

“Every feed counts”: Breastfeeding may protect against obesity in early life

WINNIPEG, MB (24 September 2018)

New Canadian research has found that infants who are breastfed have a reduced risk of being overweight in the first year of life—and that the protective association is stronger with longer and more exclusive breastfeeding.

“We found that the risk of overweight at 12 months of age was over three times higher among infants who were not breastfed (8.3% overweight) compared with infants who were exclusively breastfed (2.4% overweight) for the first six months of life,” said Dr. Meghan Azad, the University of Manitoba investigator who led the study. “It’s important to note that in our study, the protective effects of breastfeeding were ‘dose dependent,’ meaning that babies who were partially breastfed also received some benefit, so ‘every feed counts.’”

[The study](#), published in the October 2018 *Pediatrics*, looked at both body mass index (BMI) and the rate of infant weight gain—an important predictor of future obesity and cardiovascular health.

Dr. Azad is an AllerGen investigator, a Canada Research Chair in Developmental Origins of Chronic Disease at the University of Manitoba, and a research scientist at the Children’s Hospital Research Institute of Manitoba (CHRIM). The research was conducted in collaboration with the London School of Hygiene & Tropical Medicine in London, UK.

Dr. Azad’s team used data from more than 2,500 infants and their mothers participating in the CHILD Study—a Canadian birth cohort study that is tracking children from before birth to school age and beyond to identify the root causes of asthma, allergy, obesity and other chronic conditions. Dr. Azad co-leads the Manitoba site of the CHILD Study.

Newborn feeding was documented from hospital records, and families enrolled in the CHILD Study provided information about their babies’ breastfeeding status and diet at birth, and at three, six, 12, 18 and 24 months of age.

“Our study also found that the *method* of feeding breastmilk matters,” Dr. Azad commented. “Feeding expressed breastmilk from a bottle appeared to have a weaker beneficial effect on infant weight compared with direct feeding at the breast, although expressed milk was still beneficial compared to infant formula.” She suggests that possible explanations for the differences between direct and indirect breastfeeding include: the routine steps between pumping and feeding breastmilk (freezing, thawing and heating) may degrade the bioactive components of breastmilk; or infants who are fed at the breast may have better self-regulation of milk intake.

The study also uniquely distinguished between partial breastfeeding mixed with formula *versus* partial breastfeeding mixed with foods. “Breastfed infants supplemented with formula were at increased risk for becoming overweight at one year of age compared to breastfed infants supplemented with solid foods between five to six months,” adds Dr. Azad.

“Ultimately, our hope is that this research will help to inform and optimize infant feeding guidelines, and promote programs and policies to support direct breastfeeding, such as paid maternity leave. Together, these measures could have a meaningful impact on preventing childhood obesity.”

About the CHILD Study: Launched in 2008 by CIHR and [AllerGen NCE](#), the [CHILD Study](#) is tracking thousands of Canadian families and their infants over early childhood to help determine the root causes of chronic diseases, such as asthma, allergies and obesity. With its National Coordinating Centre based at St. Joseph’s Healthcare Hamilton, the CHILD Study relies upon the world-recognized expertise in birth cohorts, and in allergy and asthma treatment, care and training, of McMaster University and its Faculty of Health Sciences, together with their affiliated teaching hospitals, Hamilton Health Sciences and St. Joseph’s Healthcare Hamilton. The CHILD Study spans four provinces, involving over 140 multidisciplinary researchers, students and research staff. [Watch the CHILD Study videos](#).

About the Children’s Hospital Research Institute of Manitoba: The Children’s Hospital Research Institute of Manitoba was established in 2001. [CHRIM](#) is the research division of the Children’s Hospital Foundation of Manitoba. At the Institute, more than 270 world-class pediatric medical researchers, technical staff, students and support staff are involved in over \$10 million of research and clinical trial activity each year.

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