**Diabetic Medicine May 2016**

**Headlines**

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| Messaging and monitoring to improve medication adherence | Inappropriate prescribing in older people with diabetes |
| Very low energy diets in type 2 diabetes | Modifiable risk factors and glucose control in pregnancy |
| Estimated glomerular filtration rate and heart failure | Cost of glucose monitoring in the NHS |

Artwork

**Title: Cakes for afternoon tea**



**Caption:** Cakes for afternoon tea. Cup cakes and slices of fruit cake laid out on plates for afternoon tea in a garden on a summer's day.

**C005/3476**

**Free articles**

1. Editorial
2. Systematic Review x 2
3. Paterson MA Influence of dietary protein on postprandial glucose levels in individuals with type 1 diabetes mellitus using intensive insulin therapy. DME13011

**Editorial**

**Nutritional advice in diabetes: a recipe for confusion**

As I write this month’s editorial, George Osborne, the UK Chancellor of the Exchequer, has just made the surprise announcement to introduce a tax on sugary drinks from April 2018. Commentators have mixed opinions on the likely effectiveness of this taxation to influence behaviour change given the current wide range of prices of sugary drinks, the uncertain outcome on the price customers will have to pay and the lack of effectiveness in other countries. Nevertheless it has been welcomed by many, including Diabetes UK, as a clear message that we should consume less refined sugar.

Dietary advice is fraught with difficulties and often causes confusion in the minds of people with diabetes. Even a simple seemingly healthy message to eat five portions of fruit and vegetables a day may have its downsides if this leads to a substantial carbohydrate load or portions are taken in addition to an otherwise calorie rich diet. As so eloquently elucidated by Professor Roy Taylor from Newcastle in the Diabetes UK 2016 Rank Nutrition lecture, a better message might have been “five *insteads* a day”. In other words, snacks should be substituted with fruit, and rice, pasta and potato with vegetables, while avoiding extras, such as fruit juice or smoothies, in the mistaken belief that they are ‘good for you’.

Even strongly held recommendations to restrict dietary saturated fat are being challenged following highly publicised systematic reviews (1) that failed to show a benefit of changing the diet despite the overwhelming evidence linking saturated fat to heart disease (2). Again the effect almost certainly depends on what the dietary saturated fat is replaced with. Swapping fats with refined sugars, as so often happens in processed low-fat foods, seems counter-productive.

In this month’s issue of Diabetic Medicine, Rehachova and colleagues report a systematic review and meta-analysis of very-low calorie diets in people with type 2 diabetes (3). Despite the challenges, many people were able to persist with the diets achieving substantially greater weight losses than with minimal interventions, standard care or low energy diets. The review provides a strong message of the benefits of reduced calorie intake, but it remains unclear what behavioural support is required for long-term weight control.

A recent change in dietary advice (at least among personal trainers) has been to advocate increased protein intake. Whether this is sensible advice remains to be seen. It is well recognised that amino acids stimulate insulin secretion but even in the absence of insulin secretion, as reported in a physiological study of people with type 1 diabetes in this month’s issue (4), protein intake alters postprandial glucose excursions. Protein loads of 75g or higher (equivalent to a 300g steak) resulted in lower glucose values between 1-2 hours after the test meal but with higher values between 3-6 hours after the meal. The authors advocate insulin dose adjustment for large amounts of protein and perhaps the next generation of wizard meters may be able to support these additional complex calculations.

Dietary recommendations have changed dramatically over the last century since the discovery of insulin and undoubtedly will continue to do so. In the meantime there will be continued uncertainty about the advice healthcare professionals should give. We should empathise with people with diabetes when we consider how this inconsistency affects their ability to self-manage their diabetes. Too many other myths pervade our nutritional advice and we are desperate in need of high quality evidence to inform our clinical care.

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References

 (1) de Souza RJ, Mente A, Maroleanu A, Cozma AI, Ha V, Kishibe T, et al. Intake of saturated and trans unsaturated fatty acids and risk of all cause mortality, cardiovascular disease, and type 2 diabetes: systematic review and meta-analysis of observational studies. BMJ 2015;351:h3978.

 (2) Hooper L, Martin N, Abdelhamid A, Davey SG. Reduction in saturated fat intake for cardiovascular disease. Cochrane Database Syst Rev 2015;6:CD011737.

(3) Rehackova et al. Efficacy and acceptability of very low energy diets in

overweight and obese people with Type 2 diabetes mellitus: a systematic review with meta-analyses. DME 13005

(4) Paterson et al. Influence of dietary protein on postprandial glucose levels in individuals with type 1 diabetes mellitus using intensive insulin therapy DME 13011