

HOW ANABOLIC STEROIDS WORK

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(9) Like skeletal tissue, cardiac tissue also grows in response to exercise. When anabolic steroids are added, this can cause the cardiac tissue to further enlarge producing a condition called left ventricular hypertrophy (LVH). This means that one of the four chambers of the heart, the left ventricle, has become overly enlarged. This can cause potential cardiovascular problems if the LVH becomes extreme.

(10) Besides its effects on muscles, anabolic steroids can also cause some unwanted side effects. Female users can develop masculine features and a loss of their periods. Men can

experience testicular atrophy, which means that their testicles shrink and they can also suffer from decreased sexual function and infertility. Some men may also develop a condition called gynecomastia, which means that they develop breast tissue when the high levels of testosterone in their body is converted to estradiol, a female sex hormone. A small number of people also report “roid rage” where they experience increased levels of aggressiveness when using anabolic steroids. For preteens and teenagers the use of anabolic steroids holds extra risk because their bodies are still growing. Anabolic steroids can stunt growth.

Article Questions

- 1) Anabolic (2) means to build, androgenic (2) means to make something masculine, proteolysis (5) means to break down protein, AAS stand for anabolic androgenic steroids (2). Besides skeletal muscle cells, there are also cardiac (3) and smooth (3) muscle cells in the body.
- 2) What are two other terms for a muscle cell?
muscle fiber and myocyte (3)
- 3) What effect does cortisol have on muscles and what effect do anabolic steroids have on cortisol?
Cortisol causes protein break down which decreases muscle size and anabolic steroids help to inhibit the production of cortisol.(5)
- 4) Why does a skeletal muscle cell have more than one nucleus?
Each skeletal muscle cell was formed through the fusing of many cells called myoblasts. Each myoblast contributes a nucleus which creates a multinucleated skeletal muscle cell.(7)
- 5) Describe two ways that activated satellite cells help increase muscle size.
 - 1) They form new myoblasts which can fuse with each other to make new muscle cells.
 - 2) They form new myoblasts which can fuse with existing muscle cells to make them larger.(8)
- 6) Describe two negative side effects of anabolic steroids specific to female users.
 - 1) increased body hair
 - 2) lowered voice
 - 3) loss of period (10)
 - 4) (any two of these three)
- 7) Describe two negative side effects of anabolic steroids specific to male users.
 - 1) testicular atrophy
 - 2) decreased sexual function
 - 3) infertility
 - 4) gynecomastia (10)
 - 5) (any two of these four)