



ABSTRACT

## Human milk oligosaccharides (HMOS) for infant health and microbiome development

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HMO stands HUMAN MILK OLIGOSACCHARIDES, which act as a prebiotic found naturally in breastmilk. They are the third largest solid component in breast milk after lactose and fat. HMOs feed only beneficial bacteria in the gut of infants and children. Through scientific innovation, structurally identical HMOs to that found in breastmilk can now be created and supplemented in infant formula and supplement for infants and children. Recent research has highlighted the various functional roles of HMOs in infant development, including as prebiotics by promoting growth of beneficial intestinal bacteria thereby generating short-chain fatty acids which are very important for gut health. HMOs also play a central role in the development of the neonatal immune system by promoting healthy microbial diversity, preventing pathogen attachment, stimulating maturation of intestinal epithelial surface and by modulating the immune cells.

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**Keywords:** breast milk, human oligosaccharides, immunity, prebiotics

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