23rd September 2025

PRESS RELEASE

Arla Foods Ingredients study finds whey protein can help control post-meal blood sugar spikes in GDM

Consuming Lacprodan® ISO.WaterShake whey protein isolate before meals can help control blood sugar in gestational diabetes mellitus (GDM), clinical research from Arla Foods Ingredients shows.

GDM occurs when the body is unable to produce enough insulin or use it effectively to maintain normal blood sugar levels during pregnancy. Elevated blood glucose – known as hyperglycaemia – increases the risk of adverse pregnancy outcomes for both babies and mothers. Those with GDM are therefore advised to control their blood glucose levels through measures including diet, weight management and moderate exercise.[1,2]

Arla Foods Ingredients partnered with Aarhus University and the Steno Diabetes Center in Aarhus to conduct a study on the effects of whey protein on GDM. Published in Diabetes Care, it examines how consuming Lacprodan® ISO.WaterShake before eating influences blood glucose rises in the three hours after meals.[2]

In the randomized, placebo-controlled, single-blinded crossover trial, 12 women with GDM and 12 with normal glucose tolerance consumed whey protein or a placebo 30 minutes before a 75g oral glucose tolerance test (OGTT). This is the standard diagnostic tool used to determine whether a pregnant woman has GDM.

The results showed that pre-meal consumption of 20g Lacprodan® ISO.WaterShake reduced post-meal blood glucose peaks by -1 mmol/L (-18 mg/dl) in those with GDM, and by -0.7 mmol/L (-12.6mg/dl) in those without.

In home settings, pre-meal doses of 15-30g of the whey protein consistently lowered post-meal blood glucose levels and reduced fluctuations in women with GDM.

Lise Høj Brunsgaard, Research Scientist at Arla Foods Ingredients, said: “These findings suggest that whey protein may be a safe, effective and promising nutritional strategy to support blood glucose management in women with GDM. For this study, our Lacprodan® ISO.WaterShake whey protein isolate was selected due to its high purity and rapid absorption profile, which made it suitable for investigating its potential role in maternal nutrition during pregnancy.”

Globally, hyperglycaemia in pregnancy is estimated to affect 19.6% of live births. Of these cases, 79.2% are due to GDM, accounting for 15.6% overall, while the remainder result from type 1, type 2 and other forms of diabetes.

The new study builds on previous research showing whey protein's benefits for glycaemic control in type 2 diabetes.[3] Mechanistic studies suggest this effect is linked to enhanced beta-cell function and reduced insulin clearance.[4]

For more information contact:
Steve Harman, Ingredient Communications
Tel: +44 (0)7538 118079 | Email: steve@ingredientcommunications.com

About Arla Foods Ingredients
Arla Foods Ingredients is a global leader in improving premium nutrition. Together with our customers, research partners, suppliers, NGOs and others, we discover and deliver documented ingredients and products that can advance lifelong nutrition for the benefit of consumers around the world.

We serve leading global brands in early life nutrition, medical nutrition, sports nutrition, health foods, and other foods and beverages.

Five reasons to choose us:

- We're passionate about improving nutrition
- We innovate by connecting the best
- We master both discovery and delivery
- We build strong, long-lasting partnerships
- We are committed to sustainability

Headquartered in Denmark, Arla Foods Ingredients is a 100% owned subsidiary of Arla Foods.

https://www.arlafoodsingredients.com/

LinkedIn
http://www.linkedin.com/company/arla-foods-ingredients

LinkedIn (Latin America)
https://www.linkedin.com/showcase/arla-foods-ingredients-latin-america/

LinkedIn (China)
https://www.linkedin.com/showcase/arla-foods-ingredients-china/

---

[1] International Diabetes Federation 'Diabetes Atlas: 11th Edition' (2025)
[2] Smedegaard, S. et al. 'Premeal Whey Protein Lowers Postprandial Blood Glucose in Women With Gestational Diabetes Mellitus: A Randomized, Crossover Clinical Trial' Diabetes Care (2025) https://pubmed.ncbi.nlm.nih.gov/40261798/

[3] Ashley, K. et al. 'Identifying Behavioural Determinants to Uptake and Adherence to a Whey Protein Supplement for the Management of Type 2 Diabetes: A Qualitative Interview Study.' Nutrients (2022) https://pubmed.ncbi.nlm.nih.gov/35276924/

[4] Smith, K. et al. 'Pre-Meal Whey Protein Alters Postprandial Insulinemia by Enhancing β-Cell Function and Reducing Insulin Clearance in T2D' J Clin Endocrinol Metab (2023) https://pubmed.ncbi.nlm.nih.gov/36734166/