Formula Feeding Your Baby
Families feed formula for medical or personal reasons, exclusively or as a supplement. This resource will help parents, families, caregivers, and childcare providers prepare, feed and store formula safely. The information is meant for healthy, term babies. If your baby is premature (under 37 weeks gestation), had a low birth weight (under 2500 grams) or has a weakened immune system, ask your health care provider to suggest what type of formula is best.

Feeding baby is more than just giving them nourishment; it’s a time to learn about baby and to feel connected to each other. This connection contributes to the growth and brain development of baby.

You May Have Heard About Skin-to-Skin

Skin-to-skin is holding your unclothed baby against your skin i.e. your bare chest to baby’s bare chest. The baby can have a diaper on if you prefer.

Holding your newborn baby skin-to-skin everyday during the first few months helps:

- baby adjust after birth
- calm baby and reduces stress
- protect against infection
- support bonding
- keep baby warm
- support healthy brain, heart and lung function
- calm baby during stressful or painful procedures

Anyone in the family can enjoy skin-to-skin with the new baby. Feeding time is the perfect time for skin-to-skin as you are already holding baby.
How to Choose an Infant Formula

There are many types and brands of formula that are available in the store.

Choose:
- a formula that meets safety standards set up by Health Canada (should say on container)
- a cow’s milk-based, store-bought infant formula with iron
- a formula with a valid expiry date. Do not use formula that is expired.

The following do not have the nutrients necessary for baby’s development and some can be harmful.

Do not use:
- homemade formulas
- goat’s milk
- plant based beverages (almond, cashew, soy, rice, oat, etc.)
- cow’s milk before your baby is nine months old

Talk with your health care provider if you have questions about the formula you should use.

Formula Comparison Chart

<table>
<thead>
<tr>
<th>Formula</th>
<th>Preparation</th>
<th>Cost</th>
<th>How to store container after opening</th>
<th>How long open container can be stored</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powder</td>
<td>• boil water for two (2) minutes</td>
<td>least expensive</td>
<td>covered in a cool dark place</td>
<td>less than 30 days</td>
</tr>
<tr>
<td>*Powdered infant formula is not sterile.</td>
<td>• add powder to water while it is still over 70°C and follow mixing instructions that come with your powdered formula</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid concentrate</td>
<td>• boil water for two (2) minutes</td>
<td>more expensive</td>
<td>covered in fridge</td>
<td>Between 24 to 48 hours. Check the formula container for the different formula recommendations</td>
</tr>
<tr>
<td></td>
<td>• let water cool</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• mix equal amounts of water and liquid concentrate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ready to feed</td>
<td>• use as is</td>
<td>most expensive</td>
<td>covered in fridge</td>
<td>Between 24 to 48 hours. Check the formula container for the different formula recommendations</td>
</tr>
</tbody>
</table>

Do not mix different types or forms (such as powdered and concentrate) of formula together when preparing bottles unless directed by your health care provider.
Take Steps to Keep Baby Healthy When Preparing Infant Formula

- Wash your hands with soap and water.
- Wash countertops where bottles will be placed with soap and water.
- Wash all bottles, nipples, caps and rims with soap and water, and then sterilize them.
- Follow mixing instructions that come with your formula choice.
- Boiled tap water is the best water to use to make formula.

How to Sterilize

1. Wash and clean your hands and countertops with soap and water.
2. Wash all items in warm, soapy water and make sure nipple holes are not clogged.
3. Use a bottle brush that is only used on your infant feeding equipment. Scrub the inside of the bottles and nipples to make sure they are clean.
4. Rinse all items in hot water. Place on clean surface. Now you are ready to sterilize.
5. Put items in a large pot. Fill the pot with enough water to cover all the items. Bring water to rolling boil for two (2) minutes.
6. Let water cool. Remove items with tongs and place on clean towel.
It is recommended that you sterilize all equipment for the entire time your child is formula feeding.

- It is safe to use home sterilizers that you can buy in the store, but be sure to follow the manufacturer’s instructions.
- Most dishwashers do not get hot enough to sterilize bottles and other feeding equipment.
- Automatic formula preparation machines for use at home are not recommended. Bacteria can grow in the water if it sits too long in the machine and the water in these units is not warm enough to kill the bacteria that may be in the powder formula. These machines are also difficult to clean properly.

**Note:**
- Do not use bottles or equipment if they are cracked or discoloured.
- Nipples should not be used if they are cracked, discoloured or sticky.
- Nipples should be replaced at minimum every three months.

### Choosing Water to Make Formula

Concentrated liquid formula and powdered formula need to be mixed with water. There are many types of water on the market and all water used for formula should always be sterilized before use.

Water that is recommended:

- Cold tap water if the water is not from a well. Run the cold water for at least two minutes before using. This reduces contaminants.
- Well water that has been tested regularly. This water is tested for bacteria and for nitrate levels. High levels of nitrates can be dangerous for babies. Connect with your local health unit about your water and the recommended testing.

If there is a boil water advisory in your community, use bottled water and sterilize it.

If you do not have a safe water source, use ready to feed formula.

**Note:** Water that comes from a source using a water softener is not recommended for infants. All bottled water is not sterile and needs to be sterilized before it can be used.
How to Make Powdered Formula for the Day

Powdered infant formulas may contain harmful bacteria. Proper preparation and storage is very important to destroy harmful bacteria. Premature (under 37 weeks gestation) and/or low birth weight (under 2500 grams) infants under two months of age, or immune compromised babies are most at risk for getting sick. These babies should drink sterile, liquid formulas if possible. If you have questions, ask your health care provider for recommendations on formula for your baby.

1. Have sterilized items ready (see how to sterilize on page 4)

2. Bring water to a rolling boil for two (2) minutes. You do not have to cool the water before adding the powder. However, if you let the water cool to below 70˚C, you will need to heat it again. The heat kills any bacteria in the formula.

3. Wash and clean your hands and countertops with soap and water.

4. Read label for correct amount of powder and water. Use the scoop from inside the can.

5. Pour sterilized 70˚C or hotter water into a measuring cup.

6. Fill scoop from the can with the powder. Level with knife.
7. Add the right amount of powder to the water.

8. Mix until smooth

9. Fill bottles with formula. Use sterile tongs to put nipples, discs, rims and caps on bottles.

10. Cool the bottle of formula under cold, running water or a bowl filled with cold water.

11. Once cooled, place in fridge. Use within 24 hours.

12. Before feeding baby, always check the temperature of the formula to ensure it is not too hot.

13. The remaining powdered formula container should be covered with the provided lid, kept in cool dark place, and used within one month.

*NOTE: If you do not have a refrigerator, prepare fresh bottles to feed immediately as seen in Preparing Powdered Infant Formula for Immediate Use.

Preparing Powdered Infant Formula for Immediate Use

If your baby is full term (born after 37 weeks of pregnancy) and healthy, powdered formula can be prepared for immediate use with previously boiled water that has been cooled to room temperature and stored in a sterilized covered container. Make sure that all bottles, spoons, nipples, lids and other equipment are sterilized. If these items aren’t used immediately, you can cover and store them in a clean place. Prepare the individual bottle, mixing the powdered formula and the water according to instructions, right before the planned feeding and use immediately.
How to Make Liquid Concentrate Formula

1. Have sterilized items ready (see how to sterilize on page 4)
2. Bring water to a rolling boil for two (2) minutes. Let the water cool to room temperature.
3. Wash and clean your hands and countertops with soap and water.
4. Rinse the top of the can with warm water and make sure the can does not have any dents.
5. Shake the can. Open with a sterilized can opener.
6. Add the same amount of formula and water to each bottle. Mix gently with a sterilized utensil.
7. Fill bottles with formula. Use sterile tongs to put nipples, discs, rims and caps on bottles.
8. Put bottles in the refrigerator. Use prepared bottles within 24 hours. Do not leave bottles standing at room temperature. Put a tight cover on the can of unused liquid concentrate and store it in the refrigerator. Use within 24 to 48 hours. Check the formula container for the different formula storage recommendations.
9. Before feeding baby, shake the bottle well and always check the temperature of the formula to ensure it is not too hot.
How to Make Ready-to-Feed Formula

1. Have sterilized items ready (see how to sterilize on page 4)

2. Wash and clean your hands and countertops with soap and water.

3. Rinse the top of the can with warm water and make sure the can does not have any dents.

4. Shake the can. Open with a sterilized can opener.

5. Fill each bottle with enough formula for one feeding. Do not add water.

6. Use sterile tongs to put nipples, discs, rims and caps on bottles.

7. Put bottles in the refrigerator. Use prepared bottles within 24 hours. Do not leave bottles out at room temperature. Put a tight cover on the can of unused ready to feed formula and store it in the refrigerator. Use within 24 to 48 hours. Check the formula container for the different formula storage recommendations.

8. Before feeding baby, shake the bottle well and always check the temperature of the formula to ensure it is not too hot.
Feeding Your Growing Baby

• As your baby grows during the first few weeks, they will drink more at each feeding. Expect your baby to feed often in the first month or so. After that, your baby may go longer between feedings and then will drink more at each feeding.

• Feed according to your baby’s cues. Babies may eat different amounts and at different times of the day.

• Growth spurts are common at about three weeks, six weeks, three months and six months. Your baby may want more formula at these times or may want to feed more often.

• Respond to your baby’s feeding cues and if you have questions, speak to your health care provider.

All babies need a vitamin D supplement. Talk with your health care provider to find out how much vitamin D your baby needs.

If you have questions or concerns about feeding your baby, talk to your health care provider.

Signs Your Baby is Hungry

In the first few months of life most babies will need to eat many times throughout a 24 hour period (at least eight times). This means they will eat during the day and during the night. This is normal and can last many months. Every baby grows at a different rate so they may need more feedings overnight. Your baby will let you know when they are hungry.

Signs (feeding cues) that your baby is hungry:
• sucks on fingers, hands or tongue
• smacks lips
• opens mouth when you touch their cheek (rooting)
• turns head towards you rooting for nipple

It’s important to watch for these signs. Waiting until your baby is crying may make feeding them difficult. Crying is considered a late sign of hunger.
Signs That Your Baby is Full

- baby stops drinking . . . lets go of the bottle nipple and may turn head away
- looks settled and relaxed
- arms and legs are stretched out

It is important to learn to recognize your baby's feeding cues so you can tell when your baby is hungry and when they are full.

How to Pace Feed Your Baby a Bottle

- Wash your hands well with soap and water.
- Cuddle or hold your baby close when feeding. Holding your baby skin-to-skin while feeding can calm baby.
- Look into your baby’s eyes while feeding to help them feel safe and loved.
- Hold your baby in an upright position, so that your baby’s head is higher than the body, keeping the head supported.
- Brush the bottle nipple against baby’s lips and when baby opens their mouth wide, with their tongue down, help baby pull the nipple in. Don’t force the nipple of the bottle into your baby’s mouth.
- Tilt the bottle only a little, keeping it almost flat, so that it is easier for your baby to manage the flow of the formula. Some air in the nipple will not cause a problem for your baby.
- Your baby may need short breaks during the feed to give baby time to decide whether they want to stop or take more.
- Signs of stress during feeding may be:
  - milk leaking or dribbling out of baby’s mouth
  - choking or gagging while feeding
  - gulping or swallowing quickly without taking a breath after each swallow
  - squirming or struggling during the feed
  - pushing the bottle away with their hands or tongue, or moving their head away
- Baby may also need to burp during the feed.
- Hold your baby in one arm for some feeds and in the other arm for others. Alternate which arm you hold your baby in when feeding. This helps your baby with muscle development while they turn their head to look at you.

Note: If your baby is showing signs of stress during feedings, check if your feeding supplies are right for your baby. For example, the flow of milk from the nipple you are using may be too fast and the nipple may need to be replaced.
Always hold your baby when they are being fed a bottle. Do not use objects such as a blanket or a pillow to hold the bottle to baby’s mouth as your baby may drink too much or too little. It may also cause choking. Do not put your baby to bed with a bottle as this can cause tooth decay (cavities) and ear infections.

What to Expect

<table>
<thead>
<tr>
<th>Your baby's age</th>
<th>1 Day</th>
<th>2 Days</th>
<th>3 - 4 Days</th>
<th>5 - 7 Days</th>
<th>2 To 3 Weeks</th>
<th>4 Weeks To 6 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of baby's tummy</td>
<td>Dime</td>
<td>Quarter</td>
<td>Toonie</td>
<td>Egg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often should you feed your baby?</td>
<td>Babies have small tummies and need to be fed often. Most babies feed at least eight or more times in 24 hours.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How many wet diapers? (every 24 hours)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6 (7 days – 6 months)</td>
</tr>
<tr>
<td>How many soiled (poopy) diapers? (every 24 hours)</td>
<td>1 to 2 (colour is black or dark green)</td>
<td>2 to 3 (colour is brown, green or yellow)</td>
<td>Pasty, peanut butter-like poop on the brown color range: tan-brown, yellow-brown, or green-brown. Poop once a day, sometimes more. It is not how often a baby poos that matters but how hard the poop is once it’s passed. If it is softer, this is okay. If it is hard this could be cause for concern. If you are worried about constipation talk with your health care provider.</td>
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</tbody>
</table>
Burping

Burp your baby part way through the feed and then after they are finished feeding.

Signs that your baby may need to burp:
- arching their back
- fussing or getting cranky
- pulling away from the bottle
- sucking slows down or stops

Burp your baby by gently patting their back with a cupped hand. Try these positions to burp your baby:

- Hold your baby upright over your shoulder.
- Hold your baby in a sitting position on your lap. Your baby should be leaning slightly forward with your hand supporting their jaw.
- Place your baby on their stomach across your lap.
After the Feeding

When baby is finished eating, throw out any remaining formula left in the bottle. After feeding begins, use formula within one hour or discard even if the baby has not drank from the bottle. Rinse the bottle and bottle parts right after the feeding.

Clean your baby’s gums with a clean, warm, damp cloth after each feeding. As your baby grows, wipe their gums and brush their teeth to help prevent cavities.

Warming Up Formula

Place the bottle of formula in a bowl of hot water. Let bottle sit in the hot water until warm. Gently shake bottle. Test the temperature of the formula on your wrist before feeding your baby to make sure that it is not too hot. The temperature on your wrist should be slightly warm.

Note: Never heat a bottle in the microwave because the heat is uneven and can cause hot spots that could burn your baby’s mouth.

Transporting Formula

It is safest to travel with unopened ready-to-feed formula. The next safest way is to boil water for your formula at your destination. If you are unsure of the safety of the water at your destination, bring safe water from home that has been boiled and is in a sterilized container. If you must prepare the formula ahead, only take a bottle with you after it is cooled to refrigerator temperature, which is about 4 °C. Whenever possible, place the formula in a refrigerator once you reach your destination. If there is no refrigerator available, keep the formula in a cooler bag with an icepack until feeding time. When formula has been out of the fridge, it is safest to use it within two hours.
For More Information

For more information or help with feeding your baby call your local Public Health Nurse or connect with the following resources:

Health Links – Info Santé
204-788-8209 in Winnipeg or toll free at 1-888-315-9257,
24 hours a day, 7 days a week

Dial-A-Dietitian
204-788-8248 in Winnipeg or toll free 1-877-830-2892,
Monday to Friday 8 a.m. to 6 p.m.

Manitoba Parent Zone: www.manitobaparentzone.ca

Healthy Child Manitoba Office www.manitoba.ca/healthychild/healthybaby/index.html
https://healthyparentingwinnipeg.ca

Health Canada recommends breastfeeding for babies and toddlers, exclusively for the first six months, and sustained for up to two years or longer. If you want more information on infant feeding please contact your health care provider.

www.manitoba.ca/healthychild/healthybaby/hb_breastfeedingyourbaby.pdf