

Processed food diet in early childhood may lower subsequent IQ

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A diet, high in fats, sugars, and processed foods in early childhood may lower IQ, while a diet packed full of vitamins and nutrients may do the opposite, suggests research published online in the *Journal of Epidemiology and Community Health*.

The authors base their findings on participants in the Avon [Longitudinal Study](#) of Parents and Children (ALSPAC), which is tracking the long term health and wellbeing of around 14,000 children born in 1991 and 1992.

Parents completed questionnaires, detailing the types and frequency of the food and drink their children consumed when they were 3, 4, 7 and 8.5 years old.

Three [dietary patterns](#) were identified: "processed" high in fats and sugar intake; "traditional" high in meat and [vegetable intake](#); and "health conscious" high in salad, fruit and vegetables, rice and pasta. Scores were calculated for each pattern for each child.

IQ was measured using a validated test (the Wechsler Intelligence Scale for Children) when they were 8.5 years old. In all, complete data were available for just under 4,000 children.

The results showed that after taking account of potentially influential factors, a predominantly processed food [diet](#) at the age of 3 was associated with a lower IQ at the age of 8.5, irrespective of whether the

diet improved after that age. Every 1 point increase in dietary pattern score was associated with a 1.67 fall in IQ.

On the other hand, a healthy diet was associated with a higher IQ at the age of 8.5, with every 1 point increase in dietary pattern linked to a 1.2 increase in IQ. Dietary patterns between the ages of 4 and 7 had no impact on IQ.

The authors say that these findings, although modest, are in line with previous ALSPAC research showing an association between [early childhood](#) diet and later behaviour and school performance.

"This suggests that any cognitive/behavioural effects relating to eating habits in early childhood may well persist into later childhood, despite any subsequent changes (including improvements) to dietary intake," they say.

The brain grows at its fastest rate during the first three years of life, say the authors, by way of a possible explanation for the findings, adding that other research has indicated that head growth at this time is linked to intellectual ability.

"It is possible that good nutrition during this period may encourage optimal brain growth," they suggest, advocating further research to determine the extent of the effect early diet has on intelligence.

Provided by British Medical Journal

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