

# Feeding Your Baby A guide to help you introduce solid foods

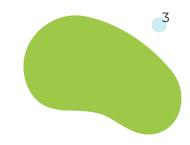


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Nutrition Connections, formerly the Nutrition Resource Centre, is a centre for nutrition services and resources, education, training, knowledge and collaboration. We help health professionals, businesses, government and community organizations, educators, researchers, and others working in food and nutrition meet organizational needs, learn, connect and share information.

Nutrition Connections is housed within OPHA, a registered charity. The proceeds from our paid services go towards work that promotes public education on nutrition and healthy eating.

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## Feeding Your Baby in the First Year

Feeding your baby in the first year is about more than food and nutrition. It is about exploring, sharing and getting to know and trust each other with eating.

For the first six months of life, your baby will get what they need from breastmilk, and a daily vitamin D supplement of 10  $\mu$ g (400 IU). Breastfeeding continues to be an important source of nutrition for older infants and young children as solid foods are introduced.

If your baby is not receiving breastmilk, they will need a store-bought infant formula. Non-breastfed babies do not need a vitamin D supplement because the store-bought infant formula contains vitamin D. Imported infant formula and homemade infant formula are not recommended. They may not be safe or have the right nutrients for your baby.

The information in this resource is about feeding your baby from six months to one year of age. It is based on current recommendations to help you feel confident about introducing solid foods.

If you have questions or concerns about your baby's eating, talk to your baby's health care provider. You can also speak to a registered dietitian at Telehealth Ontario at 1-866-797-0000 (TTY: 1-866-797-0007).



### When to Start Solids

#### How to know your baby is ready

At around six months of age, your baby will start to show signs that they are ready for solid foods. Some babies will be ready a few weeks before six months of age and others will be ready just after six months of age. It is important to follow your baby's signs of readiness for solid food.

Solid foods provide the extra nutrients, flavours and textures your baby needs. From six to 12 months of age, breastmilk (or store-bought infant formula if you are not breastfeeding) remains the most important food for your baby.

Your baby is ready for solid foods when they:

- Can sit up, hold their head steady and lean forward
- Open their mouth wide when you offer food
- Can pick up food and try to put it in their mouth
- Can let you know when they don't want food by turning their head away

Your baby does not need teeth to start eating solid food. Their gums are hard enough to chew a variety of textures.

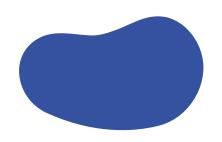
#### Your baby's growth

Your baby will have many growth spurts in their first year. It is important to know the difference between a growth spurt and your baby's readiness for solid foods. During a growth spurt, your baby may have some days when they seem hungrier than usual.

Keep in mind:

- Growth spurts are not a sign that your baby needs solid foods before they are ready
- Giving your baby solid foods will not help them sleep through the night
- Your baby's health care provider will monitor their growth
- Try not to compare your baby to other babies. Healthy babies come in all shapes and sizes.

Talk to your baby's health care provider if you have questions about their growth.



### How to Feed Your Baby

#### Help your child be a competent eater

In their first year, your baby will go through many steps to learn to eat the foods that your family eats and to follow the family's eating routines.

Children who do well with eating (or are 'competent' with eating):

- Feel good about eating
- Eat as much or as little as they need
- · Eat what the family eats with only small changes
- Enjoy mealtimes

You can help your child become a competent eater by following the <u>division of responsibility in</u> <u>feeding</u>. The division of responsibility is about the different roles that children and parents or caregivers have with feeding.

#### Your role is to:

- Choose the food to offer
- Pay attention and respond to your baby's feeding cues
- Help your baby be calm while feeding

#### Your child's role is to:

- Show signs that they are hungry
- Show signs that they are full
- Eat at a pace that is right for them (including taking pauses)
- Eat the amount that is right for them (from what you choose to provide)

You take leadership with feeding and then trust your child with eating. A trusting feeding relationship takes time to grow and benefits you and your child.

During the first year, feed your baby when they show signs of being hungry.

#### Feeding cues

Your child may be hungry if they:

- Reach for or point to food
- Open their mouth when offered food
- Get excited when they see food
- Use hand motions or make sounds to let you know they are hungry

Your child may be full (or not hungry) if they:

- Push food away
- Close their mouth when food is offered
- Turn their head away from food
- Use hand motions or make sounds to let you know they are full

Tips for following the division of responsibility in feeding:

- Include your baby at family mealtimes. Babies learn by watching others.
- Remove distractions like toys and screens
- Keep mealtimes pleasant and relaxed
- Let your baby decide how much or how little to eat
- Don't pressure your baby to eat more than they want. Don't force food into their mouth.
- Don't withhold food if your baby wants more
- Don't use food as a reward or punishment. This can cause future problems with eating.

Visit EllynSatterInstitute.org (search: division of responsibility in feeding) for more information.

#### How to introduce solids

- Breastfeed (or give infant formula if you are not breastfeeding) in response to your child's cues. It doesn't matter if your child breastfeeds or drinks infant formula before or after having solids.
- Always hold your baby when breastfeeding or giving infant formula. Otherwise, sit your baby in a feeding chair or high chair. Make sure the safety straps are properly fastened to keep your baby safe. Always stay with your baby while they are eating.
- Let your baby discover different textures and experiment with feeding themselves. Give your baby foods they can eat using their hands.
- Gradually increase the number of times a day that you offer solid foods
- Expect a mess! Making a mess is part of learning how to eat. Use a damp cloth to wash baby's hands and face, or other body parts at the end of their meal.
- There may be times that your baby is not interested in eating solid foods. That's okay. Try again later.

#### Learning to self-feed

Self-feeding is part of healthy child development. You can offer finger foods (soft, cut-up foods that can easily be picked up) and spoon-feed your baby at the same time. When spoon-feeding your baby:

- Put a small amount of food on the tip of a small spoon and hold it so your baby can see it
- Wait for your baby to lean in and open their mouth for the spoon before putting it in their mouth
- Offer more food as long as they open their mouth for it

#### **Baby-led weaning**

Baby-led weaning is a way of starting solids that allows babies to feed themselves finger foods. It generally avoids spoon-feeding purees. If you are considering baby-led weaning for your baby it is important to know:

- If your baby is getting the energy and iron they need
- How to help prevent choking (see page 10)

Talk to a registered dietitian (e.g. Telehealth Ontario) and your baby's health care provider to learn more. Visit <u>UnlockFood.ca</u> (search: baby-led weaning) for further information.

#### **Oral health**

It is important to take care of your baby's <u>gums and teeth</u>. Clean their gums, the inside of their cheeks and the roof of their mouth with a clean, soft, damp cloth every day. Once teeth appear, brush them gently, at least twice a day, using a small, soft toothbrush and water (no toothpaste). Bring your baby to the dentist by their first birthday.



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#### Textures you can offer

When your baby is ready to begin solids, you can offer a variety of textures. Including many textures also helps your baby begin to self-feed.

Here are some textures to try:

- Minced
- Ground
- Lumpy
- Pureed
- Mashed
- Shredded
- Finger foods

 Minced
 Ground
 Mashed

Offering different food textures helps your baby learn to chew. Delaying lumpy textures longer than nine months can lead to:

- Feeding problems later on
- Eating less vegetables and fruits

Finger foods are great for your baby to start learning about self-feeding. Safe finger foods include:

- Pieces of soft-cooked vegetables and fruits
- Cut up ripe fruit such as banana, melon, berries, avocado
- Minced, ground or shredded cooked meat
- Pieces of cooked fish and poultry (without bones)
- Cubed tofu
- Scrambled eggs
- Grated or cubed cheese
- Pieces of toasted bread, naan, roti, tortilla or bannock

There is no need for special baby foods like rice rusks or puffs. These limit your baby's exposure to textures and flavours and the important skill of learning to chew. They are also low in nutrients.



# Keeping Your Baby Safe

#### **Gagging and choking**

Gagging happens as your baby is learning to eat solids. Gagging is when food comes too close to the back of your baby's throat without it being swallowed. It is normal and helps to prevent choking on food.

Use these tips to help reduce gagging:

- Have your baby sit up straight (not slouched) and buckle them securely in a high chair
- Offer foods at the table with no distractions
- Offer textures your baby can manage. If your baby is gagging on foods mashed with big lumps, try smaller lumps.
- If your baby puts more food in their mouth than they can manage, put less in front of them at a time
- If spoon-feeding, use a smaller spoon and put less food on the spoon

Choking is when food gets stuck in the throat. This is very dangerous. If your baby is choking and can cough or make sounds, let them cough to try to get the object out. If you are worried about your baby's breathing, call 911.

Always stay with your baby when they are eating. Learn how to respond if your baby can't breathe, cough or make sounds due to choking. Ask your baby's health care provider for information on infant CPR training in your area.



The shape, size and texture of certain foods increases the risk of choking. Here are some common choking hazards and things you can do to help prevent choking:

Item	Тір	
Hard fruits and vegetables (e.g. apples, carrots)	Serve grated or cooked until soft	
Stringy foods like celery and pineapple	Serve finely chopped	
Fish, poultry or meat with bones	Serve with bones removed	
Grapes and other round-shaped foods	Serve cut up into bite-size pieces or cut lengthwise	
Peanut butter or other nut butters	Serve thinly spread on toast or crackers	
Dried fruit or seeds like raisins, pumpkin seeds, or sunflower seeds	Do not offer under four years of age	
Popcorn	Do not offer under four years of age	
Sticky foods like gum or marshmallows	Do not offer under four years of age	
Raw vegetables (that cannot be grated)	Do not offer under four years of age	
Small, smooth foods like peanuts and nuts, hard candy, cough drops, ice cubes	Do not offer under four years of age	

If your baby gags often or seems to have trouble swallowing, talk to your baby's health care provider.



#### **Food** allergies

Once your baby has started eating solid foods, you can begin offering common food allergens around 6 months (see below). Offer one new common food allergen every two days. If your baby reacts to one of these foods, it will be easier to know if a new food may have caused the reaction.

Common food allergens	Some examples	
Eggs	Eggs, egg noodles	
Milk	Milk, cheese, yogurt	
Mustard	Mustard	
Peanuts	Peanuts, peanut butter	
Fish	Fish, fish sauce	
Shellfish	Shrimp, scallops	
Sesame	Sesame oil, tahini (sesame paste), hummus (that has tahini)	
Soy	Tofu (bean curd)	
Tree nuts	Almond butter	
Wheat	Bread, cereal	

Once your baby eats a common food allergen, such as peanut butter and tolerates it, offer it regularly to help maintain tolerance to the food. Some of these foods, such as peanuts and tree nuts, may be a choking risk. Be sure to offer these foods in a texture that is safe for your baby.

For example, when introducing peanut or other nut products to young infants, mix a bit of the nut butter with some water, breastmilk, infant cereal or a pureed fruit or vegetable that your baby has had before. For older infants, you can spread some smooth nut butter thinly on a piece of toast or cracker.

Some signs of an allergic reaction include rash or hives, flushed face, swelling of the face, lips or tongue, vomiting, diarrhea, or breathing problems. Stop feeding a food if you think it causes any of these symptoms and talk to your baby's health care provider before offering it again. Call 911 if your baby is having trouble breathing.

Talk to your baby's health care provider if you think your baby is at high risk of developing an allergy (e.g. has eczema or a parent or sibling has a diagnosed allergy).

Visit Food Allergy Canada (search: early introduction) to learn more about food allergies and babies.



#### **Food safety**

Children five years of age and under are at higher risk for food-borne illness. Their immune systems are not fully developed to fight off infections. Breastfeeding helps to boost baby's immune system even after solid foods are introduced.

Babies also make less stomach acid, which helps kill bacteria. To reduce the risk of bacteria growth and food poisoning, practice safe food handling:

#### Cleaning

- Wash your hands with warm, soapy water for at least 20 seconds:
  - Before handling food
  - After handling raw meat, poultry and seafood
  - After using the washroom
  - After changing diapers
  - After touching pets
- Wash your baby's hands with warm, soapy water before eating
- Clean reusable grocery bags and bins often
- Clean your countertops, cutting boards and utensils before and after preparing food
- Use paper towels to wipe kitchen surfaces, or change dishcloths daily
- Use one cutting board for produce and a separate one for raw meat, poultry, fish and seafood
- Keep raw meat, fish, shellfish and poultry away from cooked foods
- Use clean containers to store all leftover foods

#### Fresh fruits and vegetables

Before eating or cooking fresh fruits and vegetables:

- Gently wash them under cool, running, drinkable water
- Use a scrub brush on fruits and vegetables that have a firm skin, such as:
  - Carrots
  - Potatoes
  - Melons
  - Squash
- Avoid soaking fresh fruits and vegetables in a sink full of water. Sinks can contain bacteria that can be transferred to food.

#### Cook foods to a safe internal temperature

- Fully cook all meats, poultry, fish and seafood. Use a digital thermometer to check the internal temperature.
- Learn about safe cooking temperatures at Canada.ca (search: safe cooking temperatures)

#### **Storing food**

- Set your fridge at 4 °C (40 °F) or lower and set your freezer at -18 °C (0 °F) or lower
- Store cut fruits and vegetables in the fridge
- Put raw meat, poultry, fish and seafood in sealed containers or plastic bags on the bottom shelf of your fridge (this prevents raw juices from dripping onto other food
- Cook raw meat, poultry, fish and seafood by the "best before" date, or no more than two to four days after buying it
- Serve cooked foods right away. Make sure the food has cooled enough to avoid burning your baby's mouth.
- Throw away partly eaten food from your baby's bowl (or tray)
- Refrigerate or freeze prepared foods (leftovers) within two hours
- Offer refrigerated leftovers as soon as possible (within two to four days). When reheating food, make sure it is cooked to a temperature of at least 74 °C (165 °F) and then cooled to avoid burning your baby's mouth.

#### How to safely use store-bought baby food

- Check that the safety seal on the baby food is in place
- When you open a jar of baby food, listen for a popping sound. This tells you that it has been sealed properly and is safe to eat. If there is no popping sound, throw it away since it may be unsafe for your baby to eat
- When buying pouches of baby food, check that there are no rips, holes or tears
- Look at the best before or expiration date. Don't use baby foods after this date.
- Do not feed your baby out of the container. Put some of the baby food in a separate bowl. This will prevent your baby's saliva from spoiling the food.
- Cover opened baby food containers and store them in the fridge for up to two days

For more information visit <u>UnlockFood.ca</u> (search: food handlers storage guide; food safety tips).

# What Foods to Offer Your Baby



#### **First foods**

During the first 6 months of life your baby uses iron stored in their body. After 6 months of age these stores are very low and your baby needs an additional source of iron.

Babies need iron for healthy brain growth and development. The first foods you offer your baby should be rich in iron. Offer iron-rich foods a few times each day.

These include:

- Cooked beef, pork, lamb
- Fish and poultry
- Tofu
- Beans, peas, lentils
- Well-cooked eggs
- Iron-fortified infant cereal (homemade will not have the iron your baby needs)

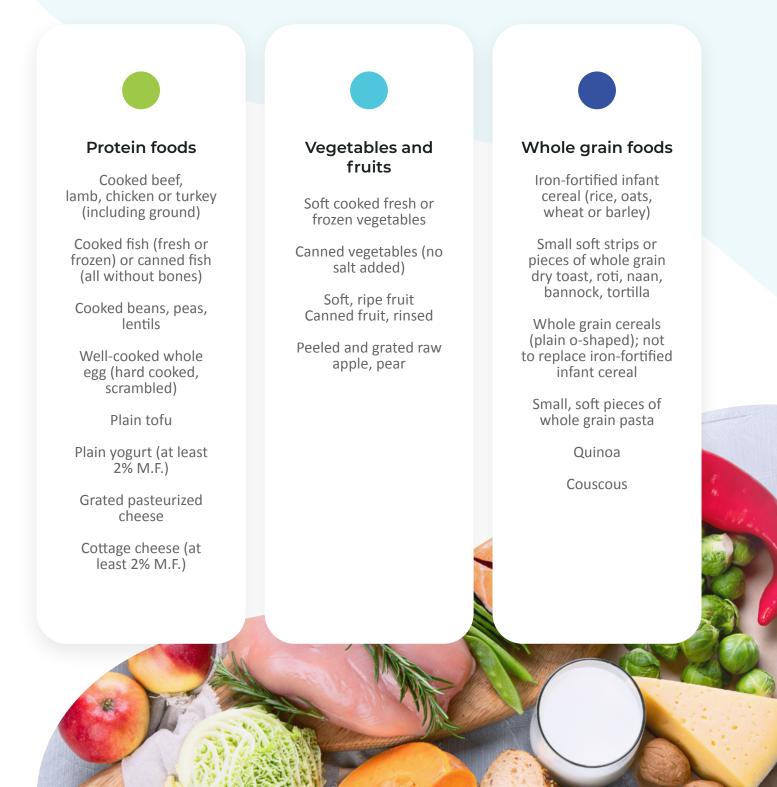
Vitamin C helps the iron in plant-based foods get absorbed in the body. When feeding your baby plant-based sources of iron (e.g. beans, peas, lentils, tofu), try adding a source of vitamin C. Vegetables and fruits are sources of vitamin C (e.g. kiwi, strawberries, broccoli).

For more information on vitamin C, visit <u>Unlockfood.ca</u> (search: vitamin C)



#### Offering new foods

Once your baby is eating iron-rich foods at least twice a day, offer a variety of other foods that your family eats from <u>Canada's Food Guide</u>. These can be offered in any order.



#### Tips for starting new foods



- Plan to offer a new food when you and your baby are feeling relaxed and happy
- Feed your baby solids when you or other family members are eating
- If your baby does not accept a food the first time you offer it, try again another day. It may take 10 or more tries for your baby to accept a new food.
- Try offering food in different soft textures or at different temperatures (not too hot or too cold)
- When possible, offer new foods with foods that your baby has already accepted

Most babies will make a face at new flavours and textures. This is normal. Their face could mean "this is new and different" or "I'm not sure about this one". Your baby may accept some foods quickly and others will take more tries.

When your baby begins solid foods, you will notice that their bowel movements change texture, colour and odour. This is normal and not a sign of constipation.

#### Food preparation tips

#### Vegetables and fruits

- Wash, peel, pit and seed fresh vegetables and fruits or use frozen or canned varieties
- Cook vegetables and fruits as you do for the family (e.g. steam, stew, roast, bake, microwave, etc.)
- Soft, ripe fruits such as bananas, mangoes, melon, blueberries and avocados can be sliced lengthwise, blended, finely minced or mashed. These do not need to be cooked.

#### **Protein foods**

- Cook meat, chicken or fish as you do for the family (e.g. steam, stew, roast, bake, microwave, etc.). Cook until the meat separates easily from the bones or the fish flakes easily with a fork. Remove all bones and skin and trim off the fat.
- Cut meat, chicken or fish into small pieces, mince or puree
- Cook legumes such as beans, lentils and chickpeas according to package directions. Choose canned beans with no added salt, when possible. Rinse all canned beans well. Mash with a fork or serve whole (small varieties such as black beans) or cut in half (large varieties such as kidney beans).
- Cook eggs well. Scramble, chop or mash into small pieces.
- If protein foods are too dry, add water, expressed breastmilk (or infant formula if you are not breastfeeding), pureed vegetables or unsalted broth.

#### Store-bought baby food

Here are some things to look for on the ingredient list when buying store-bought baby foods:

- Order of ingredients: If you are buying a container of mixed vegetables, you want the vegetables to be the first ingredients listed.
- Fewer ingredients: Avoid baby foods with added sugar, fruit juices, salt, margarine, butter or fillers (starches like corn or rice).

Combination vegetable and meat meals that are pre-packaged tend to have less iron and other nutrients than containers of single foods. If you choose to use them, add extra meat or another protein food such as fish, tofu, egg, beans, peas or legumes and extra vegetables to your baby's meal.

#### **Beverages**

#### Milk

- Breastmilk (or infant formula if you are not breastfeeding) is your baby's main source of nutrition for the first year. Continue to breastfeed for two years or more.
- If your baby is not receiving breastmilk, pasteurized, plain (unsweetened) homogenized (3.25% M.F.) cow's milk can be offered as their main milk source at or after nine months of age. Wait until your baby is eating a variety of foods (including iron-rich foods at least two or more times a day) before offering cow's milk.
- Limit cow's milk intake to no more than 750 ml (3 cups) a day
- Pasteurized whole goat's milk fortified with vitamin D and folic acid may be an alternative to homogenized cow's milk. Check with your baby's health care provider if you are thinking about offering goat's milk to your baby.
- If fortified soy beverage will be your child's main milk source, wait until they reach two years of age.

#### **Other drinks**

- Municipal tap water is safe for your baby to drink. Do not give distilled, carbonated or mineral water. If using well water, make sure it is tested regularly. To be sure about the safety of your water, contact your <u>local public health unit</u>.
- Limit offering juice to babies and young children. It has a lot of sugar and few nutrients and can cause early tooth decay, even before teeth come in.
- Plant-based beverages such as soy, almond, rice, hemp, oat, coconut, etc., do not have enough nutrients to support proper growth and development. Check with a registered dietitian (e.g. Telehealth Ontario) for more information about plant-based beverages.
- Do not give your baby drinks with caffeine. This includes coffee, regular tea, herbal tea, hot chocolate, soft drinks, sports drinks or energy drinks. There is not a safe limit of caffeine for babies.

#### **Open cups**

- Using an open cup will encourage your baby to develop their drinking skills. Give your baby sips of breast milk or water in an open cup. They will need your help at first.
- Sippy cups may help prevent spills, however, they may lead to babies (and toddlers) drinking
  more, especially when filled with drinks other than water. Babies who drink too much milk or
  juice may not be as hungry for foods at meal or snack times. Also, constant sipping on anything
  but water isn't good for baby's teeth and increases the risk of tooth decay, even before teeth
  come in.



#### Foods to limit or avoid

- Canadians of all ages are advised to limit their intake of fish that are high in mercury to less than 40 grams per month. Fish high in mercury include swordfish, shark, fresh or frozen tuna steak, marlin, orange roughy and escolar. Canned tuna has less mercury than fresh tuna. It can be offered once a week (less than 40 grams). Visit <u>Canada.ca</u> (search: mercury in fish) for more information.
- Deli meats such as ham, wieners, bologna, salami or sausages are not the best choices for babies. They are high in salt, low in nutrients, and could increase the risk of choking.
- Dried fish is high in salt
- Your baby must not have honey or foods made or prepared with honey during their first year. It can cause infant botulism which is a serious food-borne illness.
- Your baby should not be offered foods with <u>artificial sweeteners or sugar substitutes</u> including aspartame, sucralose, acesulfame potassium, cyclamate, saccharin, etc.
- Do not give your baby foods that contain raw eggs (e.g. homemade mayonnaise, sauces and dressing, homemade ice cream, cookie dough or cake batter made with eggs) as it can cause food poisoning.

If you choose to avoid certain foods for personal or cultural reasons, let your baby's health care provider know. They may suggest that you talk to a registered dietitian to help ensure your baby's nutrient needs are met.



#### Sample day

Here is an example of what you can offer your baby in a day. Between 6 to 8 months, work towards offering solid foods 3 to 5 times a day depending on your baby's appetite. Between 9 to 11 months of age, offer food 4 to 6 times a day depending on their appetite. Trust your baby to let you know how much they want to eat each time.

Keep in mind that these menus are only a guide. Follow your baby's hunger cues to decide when to feed. As often as you can, eat together as a family and offer your baby foods from the family meal.

Time of day	7 month infant	11 month old infant
Early morning	Breastmilk	Breastmilk
Morning	Breastmilk Iron-fortified infant cereal Strawberries or other soft fruit, mashed	Breastmilk Iron-fortified cereal Strawberries, chopped
Snack	Whole grain toast, cut into small pieces or strips	Unsweetened o-shaped oat cereal Blueberries thawed from frozen
Midday	Breastmilk Iron-fortified infant cereal Hard-boiled egg, mashed, minced or grated Sweet potato or other vegetable, cooked and mashed	Breastmilk Chicken, chopped Steamed brown rice Cooked broccoli, chopped
Snack	Unsweetened stewed prunes, pureed	Hard-boiled egg, chopped Whole grain bread, cut into strips
Early evening	Breastmilk Dark chicken or other meat, ground or finely minced Broccoli or other vegetable, cooked or mashed	Breastmilk Mixed dish: ground beef cooked with diced tomatoes and macaroni Canned peaches, rinsed and chopped
Evening and nighttime	Breastmilk	Breastmilk

Government of Canada: Nutrition for Healthy Term Infants: Recommendations from Six to 24 months

### Recommended Websites for More Information

#### Canada.ca

<u>Canada's Food Guide</u> <u>Food safety information for children ages 5 years and under</u> (search: food safety and children) <u>Infant nutrition</u> <u>Mercury in fish</u>

#### CaringforKids.cps.ca

Feeding your baby in the first year

#### EllynSatterInstitute.org

Division of responsibility in feeding

#### FoodAllergyCanada.ca

Preventing food allergy

#### Inspection.gc.ca

Food recall warnings and allergy alerts

### Ontario.ca

Local public health unit locator

#### UnlockFood.ca

Baby-led weaning Facts on artificial sweeteners Find a dietitian (local dietitian locator) Fish and mercury Infant feeding videos Introducing solid food to your baby Vegetarian and vegan eating

### Acknowledgements

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