

Human Milk Fortification – Evidence Related to Bovine vs Human-Milk Derived Bibliography

Brown JV, Lin L, Embleton ND, Harding JE, McGuire W. Multi-nutrient fortification of human milk for preterm infants. *Cochrane Database Syst Rev.* 2020;6(6):CD000343. doi:10.1002/14651858.CD000343.pub4

Colaizy T, Bell E, Carlo W, et al. Donor Human Milk vs. Preterm Formula in ELBW infants: Neurodevelopment. 2012. ClinicalTrials.gov NCT01534481. Available at https://www.nichd.nih.gov/sites/default/files/about/Documents/Milk_Protocol.pdf

Cristofalo EA, Schanler RJ, Blanco CL, et al. Randomized trial of exclusive human milk versus preterm formula diets in extremely premature infants. *J Pediatr.* 2013;163(6):1592-1595.e1. doi:10.1016/j.jpeds.2013.07.011

Eibensteiner F, Auer-Hackenberg L, Jilma B, Thanhaeuser M, Wald M, Haiden N. Growth, feeding tolerance and metabolism in extreme preterm infants under an exclusive human milk diet. *Nutrients.* 2019;11(7):1443. doi:10.3390/nu11071443

Embleton ND, Sproat T, Uthaya S, et al. Effect of an exclusive human milk diet on the gut microbiome in preterm infants: A randomized clinical trial. *JAMA Netw Open.* 2023;6(3):e231165. doi:10.1001/jamanetworkopen.2023.1165

Ford SL, Lohmann P, Preidis GA, et al. Improved feeding tolerance and growth are linked to increased gut microbial community diversity in very-low-birth-weight infants fed mother's own milk compared with donor breast milk. *Am J Clin Nutr.* 2019;109(4):1088-1097. doi:10.1093/ajcn/nqz006

Fu TT, Kaplan HC, Fields T, Folger AT, Gordon K, Poindexter BB. Protein enrichment of donor breast milk and impact on growth in very low birth weight infants. *Nutrients.* 2021;13(8):2869. doi:10.3390/nu13082869

Hair AB, Blanco CL, Moreira AG, et al. Randomized trial of human milk cream as a supplement to standard fortification of an exclusive human milk-based diet in infants 750-1250 g birth weight. *J Pediatr.* 2014;165(5):915-920. doi:10.1016/j.jpeds.2014.07.005

Hopperton KE, Pitino MA, Chouinard-Watkins R, et al. Determinants of fatty acid content and composition of human milk fed to infants born weighing <1250 g. *Am J Clin Nutr.* 2021;114(4):1523-1534. doi:10.1093/ajcn/nqab222

Koletzko B, Cheah FC, Domellöf M, van Goudoever JB, Poindexter BB, Vain N. *Nutritional Care of Preterm Infants: Scientific Basis and Practical Guidelines*, 2nd Ed. *World Rev Nutr Diet.* 2021;122:XIII-XIV. doi:10.1159/000514773

Koletzko B, Wiecek S, Domellöf M, Poindexter BB. Defining nutritional needs of preterm infants. *World Rev Nutr Diet.* 2021;122:5-11. doi:10.1159/000514739

Kumbhare SV, Jones WD, Fast S, et al. Source of human milk (mother or donor) is more important than fortifier type (human or bovine) in shaping the preterm infant microbiome. *Cell Rep Med.* 2022;3(9):100712. doi:10.1016/j.xcrm.2022.100712

Lucas A, Cole TJ. Breast milk and neonatal necrotising enterocolitis. *Lancet.* 1990;336(8730):1519-1523. doi:10.1016/0140-6736(90)93304-8

Lucas A, Boscardin J, Abrams SA. Preterm infants fed cow's milk-derived fortifier had adverse outcomes despite a base diet of only mother's own milk. *Breastfeed Med.* 2020;15(5):297-303. doi:10.1089/bfm.2019.0133

O'Connor DL, Gibbins S, Kiss A, et al; GTA DoMINO Feeding Group. Effect of supplemental donor human milk compared with preterm formula on neurodevelopment of very low-birth-weight infants at 18 months: A randomized clinical trial. *JAMA.* 2016;316(18):1897-1905. doi:10.1001/jama.2016.16144

O'Connor DL, Kiss A, Tomlinson C, et al; OptiMoM Feeding Group. Nutrient enrichment of human milk with human and bovine milk-based fortifiers for infants born weighing <1250 g: a randomized clinical trial. *Am J Clin Nutr.* 2018;108(1):108-116. doi:10.1093/ajcn/nqy067. Erratum in: *Am J Clin Nutr.* 2019;110(2):529. Erratum in: *Am J Clin Nutr.* 2020;111(5):1112

Perrin MT. Donor human milk and fortifier use in United States level 2, 3, and 4 neonatal care hospitals. *J Pediatr Gastroenterol Nutr.* 2018;66(4):664-669. doi:10.1097/MPG.0000000000001790

Human Milk Fortification – Evidence Related to Bovine vs Human-Milk Derived

Picaud JC, Vincent M, Buffin R. Human milk fortification for preterm infants: A review. In: Koletzko B, Cheah FC, Domellöf M, Poindexter BB, Vain N, van Goudoever JB, eds. *Nutritional Care of Preterm Infants: Scientific Basis and Practical Guidelines*, 2nd ed. 2021:225–247. doi:10.1159/000514773

Quigley M, Embleton ND, McGuire W. Formula versus donor breast milk for feeding preterm or low birth weight infants. *Cochrane Database Syst Rev*. 2019;7(7):CD002971. doi:10.1002/14651858.CD002971.pub5

Vieira AA, Soares FV, Pimenta HP, Abranches AD, Moreira ME. Analysis of the influence of pasteurization, freezing/thawing, and offer processes on human milk's macronutrient concentrations. *Early Hum Dev*. 2011;87(8):577-580. doi:10.1016/j.earlhumdev.2011.04.016

Vohr BR, Poindexter BB, Dusick AM, et al; National Institute of Child Health and Human Development National Research Network. Persistent beneficial effects of breast milk ingested in the neonatal intensive care unit on outcomes of extremely low birth weight infants at 30 months of age. *Pediatrics*. 2007;120(4):e953-959. doi:10.1542/peds.2006-3227

Sullivan S, Schanler RJ, Kim JH, et al. An exclusively human milk-based diet is associated with a lower rate of necrotizing enterocolitis than a diet of human milk and bovine milk-based products. *J Pediatr*. 2010;156(4):562-567.e1. doi:10.1016/j.jpeds.2009.10.040

Tabata M, Abdelrahman K, Hair AB, Hawthorne KM, Chen Z, Abrams SA. Fortifier and cream improve fat delivery in continuous enteral infant feeding of breast milk. *Nutrients*. 2015;7(2):1174-1183. doi:10.3390/nu7021174

Unger S, Gibbins S, Zupancic J, O'Connor DL. DoMINO: Donor milk for improved neurodevelopmental outcomes. *BMC Pediatr*. 2014;14:123. doi:10.1186/1471-2431-14-123



ANNENBERG CENTER FOR HEALTH SCIENCES
AT EISENHOWER
Imparting knowledge. Improving patient care.

This activity is supported by an educational grant from **Mead Johnson Nutrition.**