Safe Food for Babies: Handling Breast Milk, Formula and Baby Food

About one in six Americans (48 million people) gets sick from contaminated food or beverages each year. Infants and young children are at risk for foodborne illness because their immune systems are not fully developed. Also, the stomachs of infants and young children produce less acid, making it easier for harmful microorganisms to invade their bodies. Follow these tips to keep breast milk, formula and baby food safe for babies.

**Keep it Clean!**

- Wash your hands! To prevent the spread of harmful bacteria from your hands to the baby's mouth, wash your hands in warm, soapy water for at least 20 seconds.

- Clean bottles and nipples after every use. Use dish soap and hot water to wash and rinse all utensils used to prepare and serve food (including the can opener).

- To sterilize bottles and accessories, place in boiling water for 10 minutes. Remove with tongs and allow to air dry completely for one hour before using. Many bottles are dishwasher-safe and will be sterilized after being washed by this method.

- Wash eating areas with hot, soapy water.
Handle it Safely!

**Breast Milk**
- Collect expressed breast milk in sterilized 4-ounce plastic bottles and plastic bottle liners and immediately store in the refrigerator.
- Milk that won’t be used within 24 to 48 hours should be frozen immediately in sterilized, 4-ounce plastic or glass bottles or sealable plastic bags. Label with the date and use older milk first. Frozen breast milk can be stored for three to six months.
- Thaw breast milk in warm water only. To distribute the fat, shake the container of milk before serving.
- Do not refreeze breast milk.
- Unused portions of breast milk left in the bottle after feeding should be discarded.
- Avoid leaving a bottle with a baby during naptime as the milk may become unsafe to drink over time and can lead to future tooth decay.

Handle it Safely!

**Formula**
- Fill sterilized bottles with just enough formula for one feeding. Bottles can be sterilized in boiling water for five minutes or in the dishwasher. Throw away leftovers. Harmful bacteria from the baby’s mouth may have entered the bottle during feeding and could grow to unsafe levels.
- Tightly cover and place cans of liquid formula directly in the refrigerator after filling the bottle. Open cans of liquid ready-to-use formula will remain safe for up to 48 hours. Prepared infant formula should be used within 24 hours.
- Follow the manufacturers recommendations for preparing bottles before filling with any kind of formula, powder or liquid. Observe the “use by” and “expiration” dates on formula cans. Vitamin levels and food quality deteriorate after the expiration date.
- Avoid leaving a bottle with a baby during naptime as the milk may become unsafe to drink over time and can lead to future tooth decay.

Timing is Important!
- Never use milk, formula or food that has been left out at room temperature without a cold pack for two hours or longer.
- When traveling, keep bottles and food in an insulated cooler with ice or cold packs. During warm weather, place the cooler inside the car instead of in the trunk.
Safe Food Storage Guide

Liquids

<table>
<thead>
<tr>
<th>Storage Time</th>
<th>Refrigerator at 40 F or below</th>
<th>Freezer at 0 F or below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expressed breast milk</td>
<td>24 hours</td>
<td>3-6 months</td>
</tr>
<tr>
<td>Powdered formula mixed with water</td>
<td>2 days</td>
<td>Not recommended</td>
</tr>
<tr>
<td>Formula in an opened can</td>
<td>2 days</td>
<td>Not recommended</td>
</tr>
<tr>
<td>Whole milk*</td>
<td>5 days</td>
<td>3 months</td>
</tr>
<tr>
<td>Reconstituted evaporated milk</td>
<td>3-5 days</td>
<td>Not recommended</td>
</tr>
</tbody>
</table>

* Whole milk is recommended for toddlers ages 1 to 2.

Solids

<table>
<thead>
<tr>
<th>Storage Time</th>
<th>Refrigerator at 40 F or below</th>
<th>Freezer at 0 F or below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strained fruits and vegetables</td>
<td>2-3 days</td>
<td>6-8 months</td>
</tr>
<tr>
<td>Strained meats and eggs</td>
<td>1 day</td>
<td>1-2 months</td>
</tr>
<tr>
<td>Meat/vegetable combinations</td>
<td>1-2 days</td>
<td>1-2 months</td>
</tr>
<tr>
<td>Homemade baby foods</td>
<td>1-2 days</td>
<td>3-4 months</td>
</tr>
</tbody>
</table>

Handle it Safely!

**Baby Food**

- Check the “circle of safety” button in the center of baby food jars at the store. A “down” button means the jar is sealed and safe to use. Avoid buying damaged jars with chipped glass, rusty lids or dirty labels.

- Spoon out the desired amount of baby food from the jar into a separate feeding dish and immediately place the remainder in the refrigerator. Do not feed an infant directly from the jar because saliva on the spoon may contaminate the remaining food.

- If making homemade baby food, use a brush to thoroughly clean areas around blender blades or food processor parts. Harmful bacteria may lurk in these areas. “Home Canning of Fruit and Fruit Products” (HE-174), an NDSU Extension Service publication, has more information on home canning baby food. It’s available at www.ag.ndsu.nodak.edu/food.htm

- Do not feed honey to a child 1 year old or younger. Honey can contain “spores” (seedlike forms of bacteria) that could cause botulism in young children. Botulism can cause serious illness or death.

- Freeze homemade baby food by putting the mixture in an ice cube tray and covering with plastic wrap until frozen. Transfer food cubes into a freezer bag or airtight container and label with contents and date.
North Dakota Resources
North Dakota Division of Nutrition and Physical Activity
www.ndhealth.gov/nutrphyact
North Dakota WIC Program
www.ndhealth.gov/wic
NDSU Extension
www.ag.ndsu.edu/food

National Resources
FDA Once Baby Arrives
www.fda.gov/Food/FoodborneIllnessContaminants/PeopleAtRisk/ucm089629.htm

Breastfeeding Information
LaLeche League International
www.llli.org
National Women’s Health Information Center
www.womenshealth.gov/breastfeeding

Exercise and Pregnancy
March of Dimes
www.marchofdimes.com/hbhb_sydication/6_34.asp

Fetal Alcohol Syndrome
Centers for Disease Control and Prevention
www.cdc.gov/ncbddd/fasd/index.html

Folic Acid and Birth Defects
Centers for Disease Control and Prevention
www.cdc.gov/ncbddd/folicacid/index.html
U.S. Department of Health and Human Services
www.cdc.gov/ncbddd/folicacid/recommendations.html

Nutrition
WomensHealth.gov
http://womenshealth.gov/pregnancy/you-are-pregnant/staying-healthy-safe.html

Smoking Cessation
National Partnership to Help Pregnant Smokers Quit
http://helppregnantsmokersquit.org

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For more information about nutrition and food safety, visit the NDSU Extension site:
www.ag.ndsu.edu/food

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