

## Habitual dietary intake of obese pregnant women in the UK

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One in five women of reproductive age in the UK is obese<sup>(1)</sup>, yet the habitual dietary intake of obese pregnant women is poorly understood and managed. A pilot study (UK Pregnancies Better Eating and Activity Trial (UPBEAT) and community based activity and nutrition programme (CAN)) is currently underway to determine the effects of dietary and physical activity intervention in obese pregnant women. The dietary component of the intervention aims to lower dietary glycaemic index (GI), saturated fat and non-milk extrinsic sugars (NMES) with advice delivered by a health trainer in eight structured sessions between 19 and 28 weeks gestation. This research aims to describe the baseline dietary intake of the UPBEAT and CAN participants.

Dietary data are collected using triple pass 24-h dietary recalls on six occasions; at baseline (15 and 16 weeks gestation), immediately post-intervention (at 28 and 29 weeks gestation) and at follow-up (36 and 37 weeks gestation) by research midwives trained in dietary assessment methods. Dietary data were analysed using WISP (version 3) dietary analysis software (Tinuviel).

Habitual dietary intake for 100 women at baseline is presented below in comparison with dietary reference values (DRV) for pregnancy and population values for women aged 19–64 included in the National Diet and Nutrition Survey. Mean BMI was 36.2 ± 5.8 kg/m<sup>2</sup>.

	Mean	SD	NDNS <sup>1</sup>	SD	DRV <sup>2</sup>
Energy intake (kcal)	1789	568	1645	480	1904
Dietary glycaemic index	58.4	5.3	56.5 <sup>3</sup>	–	–
Dietary glycaemic load	133.5	48.6	112.1 <sup>3</sup>	–	–
Protein (E%)	16.2	3.5	17.5	4.2	15
Fat (E%)	35.3	8.7	34.7	7.0	35
Carbohydrate (E%)	48.3	9.0	47.8	7.5	50
Fibre (NSP) (g)	11.4	4.8	13.0	4.8	18
Total sugars (g)	90.8	54.8	87.4	45.8	–
NMES (E%)	11.0	8.5	12.1	7.5	<10
SFA (E%)	12.4	3.9	12.6	3.4	10
MUFA (E%)	11.4	3.8	12.3	3.0	13
PUFA (E%)	5.9	2.7	6.4	–	6.5
PUFA:SFA ratio	0.55	0.28	0.51	–	–

<sup>1</sup>Values for % food energy from national diet and nutrition survey (NDNS) rolling programme (Women aged 19–64 years), <sup>2</sup>Dietary reference value for women aged 19–50 years (excluding alcohol and including adjustment for pregnancy where appropriate (Department of Health, 1991)), <sup>3</sup>values for glycaemic index and glycaemic load from the European Prospective Investigation into Cancer and Nutrition, E%: percentage contribution to total energy, NMES: non-milk extrinsic sugars.

These findings indicate that the macronutrient profile is similar to that from the general population and do not meet recommendations for fibre, NMES and SFA. Estimates of energy intake are below the DRV owing to a high proportion of under-reporting. Estimates of habitual dietary GI and glycaemic load were higher than values for women in the general UK population<sup>(2)</sup>. However, this study of obese pregnant women in the UK in 2010 provides no evidence to support assertions that the proportion of fat energy has increased in line with the obesity epidemic and the findings are similar to earlier reports in obese pregnant women<sup>(3)</sup>. These findings indicate that there is scope for decreasing the intake of SFA intake and glycaemic load in obese pregnant women in the UK as planned in the trial.

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