

Eating to succeed in Sport

by Matthew Lovell, DiplON, Clinical Nutritionist

Few top athletes eat simply an everyday healthy diet - most use one or more food or vitamin supplements to boost their performance. A wide array of perfectly-legal substances is taken to improve fitness and allow athletes to gain extra muscle.

Many feel they have to take the supplements simply to keep a level playing field between themselves and their competitors. Supplements to improve performance are nothing new - sports drinks with added glucose and replacement salt have been around for decades. Baking powder helps muscles and eating baking powder to help disperse lactic acid from the muscles is another well-known technique. But sports nutrition has entered a whole new level of complexity in recent years, with evermore sophisticated "ergogenic aids" marketed to athletes.

In a newspaper poll of top athletes, more than half had admitted taking the amino acid Creatine, which is sold over the counter in powdered form.

Often even the smallest advantage offered by these products are too great to be ignored, even though Creatine has been linked to health problems such as kidney damage, muscle cramping and dehydration. Amino acids are the basis for other supplements popular with athletes. These include: · Glutamine - claimed to reduce fatigue, build muscle and boost the immune system · Tryptophan or 5HT - claimed to increase production of adrenaline, the "fight or flight" hormone · Protein powders - claimed to improve recovery after training and increase strength and muscle growth. And athletes make extensive use of vitamins and minerals such as folic acid.

Professor Craig Sharp, who carries out research into the science of sport at Brunel University, takes a slightly cynical approach to supplements and vitamins. He said: "It has been said that the only difference between doping and ergogenic aids is that doping works." But athletes know that if they improve their performance by even a tiny amount, it will make a big difference.

"People are paranoid about anybody having an edge." He believes the main effect of such supplements is psychological - but adds that this is a

powerful effect in itself. Strong warnings for athletes; athletes are warned not to take any supplement without checking exactly what it contains. Many over-the-counter medicines such as decongestants and cough mixture can contain banned stimulants such as ephedrine or pseudo-ephedrine. And innocuous-looking herbal mixtures like teas and medicines also frequently contain banned substances, as Linford Christie discovered when he tested positive after drinking ginseng tea.

Professor Peter Radford, of the sports science department at Brunel University, said that even vitamin supplies might be contaminated with banned substances. So gaining the maximum advantage from supplements while avoiding banned substances is a complex skill for the modern athlete. So desperate are many to grasp any sort of advantage, that some of the theories they embrace border on the bizarre. Some athletes sleep with negatively ionized air blowing around their rooms, as it is believed that it will promote a feeling of well-being. And the chances are that more, rather than fewer supplements will become available in future seasons.

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