

## Feeding your baby on demand 'may contribute to higher IQ'

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The difference between demand-fed and schedule-fed babies was about five IQ points, the researchers found.

(Medical Xpress) -- A new study involving Oxford researchers suggests that babies who are breast-fed or bottle-fed to a schedule do not perform academically as well at school as their demand-fed peers.

The finding is based on the results of <u>IQ tests</u> and school-based SATs tests carried out in <u>children</u> between the ages of five and 14. These show that demand feeding was associated with higher IQ scores. The IQ scores



of eight-year-old children who had been demand fed as <u>babies</u> were between four and five points higher than the scores of schedule-fed children, says the study published in the <u>European Journal of Public</u> Health.

This is the finding from the first ever large-scale study to investigate the long-term outcomes of schedule versus demand-fed babies. The study was carried out by Dr. Almudena Sevilla-Sanz, from the Centre for Times Use Research at the University of Oxford and the Institute for Social and Economic Research (ISER) at the University of Essex. However, the researchers urged caution in interpreting the findings.

Dr. Maria Iacovou, who led the research from ISER, said: "At this stage, we must be very cautious about claiming a causal link between feeding patterns and IQ. We cannot definitively say why these differences occur, although we do have a range of <a href="https://hypotheses">hypotheses</a>. This is the first study to explore this area and more research is needed to understand the processes involved."

Taking into account a wide range of background factors that include parents' educational level, family income, the child's sex and age, maternal health and parenting styles, the research finds that demand-feeding is associated with higher IQ scores at age eight, and this difference is also evident in the results of SATs tests at ages five, seven, 11 and 14. The study found that scheduled feeding times did have benefits for the mothers, however, who reported feelings of confidence and high levels of well-being.

"The difference between schedule and demand-fed children is found both in breastfed and in bottle-fed babies," explained Dr. Iacovou. "The difference in IQ levels of around four to five points, though statistically highly significant, would not make a child at the bottom of the class move to the top, but it would be noticeable.



"To give a sense of the kind of difference that four or five higher IQ points might make, in a class of 30 children, for example, a child who is right in the middle of the class, ranked at 15th, might be, with an improvement of four or five IQ points, ranked higher, at about 11th or 12th in the class."

The research, funded by the Economic and Social Research Council, is based on data from the Avon Longitudinal Study of <u>Parents</u> and Children (ALSPAC), a child development study of more than 10,000 children born in the early 1990s in the Bristol area.

The research looked at three types of mother and baby pairs: those where the baby was fed to a schedule at four weeks of age, those where the mother tried but did not manage to feed to a schedule, and those that fed on demand. The children of mothers who had tried to feed to a schedule, but did not, were found to have similar higher levels of attainment in SATs tests and IQ scores as demand-fed babies.

## Provided by Oxford University

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