

Unraveling the scientific basis of the infant feeding axiom 'breast is best'

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Scientists are making strides toward unraveling the surprisingly complex chemistry underpinning that axiom of infant feeding "breast is best," according to an article in the current edition of *Chemical & Engineering News*. C&EN is the weekly newsmagazine of the American Chemical Society, the world's largest scientific society.

Jyllian Kemsley, C&EN senior editor, points out that their findings reveal many intriguing and sometimes counterintuitive ways in which sugars, proteins and fat in milk interact with microbes in infants' intestines to nourish [babies](#) and protect their health. For instance, scientists have discovered that [breast milk](#) contains oligosaccharides, complex sugars that babies can't even digest. It turns out these oligosaccharides, rather than providing nutritional value directly to infants, actually confers protection. They feed beneficial intestinal bacteria that seem to crowd out harmful E. coli strains that might otherwise thrive.

This multifaceted research includes an approach termed "diaper diagnostics," in which scientists glean information from infants' urine and feces. The breast milk projects are important for figuring out how best to nourish [infants](#) who aren't breastfed, especially premature babies, 10 percent of whom contract an intestinal disease that can be life-threatening. Based on findings so far, one research team is developing probiotics and testing them in neonatal units to see if they help guard against harmful infections.

The article makes clear that a more complete understanding of breast milk content and its effect on gut bacteria could help give more babies a healthier start.

More information: "Deconstructing Breast Milk"
[cen.acs.org/articles/91/i27/Br ... -Toward-Preemie.html](https://cen.acs.org/articles/91/i27/Br...-Toward-Preemie.html)

Provided by American Chemical Society

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