**Update of Diabetes UK Evidence-Based Nutritional Guidelines for 2018:**

*A celebration of two leading journals working together to improve nutritional science and dietetic care for people living with diabetes.*

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It is hard to believe that we have arrived at the fifth iteration of nutritional guidelines from Diabetes UK or formerly the British Diabetic Association. Throughout this time, our two journals (including the predecessor of Journal Human Nutrition and Dietetics – Human Nutrition: Applied Nutrition) have promoted and published the guidelines either separately as in 1982 (1), 1992 (2) and 2011 (3) or jointly in 2003 (4, 5). To celebrate the 2018 (6) version, we have decided to publish a joint virtual issue of Diabetic Medicine and Journal of Human Nutrition and Dietetics to highlight how the nutrition research published in both journals has informed the current evidence-based guidelines and how our publications are shaping areas of emerging nutritional advice, such as intermittent fasting (7), low carbohydrate diets (8) and the prevention of diabetes (9, 10)

The new guidelines have carefully considered the evidence base and have shifted the approach towards nutritional recommendations that focus more on foods and dietary patterns rather than individual nutrients. This makes the guidelines more accessible to people living with diabetes and their healthcare professionals. This philosophy can also be seen in the choice of GRADE as the evidence appraisal approach as this methodology can assimilate evidence better from clinical trials and observational studies in a way that is focused more on people living with the condition, such as diabetes.

Both journals have a well-established track record of publishing high quality evidence across a range of topics that develop new approaches to the nutritional management and education of people living with diabetes by looking at the wider determinants of health that influence diet and diabetes. Recent work has reported the highly debated area concerning the role of carbohydrates in the management of type 2 diabetes. Breen and colleagues explored the understanding of different forms of carbohydrate by people with type 2 diabetes and how an unbalanced focus on one type of carbohydrate may influence overall dietary quality (11). McArdle and colleagues considered how dietitians are advising people with diabetes about carbohydrate intakes (12) and highlighted that there is a poor understanding of what is meant by a low carbohydrate diet. The challenge of defining low carbohydrate diets was taken further in a critical review by van Wyk and colleagues (8), who found a lack of evidence supporting superiority for a low carbohydrate diet. They also suggested that in very low carbohydrate diets, there was a tendency for carbohydrate intake to increase over time leading to little difference between low- and high-carbohydrate diets with respect to carbohydrate intake in the long term. The quality, as well as the quantity, of carbohydrate is now considered as an important component of dietary advice and modification, as illustrated by a study in which a high glycaemic load was found to be a risk factor for the development of gestational diabetes (13).

Our journals have long been at the cutting edge of dietary research in type 1 diabetes. Hommel and colleagues reported how the use of technology can help match insulin doses to carbohydrate intake with an automated bolus calculator (14). However, it is also known that carbohydrate is not the only nutrient that influences glycaemic responses, with Paterson and colleagues highlighting how adding protein to a 30g carbohydrate, negligible fat test meal decreased early glycaemia (0-60 minutes) but led to a greater risk later (15).

Rapidly absorbed carbohydrate is also essential as a treatment for hypoglycaemia and most guidelines recommend 10-20g as treatment. McTavish and colleagues, however, showed that an alternative approach using a carbohydrate intake based on body weight was more effective than current international recommendations (16).

Diabetes is characterised by an increase in cardiovascular risk and diet is considered to be a key modifier of risk. Although controversial it appears that closer adherence to dietary guidelines can reduce cardiovascular risk (17).

For many people with type 2 diabetes, weight management is the primary focus of nutritional interventions and current evidence suggests that there is not a single best dietary approach, with the best approach being one that is acceptable and sustainable for the individual. This aligns well with the philosophy of the Diabetes UK Nutritional Guidelines to focus on dietary patterns. However, an analysis of the NHANES database suggested that people with type 2 diabetes increased their energy intakes between 1988-2012, an observation which was not mirrored in the population without diabetes, perhaps highlighting a potential focus for dietary intervention (18).

One of the most exciting areas in nutritional and diabetes research is the potential to promote the remission of diabetes with the use of a low calorie diet of ~850 kcal per day followed by a stepped reintroduction of food (9, 10). Despite concerns to the contrary, these diets are perceived by people with diabetes as much easier to follow than anticipated (10). Bowes and colleagues found that an education programme, which included dietary advice based on the UK EatWell guide, resulted in a reduction in weight and cardio-metabolic risk in first degree relatives of people with diabetes (19).

There is a need to individualise the nutritional approach for people with diabetes and those at risk of developing diabetes. The role of dietitians in individualising advice and supporting people with diabetes, especially those newly diagnosed with the condition. Ball and colleagues highlighted the need to shift from an instructional model to a more facilitative and open communication style to support more long term behaviour change (20). The need for effective communication was further explored by Slavin and colleagues who emphasised the need for dietitians to display humanistic behaviours and redistribute the ‘power’ in the consultation, moving it from the practitioner to the person living with diabetes (21). The need to individualise care goes beyond style of communication too, with consideration of social economic factors being important. This was illustrated by Heerman and colleagues who highlighted the negative impact of food insecurity on the ability to eat a healthy diet, ultimately leading to worsening of diabetes control (22).

The new Diabetes UK Nutritional Guidelines highlight a major step forward to promote individualised dietary advice based on an individual’s food preferences. This should be concentrate on foods rather than nutrients which should only be discussed in relation to carbohydrate counting. Remembering the recommendations of Ball and colleagues (20), we should all put the person living with diabetes at the centre of the new guidelines, permitting dietary advice to be co-created and fully individualised.

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