

Breastfeeding helps counteracts BMI gain in children at high risk for obesity

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For people whose genes put them at risk of becoming obese, exclusive breastfeeding as a baby can help ward off weight gain later in life. Laurent Briollais of Mount Sinai Hospital and the University of Toronto and colleagues report these findings in a new study published June 11th in *PLOS Genetics*.

A growing body of research suggests that [babies](#) who consume only breastmilk are less likely to be overweight as children or adults, but the reasons behind this and other benefits of [breastfeeding](#) are not well understood. Briollais and colleagues investigated whether the weight-reducing impact of breastmilk can counteract the effects of genetic variations that increase the odds that a person will become obese. The researchers looked at [genetic data](#) and the body mass index (BMI) of more than 5,000 children from the ALSPAC study in the UK. In 18-year-old boys whose genes put them in the "high-risk" category for [obesity](#), exclusive breastfeeding until 5 months of age reduced their BMI by 1.14 kg/m². In girls, the impact was even larger, with a reduction of 1.53 kg/m². Breastfeeding exclusively until 3 months of age, or a mix of breastmilk and formula, did not cause the

same BMI reduction in high-risk individuals.

The World Health Organization recommends that all babies be breastfed exclusively until 6 months of age, but globally, only about 40 percent of babies breastfeed until this age. The new findings reinforce the WHO's recommendation and suggest that a longer duration of exclusive breastfeeding may have the greatest benefits for individuals with a high risk of obesity.

"Obesity is a global problem that is causing a drop in wellness that is straining our [health systems](#)," said Dr. Briollais. "Our study shows that while our genes do influence our risk of developing obesity, this predisposition is not irreversible and can be beneficially modified by exclusive breastfeeding."

The authors urge that, from a public health standpoint, breastfeeding should be a priority for babies who are most at risk, to set them on the right path for growth and development and to reduce the risk of obesity-associated diseases as adults.

More information: Wu Y, Lye S, Dennis C-L, Briollais L (2020) Exclusive breastfeeding can attenuate body-mass-index increase among genetically susceptible children: A longitudinal study from the ALSPAC cohort. *PLoS Genet* 16(6): e1008790. doi.org/10.1371/journal.pgen.1008790

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