Athletes will most often encounter prohibited substances in dietary supplements that claim to build muscle mass, enhance recovery, promote weight loss, and boost energy levels. However, athletes must carefully read the labels of ALL dietary supplements and over-the-counter medications before use. (The following is NOT a complete list of substances prohibited for use in international competition.)

### Top Five Offenders

#### Anabolic StEROIDS (Testosterone) - Injections, pills, tablets, capsules, liquids, gels, creams, or patches that contain testosterone or other anabolic/androgenic steroids

- **Description**: Synthetic hormones that mimic the effects of natural hormones such as testosterone or dihydrotestosterone.
- **Reason for Banning**: Unfair Advantage: Precursors to anabolic/androgenic hormones, these substances are primarily used to enhance athletic performance (increased alertness, reduced fatigue, higher energy levels).
- **Health Risk**: Unfair Advantage: Precursors to anabolic/androgenic hormones, these substances are primarily used to enhance athletic performance (increased alertness, reduced fatigue, higher energy levels). Side effects such as increased muscle mass, elevated heart rate and blood pressure, and possibly the increased risk of stroke and heart attack may occur in susceptible individuals.

#### Ephedra - Powder, capsules, tablets, or liquids

- **Description**: A herbal product containing ephedrine or pseudoephedrine, which are stimulants.
- **Reason for Banning**: Unfair Advantage: Central nervous system stimulants can produce both psychological and physiological effects that can aid athletic performance (increased alertness, reduced fatigue, higher energy levels).
- **Health Risk**: Central nervous system stimulants are associated with adverse effects such as increased heart rate, elevated blood pressure, and possibly the increased risk of stroke and heart attack in susceptible individuals.

#### Dehydroepiandrosterone (DHEA) - Pills, tablets, capsules, or creams

- **Description**: A hormone that is a precursor of the male hormone testosterone.
- **Reason for Banning**: Unfair Advantage: DHEA, Dehydroepiandrosterone, are prohibited by IOC regulations. It is a hormone that is a precursor of the male hormone testosterone. It is often found in products marketed as appetite suppressants (to reduce food intake) and “thermogenics” (to increase calorie expenditure).
- **Health Risk**: Side effects of anabolic/androgenic precursors may include liver damage, aggressiveness, interference with hormone balance, and potential for cardiovascular complications.

#### Stimulants - Powder, capsules, tablets, liquids

- **Description**: These products are known to cause increased heart rate, blood pressure, and possibly interfere with hormone balance.
- **Reason for Banning**: Unfair Advantage: Precursors to anabolic/androgenic hormones, these substances are primarily used to enhance athletic performance (increased alertness, reduced fatigue, higher energy levels). Side effects such as increased heart rate and blood pressure, and possibly the increased risk of stroke and heart attack may occur in susceptible individuals.
- **Health Risk**: Central nervous system stimulants are associated with adverse effects such as increased heart rate, elevated blood pressure, and possibly the increased risk of stroke and heart attack in susceptible individuals.

### Pharmaceutical Unable to find any product marketed or regulated as dietary supplements that contain ephedra alkaloids, pseudoephedrine, or their derivatives, but these substances are prohibited by the World Anti-Doping Agency (WADA) and are used in some US over-the-counter cold medicines, over-the-counter appetite suppressants, and non-prescription decongestants.

### Choosing a Safe Supplement

As explained in this guide, some dietary supplements have been formulated with substances that are prohibited for use in international competition. Athletes must carefully read product labels and educate themselves about which prohibited substances may be present in dietary supplements. Information about these substances or through inaccurate product labeling by the supplement company. Athletes who use supplements may inadvertently be consuming these prohibited substances, whether through lack of knowledge about these substances or through inaccurate product labeling by the supplement company. Information about these substances or through inaccurate product labeling by the supplement company.

### Pharmanex

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### Supplement Ingredients

<table>
<thead>
<tr>
<th>Supplement</th>
<th>Functional Description</th>
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| DHEA        | **Description**: Anabolic androgenic steroid. DHEA is a hormone that is a precursor of the male hormone testosterone. It is often found in products marketed as appetite suppressants (to reduce food intake) and “thermogenics” (to increase calorie expenditure).
| **Health Risk**: Side effects of anabolic/androgenic precursors may include liver damage, aggressiveness, interference with hormone balance, and potential for cardiovascular complications. |

### Pharmaceutical

Pharmanex has launched a proactive educational program stressing the responsible use of dietary supplements in athletic competition. In addition to identifying common prohibited substances and how they are most frequently used in dietary supplements, we also have provided a list of suggested guidelines for choosing safe, quality supplements. This guide outlines several of the most important recommendations that, although legally approved as ingredients in dietary supplements, are prohibited for use in athletic competition by the Olympics Medical Advisory Drug Council (OMADC). (Clarifications to OMADC are made by the International Olympic Committee and its Medical Commission.) This guide also provides competitive athletes with a list of prohibited substances that are commonly used in dietary supplements. It is important to note that this guide is not a complete list of prohibited substances. For a more comprehensive list of prohibited substances athletes should visit the USADA Web site at www.us antidoping.org or call the USADA Drug Testing Laboratory at 1-877-722-0005.

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**Important**: It is important that athletes select products only from companies that:

- Do not use ingredients that are classified as prohibited substances or have negative health risks
- Select and utilize the only highest-quality raw materials for consistent effectiveness and potency
- Follow recognized GMP (Good Manufacturing Practice) standards when producing their products
- Substitute product claims with rigorous scientific evidence—including clinical evidence of product safety and effectiveness
- Regularly subject their products to independent third-party analysis to confirm the absence of prohibited substances

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- Regularly subject their products to independent third-party analysis to confirm the absence of prohibited substances
We have created this guide to:

• Educate athletes about dietary supplement ingredients prohibited from international competition
• Help athletes avoid an inadvertent doping offense resulting from the use of supplements
• Allow athletes to focus on the sound use of dietary supplements to support unique nutritional needs

Athletes’ Frequently Asked Questions about Supplements

Q. Can using a dietary supplement cause me to test positive in a prohibited substance test?
A. Yes. There are several ingredients that, although approved for use as ingredients in dietary food products, are prohibited from collegiate, national, and international competition. The use of dietary supplements that contain these substances will result in a positive test for prohibited substances.

Q. How many athletes regularly use dietary supplements? Can I safely use dietary supplements without testing positive for prohibited substances?
A. Yes, provided that the supplements have not been formulated with prohibited ingredients or have not been tainted with prohibited substances in the manufacturing process. Athletes should carefully review the labels of all products they wish to use and only use products from reputable manufacturers.

Q. Why are ingredients such as ephedra and androstenedione, that are sometimes used in dietary supplements and over-the-counter medications, prohibited from athletic competition?
A. The Olympic Movement Anti-Doping Code prohibits the use of substances that are potentially harmful to an athlete’s health or capable of unfairly enhancing performance.

Q. Should athletes take dietary supplements?
A. The decision to add dietary supplements to your diet and training regimen is a personal one. Athletes who feel that their diets are inadequate due to the demands of training, travel, or weight maintenance efforts may benefit from additional nutritional assistance provided by dietary supplements. Consult your athletic trainer or healthcare professional to determine if dietary supplementation is appropriate for you.

Q. How can athletes be sure that their dietary supplements are free of prohibited substances?
A. Athletes should educate themselves on the prohibited substances that are sometimes used as ingredients in dietary supplements and the common dose and should carefully review product labels before use. They should visit the website of the World Anti-Doping Agency for a list of prohibited substances. Athletes should choose products only from companies that follow strict quality control and good manufacturing practices conduct independent tests to confirm that their products are free of prohibited substances.

Q. Where can I find a complete list of prohibited substances?
A. This guide provides a list of some of the common ingredients used in dietary supplements that are prohibited from use in international athletic competition. For a more comprehensive list of prohibited substances, athletes should visit the United States Anti-Doping Agency’s Web site at www.usantidoping.org.

Pharmanex is a world leader in the development and distribution of nutritional supplements. Provided by Nature and Proven by Science™, Pharmanex products are made with only the highest quality, safe ingredients following strict pharmaceutical manufacturing practices. For more information about Pharmanex products, visit our Web site at www.pharmanex.com. Additional copies of this guide are available at no charge to athletic associations and teams around the world. Call 801-345-2044.