Latest Nutritional Guidelines: What's new for practice?

Paul Pipe-Thomas – Specialist Dietitian

Evidence Based Guidelines

- Last nutritional guidelines published in 2003.
- New guidelines published in May 2011.
- Diabetes UK Nutrition Working Group adopted the review of the evidence base for nutritional recommendations for diabetes undertaken by the American Diabetes and Dietetic Associations.
- The guidelines are specific to adults with Type 1 and 2 diabetes and people at risk of developing Type 2 diabetes.

Evidence Based Guidelines

- Recommendations have been graded based on a paper published by the Scottish Intercollegiate Guidelines Network (SIGN).
- Previous or competing guidelines have been sign posted through out the document.
- Recommendations for children are covered by the International Society of Paediatric and Adolescent Diabetes (ISPAD) publication in 2009.

SIGN grading

Classification of evidence		Factors related to reduced risk	
Ia	Evidence from meta analysis of randomised controlled trials	A	Based on category I evidence
Ib	Evidence from at least one randomised controlled trial		
IIa	Evidence from at least one controlled study without randomisation	B	Based on category II evidence or extrapolated from category I
IIb	Evidence from at least one other of quasi experimental study		
III	Evidence from non- experimental descriptive studies such as comparative studies, correlation studies and case control studies	C	Based on category III or extrapolated from category I or II
IV	Evidence from expert committee reports or opinions and/or clinical experience of respected authorities	D	Based on category IV evidence or extrapolated from category I, II or III

Aims & Goals

- Support self management to reduce risk of Type 2 diabetes and its associated co-morbidities.
- Promote quality of life and healthy lifestyles.
- Provide flexibility and meet the needs of all individuals, including those with co-morbidities such as Coeliac disease and Cystic fibrosis.

2003 to 2011

2003	2011
Carbohydrate - 45-60% of energy intake.	Main consideration for glycaemic control with both the amount and type having an effect on post prandial blood glucose levels. Low Glycaemic Index diets seen to reduce HbA_1c.
Sucrose – up to 10% of energy intake per day if not overweight.	Sucrose does not affect glycaemic control any differently from other types of carbohydrate. Individuals consuming a variety of sugars and starches show no difference in glycaemic control if total carbohydrate is similar. Fructose may reduce post prandial glycaemia when it is used as a replacement for sucrose or starch.

2003 to 2011

2003	2011
Total Fat <35% of energy intake Saturated & trans-unsaturated <10% Polyunsaturated <10% Monousaturated 10-20% Omega 3 – oily fish 1-2 times per week but no supplements	Saturated fats should be limited and replaced by unsaturated fats predominantly monounsaturated fats. Oily fish should be consumed at least twice a week. Use of plant sterols or stanol esters (2-3g/day) effective in lowering total and LDL cholesterol independent of statin therapy. In type 2 diabetes with elevated triglycerides supplementation with up to 3g omega fish oils can be beneficial.

2003 to 2011

2003	2011
Fibre – no recommendation.	Dietary fibre has many health benefits – high fibre diets may be beneficial for diabetes.
Vitamins & antioxidants – encourage foods naturally high in these and no general recommendation for use of supplements.	
Salt - ≤ 6g per day.	As per UK guidelines of 5-6g per day – but potential benefits for reducing to 3g per day.

Weight management

- Weight loss is the most important predictor of risk reduction for Type 2 diabetes. Weight loss of at least 5 to 7 per cent is effective for Type 2 diabetes prevention. (A)
- Weight management should be the primary nutritional strategy in managing glucose control in Type 2 diabetes for people who are overweight or obese. (A)
- The main requirement of a dietary approach to weight loss is that total energy intake should be less than energy expenditure. (D)

Weight management

- Lifestyle interventions that incorporate energy restriction, low fat diets and increased physical activity can effectively reduce the risk of Type 2 diabetes in high risk groups. (A)
- Interventions promoting diet alone, increased physical activity alone or a combination of the two is equally effective in reducing risk. (A)
- There is no evidence for the most effective dietary approach over another to achieve weight loss and prevent Type 2 diabetes. (D)

Physical Activity

- Increased physical activity offers general health benefits although there is no evidence of benefit in glycaemic control in people with Type 1 Diabetes. (A)
- Regular, moderate physical activity can reduce HbA1c by 0.45 – 0.65% independent of weight loss in people with Type 2 Diabetes. (A)
- 30 to 60 minutes of aerobic exercise on a minimum of three occasions per week (minimum of 150 minutes each week) and resistance training at least twice per week lower blood pressure. (B)

Specific Sections

- Nutrition Management and Models of Education.
- Prevention of Type 2 diabetes in high risk groups.
- Nutrition recommendations for people with diabetes.
- Nutrition recommendations for managing diabetes related complications.
- Additional considerations.
- Micronutrients , supplements and functional foods.

Additional considerations

- Nutrition support
- Disorders of the pancreas
- Older person
- Cystic fibrosis
- Pregnancy and lactation
- HIV and insulin resistance
- Nutrition provided by external agencies
- Fasting
- Eating disorders

Bullet Points for New Clinical Solutions

- New evidence based nutritional standards are available on the Diabetes UK website

  http://www.diabetes.org.uk/Documents/Reports/Nutritionalguidelines

- Nutrition management is effective in people with diabetes and those at high risk of developing Type 2 diabetes, when it is an integrated component of education and clinical care.

- Everyone with diabetes should receive individual, ongoing nutritional advice from a registered dietitian.