



# HerbClip™

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**File: ■ Complementary and Alternative Medicine**  
**■ Cinnamon (*Cinnamomum* spp.)**  
**■ Diabetes Mellitus**

**HC 061131-427**

**Date: June 30, 2011**

**RE: Patients with Diabetes Mellitus Report Use of Complementary and Alternative Medicine**

Fabian E, Töschler S, Elmadfa I, Pieber TR. Use of complementary and alternative medicine supplements in patients with diabetes mellitus. *Ann Nutr Metab.* 2011;58(2):101-108.

The prevalence of diabetes mellitus is increasing. Conventional treatment for the disease aims to regulate blood glucose with dietary modifications, antidiabetic drugs, maintenance of an ideal body weight, regular exercise, and self-monitoring of blood glucose. Because of the required changes in behavior and lifestyle, disease control can be difficult for many with diabetes. Some diabetics turn to complementary and alternative medicine (CAM) therapies. These authors surveyed patients with diabetes to evaluate their use of biologically based CAM therapies, as well as their sources of information, their providers, and estimated costs for CAM supplements. They also evaluated the patients' attitude toward cinnamon (*Cinnamomum* spp.) preparations, which have demonstrated insulin-mimetic properties; the patients' need for appropriate information about CAM remedies from health care professionals; and the role of health care professionals in ensuring patient satisfaction and optimizing health care.

This survey was conducted at the Diabetes Center of the Division of Endocrinology and Metabolism, Department of Internal Medicine, Medical University of Graz, Austria. Of the 200 questionnaires received for adult patients with type 1 and type 2 diabetes mellitus, 198 were included in the final evaluation.

A trained interviewer surveyed the patients using an anonymous questionnaire that covered information about health awareness/interest in self-care and current (including the preceding four months) use of biologically based CAM therapies. The questions focused on motivation, frequency of supplementation and expectations, source of information, provider, and estimated costs, as well as the patients' attitudes toward cinnamon as a CAM remedy. The patients were also asked about their need for appropriate information from health care professionals.

The mean age of the patients was  $58 \pm 14$  years; the duration of diabetes care was similar in those with type 1 ( $16 \pm 12$  years) and type 2 ( $13 \pm 8$  years) diabetes. Of all the patients, 100% of those with type 1 diabetes and 42% of those with type 2 diabetes were being treated with insulin; 35% of type 2 diabetics received oral antidiabetic agents. Blood glucose monitoring was optimal in 48% of type 1 diabetics and 61% of type 2 diabetics, but unsatisfactory in the remaining patients. Of the patients with type 2 diabetes, 79% were overweight or obese, whereas only 30% of those with type 1 diabetes fell into this category. Hypertension and cardiovascular disease were identified as the most common comorbidities in both types of diabetics. About half of the patients assessed their subjectively-felt disease burden as intermediate.

Regarding awareness of health or interest in self-care, 75% of type 1 diabetics and 66% of type 2 diabetics stated high awareness; 18% (type 1) and 32% (type 2), moderate awareness; and 6% (type 1) and 4% (type 2), marginal awareness. Women with type 1 diabetes were significantly ( $P < 0.05$ ) more aware than were the men. All patients similarly ranked the relevance of health among other areas of life below partnership and job but above social life, mental well-being and comfort, advanced vocational training, leisure activities, financial situation, and career. "This ranking probably suggests that partnership is an important support for those with chronic medical conditions and further substantiates the desire for financial and social well-being," say the authors.

Most patients attributed a strong impact of physical activity (85%), a balanced diet (80%), and partnership (77%) on health and well-being. Among those with type 2 diabetes, the women were significantly more aware of the importance of physical activity ( $P < 0.05$ ) and a balanced diet ( $P < 0.01$ ) on health than were the men. According to 25% of the patients, biologically based CAM supplements have a remarkable influence on health and well-being.

Regular use of one or more CAM supplements was reported by 34% of type 1 diabetics and 31% of type 2 diabetics. Significantly ( $P < 0.01$ ) more women than men reported taking supplements. The majority of patients (56%, type 1, and 76%, type 2) using biologically based supplements took them daily and reported using them with conventional health care measures and prescribed therapies. Nutritional supplements, herbal medicines, and cinnamon were reported as the most frequently used CAM supplements.

The patients reported that prevention and improved well-being and quality of life were significant motivations to use CAM preparations.

Eighty-three percent of type 1 diabetics (with women significantly [ $P < 0.05$ ] better informed than men) and 70% of type 2 diabetics said they had already heard of the postulated positive effect of cinnamon on blood glucose and diabetes. Most (85%) of the patients said they would be willing, or probably willing, to test the effect of cinnamon on blood glucose and diabetes management.

Among the patients with type 2 diabetes, the subjectively assessed disease burden was found to have a significant ( $r = 0.235$ ;  $P < 0.01$ ) impact on their willingness to use cinnamon preparations to better manage the disease. "These results substantiate earlier findings on patients' desire to be actively engaged in health and disease management and to try to make every effort to improve their health and well-being," write the authors.

One-fourth of the patients had concerns about adverse side effects or interactions between CAM preparations and other medications, and most said they would seek information and advice from their physician, a nutritionist, or a pharmacist before taking cinnamon preparations regularly.

These authors conclude that persons with diabetes have a remarkable interest in CAM remedies as a strategy for active engagement in their health and self-management of the disease. "Healthcare professionals should be aware of the increasing numbers of patients using CAM supplements while under conventional care and incorporate these aspects into patient assessment and intervention in order to ensure patient satisfaction and optimize health care," say the authors.

—*Shari Henson*

The American Botanical Council has chosen not to reprint the original article.

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