

Summer Meeting, 4–6 July 2011, 70th Anniversary: From plough through practice to policy

## The financial costs of a healthy eating weight-loss diet

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A ‘healthy eating’ diet of low-energy density is one of the most effective ways of achieving long-term weight-loss and weight-loss maintenance. Highly energy dense (processed) foods tend to be cheaper, in terms of energy per unit cost, and per serving, than foods that are of low-energy density, such as fruits and vegetables. Therefore, the apparent cost of selecting a low-energy density, and healthier, diet may be a barrier to long-term weight-loss. This study compared the food purchase costs of a commercial healthy eating weight-loss (HEWL) programme (Slimming World) to habitual diets consumed to approximate energy balance.

Adult women (117) completed weighed intake food diaries over 3 d. Data from 188 women collected during three previous studies were used as representative of habitual diets<sup>(1–3)</sup>. Mean daily food purchase costs (p/d) and energy adjusted costs (p/MJ) were calculated from food prices collected during December 2009 and June 2010. Dietary energy density (ED), and weight, were calculated both including and excluding the contribution of drinks. BMR was estimated<sup>(4)</sup>. Differences between the two groups were compared using Student’s *t*-tests.

	Habitual <i>n</i> 188		HEWL <i>n</i> 117		<i>P</i>
	Mean	SD	Mean	SD	
Age (years)	41.4	12.1	45.6	13.0	0.005
Height (m)	1.63	0.13	1.63	0.06	NS
Weight (kg)	67.4	11.1	80.0	14.3	<0.001
BMI (kg/m <sup>2</sup> )	24.9	4.2	30.1	5.41	<0.001
Energy intake (MJ/d)	9.2	3.2	7.1	1.5	<0.001
Ein:BMR	1.58	0.56	1.13	0.26	<0.001
Weight (F&D) (g)	3046	1175	3266	922	0.086
ED (F&D) (kJ/100 g)	348	158	235	65	<0.001
Weight (F) (g)	1325	414	1428	419	0.037
ED (F) (kJ/100 g)	655	186	488	122	<0.001
Cost (p/day)	553	212	590	189	NS
Cost (p/MJ)	60.8	17.6	84.4	24.4	<0.001

ED, energy density. F&D, including the contribution of foods and drinks. F, including the contribution of food only.

The HEWL diet was of lower ED than the habitual diet, whether calculated excluding or including the contribution of drinks. The energy adjusted cost of the HEWL diet was more expensive than the habitual diet. However, even though the HEWL group consumed more food (by weight) the higher cost per MJ was offset by lower energy intakes (as intended) and there was no significant difference between the mean daily costs of the two diets.

A healthy eating weight loss diet based on foods of a low energy density need not result in a higher purchase cost compared to habitual diets and can, as previously shown<sup>(5)</sup>, promote higher food intake by amount (g) but lower energy intake.

Research relating to this article was part of the Diet, Obesity and Genes project (www.diogenes-eu.org) project funded by the European Commission (contract : Food-CT-2005–513946) in the Food Quality and Safety Priority of the Sixth Framework Program.

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