

Breast milk and diet up to two years old: A means of preventing the risk of child obesity

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Many studies have focused on the influence of breast-feeding on child health. From analysis of data from the ELANCE cohort, Marie Françoise Rolland-Cachera, former researcher at Inserm and her co-workers in the Nutritional Epidemiology Research Team (EREN) have shown that breast-feeding has a protective effect on the risk of obesity at 20 years of age. Researchers also emphasise that nutritional intake at the age of 2 years are critical in providing this beneficial effect. The results of the study are published in *The Journal of Pediatrics*

Recent studies have focused on the influence of breast-feeding on the risk of the child developing obesity: results showed beneficial but still inconclusive trends. They adjusted their results by considering various factors such as social categories, the weight of parents, age of diversification, etc. but until now no study had made adjustment for nutritional intakes subsequent to breast-feeding. It has now been shown that nutrition during the first two years of life had long-term consequences on health that can persist into adulthood.

Researchers therefore studied relationships between breast-feeding and the risk of excess weight in adulthood by considering diet at 10 months and 2 years for children included in the ELANCE cohort.

The ELANCE Cohort started with children in good health, born in 1984 and 1985, recruited in Child Health Assessment Centres. Information on breast-feeding was gathered and nutritional intakes was assessed at ages 10 months and 2 years, then every two years up to the age of 20. At 20

years, several measurements were taken, including height, weight and body composition (measurements of lean mass and [fat mass](#) determined by impedancemetry).

The results show that the beneficial effect of breast-feeding is clearly seen when nutritional intake up to the age of 2 is considered and is significantly linked to a reduction in body fat at 20 years old. Furthermore, in the statistical model, higher fat intake at 2 years are linked to a reduction in fat mass at 20 years.

"Our study has therefore shown, for the 1st time, that if we take account of diet after the period of breast-feeding, the protective role of [breast milk](#) over the risk of obesity is clearly apparent," explains Marie Françoise Rolland-Cachera, former Inserm researcher.

The diet of [young children](#) is often characterised by high protein intake and low fat intake; breast milk is rich in fat and contains a small proportion of protein. According to official recommendations, fats should not be restricted in young children in order to meet their high energy requirements for growth and rapid development of their nervous system. In particular, low-calorie dairy products with low fat content and a high proportion of protein are not indicated before the age of 2-3 years. Restricted fats may programme the child's metabolism to deal with this deficit, but this adaptation will make it more likely become overweight when the [fat intake](#) increases later on.

"The beneficial effect of breast milk may be masked by a low-fat diet following breast-feeding, while a diet following official recommendations (no restriction in fats before the age of 2-3 years) allows its [beneficial effect](#) to appear" emphasises Sandrine Péneau, co-author of this work.

Researchers agree about the benefit of breast-feeding reducing the risk

of future obesity and highlight the importance of a diet following official recommendations in relation to young children. A poorly-balanced diet after breast-feeding can compromise the benefit provided by breast milk and explain the controversies over its protective role against the risk of obesity.

More information: The *Journal of Pediatrics*, 27 March 2014, [DOI: 10.1016/j.jpeds.2014.02.020](https://doi.org/10.1016/j.jpeds.2014.02.020)

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