

# Your milk, Breastfeeding, and COVID-19 – What do we know from today's science?

## A comprehensive review of what we know from the clinical evidence to date

Mitoulas LR, Schärer-Hernández NG, Liabat S. Breastfeeding, Human Milk and COVID-19 – what does the evidence say? *Front Pediatr.* 2020; doi: 10.3389/fped.2020.613339.

“Now more than ever is the time to give breast milk to babies”

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## How can COVID-19 be transmitted to a newborn?

### The same way as it can be transmitted to anyone.

The main way that COVID-19 spreads is through direct, indirect, or close contact with infected people and their secretions, like **saliva** or **respiratory droplets** that can be expelled when talking, coughing, or sneezing.<sup>1</sup>

These respiratory droplets (also known as ‘aerosols’) may be the source of transmission by way of direct routes, like a sneeze, or from touching a contaminated surface, such as something that has been sneezed on. To date, research shows that these aerosols can survive on surfaces like cardboard, plastic, and stainless steel for up to 72 hours.<sup>2</sup>

Up to the time of this publication, scientific information confirms that **COVID-19 infection in babies is very uncommon**. Babies are almost never symptomatic, and the rate of infection does not drastically change if the baby is born vaginally, breastfed, and/or in contact with a COVID-19 positive or suspected positive mum.<sup>3-7</sup>

**WHO<sup>8</sup> and other organisations such as UNICEF,<sup>9</sup> the CDC,<sup>10</sup> and the Royal College of Obstetricians and Gynaecologists<sup>11</sup> recommend that mums continue breastfeeding their newborns due to the overwhelmingly positive clinical evidence supporting the benefits of breast milk.**

## Can COVID-19 be transmitted via breast milk?

Current evidence suggests that breast milk does not transmit COVID-19 to babies.<sup>12</sup>

While a recent report did not detect any of the virus in the breast milk samples taken from women with COVID-19,<sup>13</sup> some earlier reports have

noted the presence of tiny parts of RNA from the virus in breast milk.<sup>14-20</sup> However, **there was no evidence of complete and/or active virus present in those samples**, which means, that it is highly unlikely to pass the virus to your baby through breast milk. It's important to also note that only

random breast milk samples from the same COVID-19 positive mother were found to have tiny parts of viral RNA.<sup>15, 18, 19</sup>

Researchers are working hard to understand how the COVID-19 RNA might get into breast milk, though one

plausible explanation could be that the milk was contaminated by respiratory droplets that passed into it as the mother expressed the samples. Several studies have shown that Hold-

er pasteurisation, a method that is routinely used in donor human milk banks, was able to destroy the COVID-19 virus that had been added to human milk samples.<sup>18, 21, 22</sup> This confirms that

pasteurisation of breast milk is a safe and possible option, particularly in times of COVID-19.

**To date, no studies have shown that breast milk is the cause for infection from mum to baby.**

## Can breast milk from mothers who are positive for COVID-19 protect the baby against COVID-19?

Apart from all the proven benefits that we know about breastfeeding,<sup>23</sup> recent research has shown additional benefits that are specific to

COVID-19: Antibodies that inactivate the virus have been found in the milk of mothers who had had COVID-19 thus showing a strong immunological

response by breast milk against the virus.<sup>13, 24–26</sup>

**Current research suggests that the breast milk of mums with COVID-19 provides an active form of protection against the virus. This protection cannot be provided to the baby by infant formula, highlighting the importance of breastfeeding during these times.**

If you are a new mum who has tested positive for COVID-19, **practice the 3 Ws** when breastfeeding:<sup>9</sup>



### WEAR

**a mask during nursing and pumping sessions**



### WASH

**hands with soap before and after touching the baby**



### WIPE

**and disinfect surfaces regularly**

**References:** **1** WHO; 2020 [cited 2020 Jul 21]. Available from: <https://www.who.int/news-room/commentaries/detail/transmission-of-sars-cov-2-implications-for-infection-prevention-precautions>. **2** van Doremalen N et al. *N Engl J Med*. 2020; 382(16):1564–1567. **3** Blumberg DA et al. *Am J Perinatol*. 2020; 37(8):769–772. **4** Sisman J et al. *Pediatr Infect Dis J*. 2020; 39(9):e265–e267. **5** Vivanti AJ et al. *Nat Commun*. 2020; 11(1):3572–3578. **6** Bwire GM et al. *J Med Virol*. 2020; doi: 10.1002/jmv.26622. **7** Walker KF et al. *BJOG*. 2020; 127(11):1324–1336. **8** WHO; 2020 [cited 2020 Jul 21]. Available from: <https://www.who.int/publications/i/item/10665332639>. **9** UNICEF; 2020 [cited 2020 Jul 21]. Available from: <https://www.unicef.org/eap/breastfeeding-during-covid-19>. **10** CDC; 2020 [cited 2020 Jul 21]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/care-for-breastfeeding-women.html>. **11** Royal College of Obstetricians and Gynaecologists [cited 2020 Jun 19]. Available from: <https://www.rcog.org.uk/en/guidelines-research-services/guidelines/coronavirus-pregnancy/covid-19-virus-infection-and-pregnancy/>. **12** Cheema R et al. *Am J Perinatol*. 2020; doi: 10.1055/s-0040-1714277. **13** Pace RM et al. *medRxiv*. 2020; doi: 10.1101/2020.09.16.20196071. **14** Wu Y et al. *SSRN Electron J [Internet]*. 2020; Available from: <https://ssrn.com/abstract=3562059>. **15** Grob R et al. *Lancet*. 2020; 395(10239):1757–1758. **16** Costa S et al. *Clin Microbiol Infect*. 2020; 26(10):1430–1432. **17** Tam PCK et al. *Clin Infect Dis*. 2020; doi: 10.1093/cid/cia673. **18** Chambers C et al. *JAMA*. 2020; 324(13):1347–1348. **19** Bertino E et al. *SSRN Electron J [Internet]*. 2020; Available from: <https://ssrn.com/abstract=3611974>. Available from: <https://ssrn.com/abstract=3611974> or <http://dx.doi.org/10.2139/ssrn.3611974>. **20** Bastug A et al. *Breastfeed Med*. 2020; 15(8):488–491. **21** Conzelmann C et al. *Pediatrics*. 2020; doi: 10.1542/peds.2020-031690. **22** Walker GJ et al. *J Paediatr Child Health*. 2020; doi: 10.1111/jpc.15065. **23** Victora CG et al. *Lancet*. 2016; 387(10017):475–490. **24** Dong Y et al. *Emerging Microbes & Infections*. 2020; 26(6):1–12. **25** Fox A et al. *medRxiv*. 2020; doi: 10.1101/2020.05.04.20089995. **26** van Keulen BJ et al. *SSRN Electron J [Internet]*. 2020; Available from: <https://ssrn.com/abstract=3633123>.