Safe Bottle Feeding During an Electrical Power Blackout

For mothers who are breastfeeding, continue to breastfeed your infant.

Background

Expressed breast milk
An electrical power blackout limits parents/caregivers’ ability to:
- Safely store expressed breast milk.
- Clean bottles, caps, nipples.
- Keep food preparation areas and handling methods safe and clean.

Artificial baby milk (formula)
An electrical power blackout limits parents/caregivers’ ability to:
- Safely store artificial baby milk (formula).
- Access safe water supply to prepare artificial baby milk (formula) and to clean bottles, caps, nipples.
- Sterilize bottles, caps, nipples.
- Keep food preparation areas and handling methods safe and clean.

This situation increases risk of food contamination and infection in infants, especially those less than 4 months of age.

Alternative heating sources include battery powered generators and propane gas barbeques or camping stoves. Use propane gas barbeques and camping stoves outdoors.

Protocol
The following protocol applies to families with infants who are bottle feeding and:
- Do not have access to an electric breast milk pump.
- Do not have a method to heat and chill expressed breast milk.
- Do not have a method to heat and chill artificial baby milk (formula).
- May not have access to hot tap water.
- Have access to clean tap water.

1. **Expressed breast milk**

Expression and storage of freshly expressed breast milk:
- If you do not have access to an electric breast milk pump you can express breast milk by hand
  - Wash your hands with soapy water.
Use a clean glass or hard plastic container to express your breast milk into.

- Place your thumb and first 2 fingers about 1-1 ½ inches away from your nipples, or along the edge of the dark area.
- Push your thumb and 2 fingers straight back toward your chest.
- Roll your thumb and 2 fingers together.
- Repeat the above steps until the flow of milk slows down then switch to the other breast.
- Be sure to move your thumb and 2 fingers along all areas around your nipple.

- When power will be out longer than 2 hours:
  - Pack freshly expressed breast milk containers into a cooler (Styrofoam coolers are fine) and cover them with ice.
  - Keep a lid on the cooler.

**Use of expressed breast milk stored in the refrigerator:**

- Leave unused containers of breast milk in the refrigerator. An unopened fridge will keep foods cold enough for at least 4 -6 hours.
- Warm the container to room temperature by leaving the chilled, unused containers at room temperature until ready to feed.
- Throw out any breast milk that has been sitting at room temperature longer than 6-8 hours.
- Other warming methods:
  - Put the container in hot water, if available.
  - Some bottle warmers have adapters to use in a car lighter socket.

**Use of frozen expressed breast milk stored in the freezer:**

- Leave unused containers of breast milk in the freezer. An unopened freezer will keep foods cold enough for at least 24 hours.
- Thaw frozen breast milk by placing the container under cool running water. If warm water is available, finish thawing by running it under warm water. (See above for warming methods).

**Method to clean bottles and nipples:**

- Clean bottles and nipples using hot, soapy water.
- Rinse thoroughly in hot water to remove soap residue.
- Bottles and nipples should be air dried on a dry clean surface.
- If hot water is not available bottles and nipples will need to be sanitized. Refer to method to clean and sanitize bottles and nipples for artificial baby milk (formula) below.

2. **Artificial baby milk (formula)**

**Feeding artificial baby milk (formula) during an electrical power outage:**

- Use ready-to-feed infant artificial baby milk (formula).
• Clean and sanitize bottles, caps and nipples (see below for method).
• Do not use powdered artificial baby milk (formula) as it is not a sterile product.

Use of artificial baby milk (formula) stored in the refrigerator:
• Leave unused, previously sterilized bottles of artificial baby milk (formula) in the refrigerator. An unopened fridge will keep foods cold enough for at least 4 - 6 hours.
• Warm the bottle to room temperature before feeding the baby by leaving the chilled, unused bottles at room temperature until ready to feed.
• Throw out any artificial baby milk (formula) that has been sitting at room temperature longer than 2 hours.
• Other warming methods:
  o Put the bottle in hot water, if available for no more than 15 minutes.
  o Some bottle warmers have adapters to use in a car lighter socket.

Storage of freshly prepared artificial baby milk (formula):
• When power will be out longer than 2 hours:
  o Pack the bottles into a cooler (Styrofoam coolers are fine) and cover them with ice.
  o Keep a lid on the cooler.

Method to clean and sanitize bottles and nipples:
• Clean bottles and nipples using soapy water.
• Rinse thoroughly to remove soap residue and set the bottles and nipples aside.
• Drain and rinse out the soapy water from the basin.
• Measure water in a clean basin and add unscented household bleach (4-6%) such as “Clorox” or “Javex” to the water in the following amount:
  o ½ tsp (2mL) of bleach to 1 litre of water.
  o Completely immerse bottles and nipples into bleach solution for at least 45 seconds.
• Mark the level of water/bleach solution in the sink using electrical tape or marker, to make the sanitizing method easier in the future.
• Bottles and nipples should be air dried on a dry clean surface to ensure the chlorine from the bleach evaporates with the water.