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Response to Comment on: Wolpert et al. Dietary Fat Acutely Increases Glucose Concentrations and Insulin Requirements in Patients With Type 1 Diabetes: Implications for Carbohydrate-Based Bolus Dose Calculation and Intensive Diabetes Management. Diabetes Care 2013;36:810–816

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COMMENTS AND RESPONSES

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We appreciate the comment of Wolever (1) regarding our study (2) and that we performed a much more detailed, well-controlled, and sophisticated study. We also appreciate the comment regarding the details about the composition of the test meals in the study. Thus, to allow comparison of our results with others in the literature, we provide the following clarifications. The mean weights of carbohydrates, protein, and dietary fiber in the dinner test meals were as follows: low-fat dinner, 96.9 g, 41.3 g, and 10.9 g, respectively; high-fat dinner, 96.4 g, 41.3 g, and 10.4 g, respectively. Breakdown of the fatty acid content in the high-fat dinner was as follows: 28.9 g saturated, 17.6 g monounsaturated, and 8.4 g polyunsaturated. Mean weights of the various foods were as follows: low-fat dinner, chicken 98 g, rice 160 g, broccoli 96 g, grapes 127 g; high-fat dinner, cheese 74 g, chicken 39 g, white bread 63 g, croutons 32 g, oranges 216 g. It is noteworthy that a recent study (3) demonstrated that higher-fat meals containing 35 g of fat (a quantity intermediate between that given in Wolever and Mullan [4] and our [2] study) cause late postprandial hyperglycemia in children with type 1 diabetes. This increase in the glucose excursions occurs approximately 3–5 h postmeal, also highlighting that meal-challenge tests need to be of sufficient duration to uncover the glycemic effect of dietary fat.

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