# Feeding Children Ages 1 to 5

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### A great start to life!

Early childhood is a critical learning period during which children aged one to five develop eating habits that will influence their diet and their relationship with food for a lifetime. Feeding Children Ages 1 to 5 is a useful resource and guide that provides current information on feeding young children,<sup>1</sup> practical tips, and concrete meal and snack ideas to help children adopt healthy eating habits.



### Are you still hungry?

Most young children can control their food intake based on their bodies' hunger and fullness signals. Their only job is to decide how much food they want to eat. The adult's responsibility is to offer them nourishing and safe foods, at the table on a regular schedule. It's teamwork—and each role is important.



#### Your child is 1 year old. Did you know?

When children are about one year old, their meals start to resemble those of the rest of the family. They start to show more independence and want to eat by themselves. It is also at this age that their growth rate begin to slow down, which may make them seem less interested in food. Don't worry-children will meet their needs by eating the nutritious foods offered to them and by listening to their body's hunger and fullness signals!

# To help children develop healthy eating habits, keep the following ideas in mind

- Children can recognize when they are hungry or full, so respect the amount of food they want to eat at snack and meal times.
- Growth spurts, mood, activity level and tiredness can make their appetite and hunger vary from day to day and even from one meal or snack to the next.
- Serve three meals and two to three snacks a day.
   While children have small stomachs, they also have high energy and nutrient needs. This is why they require small quantities of food several times a day.
- Help children serve themselves or ask them how hungry they are before serving them.
- Offer snacks halfway between meals, or about two hours before a meal, to avoid affecting a child's appetite at mealtime.
- Since children have small stomachs, serve reasonably sized snacks to avoid spoiling their appetite at mealtime.

- Maintain a consistent schedule as children need a secure routine. This will keep them from nibbling between meals and snacks.
- If serving dessert after a meal, wait until everyone at the table has finished, whether they have finished their plate or not. When serving dessert, offer the same portion to everyone who would like some.
- Never put a child on a diet by limiting their food intake, regardless of their age or weight; doing so may adversely affect their natural growth rate and their attitude toward eating and food. Instead, help them listen to their body signals, like how hungry or full they are.
- If you are concerned about a child's eating habits, consult a doctor or a registered dietitian specializing in childhood nutrition.

### Picky eaters!

Young children are very curious by nature. It is the perfect time to encourage them to explore new foods. The sooner they are introduced to a wide variety of nutritious foods, the better the chances they will accept and enjoy them.

GOLDEN **RULES** 

- Set a good example! Children learn through imitation.
- Avoid disguising food. Children need to know what they're eating and you may lose their trust if they find out they've been tricked. Furthermore, disguising a food does not promote it's acceptance.
- Introduce a new food with other familiar foods when children are feeling well, happy and hungry.
- Present foods in an original and fun way with a variety of shapes, colours, flavours and textures.
- Let children decide how much they want to eat and in what order. If they haven't eaten anything after about 20 minutes, remain calm and simply remove their plate.

- Offer new foods regularly and encourage children to try a bite, without pressuring them. Be patient and keep trying! Although some children may like a food right away, others may need to be exposed to the same food 10 to 15 times or more before they try it.
  - > Exposure may not mean eating. Children can be exposed to a food even if they just look at it on their plate, poke it with their fork or smell it.
  - > It can be a way of expressing independence—one day they like a food, the next day they don't—these little quirks are a part of normal development.

# Negotiation, punishment and rewards are they really necessary?

Adults can sometimes play with children's emotions or feelings of guilt when they won't eat what's on their plate. In order to not blur their body's hunger and fullness signals and negatively impact their relationship with food, here are a few examples of phrases to avoid:

"You're two—be good and eat two more bites!"

"I made it with love and you won't eat it!"

"Yay, you ate it all!"

"If you eat your carrots, you can have some cookies!" "Finish your meat if you want to go out and play!"

The goal is to encourage children to try the food served, without pressuring them or playing with their emotions.

What about using food as a reward for positive behaviour, like when they follow instructions, share or pick up their toy? Opt instead to read them a story, give them a hug or let them play a bit longer. Food is intended to fuel the body and associating it with rewards does not foster a healthy relationship with it.

### Eating together as a family!

Eating together as a family is fun—and rewarding. It's a great opportunity that allows everyone to talk about their day. As well, the simple act of eating together improves children's eating habits.

#### HERE ARE A FEW TIPS

- Sit together at the table during mealtimes. Avoid television, phones, tablets, toys and other distractions.
- Make mealtimes enjoyable. Avoid using this time to resolve conflicts.
- Eat slowly and encourage children to do the same. If children are still hungry, wait until almost everyone at the table is ready before offering a second serving.

#### Everyone in the kitchen!

Early childhood is the ideal time to introduce children to cooking. Passing on cooking skills and knowledge is a rich cultural heritage for children. Knowing how to cook can lead to better eating habits-which is a wonderful gift to give children. As well, involving children in food preparation will help make them proud of what they've made and they may be more willing to taste their own creations.

### Balance means variety!

Children's diets should consist mainly of foods from the four food groups in *Canada's Food Guide*: Vegetables and Fruit, Grain Products, Milk and Alternatives, and Meat and Alternatives.

A balanced and varied diet helps children develop their taste buds and get all the nutrients they need, making supplements (e.g.: multivitamins) unnecessary.

As all children are unique, they may eat more, or less, than the amount recommended in *Canada's Food Guide*. The recommended number of servings for children should be divided between meals and snacks throughout the day. For serving sizes consult Health Canada's website at: **www.hc-sc.gc.ca**.

#### Here are a few ideas to encourage variety

BREAKFAST I Offer foods from at least 3 food groups (e.g.: oatmeal, milk, banana).

LUNCH AND DINNER 🔿 Offer foods from at least 4 food groups (e.g.: legume loaf, green beans, couscous, milk).

SNACKS Depending on how hungry they are, offer children two or three snacks a day that include foods from at least 2 different food groups (e.g.: raspberries and yogurt, whole wheat mini pitas and hummus).

### Recommended number of daily servings for children according to *Canada's Food Guide*

FOOD GROUPS IN Canada's Food Guide	HOF TABLES AND THE	CRAIN PRODUCTS	AND ALTERNA AND AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND ALTERNA AND AND ALTERNA AND AND AND AND AND AND AND A	ALTERNA, ILLERNA, ILL				
1 year	*	*	*	*				
2-3 years	<b>4</b> servings	<b>3</b> servings	2 servings	<b>1</b> serving				
4-5 years	<b>5</b> servings	<b>4</b> servings	<b>2</b> servings	1 serving				

\* Canada's Food Guide is designed for two years old and older.

At mealtime, include at least three of the four food groups in Canada's Food Guide.

The servings suggested by Health Canada can be adjusted to ¼, ½ or 1 serving, depending on how hungry they are. It is normal that a one-year-old eats a bit less than an older child. At about four or five years of age, the servings consumed during a single meal will be closer to the serving sizes recommended in *Canada's Food Guide*.

# Keep it colourful!

BELL PEPPERS, MELONS, BROCCOLI, KIWI... Vegetables and fruit are packed with nutrients that offer great health benefits. In general, the more colourful they are, the richer they are in vitamins.



- Offer vegetables and fruit every day. Include one dark green vegetable (e.g., spinach, asparagus) and one orange vegetable (e.g., carrots, sweet potatoes) each day.
- Choose fresh or frozen vegetables and fruit. When opting for the canned variety, choose vegetables with no added salt or rinse them before eating to reduce the sodium content. As for puréed or canned fruit, it's best to choose those with no added sugar or sweeteners.
- Choose vegetables and fruit over juice. Their higher fibre content contributes to the feeling of fullness and healthy bowel function.

### No peas, please!

Some children refuse to eat certain vegetables and fruit because of their more acidic or bitter taste.



#### To help children enjoy these foods, try the following:

- Serve them without utensils, if possible, so that children can eat and explore them as finger foods.
- Cut them in various ways: julienned, cubed, grated, etc.
- Serve them in a variety of dishes: soup, salad, etc.
- Present them in various textures: cooked, raw, partially cooked, puréed, etc.
- Offer them with foods that children already enjoy.
- Serve them with a dip or topped with a white or cheese sauce.

# Including fibre in the menu

#### BREAD, PASTA, RICE, COUSCOUS, PITA, TORTILLA, QUINOA...

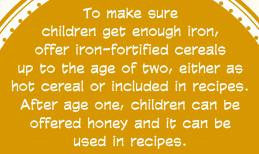
Young children usually enjoy a variety of grain products. These provide energy for the body and brain and contain a number of important nutrients. Choosing whole-grain products is an opportunity to increase dietary fibre.



- Aim to offer at least half of the grain products as whole grains each day. (e.g., whole-grain pasta, hulled barley).
- When choosing breakfast cereals, opt for those that are low in sugar and made with whole grains.
- It's easy to make homemade muffins, bread and cookies. By using whole grains, like whole-wheat flour or rolled oats, you can make these foods more nourishing.

### **KEEP IN MIND!**

Processed foods, such as pastries, granola bars and commercial cookies, are often high in fat and sugar and low in fibre. It's better to choose minimally processed grain products made from whole grains.



Your child is 1 year old. Did you know?

# When you think growth, think bone development!

Calcium helps build healthy bones. Milk products such as milk, yogurt and cheese are good sources of calcium because of the amount of calcium they contain and because the body can easily absorb it. Milk products also provide up to 15 other nutrients, such as vitamin D and protein, which also help build healthy bones.

Your child is 1 year old. Did you know?



- In Canada, cow's milk must be fortified with vitamin D, a vitamin that plays an important role in calcium absorption. As recommended by *Canada's Food Guide*, children two years of age and older should drink 500 mL (2 cups) of milk each day to help meet their vitamin D needs.
- Opt for whole milk (3.25% M.F.) or 2% milk.
- Plant-based beverages other than soy beverages are not appropriate substitutes to milk, even if they are fortified, especially because of their low protein and fat content.

•Offer 500 mL (2 cups) to 750 mL (3 cups) of milk a day.

• Opt for whole milk (3.25% M.F.) for children under the age of two, as the fat it contains is essential for brain development and growth.

• Soy beverage contains less fat than whole milk. They are therefore not recommended before the age of two, unless recommended by a doctor.

### **DID YOU KNOW?**

• Consuming milk products does not increase mucus production during bouts of a cold or flu.

Very few children aged three and under have difficulty digesting lactose, the sugar naturally found in milk.
 When in doubt, consult a doctor. Eliminating milk products from children's diets can deprive them of important nutrients. If a child is lactose intolerant, firm cheese (e.g., Cheddar, Mozzarella), yogurt and small quantities of milk throughout the day can usually be tolerated. In addition, lactose-free milk can help them meet the recommended number of servings from the Milk and Alternatives food group.

### To ensure that children consume 500 mL (2 cups) of milk daily, try the following:

- Set a good example by drinking milk at meals.
- If possible, encourage children to pour themselves a glass of milk, with supervision.
- Serve milk in fun glasses or with a colourful straw.
- Break out of the routine by adding vanilla or ground cinnamon to hot or cold milk.
- Prepare milk-based recipes such as smoothies, puddings, tapioca, vegetable soups, white sauces and mashed potatoes.

# Making room for meat and meat alternatives

MEAT, POULTRY, FISH, EGGS, LEGUMES... Meat and meat alternatives fulfil much of the body's nutritional needs. The protein they contain helps the development of muscles and body tissues in addition to providing a feeling of fullness. Many of these foods are also sources of iron, a nutrient needed for children's growth and development. Children are more at risk of developing iron deficiency anemia than adults, so ensuring adequate iron intake is key.



- The body absorbs iron from animal sources (meat, poultry, eggs and fish) much more easily than iron from plant sources (found mainly in dark green vegetables, legumes, tofu and fortified grain products).
- Eating a food rich in vitamin C (e.g., kiwis, melons, citrus fruit, strawberries, bell peppers, tomatoes) with meals increases the absorption of iron from grains and vegetables.
- Fatty fish (e.g., salmon, mackerel) is a source of essential fats called omega-3s, which contribute to brain development. Children should consume fatty fish at least twice a week. For more information on recommendations related to eating fish, consult Health Canada's website at www.hc-sc.gc.ca.

### **don't Want to eat meat**! Since meat and poultry can sometimes be difficult to chew, it may be challenging for a child to eat them. Here are a few tips to encourage optimal consumption:

- Offer small portions of very tender meat cooked in a broth.
- Serve meat in a sauce or as a meat loaf.
- Offer meat that is ground or cut into small cubes.
- Offer other foods from this group, such as eggs, tofu, legumes, fish or smooth peanut butter. Children often like these foods because they are easier to chew.

Your child is 1 year old. Did you know?

Even if children eat like the rest of the family in terms of the variety of foods and textures, it's a good idea to make sure they are eating enough iron-rich foods like those found in the Meat and Alternatives group. Iron-rich foods should be offered two to three times a day.

### What about fat?

Fats are an essential part of a healthy diet, especially for preschoolers. They are a concentrated source of energy and provide a feeling of fullness that tides children over until their next meal or snack. Fats are also important for the development of the brain and nervous system and help deliver certain vitamins to the body.



- Don't hesitate to serve nutritious foods that contain fat, such as avocado, peanut or nut butter and cheese.
- Choose full-fat milk products instead of reduced-fat versions. Similarly, sweeteners (e.g., aspartame) provide no energy.
- Include a variety of sources of fats on the menu.
- Limit the consumption of foods that are high in fat and low in nutrients, as these may spoil a child's appetite and leave less room for more nutritious foods. Although these foods can be part of a child's diet, they should only be eaten occasionally and the emphasis should be placed on more nutritious foods.

# I'm thirsty!

Children are more susceptible to dehydration than adults. This is because they give priority to play and forget to drink. When playing outside in the sun during the summer, children are also more susceptible to heat stroke. Keeping children hydrated is particularly important when it is hot and humid outside.

WATER: Offer water throughout the day because it hydrates without affecting their appetite for the next meal.

MILK: Offer milk with meals and snacks because it quenches thirst and provides energy and many nutrients.

FRUIT JUICE: Children should consume no more than 125 mL (½ cup) a day of unsweetened, 100% pure juice.

OTHER DRINKS: Limit the number of soft drinks, fruit cocktails or punches, fruit drinks or sports drinks. These beverages are low in nutrients and offer no benefits to children's diets.



### What about that smile?

#### TO PROMOTE DENTAL HEALTH

- Include tooth brushing in your daily routine.
- Opt for non-sticky foods such as fresh fruit and vegetables, milk and cheese.
- The sticky texture of certain foods increases contact time with teeth—perfect for bacteria. This is often the case with sugary foods (e.g., fruit leather, certain breakfast cereals).
- Watch out for acidic beverages (e.g., fruit juice, fruit drinks, soft drinks). Whether they're sweetened or not, they can weaken the enamel, making teeth more susceptible to cavities. If they are sipped, the effect on enamel is even greater.

### TEETH-FRIENDLY FOODS AND BEVERAGES

- **Fresh vegetables and fruit:** These foods contain fibre. They also require a lot of chewing, which stimulates the production of saliva and therefore neutralizes acid in the mouth.
- Meat and meat alternatives (e.g., poultry, fish, legumes): Because they contain mainly protein and fat, they are not food for cavity-causing bacteria.
- Milk products: Their many nutrients protect tooth enamel and help remineralize teeth. Firm cheeses are particularly good protection against cavities—not only do they provide nutrients important to dental health, they also require chewing, which stimulates the production of saliva.
- In general, it's best to choose foods that are not processed, or minimally processed.





# Preventing choking

Choking on food is one of the leading causes of accidental death in children under the age of four. Preschool-aged children are at higher risk of choking when they eat because of the small size of their esophagus. Be mindful of this when offering them food.





#### To reduce the risk of choking and ensure safety:

- Always eat sitting down, in a calm environment.
- Ensure that children are supervised by an adult while eating.
- Do not allow children to eat in the car.
- Do not let children talk, walk, run or play with food in their mouths.
- Encourage children to take small mouthfuls and chew food properly.
- Avoid foods served on toothpicks or skewers.
- Avoid risky foods such as popcorn, chips, hard candy, chewing gum and ice cubes.

### Serve foods that have been prepared safely

FIRM VEGETABLES	• Cook until the vegetable is tender. • Cut into pieces. • Grate, if served raw.
(e.g., carrots, turnip, celery)	• Blanch (cook slightly), cut into strips. • Grate, if served raw.
	• Cut ripe fruit into pieces. • Grate firmer fruits.
FRESH FRUIT	• Remove seeds, pit, or core. • Peel any tough skin.
(e.g., apples, peaches)	• Remove seeds, pit, or core. • Peel any tough skin.
ROUND FRUIT (e.g., grapes, large blueberries, cherries, strawberries)	• Cut in half or quarters, depending on size. • Remove pit if necessary.
DRIED FRUIT	• Rehydrate and chop.
(e.g., dates, figs, apricots, raisins)	years • Chop.
SAUSAGES OR HOT DOGS	• Cut lengthwise, and then into small pieces.
WHOLE NUTS, SEEDS AND PEANUTS	• Grind and add to recipes.
PEANUT OR NUT BUTTER	1-4 • Use smooth variety only.
PEANOTOR NOT BUTTER	• Spread a thin layer on a slice of warm toast.
FISH	• Remove all bones. • Serve in small pieces.
MEAT AND POULTRY	• Remove all bones. • Serve in small pieces.

# Preventing food poisoning

Children five years old and under have a developing immune system and produce less gastric acid than adults. This is why it's easier for harmful bacteria, viruses and parasites found in foods to make them sick. The most common symptoms are nausea, vomiting and diarrhea.



This kind of contamination usually results from improper handling, preparation, storage, preservation or cooking of food. Good hygiene practices before, during and after food preparation can reduce the risk of food poisoning. In addition, certain foods present a higher risk and should not be given to children under the age of five:

- Raw or undercooked meat and poultry (e.g., tartare)
- Raw or undercooked fish and seafood (e.g., smoked salmon, sushi)
- Raw or undercooked eggs or egg-based products (e.g., cake batter, homemade salad dressing)
- Unpasteurized milk products (e.g., raw milk or cheese made from raw milk)
- Unpasteurized fruit juice
- Unwashed melons (especially cantaloupe)
- Sprouts or "shoots" (e.g., alfalfa, radish, bean sprouts)

### Preventing constipation

Adequate intake of fluids and fibre (e.g., whole grain products, vegetables, fruit, legumes) helps the bowels to function properly, which in turn helps prevent constipation.

Contrary to popular belief, no single food causes constipation. For instance, there is no reason to eliminate bananas, rice or cheese.



Establish a routine for bowel movements. Encourage children to go to the washroom at the same time every day, even if they don't feel the need.



Encourage children to be active. In addition to being beneficial to overall health, physical activity helps prevent constipation.



To give you an idea of what a daily meal plan should look like, the following table gives three examples of meals and snacks for children ages one to five. As all children are unique, the servings should be adapted according to their appetite.       Image: Should be adapted according to the wheat pita bread fifthered bioleters.       Image: Should be adapted according to the and should be adapted according to the antich active adapted be adapted according to the atter according to the				nd tomatoes				Example	N	
To give you an idea of what a da   the following table gives three   for children ages one to five.   the servings should be adapted   the serving snack   the following snack	ily meal plan should look like, examples of meals and snacks As all children are unique, I according to their appetite.		Mango tofu smoothie	Whole-wheat tortilla with chicken and tomatoes Carrots Milk Unsweetened applesauce	Toasted whole wheat pita bread Cheese Milk or water	Salmon Quinoa Broccoli and cauliflower florets Grapes Milk	Homemade whole-grain muffin Milk		Whole-grain bread Hard-boiled egg Kiwi Milk	A variety of fruits with yogurt dip Milk or water
	To give you an idea of what a da the following table gives three e for children ages one to five. the servings should be adapted	Breakfast	Morning snack	Lunch	Afternoon snack	Dinner	<ul> <li>Evening snack</li> <li>(if needed)</li> </ul>		Breakfast	Morning snack

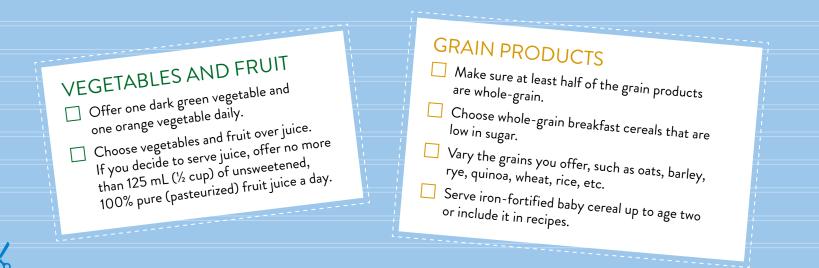
Three examples of daily meal plans

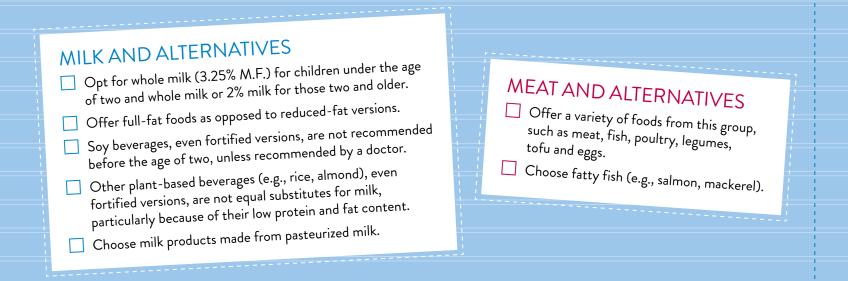
 *	Lunch	Whole-wheat pita with light tuna and avocados Cucumber and tomato Milk Fruit salad
	Afternoon snack	Homemade whole-grain banana bread Milk
 k	Dinner	Roast beef Couscous salad Mashed potatoes and sweet potatoes Cooked green beans Homemade pudding Milk
 J	Evening snack (if needed)	Strawberries Milk
	Í	
 Ż	Breakfast	Whole-grain english muffin Peanut or nut butter Milk
 X	Morning snack	Blueberries Milk
*	Lunch	Pasta gratin with chickpeas and tomato sauce Sweet green pepper Milk Honeydew melon
	Afternoon snack	Half whole-wheat bagel Hummus Milk or water
 k	Dinner	Marinated tofu Wild rice Butternut squash Yogurt Homemade strawberry and apple compote Milk
 $\mathbf{\mathbf{U}}$	Evening snack (if needed)	Homemade oatmeal cookie Milk

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# Meal plan checklist

- Offer snacks from two different food groups in Canada's Food Guide.
- Based on the child's age, include three or four food groups at mealtimes.
- Offer water throughout the day.
- Opt for prepared foods with little or no added sugar, artificial sweeteners or salt.
- Offer foods that do not promote tooth decay.





#### PRACTICAL TIPS

Respect children's hunger and fullness. They may eat more, or less, than the recommended amount. Canada's Food Guide is a reference, but the servings need to be adapted (¼, ½ or 1 serving) based on how hungry children are.

- Adapt how you cook and cut foods based on children's motor skills to prevent choking.
- Prepare and store foods in a safe manner to prevent food poisoning.
- Include foods with a variety of colours, flavours, shapes and textures.
- Serve new foods with familiar ones.



For any questions about childhood nutrition, consult a doctor or registered dietitian who specializes in pediatrics.

#### ADDITIONAL RESOURCES

- Public Health Agency of Canada: www.phac-aspc.gc.ca
- Canadian Food Inspection Agency: www.inspection.gc.ca
- Institut national de santé publique du Québec: www.inspq.qc.ca
- Dietitians of Canada: www.dietitians.ca
- Health Canada: www.hc-sc.gc.ca
- Canadian Paediatric Society: www.cps.ca

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Manon Bouchard and Stéphanie Ledoux, Registered Dietitians, CHU Sainte-Justine, Mother and Child University Hospital Centre

Stéphanie Côté, Registered Dietitian, Extenso, Centre de référence sur la nutrition de l'Université de Montréal

Julie Deschamps, Registered Dietitian, Fondation OLO

Valérie St-Pierre, Registered Dietitian, CLSC de Mercier-Est-Anjou



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**BY OUR DIETITIANS** 



Nutrition Education In Manitoba

Powered by registered dietitians at Dairy Farmers of Manitoba



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