Ergogenics edge: Pushing the limits of sports performance

Ved Parkash Sharma

Abstract
Performance enhancing drugs consist of a variety of substances, including medications, procedures and even devices that are intended to improve athletic sports performance. Some of these substances are naturally occurring, easily available and completely legal while others are manufactured, illegal, or banned by many sporting organizations. Many athletes, coaches, politicians and fans feel the use of certain substances is unethical in sports. Determining which substances are regulated, however, is an area of constant debate. Many performance enhancing substances classified as supplements are widely marketed as "health aids" yet have limited research on their safety or effectiveness. Being classified as a supplement means the contents of the product and the claims on the label have not been evaluated by the U.S. Food and Drug Administration and may not have any scientific basis. Numerous ergogenic aids that claim to enhance sports performance are used by amateur and professional athletes. Approximately 50 percent of the general population have reported taking some form of dietary supplements, while 76 to 100 percent of athletes in some sports are reported to use them. Physicians can evaluate these products by examining four factors (method of action, available research, adverse effects, and legality) that will help them counsel patients. In general, performance enhancing drugs and substances (ergogenic aids) can be categorized into the following areas. These are:

1. Nutritional Ergogenic Aid
2. Physiological Ergogenic Aid
3. Psychological Ergogenic Aid
4. Mechanical Ergogenic Aid
5. Pharmacological Ergogenic Aid

Keywords: Ergogenics, pushing, sports, performance

Introduction
Ergogenic Aid
An ergogenic aids is defined as any substance that may enhance the physical performance through improved strength, speed, response time or the endurance of the athletes.

Ergogenic Aids may
- Directly influence the physiological capacity of a particular body system thereby improving performance
- Remove psychological constraints which impact performance
- Increase the speed of recovery from training and competition

Nature of Ergogenic Aid
1. Direct act on muscle fibre
2. Counter-act fatigue product
3. Supply needed for muscular contraction
Stimulant, any substance that causes an increase in activity in his/her performance in competition”.

Intention of increasing in an artificial and unfair manner abnormal routine or entry into the body with the sole substance taken in abnormal quantity or taken by an substance foreign to the body or of any physiological

follows:–

declared prohibited. I.O.C defines the ergogenic aids as ergogenic aids in to five types. These ergogenic has been

In 1985 I.O.C medical commission classified the prohibited

loading, warm-up technique are acceptable.

Diuretics are medicines that help reduce the amount of water in the body. Diuretics are used to treat the buildup of excess fluid in the body that occurs with some medical conditions such as congestive heart failure, liver disease, and kidney disease. Some diuretics are also prescribed to treat high blood pressure. These drugs act on the kidneys to increase urine output. This reduces the amount of fluid in the bloodstream, which in turn lowers blood pressure.

There are several types of diuretics, also called water pills:

- Loop diuretics, such as bumetanide (Bumex) and furosemide (Lasix), get their name from the loopshaped part of the kidneys where they have their effect.
- Thiazide diuretics include such commonly used diuretics as hydrochlorothiazide (Hydro DIURIL, Esidrix),
chlorothiazide (Diuril), and chlorthalidone (Hygroton).

- Potassium-sparing diuretics prevent the loss of potassium, which is a problem with other types of diuretics. Examples of potassium-sparing diuretics are amiloride (Midamor) and triamterene (Dyrenium).

References