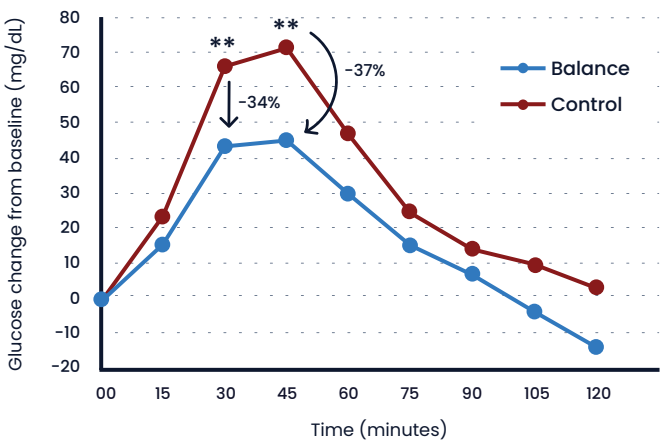




Fiber supplementation with Unicity Balance significantly lowers the postprandial glucose response to a high-carbohydrate meal in healthy adults

This study was conducted to measure changes in glucose response to a typical breakfast meal with and without pre-meal Balance (fiber supplement) in generally healthy adults. Continuous glucose monitor (CGM) readings showed a lower peak glucose spike and lower overall two-hour post-meal glucose response (area under the curve) when Balance was consumed 15 minutes before eating compared to the Control condition (no Balance).

Change in Glucose after Waffle Breakfast



Background

The postprandial glucose response is the body's ability to regulate blood glucose levels after consuming a meal, and dietary fiber plays a role in regulating the postprandial glucose response. Certain fiber compositions can significantly lower the post-meal surge in blood glucose by slowing down the digestion and absorption of carbohydrates¹. The viscous soluble fiber blend in Unicity Balance has previously been shown to support a healthier postprandial glucose response to high-carbohydrate foods such as white bread and white rice². This study was conducted to assess how consuming Balance before a high-carbohydrate breakfast would impact the post-meal glucose response.

Methods

This was an open-label, randomized, interventional study of nine healthy participants who were employees of Unicity (ages 28-56, 56% female). The participants wore a continuous glucose monitor (CGM) throughout the study, and CGM output for two hours following the test meals was evaluated to determine the postprandial glucose response. The meal consisted of two waffles, 30 g syrup, and 10 oz. orange juice, with 89 g total carbohydrates (Table 1). No food, except water, was consumed 2.5 hours before the test meal. Fifteen minutes prior to breakfast, participants drank either one serving of Balance in 8 oz. water or nothing for the Control condition. After 15 minutes, participants started eating breakfast and did not consume any other foods for 2.5 hours following breakfast. Meal times and exercise were consistent between treatments.

Total Calories	420 calories
Total carbohydrates	89 g
Total sugars	51 g
Dietary fiber	1 g

Table 1. Nutritional composition of the breakfast test meal consisting of two waffles, 30 g syrup, and 10 oz. orange juice.

9 participants	ages 28-56 years	56% female
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Results

A two-way repeated measures ANOVA revealed significant treatment ($P = 0.03$) and time ($P < 0.0001$) effects. Compared to Control, pre-meal supplementation with Balance significantly reduced glucose at 30 and 45 minutes after eating by 34% and 37%, respectively ($P < 0.01$) (Figure 1). The two-hour area under the curve (AUC), which represents the overall glucose response to the meal, was also significantly lower after taking Balance ($P = 0.019$) (Figure 2). Finally, maximal change in glucose from baseline was suppressed with Balance compared to Control (mean $\pm$ SD: 52 ± 15 mg/dL vs. 78 ± 13 mg/dL; paired t-test, one-tailed: $p=0.004$).

Figure 1

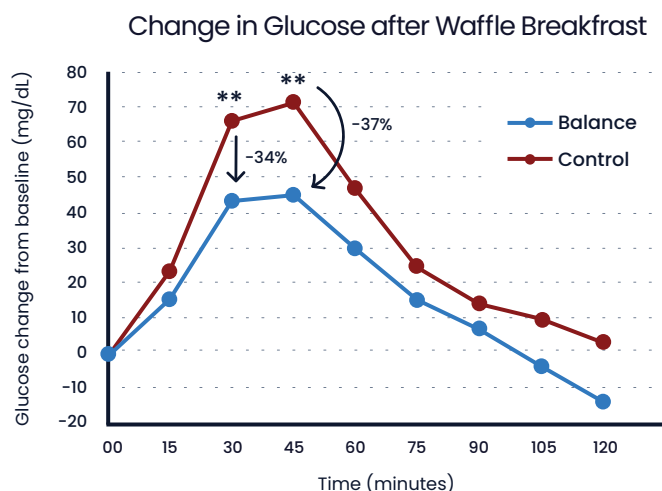


Figure 1. Two-hour glucose profile following study test-meal consumption. Mean glucose values ($n=9$) were 34% lower at 30 minutes and 37% lower at 45 minutes after eating. Two-way repeated measures ANOVA, Šidák's multiple comparisons: ** $p < 0.01$

Figure 2

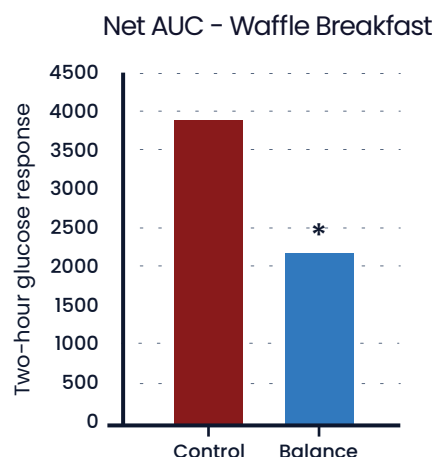


Figure 2. Net area under the curve (AUC) two-hour glucose response to breakfast was 43% lower with Balance ($n = 9$). *Paired t-test, one-tailed p -value: $p = 0.019$

Conclusion

In an acute study with nine healthy adults, pre-meal supplementation with Unicity Balance significantly lowered the glucose response to a typical breakfast meal. This suggests that taking Unicity Balance prior to a high-carbohydrate meal can reduce the impact of dietary carbohydrates in the body, likely due to slower overall glucose absorption. Further research is warranted to determine the effect of Unicity Balance on meals with different macronutrient compositions.

References

1. Barber TM, Kabisch S, Pfeiffer AFH, Weickert MO. The Health Benefits of Dietary Fibre. *Nutrients*. 2020 Oct 21;12(10):3209. doi: 10.3390/nu12103209. PMID: 33096647; PMCID: PMC7589116.
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