

## Obesity

### DIABETES CARE



### Effect of a combination weight loss programme

Readability	✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓✓

**1** Although very low calorie diets are known to produce substantial weight loss, it is unclear whether this weight loss will be maintained long-term.

**2** Other approaches to weight loss, such as meal replacements, have not been adequately tested in individuals with type 2 diabetes.

**3** The aim of this study was to assess whether a combination of weight loss therapies might improve weight loss.

**4** A total of 61 patients were randomised to combination or standard therapy for weight loss. Both groups underwent a standard weight loss programme.

**5** The combination therapy group received 10–15 mg sibutramine daily, low calorie diets using meal replacement products for 1 week every 2 months, and between low-calorie diet weeks, once daily use of meal replacement product and snack bars to replace one usual meal and snack.

**6** There was a significantly greater weight loss and reduction in HbA<sub>1c</sub> at 1 year on combination therapy compared with standard therapy. BMI, fat mass and lean body mass were also more reduced in the combination therapy group than the standard therapy group.

**7** Weight loss programmes that achieve and maintain weight loss for at least 1 year may be useful clinically.

Redmon JB, Raatz SK, Reck KP et al (2003) One-year outcome of a combination of weight loss therapies for subjects with type 2 diabetes *Diabetes Care* **26**(9): 2505–11

### *Slim Fast with reductil and Slim Fast*



Jonathan Pinkney, Senior Lecturer/Honorary Consultant Physician, University of Liverpool/University Hospital Aintree

**S**o pivotal is obesity in the development of type 2 diabetes, and such is the glycaemic improvement that results from major weight loss, that weight loss is a major therapeutic goal. However, this goal currently eludes most patients.

While the effects of orlistat and sibutramine, the two currently licensed antiobesity drugs, on weight loss and glycaemic control are modest in type 2 diabetes, around two thirds of the weight loss elicited in trials of these drugs is achieved in the placebo arms, suggesting that other features of the weight reduction programmes are more vital determinants of outcomes. In other words, we still do not fully know how best to use antiobesity drugs.

Redmon and colleagues report a randomised trial comparing a standard 'lifestyle' weight loss intervention with combination therapy – comprising continuous

treatment with sibutramine accompanied by an intermittent low calorie diet involving Slim Fast (meal replacement products). The latter is a novel strategy to make intensive caloric restriction less unpleasant and to reduce relapse. The main findings were benefits in the combination therapy group, suggesting that this might be a useful weight loss strategy. Obvious weaknesses, however, are the minimal impact of the comparator 'lifestyle' intervention and, seriously, the lack of placebo drug treatment. The study that would perhaps now be most helpful would compare an intermittent low calorie diet/ meal replacements, with sibutramine or placebo, and a third group with standard dietary intervention and sibutramine. The treatment of obesity always has to be individualised, and so the main importance of this interesting preliminary work is probably the suggestion that short-duration cycles of meal replacements could be an alternative weight loss strategy for some obese patients with type 2 diabetes.

### JOURNAL OF EPIDEMIOLOGY AND COMMUNITY HEALTH



### Effect of social class on obesity

Readability	✓✓✓
Applicability to practice	✓✓
WOW! factor	✓✓✓

**1** Lower childhood and adult social class have both been associated with higher levels of adult obesity. However, the cumulative influence of lifetime socioeconomic circumstances is less clear.

**2** This prospective cohort study of 1472 men and 1563 women born in 1946 investigated the influence of social class in childhood, young adulthood and middle age, and intergenerational mobility, on adult central and total obesity.

**3** Father's social class at participant's age 4 years was inversely associated with all measures of obesity in men and women at age 53 years.

**4** This difference remained after adjustment for participant's own social class in young adulthood and middle age.

**5** Both adult social classes were inversely related to obesity among women after adjustment for childhood circumstances. This effect was not seen in men.

**6** These gender differences and the detection of time sensitive points for the development of social class differences in adult obesity is important to plan timely and gender-specific public health interventions.

Langenberg C, Hardy R, Kuh D, Brunner E, Wadsworth M (2003) Central and total obesity in middle aged men and women in relation to lifetime socioeconomic status: evidence from a national birth cohort. *Journal of Epidemiology and Community Health* **57**: 816–22

**‘Weight, waist circumference, insulin, HbA<sub>1c</sub> and fasting blood glucose all fell significantly after the low calorie diet.’**

## INTERNATIONAL JOURNAL OF OBESITY

### Effect of rapid weight loss on lipid profile

Readability	✓✓✓
Applicability to practice	✓✓✓
WOW! factor	✓✓✓

**1** Weight loss as a result of following a low calorie diet has been shown to improve glycaemic control in overweight individuals with type 2 diabetes.

However, the efficacy of such a diet to correct the atherogenic lipid profile has not yet been evaluated.

**2** In this study, 11 patients with type 2 diabetes were given 8 weeks of meal-replacement diet (eight sachets of a nutrition powder). Lipid profile was assessed by NMR spectroscopy.

**3** Weight, waist circumference, insulin, HbA<sub>1c</sub> and fasting blood glucose all fell significantly after the low calorie diet.

**4** The observed weight reduction was associated with favourable changes in plasma cholesterol, LDL cholesterol, and fasting triglyceride.

**5** Short-term use of a low calorie diet is very effective to improve glycaemic control in overweight patients with type 2 diabetes.

Harder H, Dinesen B, Astrup A (2003) The effect of a rapid weight loss on lipid profile and glycaemic control in obese type 2 diabetic patients. *International Journal of Obesity* **epub Nov 11 2003**

## DIABETIC MEDICINE

### Expansion of dietetic services needed

Readability	✓✓✓
Applicability to practice	✓✓✓✓✓
WOW! factor	✓✓✓

**1** Consensus-based recommendations for the practical implementation of nutritional advice in the UK are provided

in this article, using the technical reviews of the European Association for the Study of Diabetes and other sources.

**2** The recommendations differ from those published previously as they include more flexibility in the proportions of energy derived from carbohydrates and monounsaturated fats, more active promotion of foods with a low GI and more emphasis on advice about lifestyle changes.

**3** Evidence is discussed about the effectiveness of advice provided by dietitians.

**4** The subcommittee conclude that dietetic services need to be expanded to implement the NSF for Diabetes and to prevent type 2 diabetes in the increasingly obese UK population.

Nutrition Subcommittee of the Diabetes Care Advisory Committee of Diabetes UK (2003) The implementation of nutritional advice for people with diabetes. *Diabetic Medicine* **20**: 786–807

EUROPEAN JOURNAL OF CLINICAL NUTRITION

## Lifestyle and glycaemic control

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓✓
WOW! factor	✓✓✓

**1** Older people with diabetes have special needs in terms of diabetes management. The effects of lifestyle intervention in older patients with type 2

diabetes have received little attention.

**2** A total of 150 patients were interviewed about their level of physical activity over the past 4 weeks.

**3** Each five-unit increase in energy from dietary saturated fat and five-unit increase in BMI were associated with 6% and 4% increases in HbA<sub>1c</sub>, respectively.

**4** There was a 14% reduction in BMI in females with moderate compared with low overall activity. In males, the reduction in BMI was only 5%.

**5** Each 10-year increase in age and each 1 MJ increase in dietary energy were associated with 5% and 2% decreases in BMI, respectively.

**6** A reduction in dietary saturated fat and excess bodyweight may be helpful in the improvement of glycaemic control in older patients with diabetes. An increase in physical activity and a reduction in energy from dietary sucrose, particularly in women, may assist weight control.

Grylls WK, McKenzie JE, Howarth CC, Mann JI (2003) Lifestyle factors associated with glycaemic control and body mass index in older adults with diabetes. *European Journal of Clinical Nutrition* **57**: 1386–93

**‘A reduction in dietary saturated fat and excess bodyweight may be helpful in the improvement of glycaemic control in older patients with diabetes.’**

JOURNAL OF THE AMERICAN COLLEGE OF NUTRITION

## Weight management in type 2 diabetes

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓✓
WOW! factor	✓✓✓

**1** An estimated 60–90% of type 2 diabetes is related to obesity.

**2** This paper reviews the impact of obesity and weight gain on risk for diabetes and coronary heart disease.

**3** In this systematic review of controlled clinical trials, a meta-analysis of the effects of weight loss for obese individuals with diabetes was done.

**4** Obesity or weight gain can increase the risk of developing diabetes by greater than ninety-fold and the risk for

coronary heart disease by six-fold.

**5** A weight loss of 10% of original bodyweight substantially improves glycaemic control.

**6** Weight management may be the most important therapeutic task for obese individuals with type 2 diabetes.

Anderson JW, Kendall CWC, Jenkins DJA (2003) Importance of weight management in type 2 diabetes: review with meta-analysis of clinical studies. *Journal of the American College of Nutrition* **22**(5): 331–39