Diabetes nutrient standards and evaluations.

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Introduction

Medical nutrition therapy is an important part of diabetes care and self-management education. However, there are many misconceptions about nutrition and diabetes. Furthermore, in clinical practise, nutrition suggestions with little or no supporting data have been and continue to be offered to people with diabetes. As a result, the principles and guidelines for diabetes medical nutrition therapy in this position statement are evidence-based. The rationale for this position statement is discussed in detail in the American Diabetes Association technical review "Evidence-Based Nutrition Principles and Recommendations for the Treatment and Prevention of Diabetes and Related Complications," which discusses the published research for each principle and recommendation in detail. Because of the complexities of nutrition concerns, it is advised that the team member providing medical nutrition therapy be a registered dietitian who is experienced and proficient in introducing nutrition therapy into diabetes treatment and education. However, all team members must be aware about nutrition therapy and supportive of the diabetic who needs to make lifestyle adjustments.

Diabetes medical nutrition therapy goals

Achieve and maintain optimal metabolic outcomes, which include Blood glucose levels in the normal range or as close to normal as is safe to prevent or lessen the risk of diabetic complications [1]. A lipoprotein and lipid profile that lowers the risk of macrovascular disease. Individual dietary needs should be addressed while taking personal and cultural preferences, as well as lifestyle, into account, while respecting the individual's wants and willingness to adapt.

Medical nutrition therapy for type 1 and type 2 diabetes

When referring to typical food carbs, the phrases sugars, starch, and fibre are recommended. Simple sugars, complex carbs, and fast-acting carbohydrates are poorly defined terms that should be avoided. Studies in healthy participants and those at risk for type 2 diabetes show the need of include carbohydrate-containing items in diabetics' diets, particularly whole grains, fruits, vegetables, and low-fat milk.

Protein and diabetes

It was considered that in diabetics, protein metabolism problems were less influenced by insulin insufficiency and insulin resistance than glucose metabolism [2]. However, in people with type 2 diabetes, mild hyperglycaemia has been shown to lead to accelerated protein turnover, implying an increased demand for protein. Short-term kinetic investigations in people with type 1 diabetes treated with standard insulin treatment revealed enhanced protein catabolism, suggesting that near-normal glycaemia and appropriate protein consumption are required [3]. People with diabetes appear to be protected from protein deficiency while eating a typical diet since most adults consumes at least 50% more protein than is necessary. Protein consumption is found to be similar in patients with and without nephropathy, although in all investigations, protein intake was in the normal range and seldom surpassed 20% of total calorie intake [4]. Protein consumption within the normal range does not appear to be linked to the development of diabetic nephropathy. However, the long-term consequences of ingesting more than 20% of total daily energy as protein on the development of nephropathy have not been identified, thus it may be recommended to avoid protein intakes more than 20% of total daily energy.

Dietary fat and diabetes

Nondiabetic persons, low saturated fat and cholesterol diets decrease plasma total cholesterol, LDL cholesterol, and triglycerides with mixed effects on HDL cholesterol. Positive correlations between dietary total and saturated fat and changes in plasma total cholesterol and LDL and HDL cholesterol are observed. Adding exercise results in greater decreases in plasma total and LDL cholesterol and triglycerides and prevents the decrease in HDL cholesterol associated with low-fat diets. However, studies in persons with diabetes demonstrating effects of specific percentages of dietary saturated fatty acids and specific amounts of dietary cholesterol are not available. Therefore, the goal for persons with diabetes remains the same as for the general population [5].

Conclusion

It was found that the electronic nutrition education resource improved participants' knowledge as well as their intentions toward healthy eating and lifestyle. Further studies can be designed to measure whether short 5-10 min videos presented in multiple languages may improve participation, and also if this learning exercise leads to actual behaviour change and improvement in patients' diabetes control.

References

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