

# Nutritional Supplements for the Athlete

*This guide provides basic information to help you understand the facts and fiction of sports supplement claims. A registered dietitian can provide in-depth personalized nutrition information to decide if a sport supplement is right for you. It is best to remember that a balanced diet, based on the Food Guide Pyramid, is the most important way to provide a body what it needs for any activity.*

## Supplements

Athletes are always looking for ways to improve their performance, so it's no surprise that supplements are very popular. Supplement sales number in the billions of dollars each year. We are bombarded with supplement claims in magazines, on television, and on internet sites every day. With all these sources of information, it's hard to separate fact from fiction. Unfortunately, supplement companies don't have to prove that a supplement works or if it's even safe before selling it to the public. It is important to know what the supplement companies can and cannot put on their labels.

## Facts about popular supplements

### Anabolic steroids

*Claims:* Will build muscle mass, add strength, and increase power.

*Current facts:* Research shows anabolic steroids, with training and diet, can increase muscle, strength, and power.

*Safety:* Significant health risks may occur such as stroke, heart disease, liver damage, increased cholesterol, increased blood pressure, and body hair growth. Steroids are illegal, dangerous and should be avoided.

### Androstenedione (Andro)

*Claims:* Will build muscle mass, increase testosterone, and add strength.

*Current facts:* Short-term and long-term studies are lacking to determine safety of andro use over time.

*Safety:* Possible safety concerns include an increased risk of heart disease, cancer, liver damage and stroke. Excess growth of body hair and aggressive behavior are also side effects. Andro is banned by the NFL, NCAA, and the Olympics. Androstenedione should be avoided.

### Caffeine

*Claims:* Will increase energy, endurance, mental strength, and fat usage.

*Current facts:* Some studies indicate increased fat usage and increased endurance while others demonstrate no effect.

*Safety:* Risks include anxiety, upset stomach, insomnia, dehydration, and irritability. Caffeine is not needed to improve athletic performance.

### Chromium Picolinate

*Claims:* Will increase muscle mass and decrease fatty tissue.

*Current facts:* Studies do not support claims of increased muscle mass or decreased fatty tissues.

*Safety:* In large doses, could cause damage to DNA. Meats, seafood, and whole grains provide your body with needed chromium. Chromium supplements are not needed to improve athletic performance.

## **Creatine**

*Claims:* Delays fatigue and helps build muscle mass.

*Current facts:* Growing evidence suggests that it may improve performance in strength or sprinting activities but no benefits are evident for endurance athletics.

*Safety:* Possible side effects include dehydration and cramping with possible long-term effects of muscle, heart, and kidney damage. Side effects of creatine on the junior high or high school athlete are not yet known. Creatine usage is not recommended until long-term effects are determined.

## **Ephedra**

*Claims:* Increases energy and enhances performance while helping to control body weight.

*Current facts:* Ephedra acts as a stimulant similar to caffeine. Possibility of performance improvement needs to be proven.

*Safety:* Use of ephedra can cause rapid or irregular heart beats, hypertension, nerve damage, stroke, and memory loss. At least 30 deaths have been related to the use of ephedra. Ephedra is dangerous and shouldn't be used to improve performance. In April 2004, the FDA banned the selling of ephedra (also known as Ma-Huang).

## **Ginseng**

*Claims:* Increases energy and improves speed.

*Current facts:* Studies do not support claims of increased energy or speed.

*Safety:* Side effects may include high blood pressure, insomnia and diarrhea. Ginseng is not needed to improve athletic performance.

## **HMB (Beta-Hydroxy-Beta-Methylbutyrate)**

*Claims:* Increases muscle mass and recovery times.

*Current facts:* Studies are limited but show promise for HMB.

*Safety:* Long-term side effects are not known. HMB usage is not recommended until long-term effects are determined.

## **Protein supplements**

*Claims:* Increases muscle mass.

*Current facts:* The average American diet provides more than enough protein to build muscle.

*Safety:* Safe amounts of protein are 0.8-2.0g/kg body weight. Large amounts of protein may cause dehydration, making performance decline. Excess protein will be stored as fat.

**Source** - Sports Nutrition: A Guide For The Professional Working With Active People, Third Edition, Christine A. Rosenbloom, PhD, RD, Editor

*This handout provides general information on deciding whether or not to use sports supplements. For further information on nutrition and fitness make an appointment with a registered dietitian, the nutrition expert. A dietitian can take into account your activity type, intensity, and duration to provide recommendations to specifically meet your goals.*

*This information is not intended to replace the medical advice of your doctor or health care provider. Please consult your health care provider for advice about a specific medical condition.*

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