

## *Gymnema Sylvestre Lowers HbA1c*

In a study conducted by Diabetes Educators, under the protocols established by Diabetes in Control and Informulab of Omaha, NE, the makers of Beta Fast GXR®, Gymnema Sylvestre was found to lower HbA1c from 10.1% to 9.3%

This ninety day study conducted by a group of your peers showed these results in 65 patients.

The patients were given Beta Fast GXR® brand of Gymnema Sylvestre (GS) containing 400mg GS leaf extract (standardized to 25%) per tablet twice daily.

Patients varied from diet controlled to insulin dependent and age varied from 18 to 73 years old.

It is interesting to note that at higher starting A1c Values the positive results were profound. In the group that started at 9% or above, HbA1c was lowered from 10.1% to 9.3%(0.8% decrease). In the poorest pre-study group, those with an A1c above 10% the Gymnema Sylvestre (Beta Fast GXR®) supplementation lowered HbA1c from 11.1% to 9.9% (1.2% decrease).

Diabetes In Control has made a special arrangement with Informulab of Omaha, NE, the makers of Beta Fast GXR®, Gymnema Sylvestre. To learn how your patients can try this product risk free and at a special price .



Title: Effect of Extended Release Gymnema Sylvestre Leaf Extract Alone or In Combination With Oral Hypoglycemics or Insulin Regimens for Type 1 and Type 2 Diabetes.

Author: Joffe, DJ, [djoffe@tampabay.rr.com](mailto:djoffe@tampabay.rr.com); Freed, SH, [diabetesincontrol@home.com](mailto:diabetesincontrol@home.com)

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### **Abstract:**

#### Introduction

Gymnema sylvestre is an Indian herb used Ayurveda, the ancient Hindi medicine system of India. Also referred to as Gurmarbooti, gurmar, periploca of the woods in English and meshasringi (meaning “ram’s horn”) in Sanskrit, it is a woody climbing plant that grows in the tropical forests of central and southern India. The leaves are used in herbal medicine preparations, which, when chewed, interfere with the ability to taste sweetness, which explains the Hindi name gurmar— “destroyer of sugar.” Gymnema sylvestre’s primary application was for adult-onset diabetes

(NIDDM), a condition for which it continues to be recommended today in India. The leaves were also used for stomach ailments, constipation, water retention, and liver disease.

Ayurvedic treatments employ physician monitored fasting and medication, internal cleansing, and then personalized treatments based upon a well-developed body typing system. Therapies typically include diet, exercise, meditation and herbal supplements.

The gradual hypoglycemic action of *Gymnema* leaves, first documented in the 1930, differs from the rapid effect of many prescription hypoglycemic drugs.<sup>1</sup> *Gymnema* leaves raise insulin levels, according to research in healthy volunteers<sup>2</sup> possible due to regeneration of the b-cells in the pancreas.<sup>3</sup> The leaves are also noted for lowering serum cholesterol and triglycerides.<sup>4</sup> A water-soluble acidic fraction of the leaves provides hypoglycemic actions, possibly gymnemic acid.<sup>5</sup> Its action in the reduction of intestinal glucose uptake has also been noted.<sup>6</sup>

In the US, *Gymnema sylvestre* is sold under several brands including Nature's Way, Natrol, Pro Beta™ and Informulab® Beta Fast GXR® . The products promote healthy glucose levels and pancreas function. As a supplement, *Gymnema* is also used to help diminish sugar intake.

*Gymnema sylvestre* is generally safe and devoid of side effects although it should be avoided during pregnancy. Administration is recommended under the clinical supervision of a healthcare professional. *Gymnema* cannot be used in place of insulin to control blood sugar by persons with IDDM or NIDDM.

#### Trial Design

100 patients with type 1 or type 2 diabetes were started on the *Gymnema* product and 65 completed the study. Males or non-pregnant females with a hemoglobin A1c >7.8% were chosen for the study. An HbA1c was taken at the beginning and at the conclusion of the study. Fasting blood glucose and postprandial blood glucose was measured during the trial. A minimum of 1 fasting blood glucose and 1 postprandial blood glucose was taken daily for at least 5 of 7 days. At the end of each 30 day period, the readings were added and divided by the number of days and reported back as an average fasting and postprandial blood glucose. Treatment with Beta Fast GXR® *Gymnema sylvestre* was added for a period of three months, 1 x 400mg tablet, twice daily. At the end of that period, we obtained another HbA1c.

#### **Efficacy Variables**

1. Hemoglobin A1c
2. Fasting Blood Glucose
3. Postprandial Blood Glucose

#### OBJECTIVE:

The prevalence of diabetes has increased dramatically in recent years<sup>1</sup>. *Gymnema Sylvestre* is an Indian herb used in Ayurveda, the ancient Hindi medicine system of India. Its primary application was for adult-onset diabetes (NIDDM), a condition for which it continues to be recommended today in India. The gradual hypoglycemic action of *Gymnema* leaves, first documented in the 1930, differs from the rapid effect of many prescription hypoglycemic drugs.<sup>2</sup> *Gymnema* leaves raise insulin levels, according to research in healthy volunteers<sup>2</sup> possibly due to regeneration of the b-cells in the pancreas.<sup>3</sup> The leaves are also noted for lowering serum cholesterol and triglycerides.<sup>4</sup> A water-soluble acidic fraction of the leaves provides hypoglycemic

actions, possibly gymnemic acid.<sup>5</sup> Its action in the reduction of intestinal glucose uptake has also been noted.<sup>6</sup> The purpose of this work was to investigate the acute effects of supplementing the diet with *Gymnema Sylvestre* (Beta Fast GXR®) in regards to its glucose lowering thereby reducing the HbA1c and therefore the complications from diabetes.

By reducing the HbA1c (Average Blood Glucose) 1%, the DCCT<sup>7</sup> study showed Type 1 diabetics could reduce the complications of Retinopathy by 38%, Nephropathy by 28% Neuropathy by 35%. The UKPDS<sup>8</sup> showed that reducing the HbA1c in Type 2 diabetics by 0.9% could reduce any diabetic end point by 12%, reduce any Microvascular end point by 25%, reduce MI by 16%, reduce Retinopathy by 21% and reduce microalbuminuria at 12 years by 34%.

The UKPDS also showed that Postprandial (blood glucose 1-2 hours after eating) glucose is a better indicator of glycemic control than fasting glucose levels<sup>9</sup>. Treatment of postprandial hyperglycemia is critical to achieving optimal outcomes in type 2 diabetes<sup>10</sup>.

#### METHODS:

Sixty-five (65) patients (37male/28 female) completed the study. 7.6%(5) of the patients were insulin dependent. Their pre-study average fasting glucose (163 mg/dl) and postprandial blood glucose (212 mg/dl), and a base HbA1c (8.8) were taken. Patients were instructed to take two (2) tablets per day, one in AM, one in PM for 90 days. They continued to monitor fasting and postprandial blood glucose through the study period. At the conclusion of the 90-day period, their levels were measured.

#### RESULTS:

Sixty five percent of the participants completed the study. After the 90 days of the *Gymnema Sylvestre* (Beta Fast GXR®) supplementation, mean daily preprandial plasma glucose concentrations were 11 percent lower (161 vs. 144 mg/dl). The *Gymnema Sylvestre* (Beta Fast GXR®) supplementation also lowered the 2-hour postprandial plasma glucose concentrations, by 13 percent (207 vs. 180mg/dl). The *Gymnema Sylvestre* (Beta Fast GXR®) supplementation lowered HbA1c from 8.8% to 8.2% (0.6% decrease).

In the sub set of participants whose pre-study HbA1c was 9% or above the results were more profound. Mean daily preprandial plasma glucose concentrations were 15 percent lower (191 vs. 161 mg/dl). The *Gymnema Sylvestre* (Beta Fast GXR®) supplementation also lowered the 2-hour postprandial plasma glucose concentrations, by 21 percent (250 vs. 199 mg/dl). The *Gymnema Sylvestre* (Beta Fast GXR®) supplementation lowered HbA1c from 10.1% to 9.3% (0.8% decrease).

In the poorest controlled patients, those with a starting HbA1c of 10% or greater, mean daily preprandial plasma glucose concentrations were 18 percent lower (216 vs. 178 mg/dl). The *Gymnema Sylvestre* (Beta Fast GXR®) supplementation also lowered the 2-hour postprandial plasma glucose concentrations by 28 percent (295 vs. 212 mg/dl). The *Gymnema Sylvestre* (Beta Fast GXR®) supplementation lowered HbA1c from 11.1% to 9.9% (1.2% decrease).

In addition 11 patients (16%) had a decrease in prescription medicine intake.

#### CONCLUSIONS:

As can be seen from the data above, the use of *Gymnema Sylvestre* (Beta Fast GXR®) supplementation in all patients with diabetes has a positive result. In addition the use of *Gymnema Sylvestre* (Beta Fast GXR®) supplementation in patients with the poorest control is

even more critical. It appears that the largest effect occurs from decrease of postprandial glucose levels, which is consistent with the mechanisms of action stated. Gymnema Sylvestre (Beta Fast GXR®) supplementation appears to improve glycemic control in patients with type 2 diabetes. Reducing postprandial blood glucose significantly caused a decrease of HbA1c, therefore reducing the complications from diabetes. 7,8,9,10

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Note:

A second controlled clinical trial on Beta Fast is nearing completion at Creighton Diabetes Center, Creighton University Medical Center in Omaha, NE.

The trial is directed by Dr. Marc Rendell, Professor of Medicine and Biomedical Sciences.

Beta Fast GXR® Glucose Balance is a concentrated, extended release, herbal dietary supplement containing 400mg of Gymnema Sylvestre (GS) leaf extract (standardized to 25%) per tablet. Recommended dosage is two (2) tablets per day, one taken with breakfast and one with dinner.

Beta Fast is produced by Informulab of Omaha, NE. Informulab, Beta Fast and GXR are registered trademarks of Wen-Cin Marketing, Inc., The parent company also publishes [alternativediabetes.com](http://alternativediabetes.com), a comprehensive Internet resource on complementary therapies for diabetes control.

For more information [click here](#).