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The stability of food intake between adolescence and adulthood: a 21-year follow-up. By A.M. CRAIGIE, A.A. LAKE, C. WOOD, M. GIBBONS, S. WEBSTER, A.J. ADAMSON, A.J. RUGG-GUNN and J.C. MATHERS, *University of Newcastle, Human Nutrition Research Centre, Wellcome Research Laboratories, RVI, Queen Victoria Road, Newcastle upon Tyne NE1 4LP*

Studies of the diet of adolescents in the UK demonstrate that dietary habits known to be detrimental to health in adulthood are evident at an early age. For example, Gregory *et al.* (2000) found 4–18-year-olds in the UK to have a frequent consumption of fatty and sugary foods and a low consumption of fruit and vegetables. Concerns have therefore been expressed regarding the diet of children and adolescents and the continuation of these dietary habits into adulthood (HEA, 1995; Gaziano, 1998). This study aimed to investigate the extent to which these concerns may be justified by determining the stability of food intake in a group of adolescents followed up 21 years later in adulthood.

The investigation involved 202 individuals from whom dietary data were collected in 1979–80 (mean age 11.6 years) (Hackett *et al*. 1984) and again in 2000–1 (mean age 32.5 years). Dietary data were collected at both time-points using two 3 d estimated food diaries followed by an interview to determine portion sizes, using the method considered most appropriate at the time, i.e. calibrated food models in 1979–80 and a photographic food atlas (Nelson *et al.* 1997) in 2000–1. Foods consumed were allocated to one, or a combination of, the five food groups of the 'Balance of Good Health' food selection guide (HEA, 1994) according to Gatenby *et al.* (1995). The weight of food eaten from each of the five food groups was calculated (percentage of total weight of food consumed) and Pearson correlation coefficients generated to provide an estimate of the stability of food intake.

	11.6 years % Total food weight		32.5 years % Total food weight		11.6 years *v.* 32.5 years	
	Mean	SD	Mean	SD	Pearson correlation coefficient	*P*
Bread, other cereals and potatoes	30.4	7.0	29.9	6.8	0.24	<0.01
Foods containing fat and/or sugar	21.1	6.1	12.3	6.2	0.01	0.84
Fruit and vegetables	14.6	6.5	25.1	10.8	0.25	<0.01
Meat, fish and alternatives	16.7	5.3	17.1	6.4	0.17	0.02
Milk and dairy products	17.2	7.6	15.6	7.9	0.10	0.16

The HEA guide advises that a balanced diet should consist of around 33% fruit and vegetables, 33% bread, other cereals and potatoes, 8% foods containing fat and/or sugar, 12% meat, fish and alternatives and 15% milk and dairy products (Gatenby *et al.* 1995). A shift in the group's food intake towards the recommendations had occurred with age, most notably with a decrease in foods containing fat and/or sugar and an increase in fruit and vegetables. Nevertheless, at both ages, intakes of foods containing fat and/or sugar, meat, fish and alternatives were higher, and fruit, vegetables, bread, cereals and potatoes lower, than currently recommended. In addition, although there was significant evidence of tracking of relative intake of bread, other cereals and potatoes ($P<0.01$), fruit and vegetables ($P<0.01$), and meat, fish and alternatives ($P=0.02$) between 11.6 and 32.5 years, the correlations were not strong.

In conclusion, food intake patterns had changed considerably from early adolescence through to adulthood in a direction more in line with the current recommendations. The predictive value of an adolescent's food intake of their intake in adulthood was found to be significant, but not strong. Further investigations will consider the extent to which this is influenced by factors as such social class, gender and educational level as well as assessing tracking in terms of relative nutrient intake.

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Aggregation of diets containing fatty and sugary foods and fruit and vegetables within cohabiting couples. By A.A. LAKE, A.M. CRAIGIE, C. WOOD, M. GIBBONS, A.J. RUGG-GUNN, J.C. MATHERS and A.J. ADAMSON, *University of Newcastle, Human Nutrition Research Centre, Wellcome Research Laboratories, RVI, Queen Victoria Rd, Newcastle upon Tyne NE1 4LP*

Marriage and cohabitation brings together two independent food choice systems. Within this new system spousal preferences have an influence on both partners' food choices and nutritional intakes for an extended time period (Sobal *et al.* 2000). There is also a symbolic importance drawn from the fact that couples are eating together, as well as the complex issues of power and control over food choice, food purchase and preparation. This unit has the potential to influence eating patterns in children and may be an appropriate target for health promotion messages.

Dietary data were collected from eighty pairs of cohabiting partners. The individuals ranged in age from 21.4 to 45.2 years and were living within Tyne and Wear and Northumberland (70%) and throughout the rest of the UK (30%). Food intake data were collected at the same time for each partner, between 2000 and 2001, using two 3 d food diaries compiled approximately 6 months apart. A trained nutritionist interviewed the couples within 3 d of completing each diary and quantities of foods were estimated using a photographic food atlas (Nelson *et al*. 1997). Foods were assigned one of five food categories from 'The Balance of Good Health' food guide (HEA, 1994) according to Gatenby *et al.* (1995).

This analysis examines the dietary intake of the couples, by gender, examining their percentage contribution of foods containing fat and/or sugar and fruit and vegetables to their total food weight consumed. The mean percentage contribution of foods containing fat and/or sugar to total food weight consumed by males was 14.2% (SD 7.6, 95% CI 12.5–15.9) and lower for females, 12.4% (SD 6.3, CI 11.0–13.8). The percentage contributions were ranked and divided into tertiles, separately for men and women, and partners were compared as shown below.

Distribution of partners amongst tertiles for fat and/or sugar contributions to food weight

		Female partner		
		Lower tertile	Middle tertile	Upper tertile
Male partner	Lower tertile	12	9	5
	Middle tertile	7	13	7
	Upper tertile	7	5	15

Fruit and vegetables provided a higher proportion of intake for females than for males, 26.9% (SD 10.2, CI 24.6–29.2) and 21.5% (SD 9.0, CI 19.5–23.5), respectively.

Distribution of partners amongst tertiles for fruit and vegetables contributions to food weight

		Female partner		
		Lower tertile	Middle tertile	Upper tertile
Male partner	Lower tertile	17	4	5
	Middle tertile	7	13	7
	Upper tertile	2	10	15

Pearson's correlations were used to measure the strength of association between food group intakes between men and women. Significant correlations were seen for intakes of fatty and sugary foods ($P<0.01$, r +0.531) and for fruit and vegetables ($P<0.01$, r +0.566).

Previous work has indicated strong links between the diets of spouses or cohabiting adults (Kemmer *et al.* 1998). This work indicates that there are strong correlations between intake of the groups of foods containing fat and/or sugar and, in particular, fruits and vegetables consumed by couples. Further work examining the dynamics of the food relationship within families, social influences and correlations between dietary habits of couples and of parents and children is in progress.

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