



Breastfeeding Benefits Your Baby's Immune System

By: Claire McCarthy, MD, FAAP

Breast milk is the food naturally designed to best meet the needs of human babies. It has all the necessary nutrients, in just the right amounts, and is easy to digest. Beyond the nutritional benefits, here's a great bonus: Breast milk also helps build and support your baby's immune system. Read on to learn how.



Breast milk: food & infection fighter

Breast milk contains antibodies that can fight infection. Those antibodies are present in high amounts in colostrum (</English/ages-stages/baby/breastfeeding/Pages/Colostrum-Your-Babys-First-Meal.aspx>), the first milk that comes out of the breasts after birth. However, there are antibodies in breastmilk the entire time a mother continues to nurse. Through these antibodies, the mother can pass on some protection from infectious illness she had in the past, and those she gets while breastfeeding. Breast milk can literally give babies a head start in preventing and fighting infections.

Breast milk also is made up of other proteins, fats, sugars and even white blood cells that work to fight infection in many different ways. They are especially helpful in fighting gastrointestinal infections, since breast milk heads right to the stomach and intestine when your baby eats. The different factors in breast milk work directly within the intestine before being absorbed and reaching the entire body. This also sets the stage for a protective and balanced immune system that helps recognize and fight infections and other diseases even after breastfeeding ends.

Other factors in breast milk directly stimulate and support the immune system. These include lactoferrin and interleukin-6, -8 and -10. These proteins help to balance the immune system inflammatory response, which is needed for immune function but can be damaging in excess.

There's even evidence that nursing mothers who are vaccinated against COVID-19 can pass along antibodies to the virus through breast milk. Although it's not proven, these antibodies may help protect babies too young (</English/tips-tools/ask-the-pediatrician/Pages/when-can-children-get-the-COVID-19-vaccine.aspx>) for the vaccine. (See *Breastfeeding During the COVID-19 Pandemic* (</English/health-issues/conditions/COVID-19/Pages/Breastfeeding-During-COVID-19.aspx>).")

Is breastmilk probiotic?

Breast milk has "probiotic" factors, too. Some support the immune system and others serve as a nutrient source for healthy bacteria in the body, called the human microbiome. The healthy microbiome can play a lifelong role in not only preventing infection, but also in decreasing the risk of allergies, asthma (</English/health-issues/conditions/allergies-asthma/Pages/default.aspx>), obesity (</English/health-issues/conditions/obesity/Pages/default.aspx>) and other chronic diseases.

With all these immunity-boosting factors in breast milk, it is not surprising that breastfed babies are less likely to suffer from ear infections, vomiting, diarrhea, pneumonia, urinary tract infections, and certain types of meningitis (</English/health-issues/conditions/head-neck-nervous-system/Pages/Meningitis.aspx>). Research also shows that children who nurse for more than six months are less likely to develop childhood leukemia and lymphoma (</English/health-issues/conditions/cancer/Pages/Childhood-Cancer.aspx>) than those who receive formula. This may be in part because these types of cancer are affected by disruptions to the immune system.

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To help keep babies healthy, communities can take steps to support mothers who choose to breastfeed their babies. This can include offering paid leave and giving employees places and time to pump breast milk. If you're breastfeeding your baby or have any questions, never hesitate to talk with your pediatrician. If you can't breastfeed, or for personal reasons choose not to, talk to your pediatrician about the many other ways to support your baby's health.

More information

- [Breastfeeding: AAP Policy Explained \(/English/ages-stages/baby/breastfeeding/Pages/Where-We-Stand-Breastfeeding.aspx\)](#)
- [Breastfeeding During the COVID-19 Pandemic \(/English/health-issues/conditions/COVID-19/Pages/Breastfeeding-During-COVID-19.aspx\)](#)

About Dr. McCarthy



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