GINSENG

■ ■ ■ Description

Ginseng is the root of a plant that is used in the Orient to prevent aging and increase life quality and productivity. It is also used to treat a variety of conditions, including nausea; dyspepsia; headaches; diabetes; and illnesses of the heart, liver, and kidney. It some countries it is regarded as a food, whereas in others it is a drug. The active ingredients of ginseng are called ginsenosides, and at least 13 have been identified over the last 30 years. Ginsenosides often have contradictory effects, which makes studying ginseng difficult. Their concentration in different preparations has been difficult to control because plants of different ages and different parts of the root can be used in preparation. A standardized preparation of ginseng has recently been produced and marketed under the name Ginsana.

Why Athletes Use It

Ginseng is used by athletes to increase exercise capacity and retard effects of detraining by improving oxygen utilization and enhancing concentration, alertness, and general well-being.

■ ■ Adverse Effects

- Confusion
- Hypertension
- Sleeplessness
- Diarrhea
- Skin rash
- Breast tenderness and breast nodules
- Altered blood sugar levels (interferes with control of diabetes)
- Asthma
- Altered moods (depression and euphoria)
- Withdrawal syndrome (symptoms begin when ginseng is stopped)

- Swelling of feet (edema)
- Vaginal bleeding
- Hypotension
- Antiplatelet effects

Pharmacology

Ginseng is thought to be relatively safe, which is why it is often classified as a food, not a drug; however, the optimal dose of ginseng is not clear. It is associated with withdrawal syndrome when the drug is stopped after constant long-term use. Patients using doses of 3 to 15 g/day may experience anxiety, sleeplessness, morning diarrhea, and swelling of the lower legs. This has been referred to as the ginseng abuse syndrome (GAS). Ginseng has been reported to produce significant side effects in patients taking antidepressants called monoamine oxidase (MAO) inhibitors and probably should not be used by patients taking these drugs. Patients taking digoxin, a medication used to control heart rhythms and increase muscle function of the heart, may also experience drug interactions. Patients taking calcium channel blockers may also have difficulty with ginseng. The cost of ginseng is usually \$7 to \$20 for 90 tablets.

Preventive Measures

Athletes should consult a physician before taking ginseng. They should pay close attention to the particular preparation they use, because American preparations have different concentrations of ginsenosides than Korean, Japanese, or Russian preparations. Ginseng is not on the list of drugs banned by the National Collegiate Athletic Association (NCAA) or International Olympic Committee, but it is often sold in combination with drugs that are banned by these organizations, and athletes using ginseng must know the ingredients of the preparations they use. Often it is not ginseng but the additives in the preparation that are illegal. Notes:

Notes and suggestions

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