THE EFFECT OF DAIRY PRODUCTS ON SATIETY, FOOD INTAKE AND POST-PRANDIAL GLYCEMIA IN YOUNG AND OLDER ADULTS

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ABSTRACT

The hypothesis that dairy products consumed with glycemic carbohydrate at a breakfast meal decrease appetite, food intake (FI) and post-prandial glycemia (PPG) compared with non-dairy beverages in healthy young and older adults was explored in two experiments. Experiment 1 compared 250 mL of 1% milk, yogurt beverage, soy beverage, almond beverage and water consumed with cereal by young adults (20-30 years). Appetite was lowest after yogurt beverage and FI at 120 min was lowest after milk. Soy beverage resulted in the lowest post-treatment blood glucose but despite higher carbohydrate content, dairy beverages did not increase blood glucose more than almond beverage and water. Experiment 2 also sought to compare different forms of dairy using 250 mL of 2% milk and soy beverage, 175 g of 2% Greek yogurt and 30 g of Cheddar cheese consumed with bread and jam by older adults (60-70 years). Yogurt and cheese suppressed appetite more than milk and attenuated blood glucose compared to milk and soy beverage but there were no differences in FI. In conclusion, satiety is higher and blood glucose is lower after high glycemic carbohydrates are consumed at breakfast with dairy products as well as non-dairy beverages, but semi-solid or solid forms may be more efficacious than liquid forms.