

# Ephedra

Herbal ephedrine alkaloids, which are commonly referred to as ephedra, are marketed in the United States as dietary supplements that claim to promote weight loss, increase energy and enhance athletic performance. Ephedrine alkaloids are active chemicals found naturally in several species of herbs of the genus *Ephedra*, some-times called ma huang. They can also be produced synthetically in the laboratory.

Because ephedrine alkaloids are amphetamine-like heart and nervous system stimulants, people with high blood pressure, heart or thyroid disease, a seizure disorder, depression, diabetes, difficulty urinating, prostate enlargement, glaucoma, or individuals who use prescription drugs should not use products containing ephedra. Children under 18 and pregnant and nursing women should not use these supplements. Since some allergy, asthma, or cold remedies contain ephedrine or pseudoephedrine, individuals taking these medications should avoid products containing ephedra.

The Food and Drug Administration (FDA) is warning consumers not to purchase or consume ephedrine-containing dietary supplements with labels that often portray the products as alternatives to illegal street drugs such as ecstasy (MDMA (4-methyl-2, dimethoxyamphetamine)) because these products pose significant health risks to consumers.

Ingredient panels on these products may list ma huang, Chinese ephedra, ma huang extract, ephedra, *Ephedra sinica*, ephedra extract, ephedra herb powder, ephedronin or ephedrine. Any of these ingredients listed on the label indicates the presence of ephedrine in the product. Many of these ephedrine-containing products bear labels that appear to be targeted at adolescents and young adults and imply that they can produce a "high." These types of products are marketed under a variety of brand names with labels that claim or imply that they produce such effects as euphoria, increased sexual sensations, heightened awareness, increased energy, and other effects.

## Adverse Effects

Since 1994 the FDA has received and investigated more than 800 reports of adverse events associated with the use of these products. Possible adverse effects of ephedrine range from nervousness, dizziness, tremor, changes in blood pressure or heart rate, headache, gastrointestinal distress to chest pain, hepatitis heart attack, stroke, seizures, psychosis, and death. Most events occurred in young to middle-aged, healthy adults using the products for weight control and increased energy and in persons with complicating conditions such as hypertension. In addition, a stimulant "overdose" syndrome has been reported in children and teenagers who have used these products. The FDA is concerned about the seriousness of these reported adverse events and their increasing number. Because these products are commonly marketed as dietary supplements, there is little or no premarket review by FDA of their safety (or effectiveness), no good dosing information, and no monitoring advice.



## Other Products

Related weight-loss products often marketed as "dieter's or slimming teas" contain a variety of strong botanical laxatives (*Cassia* species (senna), *Cascara sagada* (botanical name *Rhamnus purshiana*)) and diuretics. Adverse reactions that have been reported to FDA as associated with these products are characteristic of those seen in laxative abuse syndromes, and include severe electrolyte imbalances leading to cardiac arrhythmia and death.

Information Provided By:  
Food and Drug Administration-Center for Food Safety and Applied  
Nutrition-Dietary Supplements  
[www.cfsan.fda.gov/~dms/ds-ephed.html](http://www.cfsan.fda.gov/~dms/ds-ephed.html)