

Stimulants In Athletics

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The Adverse Role of Stimulants in Athletics

Key Points

- Stimulants increase metabolism at a cost to health
- Many so-called stimulants are not proven
- Stimulants are disavowed in all athletic competition

Stimulants have been, and will continue to be, a highly controversial subject in human performance and athletics. Commonly misunderstood, stimulants do not provide energy for the body and are counterintuitive to the principles of athletics. In fact, no substance other than the common macronutrients found in food (carbohydrates, protein and fats) provides an actual surplus of energy to the body.¹ Although metabolic cofactors, such as vitamins and minerals, make processing macronutrients for energy possible, they do not bring a surplus of energy into the body by themselves.

Although stimulant ingredients give the impression of elevated energy levels, they only increase metabolism (the speed at which the body creates its own energy). Adding stimulants to increase metabolism is much like pressing the accelerator down in an automobile: the vehicle moves faster, but it will run out of fuel sooner (not to mention the increased wear on its parts).

Further, the body will adapt to stimulants if exposed to them repeatedly. The principle of adaptation leads to the physiologic requirement for larger and larger doses to achieve the same effect in the body.² Continual use of stimulants will also lead to a more rapid depletion of energy cofactors (vitamins and minerals) found in the body, potentially leading to fatigue if not replaced at a greater rate than they are used.

The vast majority of ingredients manufacturers claim increase energy have very little in the way of positive clinical studies behind them.³ The majority of “energy enhancing” ingredients are not shown to enhance performance in human studies. In fact, many of the claims behind them are derived and extrapolated from test tube or animal studies that show little beneficial effect and cannot be automatically applied to human physiology with any certainty. Moreover, the amounts of so-called “energy enhancing” ingredients are found in such miniscule doses in products it’s uncertain whether any energy enhancement will occur whatsoever.

The use of stimulants to enhance athletic potential is unacceptable. Numerous products are marketed to consumers (and athletes) that contain actual stimulants and other

ingredients that have purported stimulant effects⁴ because it is believed that athletes will use whatever they can in hopes of fighting fatigue or obtaining an extra boost. This is done despite countless sporting organizations blatantly objecting to the use of any stimulant, in any form, in athletic training and competition.

Consuming so-called “energy enhancers” will never make up for proper training, diet, rest and commitment. Performance results from intense training and the proper combination of dietary strategies with adequate rest and recovery. Chances are, if one feels the need to consume a stimulant, that urge is there to compensate for other shortcomings in training and dedication. Optimal energy stores are obtained by consuming the right diet, staying hydrated and allowing enough time for recovery.

Glukos contains a natural form of fuel with optimal levels of electrolytes designed to rapidly deliver what the body needs during exercise. Glukos does not contain any stimulants, or ingredients with purported stimulant effects.

¹ Magkos, F. Kavouras, S. (2004). Caffeine and ephedrine: physiological, metabolic and performance-enhancing effects. *Sports Medicine*; 34(13), 871-889.

² Bohn, A. Khodaei, M. Schwenk, T. (2003). Ephedrine and other stimulants as ergogenic aids. *Current Sports Medicine Reports*, 2(4), 220-225.

³ Williams, M. (1999). Facts and fallacies of purported ergogenic amino acid supplements. *Clinical Journal of Sports Medicine*, 18(3), 633-649.

⁴ Online Document at: <http://www.bevnet.com/>