

**Abstract:** Human milk oligosaccharides (HMOs) contain numerous biomolecules. It is the third most abundant solid component of breast milk, after lactose and lipids, that plays an important role in infant growth and the development of life. Several studies have reported the health benefits of which include modulation of the intestinal adhesive effect against pathogens, modulation of the intestinal epithelial cell response, development of the immune system, increasing the intestinal barrier and so many health benefits can be achieved through the presence of HMOs in breast milk. Infant growth is indirectly directly on so many compounds of the biological and chemical composition of mother milk, HMOs are one of them. The genetic background of the mothers and the diversity of HMOs are determined and the non-secreting mothers HMOs than secreting mothers. The breastfed infants of secreting mothers gain more health benefits than those of mothers. The study critically the role of HMOs in proper growth, immune system, and development in infants: the impact of infants at 1d toddlers. The study also focuses on current knowledge of the HMOs study and the beneficial effect of HMOs types and their importance to infant growth and protection against NEC. HMOs are applied now in infant to imitative nutrition composition of breast milk and their study and challenges are vastly discussed in a specific manner in the human study, In it is stated that supplementation of infant formula with 2'-FL LNnT is a promising innovation for infant nutrition.