



Formula Feeding Your Baby

**A guide for when you have decided
to formula feed your healthy full term baby.**

Simcoe Muskoka District Health Unit supports exclusive breastfeeding to six months as the normal and natural way to feed your baby. If you are currently breastfeeding and planning to add formula to your baby's diet, be aware that it may reduce your breast milk supply and make it difficult to stop formula and return to total breastfeeding at a later date.

If supplementation is necessary, the recommended order of what try first is mother's expressed breastmilk, followed by human donor milk and commercial cow's milk-based infant formula. To maintain and improve breastfeeding and your breastmilk supply, see a lactation professional.

This resource is intended to assist families to prepare and use formula to feed healthy, full term infants. Babies with special needs due to pre-term birth or other circumstances may require different supports. This resource is not intended to take the place of the advice and instruction of a health care provider in these circumstances.

The resource refers to feeding formula with a bottle, but parents may choose to use other methods like an open cup or a lactation aid that allows for delivery of formula at the breast.

For more information or to speak to a public health nurse about feeding your baby, contact *Health Connection*.

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**simcoe
muskoka**
DISTRICT HEALTH UNIT

Tel: 705-721-7520
Toll free: 1-877-721-7520
www.simcoemuskokahealth.org

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Introduction

Cow's milk-based infant formula is the standard choice for **healthy, full-term** babies who are not breastfed. Infant formula provides the needed nutrition for your growing baby if you have decided not to breastfeed, nor to offer expressed breast milk or expressed donor milk. Your baby does not need other foods or fluids during the first six months of life.

At six months of age, you will introduce your baby to solid food, but formula will continue to be a big part of her diet. You can introduce whole cow's milk (3.25% milk fat) between 9 and 12 months of age once your baby is eating a variety of solid foods, including foods rich in iron.

Infant formula is available in three forms: ready-to-feed (no water needed), liquid concentrate and powdered (mix with water). All three forms offer the same calories, vitamins and minerals but are different in price and the way they are prepared. Ready-to-feed and liquid concentrate formulas are sterile until the can is opened. This means the formula does not contain any harmful bacteria. Powdered formula is not sterile. It may contain bacteria. Your baby could get very sick if you do not prepare and store formula properly. Follow the mixing directions carefully to lower the risk of infection from bacteria.

REMEMBER

All cow's milk formulas will provide the nutrients needed for healthy growth and development, no matter what the price or brand.

Iron in infant formula does not cause constipation.



There can be safety issues with infant formula. Be sure to check often for safety and recall alerts.

Go to:

<http://www.healthycanadians.gc.ca/recall-alert-rappel-avis/index-eng.php?cat=99>
(use search term "infant formula").



Powdered formula is not sterile and may not be suitable for all infants, for example, those born prematurely, at a low birth weight, or with a weak immune system.

Types of Formula

There are many other types of formula available in addition to iron-fortified cow's milk formula. Some have extra ingredients that may not be needed and may cost more.

Formula with pre or probiotics

These formulas provide healthy bacteria. More research must be done before it can be decided if these formulas are of benefit to babies.

Formula with added DHA and ARA

These formulas have added omega-fatty acids DHA (omega-3) and ARA (omega-6). It has not been confirmed that these formulas are of benefit to healthy full-term babies.

Follow-up formula

Follow-up formulas or second-stage formulas usually have more calcium and iron than regular formula. They can be used after six months, but this is usually not necessary, as babies should be able to get enough of these nutrients from the solid food they are eating. You can continue to use the same formula you have been using during the first six months.

Specialty formula

Specialty formulas are **ONLY** needed when recommended by your health care provider. Below are some examples of specialty formulas.

- **Soy formulas** are made with soy protein, are lactose free and iron-fortified. This formula is ideally for babies who cannot have dairy products for cultural or religious reasons, or for very certain health reasons. These babies should continue to drink soy formula until they are two years of age. Babies with a particular type of allergy to cow's milk may also be allergic to soy.
- **Hydrolyzed formulas** are made with proteins that have been hydrolyzed, or broken down. Infant formulas with extensively hydrolyzed protein are meant for babies who have a doctor-confirmed cow milk or soy protein allergy.
- **Lactose-free formulas** are made by taking the lactose out of cow's milk. Babies are rarely born with a problem digesting lactose so these formulas are usually not needed.
- **Thickened formulas** have been somewhat thickened with rice starch. They may be labelled as suitable for babies who spit up a lot. However, spitting up is normal in babies and only very rarely leads to health problems.

REMEMBER

Once you have chosen a brand and type of formula, continue to use the same one. It takes a baby several days to adjust to a new formula.



The following are nutritionally incomplete compared to infant formula:

- cow's or goat's milk
- evaporated milk
- soy, rice, almond, hemp or other plant based beverages,
- any type of homemade infant formula

Feeding Your Baby

How will I know when my baby is getting hungry?

It is important to feed your baby when she begins to show signs of hunger – these signs are called feeding cues. Try feeding her when she:

- Starts to wake up
- Stretches, stirs and yawns
- Brings her hands to her mouth
- Makes sucking or licking sounds
- Opens her mouth wide as if searching for food

 If your baby is sleepy, not waking for feeds, or not eating well, speak with your health care provider.

Remember that crying is a late sign of hunger, and can make it difficult to feed your baby. It is easiest to feed baby when she is calm and content.

How will I know when my baby has had enough to eat?

Your baby will show signs when she begins to feel full. Your baby has probably had enough to eat, even if her bottle is not empty, when she:

- stops sucking or is sucking very little
- spits out or refuses the bottle nipple
- closes her mouth as the bottle comes near
- pushes or arches away from the bottle and becomes fussy
- begins to fall asleep

REMEMBER
Pay attention to these signs to avoid over-feeding your baby.

REMEMBER
Babies may go through periods when they want to drink formula more often and in bigger amounts than what they had been normally. These are called growth spurts, this is normal and may happen around 3 weeks, 6 weeks, 3 months and 6 months of age.

Let your baby be your guide

Every baby needs a different amount of formula. The amount your baby drinks depends on many things, such as her size and the rate at which she grows. You know your baby is getting enough if she is satisfied after feeding, has regular bowel movements and wet diapers, and is gaining weight. Follow your baby's hunger and fullness cues and let your baby be your guide to how much formula she needs at each feeding.

Safe Water

Always use water from a clean and safe source when making powdered or liquid concentrate formula.

If you live in an older home or in an area with older municipal water distribution systems (pipelines to the house) there may be lead pipes or lead solder used to join the pipes. Even small amounts of lead exposure can harm the development of your baby's brain and nervous system. The only way to know if your tap water contains lead is to have it tested. Make sure you use water from the cold water tap. Let the cold water run for at least 2 minutes before using, especially in the morning. Lead is more likely to be found in hot water from the tap, especially if the water has been sitting in the pipes for several hours.

- Avoid softened water. Water that has gone through water softeners can contain too much salt (sodium) for infants. If you have a water softener, consider one of the following:
 - Bottled water (not fortified or carbonated)
 - Bypass the kitchen sink
 - Bypass the softener completely
 - Reverse osmosis unit
- If you use a home water filter (e.g. Brita[®], reverse osmosis) follow the manufacturer's instructions for use and how often you should change the filter. Organic matter can build up on old filters which can lead to bacterial growth.

Municipal Water

Municipal water is tested regularly for both bacteria and chemicals making it a safe choice for preparing infant formula.

Private Water Sources

- Test your water for bacteria at least three times a year and at least once a year for nitrates and other chemicals. Nitrates are harmful to infants and you cannot get rid of nitrates by boiling the water. The only way to know if your water contains nitrates is to have it tested.
- For more information about water testing or water quality, call *Health Connection* at 705-721-7520 or 1-877-721-7520 and ask to speak to a public health inspector.

Bottled water from the store

- Bottled water that is not fortified (has no added minerals or vitamins) and is not carbonated is also safe to use.
- Certain types of water that should not be used are:
 - Mineral water
 - Distilled water
 - Carbonated water
 - Soda water
 - Tonic water
 - Flavoured water
 - Fortified water
- Check to see if the bottle of water has a “Best before Date”. Do not use the water if it has passed the best before date or if the seal on the bottle is broken.
- Store-bought baby water (e.g. Nursery®) costs more and is not needed.

Safe Water for Powdered Formula

The safest way to prepare powdered formula is to use water that has been boiled and then cooled to no less than 70°C.

If you do not have access to boiling water:

- You may wish to use ready-to-feed formula.
- You can prepare bottles using previously boiled water that has been cooled to room temperature if baby will drink the formula **right away**.
- Do not store prepared bottles made with water cooler than 70°C for use later.

How to Prepare Equipment

Sterilization of all feeding equipment is recommended. While there is no age at which it is safe to stop sterilizing equipment, by 6 months babies are doing a lot of exploring on their own and are exposed to many germs. At this point, you may choose to wash bottles and other items in warm soapy water instead.

1

Gather your equipment:

- Bottles, nipples, caps, rims
- Nipple brush and bottle brush
- Can opener
- Tongs
- Large pot with cover
- Clean tea towel or paper towels



2

Wash your hands with soap and warm water. Dry hands with a clean towel, and clean the counter top.



3

Wash bottles and other items that you will use to make formula in warm soapy water. You may use nipple and bottle brushes. Rinse well.



4

Put items in a pot. Cover with water. Bring water to a rolling boil for two minutes.



5

Remove items with clean tongs. Set on a clean tea towel or paper towel, cover and air-dry before use or storage. Avoid cross-contamination from other foods prepared in the kitchen.



How to Make Formula

It is best to make one bottle of formula at a time and feed your baby right away. Before preparing, check the expiration date on the formula packaging.

Steps 1-5 for all types of Formula

1
Read and follow the instructions on the can exactly. Adding too much or too little water to your baby's formula can harm your baby.



2
Wash your hands with soap and warm water. Dry hands with a clean towel and clean the countertop.



3
Be sure can is clean and has no dents.



4
If using liquid formula, shake the can well.



5
Open the can using a clean can opener, if needed.



Ready-to-Feed Formula

6
Pour the amount of formula for one feeding into each bottle. **DO NOT ADD WATER.** Place nipple, rim and cap on the bottles and tighten.



7
Feed your baby right away or store the bottles in the refrigerator for up to 48 hours.



8
Throw away any formula left in the bottle after feeding your baby within 2 hours.



Liquid Concentrate

Liquid concentrate formula must be prepared by adding water according to manufacturer's directions.

6

Pour the correct amount of liquid concentrate into the bottle. Then pour an equal amount of safe, clean water into the bottle. Place nipple, rim and cap on the bottles and tighten.



7

Gently shake the bottle to mix it well.



8

Check the temperature by dripping a small amount onto the inside of your wrist. The temperature should be warm, not hot.



9

Feed your baby right away or store the bottles in the refrigerator for up to 24 hours.



10

Throw away any formula left in the bottle after feeding your baby within 2 hours.



Powdered Infant Formula

Powdered formula is not sterile. It may contain harmful bacteria. If you use this formula, you will need to take special care when you make it.

6

Bring a pot of water to a rolling boil for two minutes. If you are feeding your baby right away (ideal), you can use water cooled to room temperature. If preparing bottles for later use, cool the boiled water to no less than 70°C (this takes about 30 minutes).



7

Pour water into an empty bottle.



8

Use the scoop found in the can to measure the powder. Level each scoop with a clean knife. Be sure to add the right number of scoops. Place nipple, rim and cap on the bottle and tighten.



9

Gently shake the bottle to mix it well. There should be no lumps of powder.



10

Cool under running water. Check the temperature by dripping a small amount onto the inside of your wrist. The temperature should be warm, not hot.



11

Feed your baby right away or store the bottles in the refrigerator for up to 24 hours.



12

Throw away any formula left in the bottle after feeding your baby within 2 hours.

When Feeding Your Baby Formula

Your baby will feed best when you have a special feeding routine together.

When it is time for a feeding, make it a positive, relaxing time together:

- Choose a quiet, comfortable place to sit
- Cradle baby gently in your arms, held in an upright position
- Look at your baby, following her cues
- Allow baby to take her time and take the lead
- If bottle feeding, put the bottle nipple just below the lower lip and wait for an “invitation” to put the bottle in. Tilt the bottle only a little, keeping it almost flat
- Talk quietly or sing to your baby

Remember to burp your baby several times during and after each feeding to avoid painful build-up of gas.

If bottle feeding, be sure to look for **signs of stress** in your baby. Things to look for include milk leaking or dribbling out of their mouth, swallowing quickly without taking a breath after each swallow, gulping, choking, smacking or squeaking noises, squirming or struggling during the feed, breathing fast or working hard to catch their breath, pushing the bottle away/moving their head away and stressed look on their forehead. If you see any of these signs, try stopping the feeding and starting again, or feeding at a later time. Always pay attention to their feeding cues.

Many mothers who are breastfeeding, or are working towards breastfeeding, often decide to feed expressed breast milk or formula by a method other than a bottle.

Skin to Skin Contact for Your Baby

Both you and your baby benefit from being in skin to skin contact while feeding and at other times. Infant body temperature, heart rate, breathing and blood sugar levels are more stable and normal when babies are held in direct contact with their parents’ bare skin and they are less likely to cry. Holding your baby this way will have a calming effect on you too and will help you feel satisfied, confident and connected to your baby and your baby’s cues.

 Never prop your baby’s bottle. Babies should not be left to feed themselves. Your baby may drink too little or too much, and propping the bottle can cause choking. Never put your baby to bed with a bottle. This can lead to choking or tooth decay.



Storage

Ready-to-Feed Formula - store in the fridge for no longer than 48 hours once opened or prepared in bottles.

Liquid Concentrate Formula - store in the fridge for no longer than 24 hours once opened or prepared in bottles.

Powdered Formula - Cover the powder in the can with the plastic lid. Store in a cool dark place. Use within one month. Prepared bottles may be stored in the fridge for up to 24 hours

REMEMBER

DO NOT FREEZE prepared formula. Freezing changes the quality of the formula and it will probably separate after thawing.

Rewarming

If you are rewarming your baby's bottle:

- **Never use a microwave.** Microwaves heat food unevenly and may cause “hot spots” that can burn your baby’s mouth.
- Warm your baby’s bottle by holding it under running hot water, or place it in a container of hot water for no more than 15 minutes. Make sure that the level of the warming water is below the lid of the bottle.
- Shake or swirl the bottle so the formula will be evenly warmed before feeding your baby.
- Always test the temperature of the formula before giving it to your baby. Shake a few drops of formula onto the inside of your wrist. It should feel warm, not hot.



REMEMBER

Throw away any formula that is still in the bottle within 2 hours. Do not reuse leftover formula from your baby’s bottle – it can make your baby sick.

Traveling with Baby

If you need to prepare a bottle for traveling:

- Prepare your baby’s bottle as you normally would, but do it a few hours before you plan to leave.
- Put the bottle in the fridge.
- Be sure that the bottle is cold before leaving.
- Place the bottle in a cooler bag with ice packs just before leaving.
- Use up pre-made bottles within 2 hours of placing them in the cooler bag.
- If you are planning a trip that is longer than 2 hours, plan to prepare your baby’s next bottle at your destination. You can also use ready-to-serve formula.



Choosing Bottles and Nipples

Nipples are made from rubber, latex or silicone and come in different shapes and sizes. Some nipples are made for newborns or young babies and only allow liquid to flow slowly. Others are made for older babies and allow liquid to flow faster.

- Choose nipples that are made for your baby's age.
- Replace nipples when the formula comes out too fast, or when the nipple becomes cracked, sticky or discoloured.
- Choose nipples in the shape and material that your baby seems most happy with.

Bottles are made of plastic or glass and come in different shapes and sizes. Some bottles are made to hold baby's formula, while others need special disposable bottle liners. Choose a shape and style that seems best for you and your baby.

Plastic bottles and nipples

Bisphenol A, also known as BPA, is a chemical that may be found in plastic bottles and nipples. BPA has been shown to be harmful to babies and young children. When plastics containing BPA are heated, the chemical can seep out of the plastic and into the food.

If choosing a plastic bottle or nipple, look for one that is BPA-free.

- If choosing a bottle that uses liners, look for liners that are BPA-free.
- Glass bottles do not contain chemicals that can be harmful to babies and are easier to clean than plastic bottles.



Where to Get Help / More Information



It is important to get good information to help you formula feed your baby safely. In Simcoe Muskoka, you can call *Health Connection* between 8:30 a.m. and 4:30 p.m. to speak to a public health nurse at 705-721-7520 or toll free at 1-877-721-7520. For more support, you can ask for a home visit from a public health nurse in the Healthy Babies Healthy Children program.