

Effect of a Diabetes Specific Protein Supplement (DSPS) on Postprandial Glycemic Responses in Adults with Type 2 Diabetes: A Randomized Crossover Study in India

Authors

Sheryl S. Salis¹, RD, CDE, MDHA. sheryl@nurturehealthsolutions.com (Corresponding author) <https://orcid.org/0000-0002-6115-5618>

Ami Sanghvi², D DIAB, F DIAB, MBBS. dramisanghvi@gmail.com

Natasha Vora¹, MSc, CDE. natasha@nurturehealthsolutions.com <https://orcid.org/0009-0001-8281-6585>

Shefa Syed¹, PG Dip, CDE. shefa@nurturehealthsolutions.com <https://orcid.org/0009-0000-2619-9327>

Priya Karkera³, PhD. priya.karkera@danone.com. <https://orcid.org/0000-0002-7123-6008>

Pushkala Padmanabh³, PhD. pushkalapadmanabh@gmail.com. <https://orcid.org/0009-0007-6237-7355>

Mirian Lansink⁴, PhD. mirian.lansink@danone.com. <https://orcid.org/0000-0002-3350-5027>

Mia Isabelle⁵, MSc. mia.isabelle@danone.com. <https://orcid.org/0009-0000-5240-8575>

Samrin Khan¹, MSc, CDE. samrinkhan1016@gmail.com <https://orcid.org/0009-0000-2998-1541>

Riya Gaglani¹, MSc, CDE. riyagaglani99@gmail.com

Sharvari R Desai⁶, PhD. sharvarimalshe8@gmail.com <https://orcid.org/0000-0002-2267-0529>

Apurva A. Halbe⁶, PhD. apurva.agashe@gmail.com <https://orcid.org/0009-0005-4834-8449>

S.A. Udipi⁶, PhD. drshobhaudipi@gmail.com <https://orcid.org/0000-0001-6889-2795>

1. Nurture Health Solutions, 101 Ganesh Krupa, Vile Parle (E), Mumbai, India
2. Sanghvi Eye & Diabetes Care Centre, Dahisar, Mumbai, India.
3. Nutricia International Pvt Ltd (Danone India), Building A, #03-304, Piramal Agastya Corporate Park, LBS Rd, Kurla (W), Mumbai, 400070, India.
4. Danone Research & Innovation, Uppsalalaan 12, 3584 CT, Utrecht, The Netherlands.
5. Danone Research & Innovation, 60 Anson Road #09-03, 079914, Singapore.
6. Kasturba Integrative Health Sciences - Medical Research Foundation (KiHS-MRF), Vile Parle (W), Mumbai, India

Supplementary materials

Table S1A. Macronutrient composition of test breakfast

	Serving Size	Amount	Energy (kcal)	Protein (g)	Carbohydrate (g)	Fat (g)	Fiber (g)
Protinex Diabetes Care (PDC) in milk	1 serve	25g PDC in 200ml toned milk	202	13.5	20.6	6.3*	3.8
Control breakfast (<i>Upma</i>)	Reduced quantity	30 g	126	2.4	21.3	3.4	1.2
Control breakfast (<i>Poha</i>)	Reduced quantity	30 g	123	2.3	21	3.2	0.8
Overall composition of test breakfast (with <i>Upma</i>)			328	15.9	41.9	9.7	5
Overall composition of test breakfast (with <i>Poha</i>)			325	15.8	41.6	9.5	4.6

* Fat: 6g from toned milk, 0.3g from PDC

Protinex Diabetes Care ingredients:

Skimmed Milk, Soluble Fiber, Soy Protein Isolate, Corn Flour, Soy Fiber, Maize Starch, Wheat Bran, Nature Identical Flavoring, Vitamins & Minerals, Taurine, Sucralose

Table S1B. Macronutrient composition of control breakfast

	Serving Size	Amount	Energy (kcal)	Protein (g)	Carbohydrate (g)	Fat (g)	Fiber (g)
<i>Poha</i>	1 cup	80 g	327	6	56	8.7	2
<i>Upma</i>	1 cup	80 g	334	6.4	57	9	3.2

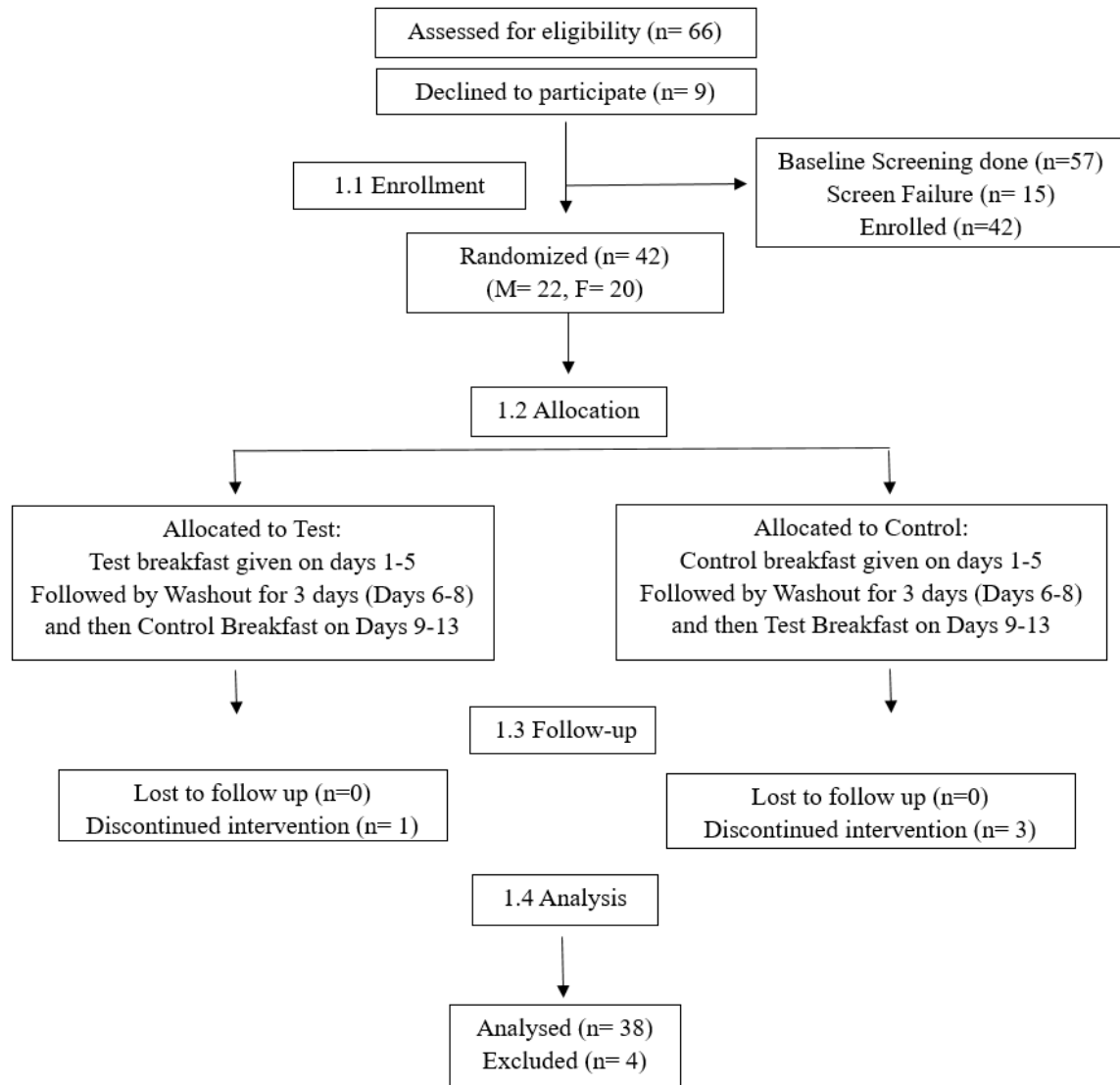


Figure S1. Consort flow diagram for this study

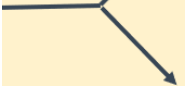
Screening	Period 1		Washout	Period 2		Last Day
Day 0	Day 1	Day 2-5	Day 6-8	Day 9	Day 10-13	Day 14
	Test: PDC + reduced quantity BF			Test: PDC + reduced quantity BF		CGMS Removal
	Control: Isocaloric BF			Control: Isocaloric BF		
Visit 0 (V0)	Visit 1 (V1)	At Home	At Home	Visit 2 (V2)	At Home	Visit 3 (V3)

Figure S2. Study design

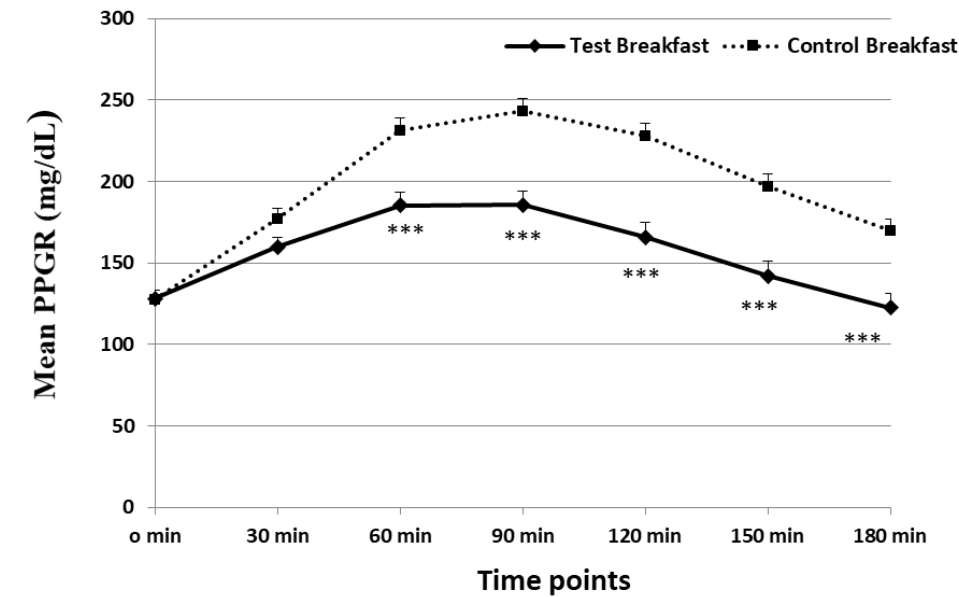


Figure S3. PPGR at various time points (Mean and SEM), *** $p < 0.001$

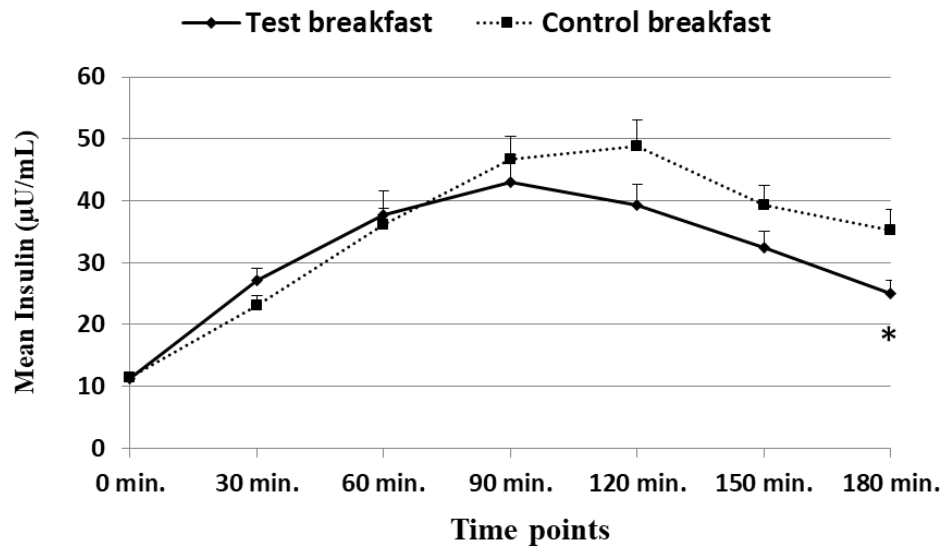


Figure S4. PP Insulin at various time points (Mean and SEM). * $p < 0.05$