

Using breast milk safely

Breastfeeding has many benefits for both mother and child. However, for various reasons, breastfeeding mothers cannot always breastfeed their baby directly. Then it is important for nursing mothers and caretakers of the breastfed infants to use safe handling and storage practices to maintain and ensure the high quality of expressed breast milk and the health of the baby.



	Best Practice for Safety	Practices to AVOID
Preparing to express breast milk	<ul style="list-style-type: none"> Always wash hands before expressing or handling breast milk. Ensure that bottles and equipment are clean. 	<ul style="list-style-type: none"> Do NOT express milk in an area that is not clean
Storage containers	<ul style="list-style-type: none"> Use clean containers: screw cap bottles, glass or hard (BPA-free) plastic cups with tight caps, bags designed for breast milk storage (use bags only for short term storage if possible) 	<ul style="list-style-type: none"> Do NOT use ordinary plastic storage bags, formula bottle bags/liners, plastic bottles containing BPA
Labeling the container	<ul style="list-style-type: none"> Label with date expressed, child's name (if bringing to a childcare facility) 	<ul style="list-style-type: none"> Do NOT use a marker or label that can easily come off in water
Adding freshly expressed milk to stored milk	<ul style="list-style-type: none"> Completely cool fresh milk before adding to previously chilled or thawed milk. 	<ul style="list-style-type: none"> Do NOT add warm breast milk to frozen breast milk. Do NOT fill containers to the brim as breast milk expands on freezing.
Thawing frozen breast milk	<ul style="list-style-type: none"> Thaw oldest milk first. Thaw in refrigerator (overnight) or swirl in a bowl of warm water or under warm running water. Use within 24 hours of thawing 	<ul style="list-style-type: none"> Do NOT thaw at room temperature Do NOT use a microwave or rapidly boil on the stove as that can heat unevenly which can scald the baby or reduce the milk's nutrients Do NOT re-freeze breast milk once it has been thawed
Before feeding breast milk	<ul style="list-style-type: none"> Gently swirl milk to evenly distribute the cream that rises to the top during storage. Milk can be fed cold or warmed to body temperature. 	<ul style="list-style-type: none"> Do NOT vigorously shake the container or stir the milk
After feeding	<ul style="list-style-type: none"> Discard any remaining milk from that bottle Carefully wash bottles and pumping equipment with soap and water and let air dry 	<ul style="list-style-type: none"> Do NOT save milk from a used bottle for another feeding

How long can I safely store breast milk?

Although it is always best to use expressed breast milk as soon as possible, an easy-to-remember general guide which many lactation consultants teach for healthy, full-term infants is 5-5-5. This guide fits within the more specific ranges included in the table below.

- 5 hours at room temperature
- 5 days in the refrigerator
- 5 months in the freezer



Location	Temperature	Duration	Comments
Countertop	Room temp (up to 77°F)	6-8 hours	Be sure containers are covered
Insulated cooler bag	5-39°F	24 hours	Keep ice packs in contact with milk container, limit opening bag.
Refrigerator	39°F	5 days	Store milk in the back of the main body of the refrigerator where temperatures are coldest
Freezer compartment of a refrigerator	0°F	3-6 months	<ul style="list-style-type: none"> • Note that if the freezer compartment is within the refrigerator (using the same main door), milk can only be stored 2 weeks. • Store milk toward the back of the freezer, where the temperature stays colder. • Milk stored for longer listed durations is safe, but may be lower nutritional quality.
Chest or upright freezer	-4°F	6-12 months	

Reference: Academy of Breastfeeding Medicine. (2004) Clinical Protocol Number #8: Human Milk Storage Information for Home Use for Healthy Full Term Infants Princeton Junction, New Jersey: Academy of Breastfeeding Medicine. Available

References and other useful resources:

- Office of Women’s Health, US Department of Health and Human Services. Breastfeeding. August 1, 2010. www.womenshealth.gov/breastfeeding/pumping-and-milk-storage/index.html
- US Centers for Disease Control. Breastfeeding. Proper Handling and Storage of Human Milk. March 4, 2010. www.cdc.gov/breastfeeding/recommendations/handling_breastmilk.htm
- Mayo Clinic. Breast milk storage: Do’s and don’ts. April 6, 2012. www.mayoclinic.org/healthy-living/infant-and-toddler-health/in-depth/breast-milk-storage/art-20046350
- Feeding your newborn: <http://missourifamilies.org/features/nutritionarticles/nut168.htm>
- Your doctor or health care provider should also have good advice and information available

Prepared by Londa Nwadike, PhD, Kansas State University/ University of Missouri Extension Food Safety Specialist

Reviewed by:

- Sandy Procter, PhD, RD, LD, State Nutrition Specialist, K-State Research and Extension
- Karen Sherbondy, M.Ed, RD, LD, Extension Associate, University of Missouri Extension
- Diana Hirt, M.Ed, Extension Associate, University of Missouri Extension

22201 W. Innovation Dr
Olathe, KS 66061
tel: 913-307-7391
email: lnwadike@ksu.edu

1600 NE Coronado Dr
Blue Springs, MO 64014
tel: 816-655-6258
email: nwadikel@missouri.edu