

# Study shows any kind of breastfeeding helps lower BMI to prevent obesity

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Dr Miaobing (Jazzmin) Zheng is an Australian Research Council Discovery Early Career Research Award recipient at Deakin's Institute for Physical Activity and Nutrition (IPAN). She conducts research on what determines growth trajectories, early origins of obesity and the role of dietary and movement behaviours. Credit: Deakin University



In a new <u>research paper</u> published in *Advances in Nutrition*, Dr. Miaobing (Jazzmin) Zheng, from Deakin University's Institute for Physical Activity and Nutrition (IPAN), investigated how early nutrition can impact a baby's lifelong health, particularly their body mass index (BMI).

"Mounting evidence supports that breastfeeding plays a beneficial role in lowering <u>obesity</u> risk, but the enduring impact of breastfeeding on long-term BMI changes remains unclear," Dr Zheng says.

Dr Zheng analyzed existing research in breastfeeding versus formula feeding, breastfeeding duration, and BMI trajectories to understand the enduring impact of breastfeeding on BMI development across life span.

The findings reinforce the well-known link between babies being breastfed and lower BMI, indicating that exposure to breastfeeding in infancy and early childhood has positive knock-on effects later in life.

"Our [previous] <u>research</u> showed that rapid weight gain during infancy is a potent risk factor of later obesity. Breastfed children are less likely to experience <u>rapid weight gain</u> compared to formula-fed children during infancy, and in turn lower obesity risk across life."

The study also explored the impact of breastfeeding duration.

"When babies are breastfed for longer it accentuates the potential beneficial effects, thereby posing stronger protection against obesity.

"In addition, babies who are breastfed longer may be less likely to be introduced to solid foods before four months of age, which is a potential risk factor for obesity," Dr Zheng says.

## **Protein and hormones**



Breastmilk also has a lower <u>protein content</u> than infant formula and includes special bioactive elements that might help protect against obesity.

Dr Zheng's <u>previous research</u> showed consuming too much protein in infancy is linked with higher obesity risk later in life.

Other research has also shown breastmilk contains appetite regulating hormones such as grehlin. As a result, <u>breastfed infants</u> have better appetite regulation and lower risk of excess energy intake and weight gain.

Previous research also showed breastfed children tend to have better food choices, which can also help reduce obesity risk.

"Our paper contributes further robust longitudinal evidence from cohort studies to support infant feeding guidelines, public health initiatives, and interventions to promote and support longer duration of exclusive or any breastfeeding," Dr Zheng says.

"Future research should be undertaken to explore potential strategies to promote breastfeeding rates and continuation at individual, community, and policy levels."

## Avoiding formula feeding guilt

The advice of "breast is best" can lead to feelings of shame or guilt for parents who are unable to or are not planning to breastfeed.

About 80% of parents in Australia introduce formula within the first year of life.



Dr Zheng says while breastfeeding is the recommended approach for infant feeding, it's important to note that any breastfeeding is beneficial to both baby and mum.

If <u>breastfeeding</u> is not possible, alternative commercial infant formula should be provided until baby is 12 months old.

Plus, there are several things' parents using formula can do to promote optimal growth for their baby.

The recommendations from Dr Zheng's colleagues at Deakin's INFANT program include:

- Choose a formula with the lowest amount of protein—breastmilk contains about 1–1.1g of protein per 100ml. Infant formulas available in Australia have a protein content within the range of 1.3–2g per 100ml, so choosing a formula at the lower end of this range is preferable.
- Follow preparation instructions carefully—it's important that instructions on the tin are followed to make up the formula so it isn't under or over concentrated.
- Follow the baby, not the clock—babies will vary in how often they want to feed, and this is normal. The information on the formula tin about how much and how often to feed is a guide only.
- Phase out bottles by 12 months of age—parents can introduce a "sippy" or training cup at 6 months and try to phase out bottles, as prolonged use is associated with higher risk of later overweight and obesity.

**More information:** Miaobing Zheng et al, Breastfeeding and the Longitudinal Changes of Body Mass Index in Childhood and Adulthood: A Systematic Review, *Advances in Nutrition* (2023). DOI:



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