Key messages: Infant feeding and COVID-19

This information is intended for health care providers who support perinatal health. Knowledge about COVID- 19 is changing quickly and therefore the information may be updated to reflect new information and evidence.

Breastfeeding during the COVID-19 Pandemic

The World Health Organization reported that COVID-19 has not been detected in human milk and has not been transmitted through breastfeeding (WHO, April 28, 2020). On May 14, there has been one case-report SARS-CoV-2 RNA in breast milk of an infected mother with familial neutropenia and the associated immunocompromised state. Though care was taken, the authors could not rule out possibility of respiratory contamination of the milk. All mothers should be supported to breastfeed during the COVID -19 pandemic. Breastfeeding counselling, practical feeding support and psychosocial support should be provided to all pregnant women and mothers with infants and young children, whether they or their infants and young children have suspected or confirmed COVID-19. Breastfeeding gives increased food security and is emergency preparedness. Breastfeeding also gives immuno-protection that plays a unique role during the COVID-19 outbreak. Human milk remains very important for a preterm or unwell baby in the NICU.

For mothers **without** suspected or confirmed COVID-19 infection the usual population-based messages to protect themselves and their babies during a pandemic apply. Even if COVID-19 is prevalent in a community or if testing for it is not readily available, there is no reason to avoid or stop breastfeeding.

Recommendations for breastfeeding and skin-to-skin contact if a suspected or confirmed COVID-19 case

Currently, the Public Health Agency of Canada (PHAC), the World Health Organization (WHO) and the Canadian Pediatric Society (CPS) recommend that mothers with suspected or confirmed COVID-19 continue to breastfeed. Health care providers should discuss the evidence and importance of breastfeeding and the uncertainties around transmission of COVID-19 from mother to baby while breastfeeding, and come to a shared decision. Currently, the focus of postnatal infection prevention efforts should be to limit the risk of transmission through enhanced hygiene.

It is well established that breastfeeding protects infants from infection. Human milk has natural bioactive factors, antibodies and targeted immunologic mediators; hence, breastfed infants are less likely to have severe respiratory symptoms.

Skin-to-skin contact immediately after vaginal or caesarean births should not be delayed for cleansing or washing of the breast unless mother with the suspected or positive COVID-19 had just coughed or sneezed

on the exposed breast. Immediate skin-to-skin contact at birth is a crucial and unrecoverable moment in the physiology of the transition to extra-uterine life for which there is abundant evidence in literature; failure to allow it has documented effects on the initiation and continuation of breastfeeding, on the regulation of the baby's homeostasis of vital signs and blood glucose levels, and on the colonization of the baby's microbiome. Washing the breast area before breastfeeding can therefore interfere with the known protective benefits of breastfeeding and skin to skin contact. To avoid washing the breast the mother may choose to wear a gown that covers the breast area during labour and remove it immediately at birth.

Symptomatic mothers with suspected or confirmed COVID-19 and their infants should not be separated and should be enabled to room-in throughout the day and night. Mother and baby should be discharged home as soon as they are deemed ready and then convalesce at home with guidance from their primary health care provider.

The numerous benefits of breastfeeding and skin-to-skin contact or kangaroo mother care substantially outweigh the potential risks of transmission and illness associated with COVID-19 in infants and young children (WHO, April 28, 2020). The recommendations for physical distancing for the general public is important to reduce the overall prevalence of COVID-19. For infants and young children, however, the focus is on immediate and lifelong survival as well as health and development rather than physical distancing. In this context, the primary concern is to avoid transmission from **symptomatic** mothers to their infants through respiratory droplets by following these infection prevention and control (IPC) measures:

- Perform hand hygiene before skin-to-skin contact, feeding or expressing milk and routine baby care.
- During feeding and routine baby care wear a medical mask, if not available, a homemade mask or face covering if respiratory symptoms are present. Masks or face coverings should not be used on infants/children under the age of 2 years. Learn more here.
- Sneeze or cough into a tissue and dispose of it, followed by alcohol-based hand rub or wash hands again with soap and water. Hand sanitizers are not recommended for infant use.
- If the mother has just coughed over her exposed breast or chest, then she should gently wash the breast with unscented mild soap and warm water prior to feeding. **It is not necessary to wash the breast before every breastfeed or if the breast was covered before breastfeeding.**
- Clean and disinfect surfaces often (WHO, April 28, 2020).

The timeframe for these precautions is while the mother is infective, that is, while **symptomatic** or up to 14 days after the start of symptoms, whichever is longer. Learn more here.

Recommendations for supporting a mother and baby who are too ill to breastfeed

If a mother is too ill to breastfeed, she should be encouraged and supported to express her milk by hand or with a breast pump based on her preference and availability of equipment and cost. In both cases, the expressed human milk can be fed to her infant. Discuss with the family the following, while applying the IPC measures:

- Establish early skin-to-skin contact with mother and baby when possible.

- Initiate hand expression early and often to establish milk supply, within 6 hours of birth, and preferably within 1-2 hours after birth.
- If direct breastfeeding is not possible, have a healthy adult feed and care for the baby.
- Wash and disinfect all infant feeding equipment carefully before each use.
- If pumping, after each session, clean and disinfect all pump kit parts and entire pump surfaces (areas of high touch – dials) as per manufacture instructions. Do not share bottles, breast pump kit sets or breast pumps.
- Provide additional guidance and support to continue breastfeeding, to utilize expressed human milk, to maintain milk production and how to safely store/transport human milk for later use.

If the mother is hospitalized, follow local IPC policies. All Mothers should be supported to initiate or resume breastfeeding when she feels well enough to do so. Continue to breastfeed and delay weaning for as long as possible. If a baby is hospitalized and institutional IPC policies prevent NICU/PICU presence of mothers with suspected or confirmed COVID-19, those mothers should be encouraged to express their milk and provide it to the NICU as long as appropriate local IPC measures are followed. Mothers should express milk frequently, with a view toward achieving successful breastfeeding once she is able to be reunited with her baby. When separation is required, connect the mother-infant dyad through virtual modalities and consider the need for mental health and psychosocial support. .

If mother's own milk is not available or breastfeeding is not yet established, pasteurized donor human milk remains the next best option. Using unpasteurized donor human milk (informal milk sharing) is not advised. The possible risks associated with informal milk sharing may be further amplified during the COVID-19 pandemic and especially for ill or preterm newborns.

Recommendations for babies who are fed non-human milk (commercial infant formula)

For babies fed non-human milk, precautions should also be taken to protect against the transmission of COVID –19. There are always risks associated with non-human milk for infants in all settings (WHO, April 28, 2020). See the Family-Centred Maternity and Newborn Care: National Guidelines (PHAC) for information on informed decision making related to infant feeding. Discuss with families the following, while applying the IPC measures:

- The cost of non-human milk is an important consideration for some families especially during difficult financial times.
- If using non-human milk in addition to breastfeeding encourage breastfeeding more often to try to reduce the frequency of non-human milk feedings.
- If the mother recently switched to non-human milk feeding and would like to learn more about re-lactation visit https://www.llli.org/breastfeeding-info/relactation/
- Only use commercial non-human milk. Homemade non-human milk is not recommended for babies. It is low in certain nutrients. It can also contain ingredients that are dangerous or hard for babies to digest.
- Always prepare non-human milk as described on the product label. It is not recommended to water down non-human milk to make the supply last longer. Babies will not receive the important nutrients they need for growth and development and it is unsafe for babies.

- If needed, healthy term babies can switch between brands and types of non-human milk (i.e. ready-to-feed, liquid concentrate, or powder). Powder non-human milk should not be given to infants who are compromised. Non-human milks labelled for use from 0 to 12 months are safe unless the baby is on a special non-human milk. Non-human milk can be purchased online from a store or the manufacturer.
- Supply chain issues or difficulty getting non-human milk have not been reported in Canada, but this may vary in smaller communities. Aim to have enough non-human milk on hand to last for 14 days (two weeks).
- If the mother needs to self-isolate due to COVID-19, she should stay at home. Ask friends or relatives who are well for help with buying infant non-human milk and anything else the family may need.
- Non-human milk feeding requires extra steps to ensure cleaning and disinfecting of all supplies and handling processes. Take extra time and caution to ensure all manufacturer instructions are followed in preparing and storing non-human milk.
- To minimize contact with multiple people only one person should prepare the non-human milk and feed the baby.
- For babies who are doing some breastfeeding, use a spoon or cup to feed non-human milk and avoid bottles and nipples which may be more difficult to clean. To learn how to use a cup feed visit site https://breastfeeding.support/cup-feeding-newborn/
- Handwashing with soap and water before preparing feeds and before feeding the baby is very important.
- A **Symptomatic** person feeding the infant should wear a mask.
- Report any adverse reactions of non-human milk feeding to your health care provider and product contamination or supply chain concerns should be reported the Public Health Agency of Canada https://healthycanadians.gc.ca/recall-alert-rappel-avis/index-eng.php

The International Code of Marketing Breastmilk Substitutes (the Code)

The World Health Organization states that donations of infant non-human milks should not be sought or accepted during the COVID-19 pandemic. For more information on upholding the Code see *The BFI 10 Steps and WHO Code Outcome Indicators for Hospitals and Community Health Services* (http://www.breastfeedingcanada.ca/).

Conclusions

During the pandemic, it is essential to continue providing family-centered care, promoting protecting and supporting breastfeeding with evidence informed precautions to help families attain their breastfeeding goals and maximize health outcomes.

Disclaimer: This information was prepared by experts of the Breastfeeding Committee for Canada and informed by the available evidence to date.

Canadian Resources

- https://www.canada.ca/en/public-health/services/publications/diseases-conditions/pregnancy-advise-mothers.html
- https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/national-case-definition.html
- https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/symptoms.html
- http://www.breastfeedingcanada.ca
- http://www.breastfeedingcanada.ca/documents/Indicators-we2019-En.pdf
- http://safelyfed.ca/covid19-resources/
- https://healthycanadians.gc.ca/recall-alert-rappel-avis/index-eng.php
- https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/healthy-living/maternity-newborn-care-guidelines-chapter-6/maternity-newborn-care-guidelines-chapter-6.pdf
- https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/prevention-risks.html?topic=tilelink
- https://www.cps.ca/en/documents/position/baby-friendly-initiative-breastfeeding
- https://www.cps.ca/en/documents/position/kangaroo-care-for-preterm-infant
- https://www.cps.ca/en/documents/position/breastfeeding-when-mothers-have-suspected-or-proven-covid-19
- https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/national-case-definition.html
- https://www.cmaj.ca/content/cmaj/early/2020/05/14/cmaj.200821.full.pdf

International Resources

- https://www.who.int/who-documents-detail/frequently-asked-questions-breastfeeding-and-covid-19
- https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected
- https://www.llli.org/breastfeeding-info/relactation/
- https://breastfeeding.support/cup-feeding-newborn/
- https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/breastfeeding-guidance-post-hospital-discharge/
- https://www.cdc.gov/coronavirus/2019-ncov/hcp/care-for-breastfeeding-women.html
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3445676/