## What's Human Milk Good For?

Susan Hepworth and Mitchell Goldstein, MD



Protecting Access for Premature Infants through Age Two

The National Coalition for Infant Health is a collaborative of more than 180 professional, clinical, community health, and family support organizations focused on improving the lives of premature infants through age two and their families. NCfIH's mission is to promote lifelong clinical, health, education, and supportive services needed by premature infants and their families. NCfIH prioritizes safety of this vulnerable population and access to approved therapies.

Dubbed "liquid gold," human milk offers a nutritional elixir for infants. And that has researchers asking an intriguing question: How else could human milk be used to optimize health?

They aren't the first to wonder. As reported by STAT News, some cancer patients have tried drinking breastmilk in hopes of therapeutic benefits.(1) And bodybuilders have purportedly tried it in hopes of boosting their muscle mass with the milk's dense nutritional content. Neither has proven effective.

"But several research organizations are investigating the use of human milk for the health of infants and children – from improving the efficiency of vaccines to providing the cellular foundation of new medicines."

But several research organizations are investigating the use of human milk for the health of infants and children – from improving the efficiency of vaccines to providing the cellular foundation of new medicines.

A team of researchers based at Carnegie Mellon University, for instance, is exploring how breast milk cells manage to get from an infant's intestinal tract to other areas of the body. (2) Solving the mystery could be the first step toward using breast milk or its cells to target conditions affecting various parts of the infant's body. Meanwhile, a team at Baylor College of Medicine is studying the relationship between the sugars in breastmilk and the GI infection known as rotavirus. (3)

Interest in the research stems in part from growing awareness of human milk's known powers. In addition to boosting immunity for infants and providing an optimal source of nutrition, human milk reduces the impact of the deadly intestinal infection NEC, or necrotizing enterocolitis – especially in premature infants.

And that begs the question: If the benefit of human milk is so obvious that researchers are searching for additional uses, why can many infants, including preemies, still not access it? Because mothers of preemies typically cannot produce the quality or quantity of breast milk their infant needs, the use of donor human milk or human-milk based fortifiers can be critical in giving those babies optimal nutrition.

But not all hospitals offer donor milk or human milk-based fortifiers, and not all health plans cover the related costs. Meanwhile, mothers who want to breastfeed may not have access to a hospital-grade breast pump to make that possible.

New uses for human milk present an exciting prospect. But while researchers continue exploring those possibilities for the future, policymakers would do well to make human milk and human milk-based fortifiers more widely available to the infants and preemies who could benefit from them now.

## References:

- https://www.statnews.com/2018/12/18/breast-milk-therapeutics/
- 2. <a href="http://whitehead.cheme.cmu.edu/research.html">http://whitehead.cheme.cmu.edu/research.html</a>
- https://www.bcm.edu/news/pediatrics/mothers-milk-neonatal-rotavirus-infection

The authors have no relevant disclosures.

NT



Susan Hepworth
Director
National Coalition for Infant Health
1275 Pennsylvania Ave. NW, Suite 1100A
Washington, DC 20004
info@infanthealth.org



Mitchell Goldstein, MD
Professor of Pediatrics
Loma Linda University School of Medicine
Division of Neonatology
Department of Pediatrics
mgoldstein@llu.edu