

# American Ginseng May Help Control Diabetes

SCIENTISTS FIND "A NEW WAY TO USE AN OLD MEDICINE"

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Ginseng is one of the most frequently used herbs in Asian healing. Traditional beliefs hold that ginseng plays a vital role in the balance of yin and yang and helps restore harmony to certain body systems. It is often used by health practitioners as a tonic and is believed by some cultures to cure conditions ranging from the common cold to male infertility.<sup>1,2</sup>

Unfortunately, there has been a lack of research surrounding ginseng's healing properties. Although it has been a staple of traditional Chinese medicine for more than 2000 years, most of the claims attributed to ginseng have been based on anecdotal evidence, with few scientific tests performed on human subjects.

New research recently published in the Archives of Internal Medicine shows that at least one species of ginseng may be of therapeutic value. According to a study conducted at the University of Toronto, taking American ginseng before a meal appears to produce "significant reductions" in blood sugar in people both with and without diabetes.<sup>3</sup>

The findings suggest that American ginseng could have important implications for the treatment and prevention of diabetes mellitus, a disease that affects nearly one in every 12 North American adults. The study also shows an improvement in the quality of research now being conducted on herbal medicines in the United States, while continuing to highlight the need for larger, long-term studies.

In the study, scientists divided test subjects into two groups. One group consisted of nine patients diagnosed with Type II diabetes, the most common form of the disease. The other group was composed of 10 non-diabetic patients.

On four separate occasions, with at least one week apart, each subject took a pill containing either three grams of American ginseng or a placebo. The pills were consumed either 40 minutes before (or in conjunction with) a simulated "meal" consisting of 25 grams of sugar mixed with water.

Blood samples were taken from each subject immediately before the meal; additional samples were taken at 15, 30, 45, 60 and 90 minutes after eating. Patients in the diabetic group also had blood samples taken 120 minutes after the meal.

Decreases in blood glucose levels were seen in both groups of patients. When the ginseng was taken in conjunction with the meal, blood glucose levels in diabetic patients decreased an average of 19% at 45 and 60 minutes after eating. When the ginseng was taken 40 minutes before eating, the diabetics' blood glucose levels decreased an average of 22% at 30 and 45 minutes after the meal.

A similar decrease in blood sugar was seen in the non-diabetic patients, but only when the ginseng capsules were taken 40 minutes before the simulated meal. These results suggest that the effect of

ginseng may depend on the time it is taken prior to eating.

Based on their observations, the scientists believe ginseng may be a viable alternative to traditional forms of diabetes treatment. Previous studies have shown that patients with Type II diabetes who watch their diet and control sugar intake have fewer complications than those who do not,<sup>4</sup> and that a reduction of blood sugar in the diet decreases the risk of developing diabetes in men and women.<sup>5,6</sup> Ginseng, the scientists feel, may hold the same potential as insulin or other medications in helping people control – or even prevent – diabetes.

"Implications of our preliminary findings are promising," the researchers concluded. "If this improvement in control could again be accomplished by a decrease in the GI (glycemic index) of the diet affected by ginseng, then it may prove a useful adjunct to the conventional treatment of diabetes mellitus. In short, either use may offer a new way to use an old medicine."

#### Guardedly Optimistic Scientists Call for More Research

Although the results of the study are encouraging, the researchers believe more intensive studies need to be conducted before determining ginseng's role in diabetes maintenance and prevention.

"This is an initial, short-term study that only indicates a need for more research," said Dr. Vladimir Vuksan, the study's lead author, in an interview with Reuters Health. He recommended that the study of American ginseng, as well as the Japanese, Chinese and other varieties, "be taken seriously and investigated further."<sup>7</sup>

"Of course, we are very encouraged by the results," added John Sievenpiper, a doctoral candidate and co-author of the study. "But by no means do we want this to be a justification for everyone to take ginseng. It clearly indicates a need for more research."<sup>8</sup>

Although the groups used in the ginseng trial were relatively small – a total of 19 subjects participated in the tests – Vuksan and his colleagues believe the study is an important step forward in the evaluation of herbal medicines.

"A major criticism of the herbal field and past ginseng research has been the lack of scientific, placebo-controlled trials in humans," said Vuksan. "Our study applied traditional clinical trial standards to research on an alternative medical product."

"Our next step is to try and figure out ginseng's optimal dosing and timing," said Sievenpiper. "We need to do a long-term study that explores the efficacy and safety of ginseng before we can recommend it for use in diabetes."

#### References

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