What 3-year-olds eat affects their school performance many years later

School dinners have come under the spotlight recently, but new research suggests that diet in the pre-school years is even more important.

It shows that children who do poorly at school are more likely to have been affected by the food they ate many years earlier, rather than the turkey twizzlers they had at lunchtime.

Research from the Institute of Education and the Children of the 90s study shows that children who ate a diet of “junk food” at the age of 3, made less progress in school between the ages of 6 (Key Stage 1) and 10 (Key Stage 2).

“Junk” was defined as highly processed foods, take-aways, and foods high in fat and sugar such as crisps, sweets and fizzy drinks.

The 25% of children who ate the most junk food at age 3 were 10% less likely to achieve the expected levels of improvement between Key Stages 1 and 2, compared with the rest of the children.

The children’s diet at later ages appears to have had less impact on their school attainment.

It might be assumed that families in which children are given junk food could have other issues which could hold back their progress at school, such as low income or poor housing.

However, the research is based on data from The Children of the 90s (ALSPAC) study, which has been following the development of 14,000 children since birth in 1991/2. This data is so detailed, it allowed researchers to adjust the statistics to take account of these factors.

After these adjustments, the association remained between poor diet at 3 and comparatively slow progress at school several years later.

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“We are confident that this is a robust association”, says Dr Pauline Emmett of Children of the 90s. “It indicates that early eating patterns have effects that persist over time, regardless of later changes in diet.

“So it is very important for children to eat a well-balanced diet from an early age if they are to get the best out of their education.”

This press information is based on:
Dietary patterns related to attainment in school: the importance of early eating patterns. L Feinstein; R Sabates; A Sorhaindo; I Rogers; D Herrick; K Northstone; P Emmett. Journal of Epidemiology and Community Health 2008; 62;734-739.

Editors notes:

- ALSPAC The Avon Longitudinal Study of Parents and Children (also known as Children of the 90s) is a unique ongoing research project based in the University of Bristol. It enrolled 14,000 mothers during pregnancy in 1991-2 and has followed most of the children and parents in minute detail ever since.

- The ALSPAC study could not have been undertaken without the continuing financial support of the Medical Research Council, the Wellcome Trust, and the University of Bristol among many others.

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