



March 5, 2020

Milk Banking and COVID-19

*updated April 6, 2020

**updated June 24, 2020

MILK BANKING QUALITY AND SAFETY

Mothers' Milk Bank of North Texas (MMBNT) is carefully monitoring ongoing developments regarding the outbreak of COVID-19 and how it relates to milk banking.

Numerous safeguards are in place to protect the quality and integrity of every bottle processed including strict donor screening, validated pasteurization and third-party microbiological testing. MMBNT exceeds standards set by the Human Milk Banking Association of North America (HMBANA), which were developed with involvement of the Centers for Disease Control and Prevention (CDC) and the U.S. Food and Drug Administration (FDA).

COVID-19 AND GENETICALLY SIMILAR VIRUSES

Research specific to COVID-19 is still emerging as the current outbreak evolves. While COVID-19 is a novel (new) virus and data is limited, characteristics of similar viruses such as SARS (Severe Acute Respiratory Syndrome) and MERS (Middle East Respiratory Syndrome) are significantly relevant and applicable to milk banking.

On February 11, 2020, the International Committee on Taxonomy of Viruses (ICTV) named this newly identified virus "severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)", now called "COVID-19" because of its genetic similarities to the SARS coronavirus responsible for the outbreak in 2003 (World Health Organization [WHO], 2020). Existing SARS and MERS research provide valuable information when evaluating virus transmission and inactivation.

HEAT INACTIVATION OF THE VIRUS

Studies have documented complete heat inactivation of genetically similar viruses such as SARS and MERS, specifically heat treatment of 60°C for 30 minutes (Miriam & Taylor, 2006; Rabenau et al., 2005; van Doremalen, 2014). **All donor milk dispensed from MMBNT undergoes heat treatment using the Holder pasteurization method of 62.5°C for 30 minutes.**

MMBNT is committed to developing research regarding donor milk processing and safety and we are actively working to have specific COVID 19 heat testing completed.

***Update as of April 6, 2020:** New evidence regarding the stability of Sars-CoV-2 at different environmental conditions reported that the virus is significantly reduced when heated to 56°C for ten minutes, and completely inactivated within 30 minutes (Chin et al., 2020). Currently, there are two additional studies in process evaluating the stability of the virus specifically in breastmilk. We will continue to update our statement as we learn more.

****Update as of June 24, 2020:** Two recently published studies examined the effects of Holder pasteurization on SAR-CoV-2. Both studies found that following pasteurization, no viral RNA and no residual infectivity were found in the breastmilk samples (Conzelmann et al., 2020; Chambers, 2020).

TRANSMISSION AND BREASTMILK

“Person-to-person spread is thought to occur mainly via respiratory droplets produced when an infected person coughs or sneezes, similar to how influenza (flu) and other respiratory pathogens spread.” (CDC, 2020)

In limited studies including women with SARS, the virus has not been detected in breastmilk, however, it is not known whether mothers with COVID-19 can transmit the virus via breastmilk. In a recent, but small study in China, a group of six mothers testing positive for COVID-19 were studied after giving birth. **No evidence of the virus was found in their samples of breastmilk, cord blood, amniotic fluid or throat swabs of their newborns** (Chen et al., 2020).

BREASTFEEDING SAFETY

The immunological properties of breastmilk protect babies against many illnesses. Breastfeeding mothers should follow these CDC guidelines: “Whether and how to start or continue breastfeeding should be determined by the mother in coordination with her family and healthcare providers. A mother with confirmed COVID-19 or who is a symptomatic PUI should take all possible precautions to avoid spreading the virus to her infant, including washing her hands before touching the infant and wearing a face mask, if possible, while feeding at the breast. If expressing breast milk with a manual or electric breast pump, the mother should wash her hands before touching any pump or bottle parts and follow recommendations for proper pump cleaning after each use. If possible, consider having someone who is well feed the expressed breast milk to the infant” (CDC, 2020).

****Update as of June 24, 2020:** On June 23, 2020, the WHO released a scientific brief confirming that the benefits of breastfeeding outweigh the potential risk of COVID-19 transmission (2020). The WHO recommends that mothers should be encouraged to initiate or continue breastfeeding even if they or the infant have suspected or confirmed cases of COVID-19 (2020).

SCREENING MILK DONORS

Mothers are rigorously screened by MMBNT verbally, through a written questionnaire and blood testing. A medical release is obtained from each donor's licensed healthcare provider. Donor screenings include detailed inquiries regarding international travel as well as recent illness history including family members in the home. Mothers are deferred based on responses.

MMBNT will continue to vigilantly monitor the COVID-19 outbreak to safeguard its donor milk supply. In 15-years of operation and 5 million ounces dispensed, donor human milk processed by MMBNT has never harmed or infected an infant

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