

# Gymnema

*Latin Name: Gymnema sylvestre*

Blocks SUGAR Absorption; TONIC

Use Whole Plant

Native to INDIA; tropical AFRICA and AUSTRALIA

## HISTORY

1) Indian name: GURMAR means Sugar Destroyer: Historically used for Diabetes; Asthma; Inflammations

## QUALITIES

1) DIGESTION; Laxative effects; Reduces BLOOD SUGAR levels; Fills up to 50% dietary sugar receptors on tongue (1-2 hours) & small intestines – Gymnemic acid, a component, has similar molecular structure to glucose; suppresses desire for sweets; Weight loss

- STUDY (weight loss): In combination with calcium-potassium, chromium & ...  
“Gymnema sylvestre extract reduced body weight & BMI, suppressed appetite, improved blood lipids, increased serum leptin & serotonin levels & fat oxidation.”  
(Preuss 2005)

2) DIABETES; increases insulin secretion; promotes pancreatic cell regeneration; increases glucose utilization; blocks glucose absorption

- STUDY (blood glucose): “...extract for 18-20 months reduced blood glucose, and allowed reduced conventional drug dosage for 22 Type 2 diabetic patients... Data suggests that the beta cells may be regenerated/repared in Type 2 diabetic patients on supplementation. This is supported by the appearance of raised insulin levels in the serum of patients after supplementation.” (Baskaran 1990)

3) TONIC; Tones body and blood

## 4) OTHER

- Lowers Cholesterol; Lipids
  - Diuretic; Antimicrobial; UTIs
  - Cough Suppressant
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# Gymnema References

## Herb History and General Information

Oliff, Heather S., PhD, Review of Gymnema. *HerbClip*. November 25, 2008 (No 060584-365). Austing, TX: American Botanical Council. Review of Gymnema sylvestre: A memoir by Kanetkar P, Singhal R, Kamat M. Kanetkar P, Singhal R, Kamat M., *J Clin Biochem Nutr*. September 2007, 41: 77-81.

Ritchason, Jack, N.D., *The Little Herb Encyclopedia*. Pleasant Grove, Utah: Woodland Health Books; 1995; pp 115-116

## Studies

Baskaran K, Kizar Ahamath B, Radha Shanmugasundaram K, Shanmugasundaram ER. Antidiabetic effect of a leaf extract from Gymnema sylvestre in non-insulin-dependent diabetes mellitus patients. *J Ethnopharmacol*. 1990 Oct;30(3):295-300. [PubMed]

Preuss HG, Garis RI, Bramble JD, Bagchi D, Bagchi M, Rao CV, Satyanarayana S. Efficacy of a novel calcium/potassium salt of (-)-hydroxycitric acid in weight control. *Int J Clin Pharmacol Res*. 2005;25(3):133-44. [PubMed]

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## Additional info on Studies:

### WEIGHT Loss

Calcium-potassium salt of (-)-hydroxycitric acid (HCA-SX) & to a greater degree, the combination of HCA-SX plus niacin-bound chromium & Gymnema sylvestre extract reduced body weight & BMI, suppressed appetite, improved blood lipids, increased serum leptin & serotonin levels & fat oxidation. Preuss 2005

The weight-loss efficacy of a novel, water-soluble, calcium-potassium salt of (-)-hydroxycitric acid (HCA-SX) was re-examined in 90 obese subjects (BMI: 30-50.8 kg/m<sup>2</sup>). We combined data from two previously reported randomized, double-blind, placebo-controlled clinical studies in order to achieve a better statistical evaluation based on a larger population. This re-examination of data also allowed us to reflect more intensely on various aspects of weight loss studies. Subjects were randomly divided into three groups: group A received a daily dose of HCA-SX 4,667 mg (providing 2,800 mg HCA per day); group B was given a daily dose of a combination of HCA-SX 4,667 mg, niacin-bound chromium (NBC) 4 mg (providing 400 microg elemental chromium), and Gymnema sylvestre extract (GSE) 400 mg (providing 100 mg gymnemic acid); and group C received a placebo in three equally divided doses 30-60 min before each meal. All subjects were provided a 2,000 kcal diet/day and participated in a supervised walking program for 30 min/day, 5 days/week. Eighty-two subjects

completed the study. At the end of 8 weeks, in group A, both body weight and BMI decreased by 5.4%, low-density lipoprotein and triglycerides levels were reduced by 12.9% and 6.9%, respectively, while high-density lipoprotein levels increased by 8.9%, serum leptin levels decreased by 38%, serotonin levels increased by 44.5% and urinary excretion of fat metabolites increased by 32-109%. Group B demonstrated similar beneficial changes, but generally to a greater extent. No significant adverse effects were observed. The combined results confirm that HCA-SX and, to a greater degree, the combination of HCA-SX plus NBC and GSE reduce body weight and BMI, suppress appetite, improve blood lipid profiles, increase serum leptin and serotonin levels and increase fat oxidation more than placebo. We conclude that dosage levels, timing of administration, subject compliance and bioavailability of HCA-SX significantly affect results and that when taken as directed, HCA-SX is a highly effective adjunct to healthy weight control.

### LOWERS BLOOD GLUCOSE

GS4 extract (400 mg/day) for 18-20 months reduced blood glucose, glycosylated haemoglobin and glycosylated plasma proteins, allowed reduced conventional drug dosage for 22 Type 2 diabetic patients Baskaran 1990

The effectiveness of GS4, an extract from the leaves of Gymnema sylvestre, in controlling hyperglycaemia was investigated in 22 Type 2 diabetic patients on conventional oral anti-hyperglycaemic agents. GS4 (400 mg/day) was administered for 18-20 months as a supplement to the conventional oral drugs. During GS4 supplementation, the patients showed a significant reduction in blood glucose, glycosylated haemoglobin and glycosylated plasma proteins, and conventional drug dosage could be decreased. Five of the 22 diabetic patients were able to discontinue their conventional drug and maintain their blood glucose homeostasis with GS4 alone. These data suggest that the beta cells may be regenerated/repared in Type 2 diabetic patients on GS4 supplementation. This is supported by the appearance of raised insulin levels in the serum of patients after GS4 supplementation.