A comparison of food choice patterns in the usual diets of a sample of women with and without gestational diabetes mellitus

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Rising insulin resistance, common in all pregnancies, results in gestational diabetes mellitus (GDM) in 7.2% of pregnant women in the Illawarra region of NSW (1). Speculation that dietary differences may influence susceptibility to insulin resistance in pregnancy is supported by evidence that dietary modification can improve glycaemic control. However, little has been reported on the actual diets of these women. Clinical trials using different types of carbohydrate (CHO) suggest that the type of CHO-rich foods may be important (2). Epidemiological evidence further suggests patterns of whole food intake can indicate diet quality and predict susceptibility to disease (3).

The aim of this study was to assess differences in food choice patterns in the usual diets of 16 women diagnosed with GDM and a control group of 24 pregnant women. Data from diet history interviews were analysed for total energy and macronutrient intakes. Foods were categorized according to core food groups and specific food categories. The energy (kJ) and CHO (grams) contribution of these groups/foods to the total diet was assessed.

In this sample, no significant differences were found between groups for reported total energy or macronutrient intakes, although there was a trend for the GDM group to report lower energy and CHO intakes. The control group reported significantly higher CHO intakes from pasta, fruit juice and milk products ($P < 0.05$), which are recognized to lower glycaemic load.

Food Item	GDM[1]	Control[1]
Bread	51.4 ± 5.6	56.5 ± 4.4
Pasta	7.2 ± 1.4	13.7 ± 1.8*
Fruit	34.0 ± 7.1	28.5 ± 4.8
Fruit Juice	7.3 ± 3.1	24.4 ± 6.2*
Vegetables	16.9 ± 10.0	20.2 ± 14.5
Milk/Yoghurt	22.4 ± 3.4	33.1 ± 5.8
Milk Products (other)	1.6 ± 0.6	5.0 ± 1.3*

[1]mean intake (g) ± SD *$P < 0.05$.

These results indicate that, compared to healthy pregnant controls, the GDM women appeared to restrict their intakes of low GI CHO-rich foods. This may be an unnecessary response to the diagnosis of GDM and should be considered in future dietary advice to this group.

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