



## Weight loss and maintenance

with formula diet now feasible in primary care

The Counterweight Plus programme using Cambridge Weight Plan as a total diet replacement (810–833kcal/d liquid diet comprised of soups and shakes) followed by food re-introduction and weight maintenance, delivered more than 15kg weight loss after a year in one-third of participants in a Primary Care setting. The cost (including practice nurse time, product and telephone calls) was £2,611 per patient with a documented 15kg weight loss.

The study was reported in February 2013 in the British Journal of General Practice by Professor Mike Lean and colleagues from the University of Glasgow and the Counterweight programme team. It describes the results of the weight loss intervention in 91 people with BMI >40kg/m<sup>2</sup> living in rural and small-town Scotland (Lean et al 2013). Severe obesity is increasing rapidly in Scotland: 6% of men and 11% of women have BMI over 35kg/m<sup>2</sup>, and for those over 55 years: 3% of men and 5% of women have BMI over 40kg/m<sup>2</sup>. Many of these people who are potentially eligible for surgery, are unlikely to get that treatment in today's circumstances and yet the 15–20kg weight loss needed to correct the metabolic derangement in Type 2 diabetes cannot be achieved by conventional dietary regimens. Formula diet programmes, providing a nutritionally replete diet, achieve a higher energy deficit than conventional reducing diets. This results in 1–2 kg weekly weight loss, giving the weight losses needed. These higher rates of weight loss have been shown to be safe (adverse event profiles are fully published, Johansson et al 2011) and lean mass loss has been reported as remarkably low in older Danes with osteoarthritis (Christensen et al 2011).

In the Counterweight total diet replacement weight loss and maintenance programme, 91 primary care patients (mean BMI 48kg/m<sup>2</sup>) entered the programme and 58 completed the liquid-diet phase (82 initially chose the convenience of Cambridge Weight Plan products over the 'home-made' version). The mean weight loss during the liquid-diet phase was 16.9kg and during food re-introduction was 2.1kg.

Fifty-two patients commenced the maintenance phase, 27 achieving a loss of more than 15kg at one year. Forty-four had accepted use of

Orlistat to facilitate maintenance at some point during the year and those taking Orlistat showed an average weight loss of 20.1kg at one year, while those not taking it showed an average loss of 14.1kg at one year.

A qualitative analysis showed that participants were 'very satisfied' with the rate and degree of weight loss with the liquid diet. Transient constipation and dizziness occurred in some people but there was more concern over social and occupational consequences, such as difficulties at family mealtimes.

The participants in this feasibility trial were largely non-diabetic patients, so there is now a need to undertake a similar study in those with Type 2 diabetes. Strategies for reducing drop-out need to be devised and methods to enhance weight maintenance beyond one year need to be tested.

In a weight loss trial in elderly Danes with osteoarthritis (Christensen et al 2011), patients were re-randomised to one of two active intervention programmes at the end of the first year of maintenance. The first allowed the daily use of one formula product to substitute one meal to help achieve the daily reduction of dietary energy intake of about 400kcal/d needed after a 15kg weight loss. There was tight monitoring of weight and a short-term use of an 800kcal/d liquid diet if weight rose by 2kg. The second provided an opportunity for a five-week 800kcal/d liquid diet every four months. The one-year results of this maintenance programme will be presented at the European Obesity Congress in Liverpool in May 2013.

Anthony R Leeds, Medical Director, February 2013

**References:** Lean M, Brosnahan N, McLoone P, McCombie L, Bell-Higgs A, Ross H, Mackenzie M, Grieve E, Finer N, Reckless J, Haslam D, Sloan B, Morrison D. Feasibility and indicative results from a 12-month low-energy liquid diet treatment and maintenance programme for severe obesity. *Br J Gen Pract* 2013; DOI: 10.3399/bjgp13X663073

Johansson K, Hemmingsson E, Harlid R, Lagerros YT, Granath F, Rössner S. Longer-term effects of very low-energy diet on obstructive sleep apnoea in cohort derived from randomised controlled trial: prospective observational follow-up study. *BMJ* 2011;342:d3017 doi:10.1136/bmj.d3017

Christensen P, Bliddal H, Riecke BF, Leeds AR, Astrup A, Christensen R. Comparison of a low-energy diet and a very low-energy diet in sedentary obese individuals: a pragmatic randomised controlled trial. *Clinical Obesity* 2011; 1, 31–40 doi: 10.1111/j.1758-8111.2011.00006.

## Diabetes case study:

### Alan Brook had struggled with his weight since his early 20s

The brief attempts he made to lose weight were always unsuccessful. Blaming his weight gain on lack of exercise, Alan says he often used the excuse of being too busy to do anything, rather than admitting to feeling lazy or tired. In 2011, aged 46, Alan and his wife Tiffany decided to take action to lose weight and start a family. His main reason was to support his wife, because she needed to lose weight to qualify for IVF, and Alan knew that this would benefit his overall general health.

### Alan is a 'model patient'

Keen to start a family, Alan and his wife Tiffany were referred to a fertility clinic only to be informed that, to receive treatment, Tiffany's BMI needed to be below 30. At that time Tiffany's BMI was 38 and the couple realised that losing weight together was the only way forward if they were to have a family.

In October 2011 Alan and Tiffany contacted Roz Mallett, who had been working as a Cambridge Consultant for six years. Alan had been diagnosed with Type 2 diabetes in 2005 and, in line with the Company's diabetes protocol and the advice he received from Roz, he began Cambridge Weight Plan on Step 5 (1500kcal per day) combining healthy eating with one Cambridge product a day. All Cambridge products are suitable for diabetic customers and Alan could choose from a wide range of Cambridge shakes, soups, porridges and bars. In accordance with the Company's diabetes protocol, to ensure his blood glucose levels remained stable, Alan stayed on Step 5 for two weeks before stepping down to Step 4 (1200kcal per day). He continued this stepping down process until he reached Step 2 (810kcal per day), the lowest Step suitable for him.

Cambridge Weight Plan's flexible Step Programme allows customers to step up as well as down, enabling them to engage in everyday activities such as going on holiday and meals out with friends, while continuing to lose weight. Alan lost most of his weight on Steps 3 and 4, as he preferred to have slightly more calories, he still achieved excellent results.

He reached his target weight in April 2012, losing over 37kg. Table 2 shows how Alan's diabetic control improved during weight loss, as indicated by his blood glucose levels and, more importantly, his HbA1c results. Cambridge Weight Plan insists that customers on certain medications, including those for diabetes, maintain regular contact with their healthcare professionals, so that medications can be adjusted as they lose weight. Table 2 indicates how Alan's medications were reduced as he lost weight. Alan's GP was able to stop his Vildagliptin and two of his hypertension medications; he also reduced his Metformin and discussed stopping it completely. His blood pressure is currently the best it has been for years. Alan's GP is very pleased with his progress and refers to him as a 'model patient'.

### Healthy weight management

Alan and Tiffany have become good friends with Roz, their Cambridge Consultant, and continue to see her fortnightly for advice and support. To maintain his new weight, Alan follows Cambridge Weight Plan's advice for healthy eating and has one Cambridge product each day. He says that he feels fantastic now and wishes he'd lost weight years ago. "I chose Cambridge Weight Plan as it offered a strategy not only for losing weight but, more importantly, keeping it off" he explained. "The weight loss has been achieved simply by not cheating. Now I can lead an ordinary life and continue to have dinner with friends, while learning to manage my weight.

"My overall health has improved and I have so much more energy now. I get up early every day and am able to do much more around the house, rather than spending weekends in front of the television. I've also found that the joint stiffness I used to get after sitting down has disappeared. I exercise regularly: swimming, running and cycling for 10 miles once or twice a month. My ultimate aim is to complete a triathlon within the next 12 months — something I would never have dreamed of doing before I lost all my weight."

Losing weight has been a life changing experience for Alan and Tiffany. Having reduced her BMI to below 25, Tiffany was accepted for IVF in July 2012 and the couple are expecting their first baby in May 2013!

Table 1

Starting Figures	Weight (Kg)	BMI	Waist (cms)	HbA1c (mmol/mol)	
22.10.2011	119.7	37.5	132	83	
Final Outcome	Total Weight Lost (Kg)	Final BMI	Waist reduced by (cms)	HbA1c reduced to (mmol/mol)	
	37	25.9	35	40	
Medications Changes	Vildagliptin	Bendroflumethiazide	Amlodipine	Metformin	Total Saving per year
	Stopped	Stopped	Stopped	Reduced	£444.83 (ref MIMS November 2012)

Table 2

Date/Step/Calorie	Weight (Kg)	BMI	Waist (cms)	Average Blood Sugar (mmol/l)	HbA1c (mmol/mol)	Diabetes Medication
30.10.2011/Step 5/1500kcal/d	115	36	128	10.6	83	Metformin 1000mg TDS, Vildagliptin 50mg BD
10.11.2011/Step 4/1200kcal/d	113	35.7	126	8.1		
24.11.2011/Step 3/1000kcal/d	109	34.4	123	6.9		
15.01.2012/Step 2/810kcal/d	96	30.3	114	5.6		
27.01.2012/Step 2/810kcal/d	95	30	112	6.5	53	
11.04.2012/ Step 3/1000kcal/d	84	26.5	97	5.1	35	Vildagliptin stopped by GP
26.05.2012/Maintenance	78	24.6	91	6.0		
30.07.2012/Maintenance	78	24.6	91	6.1		Metformin reduced to 1500mg daily

## Brief summary of Diabetes Protocol for Cambridge Consultants

- Consultants must attend follow-up training before agreeing to support any customers with diabetes
- Customers who are on any medication with a hypoglycaemic risk must be prepared to check their blood sugar levels daily for the duration of their weight loss
- Customers must agree to step down in two weekly intervals dependant on their medication (providing their blood sugar levels are stable) to a suitable programme for their condition
- Consultants must provide updates on weight, medication, blood sugar levels and any other important information to the trained medical advisors at Head Office weekly for the first four weeks then fortnightly thereafter for every customer with diabetes. (The medical advisors are also available to give extra advice and support if needed)
- If a customer has Type 1 diabetes they are not allowed to undertake a Programme that provides less than 1000kcal a day
- If a customer has Type 2 diabetes treated with more than just Metformin they are not allowed to undertake a Programme that provides less than 810kcal a day
- If a customer has Type 2 diabetes treated with Metformin only or controlled by diet alone they are allowed to undertake any Cambridge Programme, including a VLCD, and customers do not need to step down or monitor their blood sugar levels



## What is Cambridge Weight Plan?

CWP Programmes are synonymous in the minds of many healthcare practitioners with very low-energy diets (VLEDs).

Developed by Dr Alan Howard as a formula VLED, this does remain the greater part of its present day usage. However, about ten years ago it evolved into a more flexible series of dietary energy intake levels (1500, 1200, 1000, 810, 615, 415kcal/d), allowing titration of energy intake against the client or patient's response.

This is interesting historically, because in the late nineteenth century a step-wise titration upwards of dietary energy was offered to people with diabetes, following a fast to clear the urine of reducing sugars. Now, this remarkably precise titration process (precise because it includes formula food products rather than non-formula foods alone) can be applied with a step-wise reduction or increase of energy intake according to need.

Very low-energy diets give the most effective weight losses, but sometimes a part formula and part food diet can achieve remarkable weight loss. Dietary adherence tends to be less good at the higher energy intake levels and patients tend to be more hungry, but nevertheless energy intake levels above 800kcal/d can give good results. The gradually accumulating scientific literature on the efficacy of VLEDs indicates that it is highly likely that the potential applications of VLEDs and part-food, part-formula food low-energy diets (LEDs above 800kcal/d) will be more widely appreciated. The 2000s may well be the decade of bariatric surgery, but the 2010s could be the decade of effective diets.

## Contact us ...

If you would like to know more about Cambridge Weight Plan, please contact our Medical Department by emailing: [medical@cambridgeweightplan.co.uk](mailto:medical@cambridgeweightplan.co.uk) or calling: **01536 403344**



# Introducing Cambridge Pro800

## The Cambridge product of choice for healthcare professionals.

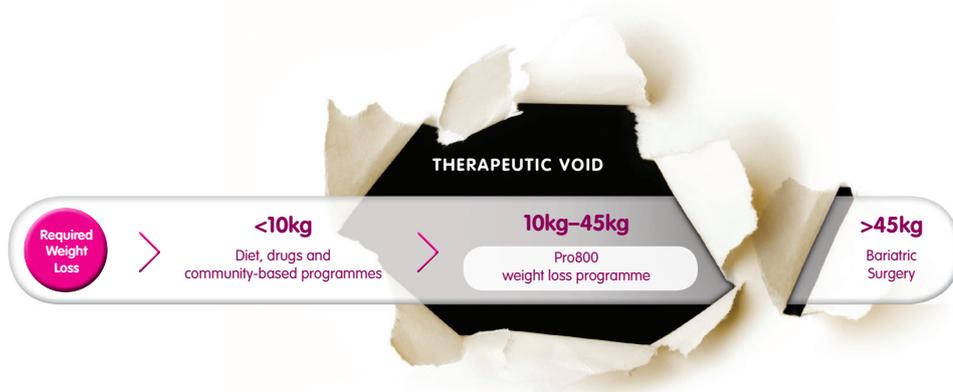
GPs offer four options for weight management; a healthy diet; a community-based diet programme; a single drug therapy; or gastric surgery.

While these may work for some who are modestly overweight, heavier patients could take many years to lose the weight with conventional diet and drugs and in most cases, it won't happen.

Yet at the other end of the scale, while the cost of surgery is proven to be recovered in three years through savings, such as diabetic drug costs, surgery cannot possibly be provided to everyone who may benefit due to resources and funding. Surgery is, quite rightly, viewed by many as a last resort.

By far the greatest need for weight loss is in the "middle ground" around 19kg overweight, but there is a 'therapeutic void' in the middle ground where there is little to offer. If patients could lose 10–15kg quickly, and maintain the weight loss, millions could be freed from miserable health conditions and expensive medication. And, vitally, it would halt the escalation of their obesity, which would otherwise lead to even greater problems.

Cambridge Weight Plan has now created Cambridge Pro800, exclusive to healthcare professionals, as the ideal solution for this therapeutic void. Cambridge formula diets have proven weight loss and maintenance results with sustained health benefits.



### Cambridge Pro800 provides:

- 800kcal/day nutritionally complete formula diet
- Proven benefit in obstructive sleep apnoea and osteoarthritis
- The solution for patients who need to lose weight before surgery
- Improved Vitamin D status

**Comprehensive training provided with on-going email and telephone medical support from healthcare professionals**

### Cambridge Pro800 products come in six flavours:

- Banana Shake
- Chocolate Shake
- Vanilla Shake
- Summer Fruits Shake
- Vegetable Soup
- Mushroom Soup

Every product comes in single flavour cartons containing fourteen sachets each, attractively presented in a clean clutter-free design with calorie value and nutritional data clearly stated on each carton.

**Proven weight loss and long term weight management with sustained health benefit ...**



- Flexible energy intake and flexible combinations of formula and regular foods
- Formula diets for primary and secondary care
- Proven benefit in obstructive sleep apnoea and osteoarthritis
- The solution for patients who need to lose weight before surgery
- Improved vitamin D status and maintained bone health
- Low drop-out rate

# Cambridge<sup>®</sup> Pro800

[www.cambridgepro800.co.uk](http://www.cambridgepro800.co.uk)



If you would like to know more about Cambridge Pro800, please contact Teresa Collier, Medical Sales Manager, on **07584 503527** or **01536 403344 extension 283**