

The Benefits of Carbohydrate Counting in Type 1 Diabetes Mellitus : A Scoping Review

Title	The Benefits of Carbohydrate Counting in Type 1 Diabetes Mellitus : A Scoping Review
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Abstract	<p>ABSTRACT</p> <p>Backgrounds: Carbohydrate intake is a major determinant of blood glucose stability in patients with type 1 diabetes. Carbohydrate counting as a meal planning approach for patients with type 1 diabetes is known to have flexibility in controlling blood glucose by regulating the amount of carbohydrate intake and insulin dose, yet a good understanding about carbohydrate counting practices is still needed in order to achieve blood glucose control targeted blood glucose control. Objectives: this article aims to review the result of previous studies relating to effect, impact and benefits in metabolic control, anthropometry, also impact and practices of education relating to carbohydrate counting in type 1 diabetes. Discussion: Carbohydrate counting has an impact on HbA1c, body mass index, waist circumference, diabetes-related quality of life and type 1 diabetes therapy satisfaction. Effects of carbohydrate counting depends on age, diet management, ability to calculate ideal insulin requirements, provided education, patient readiness to apply carbohydrate counting, family support, and additional interventions provided to support improved metabolic control. The use of Automated Bolus Calculator (ABC) with carbohydrate counting and FIIT simultaneously was thought to be able to support the effectiveness of type 1 diabetes mellitus therapy. Conclusions: Carbohydrate counting can improve metabolic control in children, adolescents and adults with type 1 diabetes. It is necessary to emphasize continuous education by registered dietitian using media in estimating the portion of food and insulin doses, also involving parents to improve the accuracy of carbohydrate counting in children and adolescents. The combination of Automated Bolus Calculator (ABC) and Flexible Intensive Insulin Therapy (FIIT) is known to increase carbohydrate counting effectiveness in type 1 DM therapy.</p>
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