

Scientific study shows BENEÔ's Palatinose® as bedtime drink improves sleep

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A new randomised controlled trial, conducted by Gaylor et al, demonstrates that BENEÔ's slow and sustained release carbohydrate Palatinose® improves aspects of sleep when consumed as a bedtime drink. By leading to more balanced blood glucose levels, particularly during the first half of the night, Palatinose® may support a longer deep sleep phase and thus restful sleep. Based on this research, there is now even more evidence to show that Palatinose® provides a range of benefits beyond metabolic health.

Various studies worldwide have shown the prevalence of insomnia in 10 per cent – 30 per cent of the population, some even as high as 50 per cent – 60 per cent. As poor sleep quality is known to be a risk factor for obesity, impaired glucose metabolism and dementia, insomnia is a major public health issue. With this in mind, the findings of Gaylor et al are of key importance, as they demonstrate that the right choice of carbohydrate can positively impact a person's sleep and mental well-being.

The study was designed to explore the effect of Palatinose® (isomaltulose), compared to glucose, on a person's sleep. Using a double-blind, randomised, placebo-controlled, cross-over design, the study was undertaken with 20 healthy young men, with a mean age of 24 years. The participant's blood glucose was monitored continuously, and their sleep characteristic metrics were monitored in a laboratory setting using polysomnography and actigraphy. One week after an acclimatisation night in the laboratory setting, half of the men were given 50g of isomaltulose, while the other half received 50g of glucose, dissolved in a 300ml drink of water. A further week later, the participants who had had a glucose drink, received one with Palatinose® and vice versa. The format for all three visits to the laboratory was: all participants ate a standardised evening meal and later viewed a series of neutral, positive and negative stories, then 15 minutes before

bedtime, at approximately 11pm, the drinks were consumed. In the morning, story recall was tested.

The results showed that the participants who consumed the bedtime drink containing Palatinose® had a slower and more sustained release of glucose to their blood, preventing dips in blood sugar levels - particularly during the first half of the night. In addition, those who consumed the drink with Palatinose® during the second intervention had an extended deep sleep phase by an average of 22 minutes. This is because more balanced blood glucose levels promote deeper sleep and fewer periods of wakefulness. A Better memory for neutral story content was also observed when Palatinose® was consumed as the second intervention.

Commenting on the findings, Dr Stephan Theis, Head of Nutrition Science and Communication at BENEIO, says: "These findings are significant, as deep or slow-wave sleep is important for physical recovery and cognitive health. By supporting balanced blood sugar levels and prolonging the deep sleep phase, Palatinose® may improve restful sleep and a person's overall well-being. Its ability to sustain blood sugar levels overnight may also have far-reaching implications for dietary interventions, targeting sleep disorders and cognitive decline."