

# Medical Nutritional Supplement Improve Glycemic Control in Pre-Diabetics and Type 2 Diabetics: A Prospective Study in Indian Population

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**Background:** Medical Nutrition Therapy (MNT) plays a very important role in diabetes management if advised to the patient with proper counselling.

**Objective:** The objective of this prospective study was to determine efficacy and safety of MNT in improving glycemic control in pre-diabetic and diabetic population as monotherapy and as added therapy with ongoing anti-diabetic drugs.

**Methods:** Adult participants with Type 2 Diabetes Mellitus (T2DM) and pre-diabetics (HbA1c >6.0) were selected for the study. The MNT as Oral Nutrition Supplement was supplemented to their diet with and without their ongoing concomitant medications. The primary endpoint was change in HbA1c, fasting and postprandial blood glucose. Secondary endpoints were change in lipid parameters such as cholesterol, high density lipids (HDL), low density lipids (LDL) and triglycerides. Mean change in the parameters were analysed using paired t-test with significance value of 5%. This was a 24-week, multi-centre, prospective, observational study.

**Results:** A total of 313 patients completed the study until 24 weeks and a statistically significant reduction in HbA1c levels was seen from baseline to 12 weeks (8.6% to 7.7%;  $p < 0.001$ ) and at 24 weeks (8.6% to 7.1%;  $p < 0.001$ ), respectively, due to only MNT intake. Similar significant reduction in fasting glucose (167.4 to 119.4 mg/dL) and post-prandial glucose parameters (232.1 to 156.2 mg/dL) were also observed at both 12 and 24 weeks, respectively due to only MNT intake. The data showed that MNT is effective as both stand alone and as add-on food supplement to ongoing therapies and safe to consume.

**Conclusion:** There was significant reduction in levels of hyperglycemic and lipid parameters in pre-diabetics and diabetics upon taking monotherapy or as an added therapy along with anti-diabetic drugs.

## Biography

Dr. Punit is an entrepreneur having more than 15 years of clinical research and strategic experience from both pharma and academics. He has worked for several years with multinational Pharma from India & Japan and contributed to Clinical and Development, and Market research areas. Prior to us, he worked in Auto-immune disorders, Inflammation and Oncology segments. During his tenure, he has published more than

30 articles in peer-reviewed journals, 2 Books and 8 patents to his name. He is a trained Pharmacologist from the Medical College of Wisconsin, followed by Senior Research Fellow at the University of Connecticut. He led a team of Medicos, Ph.Ds, M.Pharm during his scientific and entrepreneurial journey. Currently, he is looking after all scientific and development activities with us.

## Recent Publications:

1. Saeedi P, Petersohn I, Salpea P et al. Global and regional diabetes prevalence estimates for 2019 and projections for 2030 and 2045: Results from the International Federation Diabetes Atlas, 9th Edition. *Diabetes Research and Clinical Practice* 2019;157:107843.
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3. Pradeepa R, Mohan V. Prevalence of type 2 diabetes and its complications in India and economic cost to the nation. *European Journal of Clinical Nutrition* 2017;71:816-24.
4. Viswanathan V, Krishnan D, Kalra S et al. Insights on Medical Nutrition Therapy for Type 2 Diabetes Mellitus: An Indian Perspective. *Adv Ther* 2019;36:520-47.
5. Gulati S, Misra A. Sugar intake, obesity, and diabetes in India. *Nutrients.* 2014;6:5955-74.
6. Patil R, Nasrin AN, Datta SS, Boratne AV, Lokeshmaran. Popular misconceptions regarding the diabetes management: where should we focus our attention? *J Clin Diagn Res.* 2013;7:287-91

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