results in greater cell growth, especially in the muscles.

Testosterone is the most potent, naturally occurring androgen that is formed in the human body. It is responsible for characteristics specific to males and their sexual traits. Testosterone promotes health and well being through enhanced libido, energy, immunity, increased fat loss, increased growth and maintenance of lean muscle mass, preventing Osteoporosis and possible protection against heart disease. Testosterone is also responsible for normal growth and development of male sex organs and maintenance of secondary sex characteristics. Secondary sex characteristics are chest and facial hair, a distinguished jaw line, broad shoulders and increased muscle mass. These characteristics are what separates the two sexes. Anabolic steroids were identified and synthesized in the 1930s, and are now used in medicine to stimulate bone growth and appetite, induce male puberty, and treat chronic wasting conditions, such as cancer and AIDS. Anabolic steroids also produce increases in muscle mass and physical strength, and that is why it is used in sport and bodybuilding to enhance strength or physique.

Serious health risks can be produced by long term use or excessive doses of anabolic steroids. These effects include harmful changes in cholesterol levels by increasing the levels of bad cholesterol and decreasing the good cholesterol. Acne, high blood pressure, liver damage, and dangerous changes in the structure of the left ventricle of the heart are other harmful effects.

Some of these effects can lessen by exercise, or by taking supplemental drugs. When used safely and properly, anabolic steroids have many positive effects. Not only are they used clinically to treat a myriad of medical conditions, they also aid in muscle growth, fat loss and increased recovery time. Steroids prescribed as medication often by physicians to combat many medical conditions. Most often, mild steroids are administered to patients suffering from wasting diseases such as AIDS and certain types of cancers to prevent muscle loss, increase appetite and ultimately to keep weight on them. They are also used to aid in recovery for burn victims. Steroids increase the production of red blood cells, so they are used in the treatment of anemia (a disease effecting red blood cell count) and other blood disorders.

Bone density is also increased through the use of anabolic steroids; therefore they are used as a treatment of Osteoporosis, a degenerative bone disease. AAS are also used to treat hormone and growth deficiency in pubescent males as well as aids in the treatment of patients experiencing gender identity issues. People who use anabolic steroids, especially those experienced in weight training, will experience increases in strength and muscle significantly beyond the normal growth from training alone. Steroids have a direct effect on the balance between anabolic and catabolic processes within the body. Anabolism occurs when smaller substances are converted into more complex substances such as muscle or bone. Catabolism is the opposite process in which these compounds are broken down for the body to eliminate. A healthy body works to create a balance

between these two processes. Both processes depend on nitrogen balance in the body.

Anabolic steroids increase protein synthesis, which leads to an increase in nitrogen balance and in order to build muscle mass, the body must be in a state of positive nitrogen balance. That is why nitrogen intake must be greater than nitrogen expenditure. During heavy exercise, the body goes into a state of negative nitrogen balance. After exercise, the body experiences a state of positive nitrogen balance, in which new proteins are added to muscle tissue and ultimately increase muscle size and strength.

Body fat is another positive effect of anabolic steroids. Steroids are probably the most powerful dieting aid around due to their anti catabolic effects on the body. Although diet and cardiovascular activity is a huge aid in cutting down on body fat, users experience reduced body fat when they do not apply a low calorie diet. The reduction is not usually in pounds but in fat composition. Steroids reduce the production of Cortisol, a hormone released by the body in times of stress.

Cortisol is known to increase fat storage, decrease and damage muscle tissue and slow recovery time. Steroids have been known for the reduction of Cortisol production. They allow for the body to recover more quickly from stressful conditions such as increased exercise and recovery from injury. In conclusion, Anabolic Steroids have been seen as bad for their negative side effects, and their positive effects are often not taken into consideration.

Many people do not see that they can be used beneficially to treat medical

conditions such as Hypogonadism, increase muscle size and strength, decrease body fat and aid in recovery.