

Fresh, Refrigerated, Frozen and Pasteurized Milk for NICU Babies

During feeding at the breast, babies drink milk that is nutritious, protective and warmed to the mother's body temperature. However, until breastfeeding in the NICU is possible, babies receive pumped milk by feeding tube.

Specific guidelines for safe care and storage of pumped milk vary among different NICUs, especially with respect to cut-off times for each storage method. However, all NICUs agree on one principle: **Guidelines for care and storage of mother's milk in the home with healthy babies are not appropriate in the NICU.**

In the home, babies typically receive stored milk when separated from their mothers, and drink milk from the breast for the rest of the day. In contrast, NICU babies feed all or mostly pumped milk, and depend on it to grow and fight off complications such as infections. NICU care and storage practices try to balance two goals for pumped milk: 1) keep as many of the nutritious and protective substances in the milk as possible; and 2) prevent the growth of harmful germs in the milk, which are seldom a problem in healthy babies but can be concerning for NICU babies.

Fresh milk. When milk is fed immediately after it is pumped — without being refrigerated — it is the most nutritious and most protective for NICU babies. Pumped milk can stay at room temperature (no need for refrigeration) for at least 4 hours, because many cells in the milk are alive. Just like protective cells in the blood stream, these live cells kill harmful bacteria. You can make sure that your baby benefits most from your milk by providing 1-2 fresh milk feedings each day that you are in the NICU. A simple way to do this is to pump when you first arrive in the NICU and again right before you return home.

Refrigerated milk. When pumped milk cannot be fed within 4 hours, the second-best choice is to store it in the refrigerator. Most protective substances in milk are not affected by refrigeration. However, some milk cells — especially stem cells that may be important



for premature babies — are lowered or killed by refrigeration. In general, pumped milk can be stored in the refrigerator for 96 hours, as long as human milk fortifier has not been added.

Frozen milk. Frozen milk is perfectly safe for your baby, and may be the only choice if you live far from the NICU. Most of the nutritious and protective parts of your milk do not change with freezing, and NICU babies grow well and fight complications with frozen milk. However, the **live cells** in your milk are destroyed with freezing. For this reason, most NICUs use frozen milk within 24 hours after it is thawed, so germs do not have time to grow.

Pasteurized milk. Only a few NICUs worldwide pasteurize (heat-treat) pumped milk from the baby's own mother. Although pasteurization kills nearly all of the germs in milk, it also kills or lowers the amount of many protective substances that help babies fight complications. Pasteurization also interferes with some of the nutritious parts of the milk, and can affect a baby's growth. However, pasteurization is the worldwide standard for the safe use of donor human milk in the NICU.

Milk Type:	Fresh Milk	Refrigerated Milk	Frozen Milk	Pasteurized Milk
Storage Times in Our NICU:				



Disclaimer

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This information sheet was published on www.LactaHub.org on 4 August 2020. It is provided in good faith. We will be happy to provide you with further information and guidance.

We look forward to your inquiry at: contact@lactahub.org