# Table of contents

Your baby’s first food – make an informed decision about feeding your baby ................................................................. 3
Feeding Artificial Baby Milk (formula) to your baby ................................................................. 3
Hold your baby skin-to-skin ........................................................................................................ 3
Vitamin D supplementation ....................................................................................................... 4
Ask for help ........................................................................................................................................... 4
Food safety alerts – recall information ....................................................................................... 4
When should I feed my baby? ........................................................................................................ 4
Learn your baby’s hunger signs ..................................................................................................... 5
Types of Artificial Baby Milk (formula) ....................................................................................... 6
What kind of Artificial Baby Milk should I buy? ........................................................................ 7
Approximate amount of Artificial Baby Milk to prepare each day ............................................ 8
Choosing safe water to make Artificial Baby Milk ................................................................. 9
Equipment used to prepare and feed Artificial Baby Milk .................................................... 10
Tips for preparing Artificial Baby Milk .................................................................................. 10
Storage of Artificial Baby Milk .................................................................................................. 11
How to transport prepared Artificial Baby Milk ................................................................. 11
Tips for feeding Artificial Baby Milk .................................................................................... 12
Burping your baby .................................................................................................................. 13
Is my baby getting enough to eat? .......................................................................................... 13
How to feed your baby with a bottle .................................................................................... 14
How to sterilize equipment ....................................................................................................... 15
How to prepare ready-to-feed Artificial Baby Milk ............................................................. 16
How to prepare liquid concentrate Artificial Baby Milk ..................................................... 17
How to prepare powdered Artificial Baby Milk .................................................................... 18
Where to get infant feeding help .......................................................................................... 19
Your baby’s first food – make an informed decision about feeding your baby

Health Canada recommends that babies be fed only breast milk for the first six months of life. Breast milk should continue to be given along with the right foods for your baby’s age and stage for up to two years of age or longer. Breastfeeding promotes the healthy growth and development of babies, protects babies from illness, is environmentally friendly and free. Breastfeeding helps mothers recover from childbirth and protects against diabetes and breast and ovarian cancer.

Artificial Baby Milk (formula) does not protect a baby from infections or chronic diseases and does not change to meet the growing needs of a baby. Babies may also become sick from contaminated Artificial Baby Milk. It is important to remember that the decision not to breastfeed can be difficult to reverse or change.

If you are breastfeeding and decide to feed your baby Artificial Baby Milk, contact a lactation consultant or call Region of Waterloo Public Health and Emergency Services at 519-575-4400 (TTY: 519-575-4608) and ask to speak to a public health nurse for important information about how to feed your baby.

Feeding Artificial Baby Milk (formula) to your baby

If your baby is not fed breast milk, they will need to be fed Artificial Baby Milk. When your baby is 9 to 12 months of age and eating a variety of foods, including iron-rich foods every day, you can replace Artificial Baby Milk with pasteurized homogenized (3.25% MF) cow’s milk.

Hold your baby skin-to-skin

Hold your baby skin-to-skin as often as you can, starting right after birth. Place your baby wearing only a diaper, with their tummy against your bare chest. If you wish, you can then place a light blanket over both of you. Your baby can hear you, feel you and get to know you. Giving your baby lots of skin-to-skin contact will help you feel close to your baby and learn your baby’s hunger signs (see page 5).
Vitamin D supplementation

Health Canada recommends a daily vitamin D supplement of 400 IU (10 µg) for babies less than two years of age receiving any breast milk. If your baby is being fed only Artificial Baby Milk they do not need a vitamin D supplement.

Ask for help

If you have questions or have problems feeding your baby, get help right away. See page 19 for where to get infant feeding help.

Food safety alerts – recall information

For information about food recalls, including Artificial Baby Milk, you may go to: www.healthycanadians.gc.ca

When should I feed my baby?

Feed your baby when hungry, not at a scheduled time. Every baby is different. Let your baby decide:

- How often to feed – feed your baby at signs of hunger (see page 5)
- How much to have at each feeding – stop feeding when your baby shows signs of being full (see page 5)
Learn your baby’s hunger signs

<table>
<thead>
<tr>
<th>Early signs your baby is hungry:</th>
<th>Late signs your baby is hungry:</th>
<th>Signs your baby is full:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Makes sucking noises</td>
<td>• Crying</td>
<td>• Turns head away</td>
</tr>
<tr>
<td>• Searches with an open mouth</td>
<td>• Fussiness</td>
<td>• Looks settled and</td>
</tr>
<tr>
<td>• Sticks their tongue out and licks</td>
<td>• Exhaustion</td>
<td>relaxed</td>
</tr>
<tr>
<td>• Brings hands to mouth</td>
<td>• Falls asleep</td>
<td>• Arms and legs are</td>
</tr>
<tr>
<td>• Restlessness</td>
<td></td>
<td>stretched out and</td>
</tr>
<tr>
<td>Don’t wait until your baby cries; crying is a late sign of hunger.</td>
<td></td>
<td>relaxed</td>
</tr>
</tbody>
</table>

- Your new baby may need to feed at least eight times in a 24-hour period at first.
- Newborns have very small stomachs and may only take small amounts at each feeding. As your baby gets older, they will feed less often and eat larger amounts at each feeding.
- Babies have times when they grow faster than usual (growth spurts). Your baby may become hungrier at these times and need to eat more often, or have more to eat at each feeding. Let your baby decide how much to have.
Types of Artificial Baby Milk (formula)

**Ready-to-feed:** No water is added; see page 16 for instructions.

**Liquid concentrate:** Measure the correct amount of sterilized water as directed on the label and add an equal amount of liquid concentrate to the boiled water. Follow the mixing directions carefully. See page 17 for instructions. It is often the same cost as powdered types when bought by the case.

**Powdered:** Measure the correct amount of sterilized water as directed on the label and follow mixing directions on the package carefully. It is **not a sterile product**, even when unopened and may contain germs that may make a baby sick. If you choose to feed powdered Artificial Baby Milk to your baby, follow the steps for preparation on page 18 (WHO, 2007).

- If your health care provider has recommended your baby be fed powdered Artificial Baby Milk, follow the preparation instructions provided by your health care provider.

- Ready-to-feed and liquid concentrate Artificial Baby Milks are sterile products until opened. It is safest to use sterile liquid Artificial Baby Milk for babies who are premature, low birth weight, have a weakened immune system or are less than two months old (WHO, 2007).

- If your baby was born premature, at a low birth weight or has a weakened immune system, talk to your health care provider about feeding your baby.
What kind of Artificial Baby Milk should I buy?

All brands of Artificial Baby Milk must meet the same standards and provide the nutrients that your full term baby needs to grow and develop.

- Cow’s milk-based Artificial Baby Milk is recommended for most babies.
- Soy-based Artificial Baby Milk should only be used for medical reasons or for cultural or religious reasons. In those cases it should continue to be given until the child is two years old. At two years of age an unsweetened fortified soy beverage may be offered.
- Other specialty Artificial Baby Milks should only be used if recommended by a health care provider for medical reasons.

Once you have started feeding one kind of Artificial Baby Milk, continue to use the same one; it takes a baby several days to get used to a different one. Talk to a health professional before changing Artificial Baby Milks.

Tip: Check the “expiry” date printed on the package; do not buy or use a product after that date.

Do not replace or substitute Artificial Baby Milk with any of the following: cow or goat milk; soy or other vegetarian beverages; evaporated milk, evaporated milk recipes or other recipes for homemade Artificial Baby Milk. They do not have all the nutrients your baby needs.
Approximate amount of Artificial Baby Milk to prepare each day

The chart below provides a guideline for an approximate amount of Artificial Baby Milk to prepare each day. For breast milk amounts call Region of Waterloo Public Health and Emergency Services at 519-575-4400 (TTY: 519-575-4608).

**Approximate amount of Artificial Baby Milk (ABM) to prepare**

**THIS IS ONLY A GUIDELINE**

<table>
<thead>
<tr>
<th>Age of baby</th>
<th>Approximate amount of ABM to prepare each day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth to 24 hours</td>
<td>40 to 60 mL or 1.5 to 2 oz</td>
</tr>
<tr>
<td>24 to 48 hours</td>
<td>80 to 120 mL or 2.5 to 4 oz</td>
</tr>
<tr>
<td>48 to 72 hours</td>
<td>120 to 240 mL or 4 to 8 oz</td>
</tr>
<tr>
<td>72 to 96 hours</td>
<td>240 to 480 mL or 8 to 16 oz</td>
</tr>
<tr>
<td>4 to 7 days</td>
<td>300 to 600 mL or 10 to 20 oz</td>
</tr>
<tr>
<td>1 to 4 weeks</td>
<td>450 to 750 mL or 15 to 25 oz</td>
</tr>
<tr>
<td>1 month</td>
<td>750 to 1050 mL or 25 to 35 oz</td>
</tr>
<tr>
<td>2 months</td>
<td>750 to 1050 mL or 25 to 35 oz</td>
</tr>
<tr>
<td>3 to 5 months</td>
<td>750 to 1050 mL or 25 to 35 oz</td>
</tr>
<tr>
<td>6 to 8 months</td>
<td>480 to 1110 mL or 16 to 37 oz</td>
</tr>
<tr>
<td>9 to 11 months*</td>
<td>480 to 990 mL or 16 to 33 oz</td>
</tr>
<tr>
<td>12 months*</td>
<td>480 to 630 mL or 16 to 21 oz</td>
</tr>
</tbody>
</table>

*Part of this amount can be homogenized (3.25% MF) milk if your baby is eating a variety of foods from all four food groups, including iron-rich foods each day.

Adapted with permission from York Region Community and Health Services.

**Your baby’s appetite will let you know how much to offer.** Feed your baby when they show signs of hunger and stop feeding when they show you they have had enough to eat (see page 5 for signs of hunger and fullness). Offer smaller amounts at first; you can offer more if your baby is still hungry.
Choosing safe water to make Artificial Baby Milk

All water used to prepare Artificial Baby Milk must be clean and safe.

Tap water (municipal water)

- Make sure you use water from the cold water tap. Before using, run cold water for at least 2 minutes or to when the water runs very cold, especially if the water has been standing in the pipes for a number of hours or overnight. If you live in an older home, there is a chance that lead may be a concern. Running the water for at least 2 minutes before using it can help reduce the risk.
- Use hard (unsoftened) water when possible; softened water is higher in sodium.
- If a home filter is used for tap water, follow the manufacturer’s instructions for use and check how often you should change the filter. Otherwise, contaminants caught by the filter could be re-released into the water or form a build-up of organic matter that could promote bacterial growth.

Private well water

- Make sure you use water from the cold water tap (see above).
- Make sure the well water has been tested and is free of bacteria.
- Test well water at least three times a year for bacteria.
- Nitrates can be present in well water, and at levels over 10 mg/L is harmful to infants. You cannot get rid of nitrates by boiling the water. The only way to know whether there are nitrates in your well water is to have the water tested.
- Test for nitrates and other chemicals, such as fluoride, once a year. For more information call Region of Waterloo Public Health and Emergency Services at 519-575-4400 (TTY: 519-575-4608) or view our website: www.regionofwaterloo.ca/privatewellwater.

Bottled water

- If tap water is not available, bottled water can be used as an alternative.
- Choose water with the lowest amount of nitrates (≤10 mg/L) and sodium.
- Do not use carbonated, soda, seltzer, mineral, tonic, flavoured, or vitamin water.
- Health Canada suggests there is “no indication for the use of distilled water”.

Always sterilize water by boiling for 2 minutes in a clean pot. There is no known age that is safe to stop sterilizing water for preparing Artificial Baby Milk.
Equipment used to prepare and feed Artificial Baby Milk

- Use glass containers* if possible. If using plastic containers check that they are bisphenol A (BPA) free. For more information call Region of Waterloo Public Health and Emergency Services at 519-575-4400.
- Regularly check nipples. Throw out nipples that are cracked, torn, discoloured, swollen or sticky.
- Rinse feeding equipment as soon as possible after each use. Wash in hot soapy water using a brush when necessary and rinse well before sterilizing.
- Sterilize all equipment used for preparing and feeding Artificial Baby Milk. Cover equipment with water and bring to a rolling boil; continue to boil for 2 minutes. There is no research to indicate an age that it is safe to stop sterilizing equipment used to prepare and feed Artificial Baby Milk.

*A container for feeding Artificial Baby Milk may include bottle, cup, spoon, or tube system.

Sterilization and preparation instructions are pictured on pages 15 to 18 of this booklet.

Tips for preparing Artificial Baby Milk

- Sterilize water used to make Artificial Baby Milk by boiling for 2 minutes. **If using an electric kettle to boil water, make sure it boils for 2 minutes before it shuts off.**
- Cool water and use within 30 minutes. Measure the amount of water first and then add the measured amount of concentrate or powder to the water and mix well.
- Pour the prepared Artificial Baby Milk into a sterile container.
- Cool the prepared container of Artificial Baby Milk under cold running water before feeding it to your baby, or before storing it in the fridge.
- Do not freeze Artificial Baby Milk.
Storage of Artificial Baby Milk

**Ready-to-feed and liquid concentrate:** Keep prepared containers in the refrigerator and use within 24 hours. Tightly cover the open can and put in the refrigerator; use within 48 hours.

**Powdered:** Ideally, prepare only enough for one feeding at a time and feed right away after cooling. If putting into more than one container, store in the refrigerator and use within 24 hours. Cover can of powder with plastic lid and store in a cool dry place. Use within one month.

How to transport prepared Artificial Baby Milk

- Make sure the Artificial Baby Milk is cold before transporting.
- Place the container of cold Artificial Baby Milk in a cooler bag with ice packs to keep it cold.
- Feed the Artificial Baby Milk to your baby within two hours or put it into a refrigerator.
- If kept cold and put into a refrigerator within two hours, it may be kept in the refrigerator up to 24 hours from when it was prepared.
- If the Artificial Baby Milk is not fed or put into a refrigerator within two hours of being prepared, throw it out.
Tips for feeding Artificial Baby Milk

- Feed your baby at signs of hunger (see page 5)
- A container of Artificial Baby Milk prepared ahead and kept in the refrigerator may be warmed by placing it in a container of warm water for no more than 15 minutes
- Do not heat Artificial Baby Milk on the stove or in the microwave
- Shake the container and check the temperature on your wrist; if it is too hot, let it cool
- Hold your baby close while feeding (never prop a container in a baby’s mouth or leave your baby alone while feeding)
- Your baby’s head should be higher than their body; they should not be laying down
- If feeding with a bottle, hold the bottle in your hand at an angle so the nipple is filled with milk (no air in nipple)
- Give the baby your full attention; make eye contact, smile and talk to your baby during feedings
- Switch arms that you hold your baby to feed, halfway through each feed
- Stop feeding when your baby shows signs of having enough
- Throw away what your baby does not drink within 2 hours; do not put it back in the fridge
- Throw out Artificial Baby Milk that has been out of the fridge for two hours or more

How to feed your baby is pictured on page 14 of this booklet.
Burping your baby

- If you feed your baby with a bottle, your baby may get air in their stomach and may need to burp to get the air out.
- Take short breaks to burp your baby during each feeding and again after the feeding.
- Hold your baby upright on your shoulder or sit them on your lap and gently pat or rub the middle of their back.
- **Tip:** After every feeding, use a clean, warm, damp cloth to wipe your baby’s gums. When teeth appear, brush them twice a day using a soft baby toothbrush and water – no toothpaste. Brush teeth before bed.

Is my baby getting enough to eat?

- Your baby is getting enough to eat if your baby is having regular wet and soiled diapers, is gaining weight and is growing.
- Your health care provider should keep track of your baby’s growth by putting your baby’s weight and length on a growth chart at each visit. If you are concerned about your baby’s growth or about whether or not your baby is getting enough to eat, talk to your health care provider.
How to feed your baby with a bottle

1. Put bottle in warm water for no more than 15 minutes.
2. Do not heat bottles on stove or in the microwave.
3. Shake bottle well.
4. Check temperature on your wrist. Let cool if too hot.
5. Check for one drop per second.
6. Watch your baby for early feeding cues (see Tips for Feeding).
7. Wait for your baby to open her mouth.
8. Tip bottle slightly so there is no air in nipple.
9. Always hold your baby close in an upright position.
10. Watch your baby swallow. Allow baby to rest.
11. Burp your baby as needed. Stop feeding when your baby shows signs of being full.
12. Throw away what your baby does not drink within one hour. Rinse bottle and nipple.

Exclusive breastfeeding is recommended to six months followed by introduction of appropriate solid foods and continued breastfeeding for up to two years and beyond. Never add cereal to a bottle.

Adapted with permission from Toronto Public Health.
How to sterilize equipment

Follow these steps to keep your baby safe. Always sterilize equipment.

Steps

1. Wash hands and counter with soap and water.
2. Wash all items in warm soapy water.
3. Make sure holes in nipples are not clogged.
4. Rinse well.
5. Put clean items in a pot. Fill pot with water.
6. Boil for 2 minutes. Keep pot covered until items are needed.
7. Remove items with tongs. Set on a clean paper towel.

What you need

• Large pot with lid
• Bottle brush and nipple brush
• Bottle holders
• Bottle caps
• Roll of disposable liners
• Glass measuring cup
• Tongs
• Knife
• Fork
• Can opener
• Glass bottles (if possible)
• Nipples
• Caps
• Rims

If using a disposable system
• Bottle holders
• Caps
• Nipples
• Roll of disposable liners

Note: If using disposable bottles, sterilize only nipples, rims and caps.

Throw out liners after one use. Throw out nipples when they become soft and sticky.

Throw out nipples when they become soft and sticky.

Adapted with permission from Toronto Public Health.
How to prepare ready-to-feed Artificial Baby Milk

1. Wash hands and counter with soap and water.
2. Have sterilized items ready on a clean paper towel (see How to sterilize equipment).
3. Read label.
4. Wash top of can with warm water.
5. Shake can. Open with sterile can opener.
6. Pour amount of artificial baby milk for one feeding into each bottle (use glass if possible). DO NOT ADD WATER.
7. Pick up nipples, rims and caps with sterile tongs and put on bottles. Then tighten with your hands.
8. Put bottles in refrigerator. Use within 24 hours.
9. Tightly cover open can and put in refrigerator. Use within 48 hours.

Adapted with permission from Toronto Public Health.
Formula Feeding Your Baby

Adapted with permission from Toronto Public Health.

### Preparation of liquid concentrate Artificial Baby Milk

1. **Wash hands and counter with soap and water.**

2. **Run cold water for at least 2 minutes.** Boil water for 2 minutes. Let it cool and use within 30 minutes.

3. **Have sterilized items ready on a clean paper towel (see how to sterilize equipment).**

4. **Read the label.** It will tell you how much artificial baby milk and water to use. Wash top of can with warm water.

5. **Shake can.** Open with sterile can opener.

6. **Pour boiled water into glass measuring cup.**

7. **Add an equal amount of liquid concentrate to the boiled water.** Be sure to measure carefully. Stir well with sterile fork.

8. **Pour amount of artificial baby milk for one feeding into each bottle (use glass if possible).**

9. **Pick up nipples, rims and caps with sterile tongs and put on bottles. Then tighten with your hands.**

10. **Shake bottle well.** Cool bottle under cold running water.

11. **Put bottles in refrigerator. Use within 24 hours.**

12. **Tightly cover open can and put in refrigerator. Use within 48 hours.**

**Steps**

- **1.** Wash hands and counter with soap and water.
- **2.** Run cold water for at least 2 minutes. Boil water for 2 minutes. Let it cool and use within 30 minutes.
- **3.** Have sterilized items ready on a clean paper towel (see how to sterilize equipment).
- **4.** Read the label. It will tell you how much artificial baby milk and water to use. Wash top of can with warm water.
- **5.** Shake can. Open with sterile can opener.
- **6.** Pour boiled water into glass measuring cup.
- **7.** Add an equal amount of liquid concentrate to the boiled water. Be sure to measure carefully. Stir well with sterile fork.
- **8.** Pour amount of artificial baby milk for one feeding into each bottle (use glass if possible).
- **9.** Pick up nipples, rims and caps with sterile tongs and put on bottles. Then tighten with your hands.
- **10.** Shake bottle well. Cool bottle under cold running water.
- **11.** Put bottles in refrigerator. Use within 24 hours.
- **12.** Tightly cover open can and put in refrigerator. Use within 48 hours.
Preparation of powdered Artificial Baby Milk

1. Wash hands and counter with soap and water.

2. Run cold water for at least 2 minutes. Boil water for 2 minutes. Let it cool and use within 30 minutes.

3. Have sterilized equipment ready on a clean paper towel (see How to sterilize equipment).

4. Read the label. It will tell you how much powder and water to use. Wash top of can with warm water.

5. Pour boiled water into empty glass measuring cup.

6. Fill scoop from can with powder. Level with a knife.

7. Add the required number of scoops of powder to the boiled water. Mix until no lumps of powder are left.

8. Pour amount of artificial baby milk for one feeding into each bottle (use glass if possible).

9. Pick up nipples, rims and caps with sterile tongs and put on bottles. Then tighten with your hands.

10. Shake bottle well. Cool bottle under cold running water.

11. Put bottles in refrigerator. Use within 24 hours.

12. Cover can with plastic lid. Store in a cool, dry place. Use within 1 month.

Adapted with permission from Toronto Public Health.
Where to get infant feeding help

**EatRight Ontario**
Call to speak to a Registered Dietitian: 1-877-510-5102 or go to: [www.eatrightontario.ca](http://www.eatrightontario.ca)

**Region of Waterloo Public Health and Emergency Services**
For more information call 519-575-4400 (TTY 519-575-4608) and ask to speak to a public health nurse or go to: [www.regionofwaterloo.ca/ph](http://www.regionofwaterloo.ca/ph) for information on our website.

**Cambridge Paediatric and Breastfeeding Clinic**
Call to make an appointment with a lactation consultant: 519-620-3600 (You will need a referral from your health care provider.)

**Telehealth Ontario**
For breastfeeding support call 1-866-797-0000
24 hours a day, 7 days a week

**Websites for more information:**
Canadian Pediatric Society: [www.caringforkids.cps.ca](http://www.caringforkids.cps.ca)
Healthy Canadians: [www.healthycanadians.gc.ca](http://www.healthycanadians.gc.ca)

**References:**
Health Canada, Canadian Paediatric Society, Dietitians of Canada, & Breastfeeding Committee for Canada (2012). *Nutrition for healthy term infants: Recommendations from birth to six months.*

World Health Organization (WHO) and Food and Agriculture Organization (FAO) (2007). *Safe preparation, storage and handling of powdered infant formula guidelines.*

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