

Newcastle University e-prints

Date deposited: 19 January 2010

Version of file: Author final

Peer Review Status: Peer reviewed

Citation for published item:

Craigie AM; Lake AA; Wood C; Gibbons M; Rugg-Gunn AJ; Mathers JC; Adamson AJ. [Tracking of adiposity and dietary intake from adolescence to adulthood: a longitudinal study](#). *International Journal of Obesity* 2003, **27** Suppl.1 S9-S9.

Further information on publisher website:

Nature Publishing Group

Publishers copyright statement:

The definitive version of this article, published by Nature Publishing Group, 2003

<http://dx.doi.org/10.1038/sj.ijo.0802335>

Use Policy:

The full-text may be used and/or reproduced and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not for profit purposes provided that:

- A full bibliographic reference is made to the original source
- A link is made to the metadata record in DRO
- The full text is not change in any way.

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

<p>Robinson Library, University of Newcastle upon Tyne, Newcastle upon Tyne. NE1 7RU. Tel. 0191 222 6000</p>

Tracking of adiposity and dietary intake from adolescence to adulthood: a longitudinal study

Craigie AM, Lake AA, Wood C, Gibbons M,

Rugg-Gunn AJ, Mathers JC and Adamson AJ

University of Newcastle upon Tyne, United Kingdom

Aims: To determine the extent to which adiposity, as measured by the body mass index (BMI), tracks from adolescence to adulthood and whether this is a reflection of the tracking of food and nutrient intake.

Methods: Height (m), weight (kg), BMI (kg/m²), food (% total food weight) and nutrient intake (g/d or mg/d) was measured in 202 men and women at 11-12 and 32-33 years. Tracking was assessed using Pearson Correlation analysis.

Results: Significant tracking was observed for BMI ($r=0.53$, $p<0.01$) and, in addition, 96% of those in the highest quartile of BMI at 11-12 years had become overweight or obese by 32-33 years. Of the 5 food groups from the Balance of Good Health plate model¹, 3 tracked significantly: fruit and vegetables ($r=0.25$, $p<0.01$), bread, other cereals and potatoes ($r=0.24$, $p<0.01$) and meat, fish and alternatives ($r=0.17$, $p<0.05$). Nutrient intake also tracked significantly, for example, with correlation coefficients of 0.16 ($p<0.05$) for fat, 0.25 ($p<0.01$) for total sugar and 0.29 ($p<0.01$) for vitamin C.

Conclusions: Relative BMI as an index of adiposity does track from adolescence to adulthood and this is reflected, in part, by significant tracking of food and nutrient intake.

1. Health Education Authority (1994) London, HMSO