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Creatine Versus Anabolic Steroids

Over the past few years, many athletes have been using performance-enhancing supplements on a regular basis. Two of the most widely known and used supplements are creatine and anabolic steroids. Although both of these supplements are well known in the sports world, they are different in the positive, the negative, and the long-term effects they have on their users.

Creatine is a fairly new supplement that can have some very positive effects on a person's physical appearance. The main function of creatine is to help provide the energy needed to move muscles in the body. It is a naturally occurring nutrient, and it is usually found in muscles (Sahelian 26). Creatine enlarges muscles with a creatine-rich fluid, which causes the muscles to move less, while being able to lift more weight than normal (Smeets). According to Dr. George Sotiropoulos, "its beneficial effects have only been noticed in high-intensity, short-duration, repetitive sports, such as track and field or weightlifting, with no benefit in aerobic events" (qtd. in Johnson 62). Most people who take creatine notice an increase in muscle size as well as an improvement in strength. This size increase is attributed to both water preservation as well as an increase in the amalgamation of proteins (Sahelian 26).

The use of creatine has a number of people reporting a variety of negative effects. Those effects consist of headaches, clenched teeth, and stomach cramps, as well as the likelihood of high blood pressure. Creatine also produces an offshoot called creatinine, which when detected

in the blood, is generally considered an indication of kidney troubles (Smeets). Other users of creatine have reported side-effects such as nausea, vomiting, dizziness, and cramping. Also, a few cases of exertional compartment syndrome have been diagnosed. According to Dr. George Sotiropoulos, “Exertional compartment syndrome is when, with exercise and increased blood flow, the muscle becomes too bulked and the fascia which encloses it becomes too tight, which raises pressure in the muscle and can start to impair blood flow and neurological function” (qtd. in Johnson 62).

Although there is very little indication of long-term effects from creatine, many people discourage its use. The American Academy of Sports Medicine said they advise “caution with the use of creatine and [do] not recommend its use for anyone under the age of 18” (qtd. in Johnson 62). When elevated doses of creatine are used regularly for several weeks, there is a prospect of damage to the kidneys (Sahelian 28). Increase in weight is one long-term steadfast side effect of creatine that has been reported in experimental studies (Jacobson et al. 31). Regardless of the confirmation of a small number of unpleasant side-effects, the short- and long-term health risks involved with the use of creatine by adolescents and preadolescents have not been identified (Ewald et al. 161). One recent research study showed that the use of creatine enhancement may be even less disadvantageous than frequent caffeine use (“Straightforward Creatine Information”).

Anabolic steroids have many differences from creatine. Anabolic steroids have some very positive effects in building up the body’s muscles. Anabolic steroids are a man-made material associated with male sex hormones. Steroids are primarily used to treat body wasting, which occurs when a patient has a disease that attacks the body’s muscle mass. At present, many people, especially athletes, use steroids to augment performance and advance their physical

appearance (“Drug Facts”). Anabolic steroids are artificial derivatives of testosterone which are used to raise the body mass amount and improve a person’s physical strength and performance (Ewald et al. 161). Many steroid users use multiple versions of steroids in the belief that combining these different steroids will have an even greater impact on muscle growth than if used independently (“Steroids” 76).

There are many negative effects from abusing and/or using anabolic steroids. Those effects can include high blood pressure, kidney and liver tumors, cancer, fluid retention, and trembling, as well as severe acne. Also, there are some side effects which are gender and age specific. Shrinking testicles, infertility, baldness, development of breast tissue, and an increased risk of prostate cancer become very prevalent in males. In females, the side effects are the growth of facial hair, male-patterned baldness, change in the menstrual cycle, and a deepened voice. In adolescents, growth can stop too early, and rapid puberty changes can occur. Psychiatric side effects, along with a considerable amount of aggression, have also been seen in numerous users (“Drug Facts”).

Long-term use of anabolic steroids can cause some very bad health problems. Steroids alter the levels of lipoproteins that carry cholesterol to the blood, causing heart attacks and strokes. Cardiovascular diseases which normally occur in older people have been found in athletes under the age of 30 who have been using steroids (“Steroids” 76). When Dr. John Bret, a heart specialist with Baylor Medical Center in Garland, Texas, recently treated a young man in his 20’s for multiple heart attacks, he found that the man had a considerable amount of heart damage. Dr. Bret concluded that the man had definitely used steroids because that amount of heart damage is uncommon in a young, healthy person. Just eight days later the young man also suffered a stroke that caused paralysis of his entire left side. The use of steroids almost took this

man's life (Llosa 73).

Creatine and steroids are different. Creatine is a naturally occurring nutrient found in the body, while anabolic steroids are a synthetically produced variant of the naturally occurring male hormone testosterone. Research shows that the use of anabolic steroids has more long-term effects on the human body than creatine.

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