

# THE EFFECT OF BREASTFEEDING 0-12 MONTH INFANTS AGAINST COVID-19

Savannah P. Gunter, Tennessee Tech University  
Faculty Advisor: Allison B. Coutinho, MS, RDN, LDN

## INTRODUCTION

Breastfeeding is recommended for the first six months of life, and then it is suggested to continue breastfeeding while introducing complementary foods all the way up to twelve months of age or beyond.<sup>1</sup> Breastfeeding is recommended because it supplies the infant with the proper nutrition to support growth and development.<sup>1</sup> As the infant grows and changes, the breastmilk will change with the infant to best fit the needs of the baby. Along with this, breastfeeding helps to support the immune system of the infant. Breastfeeding has been shown to reduce the occurrence and severity of some illnesses due to antibodies in the breast milk. The antibodies are found in the colostrum of the milk, which is what the baby receives from the breast directly after birth.<sup>2</sup> After three to five days, the colostrum matures into breastmilk.<sup>3</sup> The breast milk then continues to support and nourish the infant. Breastfeeding has been linked to lowering the risk of asthma, obesity, type 1 diabetes, ear infection, sudden infant death syndrome, and gastrointestinal illnesses.<sup>1</sup>

## METHOD

-The Journal of Academy of Nutrition and Dietetics, the TTU Eagle Search database, Google, and Google scholar were used to obtain literature for this paper.

-The time frame for literature was within the last 10 years, and it had to be peer reviewed.

-Key terms searched were as follows: “breastfeeding and COVID-19”, “COVID-19”, and “breastfeeding and the immune system”.

**Breastfeeding is recommended because it supplies the infant with the proper nutrition to support growth and development.<sup>1</sup> Breastfeeding is a proven way to help fight against short and long-term illnesses. However, a new illness arose in 2019 that led many people and healthcare workers to a land of uncertainty. This illness is COVID-19. In cases of other illnesses, studies showed that breastfeeding could help fight off infection, however, healthcare professionals were unsure about COVID-19, and if it could be contracted from the mother’s breast milk. What did this mean for breastfeeding mothers and their infants?**

## References

1. CDC Recommendations and Benefits. Centers for Disease Control and Prevention. Published July 9, 2021. Accessed October 11, 2021. <https://www.cdc.gov/nutrition/infantandtoddlernutrition/breastfeedingrecommendations-benefits.html>
2. Breastfeeding Benefits Your Baby's Immune System. HealthyChildren.org. Published 2021. Accessed October 11, 2021. <https://www.healthychildren.org/English/ages-stages/baby/breastfeeding/Pages/Breastfeeding-Benefits-Your-Baby's-Immune-System.aspx>
3. Breastfeeding and Delayed Milk Production. Published 2021. Accessed October 11, 2021. <https://www.honkingsmedicine.org/health/conditions-and-diseases/breastfeeding-and-delayed-milk-production>
4. World Health Organization: WHO. Coronavirus. Who.int. Published January 10, 2020. Accessed October 11, 2021. [https://www.who.int/health-topics/coronavirus#tab=tab\\_1](https://www.who.int/health-topics/coronavirus#tab=tab_1)
5. Talking to Recipients about COVID-19 Vaccination. Published 2021. Accessed October 11, 2021. <https://www.cdc.gov/waoc/waoc/covid-19/index.html>
6. Le Doare K, Holder B, Bassett A, Panaraj PS. Mother's Milk: A Purposeful Contribution to the Development of the Infant Microbiota and Immunity. *Frontiers in Immunology*. 2018;9: 1-11. doi:10.3389/fimmu.2018.00361
7. Romagnani S. Th1/Th2 Cells. *Inflammatory Bowel Diseases*. 1999;5(4):285-294. doi:10.1097/00054725-199911000-00009
8. Vassilopoulou E, Feketea G, Koumbi L, Mesari C, Bergha EC, Konstantinou GN. Breastfeeding and COVID-19: From Nutrition to Immunity. *Frontiers in Immunology*. 2021;12. doi:10.3389/fimmu.2021.661806
9. Blood Test: Immunoglobulins (IgA, IgG, IgM) (for Parents) - Nemours KidsHealth. Kidshealth.org. Published 2020. Accessed November 9, 2021. <https://kidshealth.org/en/parents/test-immunoglobulins.html>
10. Gribble K, Marinelli KA, Tomori C, Gross MS. Implications of the COVID-19 Pandemic Response for Breastfeeding, Maternal Caregiving Capacity and Infant Mental Health. *Journal of Human Lactation*. 2020;36(4):591-603. doi:10.1177/0890334420949514
11. COVID-19 vaccines. Nih.gov. Published October 18, 2021. Accessed November 21, 2021. <https://www.ncbi.nlm.nih.gov/books/NBK565969/>

## RESULTS

- Even though COVID-19 is still a threat, it is better for the infant to be breastfed, whether it is directly from the mother's breast or expressed and given by a bottle.
- The benefits of continuing to breastfeed during COVID-19 outweigh the risks.
- SARS-CoV-2 is not an infection that can be passed from mother to infant through the breast milk.
- More research needs to be done in order to further identify the risks of SARS-CoV-2 infection during breastfeeding.



## DISCUSSION

- The breastfeeding guidelines, according to the World Health Organization (WHO), are that infants should be placed skin-to-skin with their mother directly after birth, breastfeeding should be initiated within one hour after birth, and infants should room day and night with their mother to encourage frequent nursing.<sup>10</sup>
- Prohibiting infants and mothers from skin-to-skin contact impedes breastfeeding.<sup>10</sup>
- There was no discovered evidence that the mothers who received the COVID-19 vaccine are harmful to the mother, the breastmilk, or the breastfeeding infant. It was found that antibodies appeared in the breast milk after the mother received the vaccine.