

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

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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. Individuals with GDM are therefore advised to manage their blood glucose levels through measures such as a balanced diet, weight management, and moderate exercise.

Arla Foods Ingredients partnered with Aarhus University and the Steno Diabetes Centre 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.

In the randomised, 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 of 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.”