

Nutritional ergogenics in athletics

ABSTRACT

Nutritional ergogenic aids may be theorized to improve performance in athletics in a variety of ways, primarily by enhancing energy efficiency, energy control or energy production. Athletes have utilized almost every nutrient possible, ranging from amino acids to zinc, as well as numerous purported nutritional substances, such as ginseng, in attempts to enhance physical performance. This review focuses primarily on nutritional ergogenic aids thought to enhance performance by favourably affecting energy metabolism. Although most purported nutritional ergogenic aids have not been shown to enhance physical performance in well-trained, well-nourished athletes, some reliable scientific data support an ergogenic efficacy of several substances, including caffeine, creatine and sodium bicarbonate, but additional research is needed to evaluate their potential for enhancing performance in specific athletics events.