



THE INFANT MICROBIOME

In the first 2 years of life, the infant intestinal tract progresses from sterility to extremely dense colonization, ending with a mixture of microbes that is similar to that found in the adult intestine . Studies have shown that babies who breastfeed have different gut flora than those that are bottle-fed.

Though much of this difference is due to the milk's microbiome (see table at right), breast milk also contains a unique type of sugars, **human milk oligosaccharides** (HMOs), which are not present in infant formula .

HMOs are not digested by the infant, but help to influence the intestinal flora. They act as decoy receptors that block the attachment of disease-causing pathogens, which may help to prevent infectious diseases.

They also alter immune cell responses, which may benefit the infant.

Bacteria found in colostrum
Weissella
Leuconostoc
Staphylococcus
Streptococcus
Lactococcus
Bacteria found in mature milk
Veillonella
Leptotrichia
Prevotella 

DIG DEEPER

"Breastfeeding the Microbiome," by Ed Yong. *The New Yorker*. 2016.



Image 2. Online Screenshot of Breastfeeding Course for Medical Students