Direct breastfeeding or chestfeeding is best for parent and baby. When direct breastfeeding is not an option, expressed human milk provides the best nourishment. Many parents successfully combine work, school and breastfeeding by learning to express, store and feed their milk. An added benefit is that learning to express milk is proven to increase parents’ self-efficacy.

**Hand Expression**

All new parents should leave the hospital knowing how to manually (hand) express their milk. While many choose to use breast pumps, manual expression is an easy, cost-free alternative that will help avoid painful episodes of engorgement that could lead to plugged ducts or even mastitis. The three online videos linked on the reverse side show various helpful demonstrations of how to hand express. Please view these and share this knowledge with new families.

**Safe Expression Best Practices**

- Wash hands well before expressing or handling milk or collection equipment.
- Use appropriate breastmilk storage containers. Never use disposable bottle liners or plastic bags that are not intended for storing breastmilk.
- Wash equipment that touches the breast, milk or collection containers in hot, soapy water. Rinse thoroughly and air dry on a clean towel.

**Human Milk Storage Guidelines**

<table>
<thead>
<tr>
<th>Type of Breast milk</th>
<th>Storage Locations and Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countertop 77°F or colder (25°C)</td>
<td>Refrigerator 40°F (4°C) 40°F (4°C)</td>
</tr>
<tr>
<td>Freshly Expressed or pumped</td>
<td>Freezer 0°F or colder (-18°C)</td>
</tr>
<tr>
<td>Up to 4 hours</td>
<td>Up to 4 days</td>
</tr>
<tr>
<td>Within 6 months is best</td>
<td>Up to 12 months is acceptable</td>
</tr>
<tr>
<td>Thawed, Previously Frozen</td>
<td>Never refreeze human milk after it has been thawed</td>
</tr>
<tr>
<td>1-2 hours</td>
<td>Up to 1 day (24 hours)</td>
</tr>
<tr>
<td>Leftover from a Feeding (baby did not finish the bottle)</td>
<td>Use within 2 hours after the baby is finished feeding</td>
</tr>
</tbody>
</table>

*Note: these guidelines are for the healthy newborn. Healthcare professionals should follow hospital policies and protocols for storage and handling in the inpatient and/or critical care settings.*

Adapted from “ABM Clinical Protocol #8: Human Milk Storage Information for Home Use for Full-Term Infants,” Revised 2017
Human Milk Expression: A Guide for Healthcare Professionals

Storage Tips

- Clearly label the human milk with the date it was expressed.
- Do not store human milk in the door of the refrigerator or freezer. This will help protect the breast milk from temperature changes from the door opening and closing.
- If freshly expressed human milk will not be used within 4 days, freeze it right away. This will help to protect the quality of the breast milk.
- Freeze human milk in small amounts of 2 to 4 ounces (or the amount that will be offered at one feeding) to avoid wasting milk that might not be finished.
- When freezing human milk, leave about an inch of space at the top of the container because milk expands as it freezes.
- If human milk will be delivered to a childcare provider, clearly label the container with the child’s name and ask the childcare provider about other requirements they might have for labeling and storing human milk.
- Human milk can be stored in an insulated cooler bag with frozen ice packs for up to 24 hours when you are traveling. Milk should be used right away, stored in the refrigerator, or frozen upon arriving to destination.

Defrosting and Feeding Expressed Human Milk

- To defrost frozen milk, place it in a pan of warm water or defrost in the refrigerator.
- After defrosting, human milk may separate, with the fat on top. The milk can look a little yellow, orange, white or even clear. Do no shake the milk. Instead, gently swirl the milk to combine all of the components back together. Shaking human milk disrupts some of the molecular bonds, which changes the composition.
- Never microwave human milk. Microwaving can change the milk’s composition and create hot areas that can burn a baby’s mouth.
- Previously frozen human milk may be kept in the refrigerator for up to 24-hours. Do not re-freeze milk once it has been thawed.

Free Video Tutorials

- Dr. Ann Witt and Maya Bolman - Breastfeeding Medicine of Northeast Ohio | https://vimeo.com/65196007
- Texas WIC - Every Ounce Counts | https://www.breastmilkcounts.com/moms-playground/educational-games/softening-and-expressing/

REFERENCES:


