

# GAZELLE AND PUMPKIN



## FRAMEWORK

For creating environments that support healthy eating, active play and motor development in educational childcare services



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## **FRAMEWORK**

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# Introduction

## CHILDCARE SERVICES: VERY BUSY PLACES

Parents are the first to provide for their children and influence their lifestyle. However, the fact is that families have changed. According to the most recent data, almost eight in 10 women in Quebec with children under six are employed<sup>1</sup>. In 2008, 68% of couples, in which the woman was aged 25 to 54 and the youngest child was under 6 years of age, had two employment incomes. This figure is three times higher than in 1976 when the proportion was 25%<sup>1</sup>. The high number of parents working full-time has led to increased use of educational childcare services.

In fact, 52% of children under five attend an educational childcare service regulated by the Ministère de la Famille<sup>2</sup>. The number of available lower cost spaces increased from 82,302 to 218,870 between 1998 and 2013. These spaces are available at nearly 1,000 childcare centres, 650 subsidized day cares centres and over 15,000 home childcare providers recognized by a home childcare coordinating office<sup>3</sup>.

It is estimated that children spend an average of 7.5 hours a day in educational childcare services. This means that a child who is awake 12 to 13 hours a day spends 60-65% of his time at one of these facilities while he's awake. It is therefore estimated that childcare services provide these children with one-half to three-quarters of their daily food intake<sup>5, 6</sup>.

### Existing frameworks

Childcare settings have a strong influence on toddlers' lifestyles<sup>7, 8, 9</sup>. Optimal conditions for a healthy lifestyle can therefore play a determining role in shaping children's habits. In this sense, childcare settings are a key setting for providing such conditions. There are frameworks in Quebec that provide guidance for childcare settings regarding diet, play and motor development.

The Meeting Early Childhood Needs educational program<sup>10</sup> is designed to support quality educational practices at childcare services. The *Educational Childcare Act* and the Regulation provide a framework for creating environments that support the health and optimal development of young children.

- The Educational Childcare Act (chapter S-4.1.1) stipulates that the educational program applied by a childcare provider must include “promotional and preventive elements aimed at providing an environment conducive to the development of a healthy lifestyle, healthy eating habits and behaviour that have a positive effect on the children's health and well-being<sup>11</sup>”.
- The Educational Childcare Regulation stipulates that “A childcare provider must, when providing meals and snacks to children, ensure that the meals and snacks comply with *Canada's Food Guide*<sup>i</sup> published by Health Canada” and that “Unless prevented from doing so by inclement weather, a childcare provider must ensure

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i The current version of the reference framework is based on the 2007 edition of Canada's Food Guide.

that the children are taken outdoors every day to a safe place where they can be supervised<sup>12</sup>”.

- The Meeting Early Childhood Needs educational program mentions that providing children with opportunities to be physically active at childcare services “promotes their physical and motor development and helps them develop healthy lifestyles and prevent obesity<sup>10</sup>”.

The program also recognizes the importance of motor skills in development of the whole child and that young children must learn by playing because it is an excellent way to explore and experience the world. By playing with their friends, children develop their motor skills and learn to share toys and equipment (social aspect) and express their joy or frustration (emotional aspect).

Meals and snacks also provide children with a great opportunity to explore their senses, become more self-reliant, feel more competent and develop healthy eating habits and social skills.

Although current frameworks can help define educational childcare services’ roles and responsibilities for best practices in healthy eating, play and motor development, more effective or promising steps must be developed to achieve this objective.

### **Framework for educational childcare services**

The Ministère de la Famille expects to see educational childcare services in Quebec gradually but resolutely take meaningful steps to provide toddlers with a supportive environment for developing a healthy lifestyle. Already, many childcare settings are working toward this objective and are showing innovation and creativity in order to review their practices. This framework supports and bolsters this commitment by setting out guidelines that will provide quality standards in creating supportive environments for healthy lifestyles.

*The terms most commonly used in the literature are “physical activity” and “psychomotor development.” In accordance with the Meeting Early Childhood Needs educational program, the terms used in this framework are “active play” and “motor development.” These terms are explained in Chapter 3 of this framework. The concepts associated with healthy eating are also presented.*

**Chapter**

# 01

**Status report**

## 1.1 EARLY CHILDHOOD: A CRUCIAL PERIOD

Regular physical activity and healthy eating have a positive effect on overall development and health, from birth and throughout life<sup>13, 14, 15, 16, 17</sup>. Many experts agree that the sooner these two lifestyles are adopted, the greater and more sustainable the benefits will be. Also, children decide what activities and games they prefer during the first six years of their lives<sup>18</sup>. The quality of nutrition during infancy has equally important implications for long-term eating habits<sup>19, 20, 21</sup>, inter alia, because food preferences are developed during this period<sup>22, 23, 24</sup>.

### Essential components of overall development of children

Healthy eating and the development of motor skills are fundamental components of general early childhood development and essential for shaping learning. In keeping with the Meeting Early Childhood Needs educational program, targeting children's overall development means giving them the opportunity to develop in all areas: emotional, physical and motor, social and moral, cognitive and language skills. This section highlights the relationship between adopting a healthy lifestyle and the various aspects of development of the whole child.

### Nutrition

There are so many connections between proper nutrition and development of the whole child that they cannot all be discussed<sup>25</sup>. However, a brief overview is provided below.

Because of its nutritional value and specificity, breast milk contributes to the *growth* and maturation of the brain and the digestive and immune systems<sup>26, 27</sup>. Since the milk's taste may vary with the mother's diet, babies slowly get used to various flavours, which could make it easier for them to accept a variety of foods<sup>28</sup>. The act of breastfeeding goes well beyond nutritional considerations; it is a way of *communicating* with the child<sup>26</sup>. Breastfeeding provides other benefits, particularly with respect to *language and motor skill* development before school age<sup>29, 30</sup>.

Growth during childhood and adolescence is strongly influenced by diet<sup>31, 32, 33</sup>. Several nutrients are necessary, for example for bone growth and muscle renewal<sup>31</sup>. Healthy eating also improves children's *ability to learn*. Studies have shown that children who do not have a sufficient and balanced diet are more likely to experience academic difficulties<sup>36</sup>. For example, certain nutrient deficiencies can have a negative impact on toddlers' *cognitive* development and behaviour<sup>37, 38, 39, 40, 41</sup>. In addition, healthy eating is positively related to determinants of academic success, such as self-esteem<sup>42</sup>.

Researchers have found that children who eat insufficient or poor quality food have weaker *social* skills, particularly girls<sup>43, 44</sup>. Other researchers have gone so far as to say children who suffer from hunger for a very long time are more likely to experience psychosocial and behavioural dysfunction and attention problems<sup>45, 46</sup>.



Healthy eating also affects children's *language* and *motor skill* development. By offering children a wide range of stimulating foods (a variety of textures, flavours and aromas) and encouraging them to better express their food needs, preferences and dislikes with a varied vocabulary and respect for the opinions of others, childcare services help children achieve their full potential and give them an opportunity to adopt several attitudes and skills that will be useful when they start school<sup>10</sup>. Also, letting children handle food, first with their hands and then with utensils, allows them to improve their motor skills.

Meals and snacks also provide great opportunities for children to gradually and gently learn about the culture, values, standards and rules of childcare setting, which helps to socialize them. The rituals and routines associated with food provide children with a sense of security related to the *emotional* aspect of development.

Consequently, toddlers exposed to healthy and varied foods, in an appropriate meal context<sup>ii</sup>, are more likely to adopt and maintain healthy eating habits<sup>47</sup> and achieve expected health outcomes.

### **Active play and motor development**

Young children who are regularly involved in a variety of physical activities and games improve their motor skills, have more confidence in their physical abilities and are more likely to participate in physical and sport activities during childhood and adolescence<sup>48, 49, 50</sup>. In the longer term, this encourages them to adopt and maintain a physically active lifestyle, a way of life where physical activity in different situations (transportation, leisure) and for different reason (enjoyment, improvement and maintenance of fitness, health and well-being, performance, etc.) are prioritized, valued and maintained into adulthood<sup>51, 52</sup>.

More specifically, good motor development allows children to learn how to move from place to place (crawling, rolling), control objects (grasping, handling, etc.) and improve their body control (muscle tone, posture, coordination etc.) in terms of gross and fine motor skills. It also helps them develop their emotional, cognitive and social abilities<sup>53</sup>.

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ii The term “appropriate meal context” refers here to the physical (place, utensils, etc.) and social (atmosphere, staff attitudes, etc.) aspects that allow children to enjoy a positive food experience. See Guidelines 2 and 3 in Chapter 4 for more information.

The motor aspect of overall development of children is linked to *cognitive ability*, through motor actions spurred by the mind during early childhood<sup>54</sup>. Gestures such as handling, stacking and transferring go hand in hand with children's reasoning, making it easier for them to learn. The importance of motor skills in readiness for school has been reported in several studies. Although fine motor skills have been shown to contribute to good handwriting<sup>55</sup>, it is also recognized that young children whose gross motor skills are not sufficiently developed are likely to experience learning difficulties when they start school<sup>56</sup>. In fact, kindergarten students' ability to move (crawling, walking, hopping, etc.) is positively related to their subsequent handwriting proficiency<sup>57</sup>.



Motor development also has an impact on the development of children's other skills: *emotional* skills developed as a result of the autonomy that their new abilities provide them; *intellectual* skills from exploring and adapting to the environment through their motor skills; *social* skills from playing with their peers and friends<sup>58</sup>. When playing, children learn to negotiate with their peers (what game to play, who can play, when to start or stop and the shared rules of play), compromise, cooperate and resolve conflicts that may arise. In short, active play must be introduced very early in life and from birth in order to develop motor skills because this is when children focus on using their mind and body to develop every aspect of their personality and interact with their environment<sup>59</sup>.

### **Overweight, obesity and chronic disease**

According to the World Health Organization<sup>60</sup>, nearly 43 million children under the age of five throughout the world are overweight or obese. Unfortunately, Quebec has not been spared, as these data from two Quebec surveys show:

- 26% of toddlers aged 2 to 5 are overweight, and girls are more affected than boys of the same age<sup>61</sup>.
- Children aged 2 to 5 are the second most affected age group for overweight and obesity in children and adolescents, after children 12 to 14 years of age.
- Approximately one in seven (14%) children aged 4, 6 or 7 are overweight, approximately 5% of whom are considered obese and 11% are overweight<sup>62</sup>.

Obesity at an early age appears to increase the risk of obesity during the preschool years<sup>63</sup>, childhood<sup>64</sup> and adulthood<sup>40, 65, 66</sup>. Obese people have higher risks of developing certain chronic diseases such as cardiovascular diseases, diabetes and some forms of cancer<sup>67, 68, 69, 70, 71</sup>. And even if their weight in adulthood is within the recommended range, people who were obese as children seem to be at higher risk for diabetes, high blood pressure and cardiovascular disease<sup>72</sup>. Adopting a healthy lifestyle early in life can help prevent overweight and other chronic medical conditions<sup>67, 68, 73</sup>.

Beyond the physical consequences, excess weight can also have psychological repercussions. There are strong social prejudices against overweight among both children and adults, can lead to discriminatory behaviour. Overweight children are therefore more likely to be treated differently (mostly unjustly) than the rest of the group. These children are more likely to report dissatisfaction with body image<sup>74, 75, 76</sup> and low self-esteem. They are also more likely to experience depressive symptoms and eating disorders<sup>77, 78</sup> (dieting or compulsive overeating, meal skipping, use of appetite suppressants, etc.).

It is important to emphasize that development and growth vary between children. Overweight can be a transient phenomenon that will naturally disappear as children grow<sup>62</sup>.

### **Excessive concern with weight**

People are excessively concerned with weight when dissatisfaction with their weight affects their physical or mental health, regardless of whether they are actually overweight<sup>79</sup>. Body dissatisfaction and the desire for a thinner body<sup>80, 81, 82, 83, 84, 85</sup> can appear in children as young as 4 to 6 years of age. Young Quebecers are also affected by this phenomenon<sup>86</sup>:

- 45% of 9 year olds are dissatisfied with their figure.
- One-third of girls and a quarter of 9-year-old boys have already tried to lose weight. This means that they became concerned about their weight well before this age.

Like obesity, a negative body image<sup>iii</sup> or excessive weight concerns have a negative impact on the health and well-being of young people<sup>87</sup>. They are associated with anxiety, depressive symptoms, low self-esteem and the development of unhealthy behaviours or eating disorders. Excessive weight concerns are closely tied to the problem of obesity<sup>iv</sup>.

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iii Body image can be defined as a subjective evaluation of one's appearance.

iv It is normal to worry about high rates of overweight among young people. However, well-meaning people who want to do the right thing sometimes plan interventions that could have unintended effects on young people and increase their preoccupation with their body image. Treating overweight children is a very delicate process that should be left to health professionals. Childcare services are responsible for modifying environments to make them supportive of adopting healthy lifestyles and developing a positive body image. The guidelines presented in Chapter 4 provide overall clarification.

## 1.2 SUBOPTIMAL LIFESTYLES

Eating well and sufficient physical activity provide many benefits in terms of children's overall development and health. It's a fact. But what about our toddlers' habits?

### Nutrition among 0 to 5-year-olds

Data on food consumption among Quebec children do not bode well. While recommendations are clearly outlined in *Canada's Food Guide*, many are not followed. Here are some facts from a 2002 Quebec survey of 4-year-olds<sup>40</sup>:

- Young children do not eat the minimum servings recommended by *Canada's Food Guide*<sup>88</sup> : 80% of four-year-olds usually eat less than five portions of fruits and vegetables, 50% eat less than four portions of grains, 52% eat less than two portions of dairy and 61% eat less than two portions of meat or meat substitutes<sup>v</sup>.
- Most children eat fortified non-whole grain cereal more often.
- Four-year-old children eat little fish, legumes, nuts and seeds, foods in the "meat and alternatives" group.
- Their fiber intake is well below the baseline nutritional value<sup>vi</sup>.
- Foods that are not part of the four food groups, most of which are high in fat, sugar or salt and low in nutritional density, account for a significant portion of the diets of 4-year-olds (20% of energy intake).
- The type of beverages consumed by many children is not always advisable: one in five children consume sugary drinks every day (including fruit-flavoured drinks, soft drinks and sports drinks). Almost one in five children do not drink water every day.

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v The data presented here refer to the servings recommended by *Canada's Food Guide* at the time of the survey. Although currently recommended serving sizes for 4-year-olds are slightly different from those listed at the time in the meat and alternatives group, it can be assumed that many children's intake is still lower than recommended. Further details on data interpretation are provided in the following report: DESROSIERS, H., et coll. (2005), *Enquête de nutrition auprès des enfants québécois de 4 ans*, Institut de la statistique du Québec, gouvernement du Québec, 152 p. <http://www.stat.gouv.qc.ca/publications/sante/pdf2005/nutrition4ans.pdf>.

vi The median fiber intake was about 10 g per day, while the recommendation (sufficient intake) was 25 g.

In 2004, sodium intake exceeded the recommended level for almost all Canadian children aged 1 to 8 (99%) and exceeded even the maximum tolerable intake in more than 75% of children, increasing the risk of adverse health effects<sup>89</sup>.

Finally, in 2002, one in 10 children aged 4 lived in a family where, due to lack of money, members had eaten the same foods several times in a row, had eaten less than they should, or were unable to eat balanced meals<sup>40, 90</sup>. Food insecurity is a problem that affects toddlers and jeopardizes their health and development. Providing healthy food for children who attend childcare services helps ensure minimum nutritional intake for food-insecure children<sup>91</sup>.

### **Activity levels among 0 to 5-year-olds**

Although it is difficult to accurately measure activity levels among young children, there is sufficient scientific evidence to conclude that when children are able to walk, they spend too much time on sedentary or low-intensity activities, leaving little time for medium-to high-intensity<sup>vii</sup> activities and games<sup>51, 92, 93</sup>.

- In Canada, 27% of children aged 2 to 3 and 22% of children aged 4 to 5 spend more than two hours a day in front of the television<sup>94</sup>.
- Screen time is associated with decreased academic performance, cognitive function and hours of sleep, and increased aggressive behaviours<sup>95</sup>.

According to Quebec recommendations on screen time<sup>95</sup>, the time toddlers spend watching children's television programs reduces the time they spend on motor and exploratory activities that are essential for their development<sup>96</sup>.

In addition to indulging too early and too often in sedentary activities, only 46% of children enjoy three hours or less of active play per week, including weekends<sup>97</sup>. Child-initiated play time decreased by 25% between 1981 and 1997 and was replaced with adult-initiated sedentary and indoor activities<sup>98</sup>. However, when children initiate their activities, they played with greater intensity and took more steps and their motor skills development was greater. In addition, children under 5 years of age need adequate outdoor play time for physical and motor development. There is a significant correlation between time spent outdoors and active time at intensities that range from medium to high during childhood<sup>100</sup>.

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vii The concept of intensity is defined on page 31 of this document.

The results of a recent Quebec study measuring the time during which 242 children were physically active in childcare services showed that children were active on average 53 minutes per day at intensities ranging from low to high, and only 13 of these 53 minutes were spent on medium- to high-intensity activities or games. In addition, only 2 of the 242 children in the sample met the recommendations of the National Association for Sport and Physical Education (NASPE<sup>viii</sup>), 2 hours per day<sup>101</sup>.

Early childhood has long been viewed as a “hectic” time when young children are constantly moving. Parents and adults who work with young children tend to believe their activity levels are very high<sup>102</sup>.

However, the data show that, regardless of the type of activity or play, toddlers’ activity levels are decreasing<sup>103</sup> and have become insufficient to achieve full development and provide them with short- and long-term health benefits<sup>51, 93, 104, 105</sup>.

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viii According to the recommendations made in 2002 by the National Association for Sport and Physical Education (NASPE), children aged 3 to 5 should be physically active for 2 hours a day. The 2012 Canadian Physical Activity Guidelines for early childhood go even further and advocate that children aged 1 to 4 should be active at least 180 minutes during the day through low- moderate- or vigorous-intensity games and activities.

**Chapter**

# 02

**Framework for environments  
that support healthy eating,  
active play and motor  
development**

## **2.1 ADOPTING HEALTHY LIFESTYLES IN EDUCATIONAL CHILDCARE SERVICES**

This framework and its guidelines and best practices will enable educational childcare services to create environments that support healthy eating, active play and motor development. It is intended for everyone involved in childcare services, since the particular roles of each stakeholder have a major impact on the optimal development of toddlers.

### **Goal**

Promote the overall development of children aged 0 to 5 through healthy eating, active play and motor development.

### **General objective**

Support the provision of enabling environments for healthy eating, active play and motor development in educational childcare services in Quebec.

### **Specific objectives**

1. Educate childcare personnel on the importance of creating environments that support healthy eating, active play and motor development in educational childcare services.
2. Increase knowledge and skills of childcare personnel in terms of healthy eating, active play and motor development.
3. Educate personnel in order to promote the creation of environments that support healthy eating, active play and motor development in educational childcare services.

To ensure these specific objectives are achieved, the Ministère de la Famille, in conjunction with various partners, will provide services to help childcare settings make lasting changes in their practices.

## Recipients

### The framework is primarily addressed to:

- childcare centre managers, board members, and day care owners, since such an approach can only be implemented with their commitment and involvement from the outset and throughout the process;
- childcare personnel and food managers, because it is through their daily practice that the guidelines will be implemented.

The framework can also be used as a reference for compliance and pedagogical support officers in home childcare coordinating offices and recognized home childcare providers.

The framework also calls on parents and various community partners so that steps taken by childcare services to create environments that support healthy lifestyles are echoed in other immediate and extended environments for toddlers.

## Principles

The framework was developed in keeping with the broad principles of the democratic approach, as advocated in the Meeting Early Childhood Needs educational program:

1. Respect for the needs and peculiarities of each child with a view to overall continuous development;
2. The importance of play and fun in children's learning;
3. The importance of putting children in a position of autonomy by experimenting, observing, imitating and speaking with others;
4. The need for cooperation between education services, parents and the community.

## 2.2 CREATING SUPPORTIVE ENVIRONMENTS

The concept of supportive environments<sup>106</sup> for healthy lifestyles refers to all conditions that make it easier to adopt healthy lifestyles. These conditions are numerous and varied. They can be divided into four environments: physical, socio-cultural, policy and economic.

The four environments listed above are a reference to help educational childcare services better understand the nature of the interventions proposed in this framework, better plan the implementation of the interventions and better evaluate them. First, educational childcare services must analyze their environment. Some questions may help them perform this analysis. Here are some examples of questions that will provide food for thought. They are based on studies and literature reviews conducted in Quebec<sup>99, 107, 108</sup>, which highlighted findings on making lasting changes in educational childcare services and creating environments that support healthy eating, active play and motor development.

### **Physical environment:**

#### **What is available at the childcare service?**

- Does the layout of the premises provide a pleasant atmosphere at meal and snack times (adequate furniture, noise level)?
- Do selected suppliers provide a wide variety of highly nutritious foods?
- Are the main food allergens listed on the packaging?
- Does the childcare service have adequate equipment and materials for active play?
- Does the childcare service use portable rather than fixed equipment to significantly increase toddlers' outdoor activity levels?
- Do the children go out every day to play games, develop their gross motor skills and enjoy a wide variety of enriching experiences?

**Sociocultural environment:  
What values and beliefs does  
the childcare service instill?**

- Are children encouraged to listen to signs that they are hungry or satisfied?
- Are parents informed about accommodations and services for breastfeeding mothers?
- Is food misused as a reward or punishment?
- Is there enough time for meals and snacks?
- Do childcare personnel recognize that the context in which meals and snacks are eaten has an influence on children's eating behaviour?
- Do childcare personnel recognize that their own eating behaviour shapes children's behaviour?
- Are meal and snack-time discussions positive and focused on the fun of trying new foods?
- Do childcare personnel recognize the importance of active play and the role it should play in children's daily lives?
- Do childcare personnel incorrectly consider that adult-initiated play is better than child-initiated play?
- Do childcare personnel recognize that coaching is important for providing more opportunities for daily physical activity?
- Do childcare personnel adjust play times to the needs of children who prefer vigorous activity for very short periods of time?
- Is encouraging physical activity a standard in the childcare setting?  
Are childcare personnel motivated in this regard and do they feel that this is expected of their manager, parents and colleagues?

**Policy environment:****What policies and regulations are enforced in the childcare service?**

- Does the educational program (or any other document) contain:  
Guidelines on nutrition, active play and motor development in accordance with this framework?
- Do managers encourage those responsible for nutrition to use cycle menus?  
Are cycle menu training and support available?
- Are meal and snack planning and preparation procedures properly managed?
- Do managers strongly support and encourage educator training and development?
- Have childcare personnel received training or information on motor development and how to encourage children to be more physically active?

**Economic environment:****What are the costs?**

- Did educational childcare services located close to each other get together to buy products at a competitive group rate?
- Do the kitchen and rooms where the children eat require short-, medium- or long-term renovations that could facilitate meal and snack management?
- Should kitchen equipment and utensils be purchased or repaired to better meet needs?
- Do menus combine low-cost and higher cost nutritious foods in order to meet the food budget?
- Is there an agreement with the municipality or school board for children at the childcare service to swim at a lower cost or have free access to school gymnasiums, community halls or other active play areas?

## 2.3 INTERRELATIONSHIP OF ENVIRONMENTS

To ensure lasting change, it is important to act on all four environments. It is difficult to isolate the contribution of a single component and what would happen if it were modified. By taking steps to influence all four environments, and by taking into account their interrelationships, educational childcare services create environments that support healthy eating, active play and motor development.

The following two scenarios illustrate changes in educational childcare services that take the four environments into account. Measures followed by a green dot are considered supportive and those followed by a red dot are considered non-supportive.

### At the Vermicelles et Potiron educational childcare service

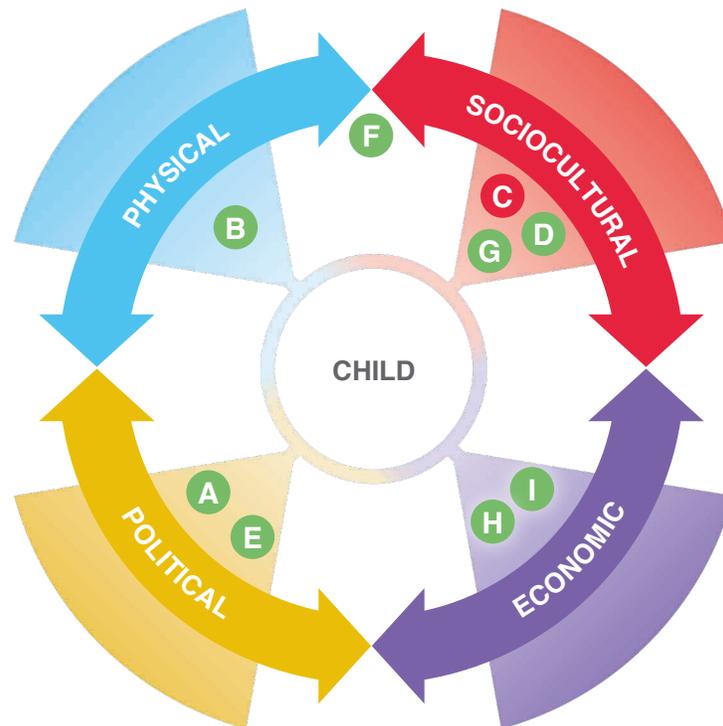
The Vermicelles et Potiron educational childcare service wants to provide a wider variety of fruits and vegetables and increase children's desire for diversified foods (part of a supportive policy environment **A**). The food manager decides to make a list of "new fruits and vegetables" to be included in the menu depending on the season. She targets soups, salads, main courses, desserts and snacks where she can easily introduce new fruits or vegetables. In addition, she ensures they will be available every day by varying food choices (part of a supportive physical environment **B**).

Nathalie, one of the educators, does not like turnips. Before serving lunch to the children, she asks them if they want turnips, allowing them to choose what they eat (part of a non-supportive socio-cultural environment **C**). Marie-Pier, her colleague, uses a sensory education strategy by encouraging children to describe turnips' appearance, colour, shape, texture and taste (part of a supportive socio-cultural environment **D**). Ms. Frisotis, the Executive Director, finds this sensory education strategy very promising and knows that it should be supported according to the framework. She therefore decides to adopt a new directive in the nutrition policy so that all childcare personnel use this technique (part of a supportive policy environment **E**).

Julien, one of the educators, knows that children are not as fussy when they are familiar with the food. To encourage children to eat vegetables, he thought of setting up a kitchen garden in the yard with the help of his colleagues, some parents and children (part of a supportive physical and socio-cultural environment **F**).

Staff organized a special day for launching the vegetable garden. Several people were invited to the event: the parents as well as various community partners, including representatives of the municipality and local market gardeners (part of a supportive socio-cultural environment **G**). The market gardeners even provided the childcare service with some free seeds (part of a supportive economic environment **H**). This day helped to create mutual support: the Vermicelles et Potiron educational childcare service was able to implement its project and plan next year's garden.

The vegetable garden is a real success! There are so many vegetables growing in the garden that summer vegetable costs decreased (part of a supportive economic environment **I**). Julian noticed that by looking after the garden, the children spent more time playing outdoors and discovering new things. What fun!



Adapted from: MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX (2012), *Pour une vision commune des environnements favorables à la saine alimentation, à un mode de vie physiquement actif et à la prévention des problèmes reliés au poids.*

## At Les petites gazelles educational childcare service

The owner of Les petites gazelles childcare service decided to have a physical activity day for the children, with the help of the childcare personnel (part of a supportive political environment **A**). To everyone's surprise, they found that children were not sufficiently physically active. In fact, they were far less physically active than previously thought.

In order to correct this situation, the childcare service first hired a physical activity specialist to lead physical activity sessions. Although the children would have really enjoyed the activity proposed by the specialist, the childcare service team came to the conclusion that this was not a sustainable solution, since toddlers need to be physically active often and on a daily basis by initiating active play that is part of their routine.

Highly encouraged by this finding, the owner and staff decide to first list the obstacles that limit toddlers' activity levels (part of a supportive policy environment **B**). For example, they found that the number of opportunities to engage in physical activities varied greatly between groups. Some educators noted the lack of space, equipment or time to provide active play periods for the children (part of a non-supportive physical environment **C**). Some thought the daily routine was an impediment. Some educators also felt uncomfortable because they were not used to being physically active and felt awkward participating in active games with children and stimulating their motor skills (part of a non-supportive sociocultural environment **D**).

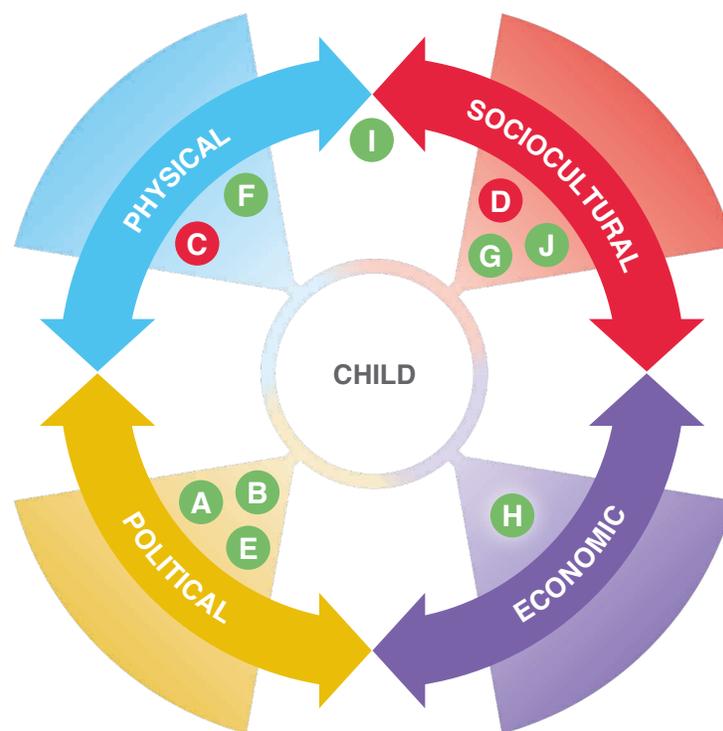
Based on these findings, Les petites gazelles childcare service decided to develop and implement an action plan to overcome these obstacles and include more physical activity in the children's daily lives. The first target action was to review the educational program in order to clarify its intention to provide more opportunities for active play and motor development (part of a supportive policy environment **E**).

As a result, a corner with no furniture or carpets was set up in each room. This gave the children a space where they could use small equipment to initiate active play on their own (part of a supportive physical environment **F**).

Training workshops on active play and motor development were also offered to childcare personnel, where they learned to include more opportunities for physical activity. It also made them more confident in terms of encouraging children to engage in active play. Many educators were thrilled to find out they were ideally suited to encourage physical activity, regardless of their personal levels of physical activity (part of a supportive socio-cultural environment **G**).

Rather than buying new equipment, an inventory of all the equipment that could be used for active play was done (part of a supportive economic environment **H**). The equipment is now placed in the rooms based on a scheduled rotation of items available for each group, which keeps all children interested (part of supportive physical and sociocultural environments **I**).

Although routine is important in the children’s day, it should not be a barrier to active play. The educators helped review the various parts of the routine and found opportunities to include active play periods. A “High-energy routines!” game bank was created. Proud of the changes they made, Les petites gazelles childcare service organized a special parent-child day to promote these changes and allow parents to experience a day full of fun activities and active games that can be played at home (part of a supportive socio-cultural environment **J**).



Adapted from: MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX (2012), *Pour une vision commune des environnements favorables à la saine alimentation, à un mode de vie physiquement actif et à la prévention des problèmes reliés au poids.*

# Chapter

# 03

## Definition of concepts

This chapter introduces concepts needed to understand the various aspects of healthy eating, active play and motor development. Common understanding of these terms will make it easier to plan and implement the guidelines and best practices presented in Chapter 4.

### 3.1 HEALTHY EATING

Children who eat nutritious, tasty foods in a pleasant atmosphere in the presence of significant adults on a daily basis are more likely to associate healthy eating with positive experiences and develop a taste for healthy eating.

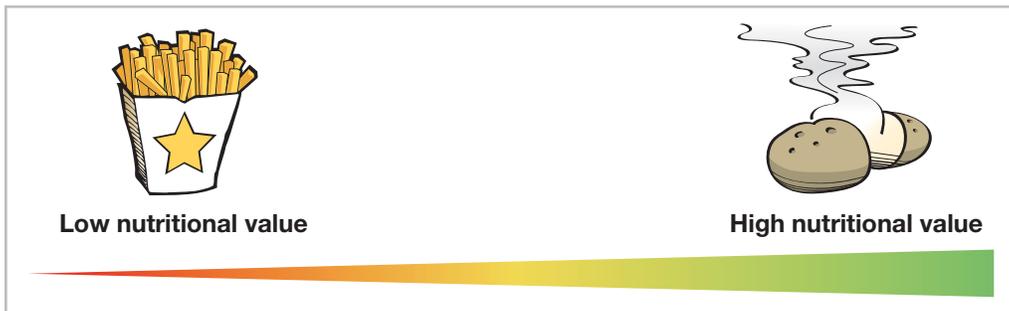
#### What is “healthy eating”?

Healthy eating can be defined as “eating practices and behaviours that are consistent with improving or maintaining a state of complete physical, mental and social well-being and not merely the absence of disease <sup>109,110</sup>.” Healthy eating goes well beyond the nutritional value of foods given to children; it has several dimensions: biological, socio-cultural and economic. It also involves food security and must be consistent with the principles of sustainable development<sup>111</sup>.

Healthy eating can include a wide variety of foods on a continuum extending from somewhat or not nutritious to very nutritious (Figure 1). Therefore, foods cannot be categorized; there is no “good” or “bad” food.

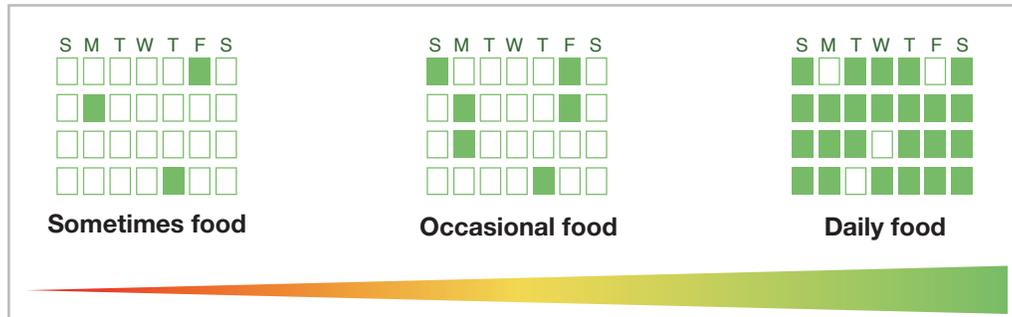
Food can be given to children on a “daily”, “occasional” or “sometimes” frequency continuum, depending on its nutritional value (Figure 2).

FIGURE 1



Source: MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX (2010), *Vision de la saine alimentation pour la création d'environnements alimentaires favorables à la santé*.

**FIGURE 2**

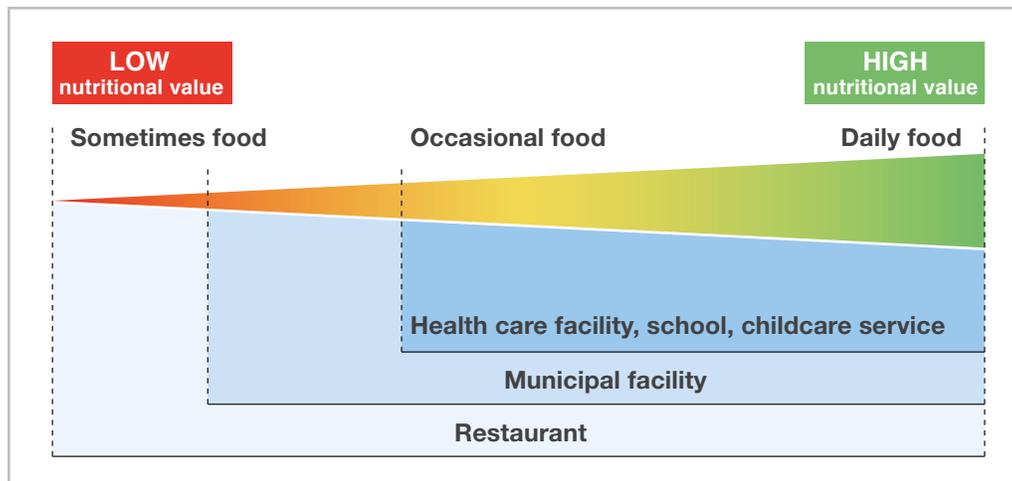


Source: MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX (2010), *Vision de la saine alimentation pour la création d'environnements alimentaires favorables à la santé.*

These two continuums are complementary: the higher the food's nutritional value, the more often it should be offered. The quality of a diet is assessed globally over a long period (week, month), not based on a single food or a single meal.

As shown in Figure 3, the various facilities are expected, consistent with their mission, to provide food where the proportion of daily, occasional and sometimes food may vary. **Educational childcare services, whose mission includes ensuring child health and wellness, must focus on daily foods and provide few occasional foods. Since educational childcare services are considered exemplary environments, sometimes foods do not belong on their regular menus.**

**FIGURE 3**



Source: MINISTÈRE DE LA SANTÉ ET DES SERVICES SOCIAUX (2010), *Vision de la saine alimentation pour la création d'environnements alimentaires favorables à la santé.*

Of course, a healthy diet follows the rules of hygiene, sanitation and food safety. It is also free of allergens to protect individuals who are sensitive to them.

In addition to their nutritional value, foods have gastronomic, cultural or emotional value. The whole dimension of pleasure associated with meals provides satisfaction, which contributes to health in its broad sense. This positive experience can be promoted in various ways: appropriate settings and atmosphere for pleasant meals, respect for cultural preferences, fond memories associated with certain dishes, etc.

A healthy diet also means that food is available in sufficient quantities, variety and quality, and physical and economic access to nutritious food are ensured. Some disadvantaged families or those living in isolated communities have limited access to a healthy diet. It therefore follows that childcare service contributes even more significantly to the nutrition of children from these communities.

People usually eat several times a day. Because so many people eat, food production, processing, transportation, storage and consumption leave a very large ecological footprint. Food choices can have a significant impact on the economy and the environment.

### **What are “nutritious foods”, “foods with high nutritional value” or “daily foods”?**

The term “health food” is misleading and is not scientifically based, because no single food on its own can contribute to health, nor can it pose a major health risk. It is therefore important not to categorize foods: there are no “good” or “bad” foods.

Foods considered “nutritious” or «highly nutritious” are listed in *Canada’s Food Guide*<sup>112</sup>. Since these foods should be served to children on a daily basis and make up most of the meal, they are also referred to as “daily foods.” The nutritional guidelines provided in the appendix can help educational childcare services select nutritious foods. Partnerships with dietitians and nutritionists can also be established to support childcare services in this regard.

### **What are “occasional foods”?**

Occasional foods provide overall good nutritional value, but are not optimal choices. These foods provide several nutrients, but often contain more sugar, salt or fat or less fiber, vitamins or minerals than daily foods. Occasional foods should be eaten less often or in lesser quantities than daily foods.

## What are “foods with low nutritional value” or “junk food”?

Foods with “low nutritional value” or “sometimes foods» are at the other end of the continuum (Figure 2). They contain very few if any nutrients. They can also contain a significant amount of sugar, salt or fat, or poor quality fat. These foods do not belong on childcare services’ regular menus.

## **3.2** ACTIVE PLAY

### What is “active play”?

The ideal learning situation for children must include a lot of play time. Play is more than a source of fun or entertainment for children. It helps them develop their motor, emotional, social, cognitive and language skills, which are needed in overall development of children<sup>113, 114</sup>. For example, when playing, children learn to negotiate with their peers (what game to play, who can play, when to start or stop and the shared rules of play), compromise, cooperate and resolve conflicts that may arise.

According to the Ministère de la Famille’s Meeting Early Childhood Needs educational program<sup>10</sup>, growth and development are essentially “active” processes controlled by the child. The term “active learning” means that children get to know themselves and others in their environment by being active.

In this framework, the term “active” refers to movement, moving and being physically active. Active play is any fun activity in which the child is physically active. Different kinds of active play can involve different parts of the child’s body and at varying intensities.

A childcare service can also provide time for physical activity and include it in the children’s daily routine during normal or transitional activities and while going from one place to another. The important thing is that children enjoy physical activity.

## What are “motor development” and “motor skills”?

Motor development is a concept that encompasses a set of anatomical, physiological, neurological and psychological functions involved in movement<sup>115</sup>. The term “psychomotoricity” is also used to illustrate this connection between the brain and the body.

Motor development is therefore a continuous movement control or motor skill acquisition process that is influenced by age and practice. It begins before birth and continues for many years<sup>116</sup>. The sensitive motor skills development period generally occurs between 0 and 9 years of age. Gains are rather modest beyond this period. It should also be mentioned that:

- Although all children go through the same stages of development, they all go through them in their own way and at their own pace;
- Six- to eight-months differences in the onset of some abilities in two children are quite normal.

Thus, there is an appropriate time and sequence for learning new movements and acquiring basic motor skills that will be enhanced and perfected throughout childhood<sup>118</sup>. Children move on from reflexive movements (stepping reflex in newborns) to rudimentary movements (infants stabilizing their trunk in the sitting position) and basic movements (ability to throw a ball or maintain balance between 2 to 7 years of age) on to specialized movements (such as basketball dribbling 7-14 +)<sup>119</sup>.

These basic motor skills can be grouped as follows:

1. **Gross motor skills**, which include large body movements such as locomotion skills (crawling, walking, running, etc.) and basic movement skills (throwing, catching, kicking, moving a heavy object, etc.).
2. **Fine motor skills**, which include more precise body movements, such as handling a pencil, eating with utensils or using scissors.

Other components guide the development of fine and gross motor skills, including body image, laterality, spatial organization, temporal organization and balance control. The framework places particular emphasis on gross motor skills development. Guideline 8 in Chapter 4 clarifies the importance of gross motor skills development.

*Motor skills do not develop independently of other aspects of child development: they are tied to one another. However, motor regulation is an important pillar, because young children explore their physical and social environment by moving around and handling objects, which helps them develop other skills<sup>120</sup>.*

### **What is “sedentary activity”?**

Sedentary activities in children are low-energy, low-movement activities usually performed while seated or lying down. For example: sitting in a stroller, car seat, high chair or a baby swing, doing activities while seated, on the floor or at a table (drawing, colouring, playing with blocks, doing a puzzle, etc.), watching television or playing with electronic devices (video games, computers, etc.) that do not require any movement.

According to the Canadian Sedentary Behaviour Guidelines<sup>121</sup>, children 0 to 4 years of age should not be sedentary or kept inactive for more than an hour at a time, except when they are sleeping. In addition, according to the Quebec recommendations of the expert committee on screen time<sup>95</sup>, children under 2 years of age should not be allowed to spend time in front of screens and children from 2 to 5 years of age should spend less than one hour a day in front of screens.

## What is “intensity”?

The framework is not intended to turn toddlers into athletes and recommend overly specialized activities similar to sports. However, young people need to play games that allow them to use their muscles, increase their heartbeat and raise their body temperature. During the day, it is important to provide opportunities to be physically active at low, moderate or high intensities. Low- and high-energy activities are another topic. In toddlers, putting on disguises, standing and painting or walking slowly are low-intensity or low-energy activities. Running, jumping and playing with balls are moderate to high-intensity or high-energy activities.

Currently, we don't know the exact number or intensity of movement opportunities needed to ensure optimal early childhood development<sup>122</sup>. Based on Kino-Québec's scientific opinion<sup>52</sup>, young people in Quebec should be active as often as possible to promote their growth and healthy development. The Canadian Physical Activity Guidelines for early childhood, published in 2012, also support this goal<sup>121</sup>.

According to these guidelines:

- Children under the age of 1 should be physically active several times a day, particularly through interactive floor-based play.
- Children 1 to 4 years of age should be active at least 180 minutes during the day, through a variety of low-, moderate- and high-intensity games and activities.

On the other hand, keep in mind that the older the children, the more they need to participate in sustained or vigorous games. Practising high-intensity activities and games (such as running and jumping) should gradually increase to a minimum of 60 minutes a day by age 5. Also according to these guidelines, children between the ages of 1 and 4 should participate in a variety of activities or games on a daily basis in a variety of environments, which allows them to develop their motor skills.

## Chapter

# 04

## Guidelines and best practices

Chapter 4 presents 12 guidelines. Seven relate to healthy eating and five to active play and motor development. Best practices for each guideline are listed and constitute courses of action deemed effective or promising for creating environments that support the adoption of healthy lifestyles in educational childcare services in Quebec.

Some people who the guidelines and practices outlined in this chapter will find that they are already being introduced in their community and are producing results. Others will discover new challenges. However, regardless of the situation, each community will have to set its own priorities based on its unique characteristics. It is very likely that changes of varying magnitude will have to be made in all Quebec childcare settings.

## 4.1 HEALTHY EATING GUIDELINES

### Guideline 1

Give infants milk in a safe manner, in accordance with the parents' choices



#### Breast milk and commercial formulas

Breast milk is the best food for providing immunological protection and optimizing infant growth and development until six months of age. Continued breastfeeding is recommended until the child reaches 2 years of age or older<sup>123, 124</sup>. When properly prepared, iron-fortified infant formula is a safe substitute that will meet infants' needs until they reach 9 to 12 months of age.

The infant feeding method varies according to the parents' personal, medical or social reasons. Regardless of the method they choose (breastfeeding, expressed breast milk, commercial formulas or alternating between these modes), they appreciate that educational childcare services are welcoming, support them and do not judge them based on their choice.

Mothers returning to work often find it difficult to keep breastfeeding for a variety of reasons<sup>125</sup>. Childcare services have a unique opportunity to encourage breastfeeding. In addition to providing a quiet place for the mother to comfortably breastfeed her child<sup>ix</sup>, educational childcare services can come to an agreement with the mother about her breastfeeding hours and make sure she can be contacted when the child shows signs of hunger.

#### Handling breast milk and commercial formulas

Stringent practices must be followed to ensure infant health and safety when identifying, storing or preparing breast milk and infant formula, or cleaning and sanitizing bottles and nipples.

ix Based on Quebec's Charter of Human Rights and Freedoms, the Quebec Commission on Human Rights and Youth Rights recognizes that women can breastfeed everywhere, without being forced to breastfeed in a place reserved for them.

## Water

Infants under 6 months of age do not need to drink water, even in hot weather. In general, breast milk and commercial formulas diluted according to the manufacturer's recommendations contain enough water to quench their thirst and meet their needs<sup>126</sup>. At the age of 6 months, when infants start to eat other foods, they can occasionally be given small amounts of water.

## Other types of milk

Unlike commercial formulas, cow's milk and goat's milk do not meet the basic needs of infants under 9 months of age. Children under 2 years of age should not be given fortified or unfortified plant-based beverages (soy, rice, almond, etc.) on a regular basis. They do not contain enough energy, fat or protein to meet their needs.

### BEST PRACTICES

- 1.1) Respect mothers' decision to continue breastfeeding on demand and make sure they can be contacted
- 1.2) Provide a quiet and comfortable place for mothers to breastfeed and ensure that parents are well informed about these facilities
- 1.3) Implement best good practices for handling breast milk and commercial formulas
- 1.4) Occasionally provide water for infants older than 6 months



### Did you know that...

The “Mieux vivre avec notre enfant de la grossesse à 2 ans” guide, available at [www.inspq.qc.ca/mieuxvivre](http://www.inspq.qc.ca/mieuxvivre), provides information on best practices for breastfeeding, handling breast milk and infant formula, and procedures for cleaning and sanitizing bottles and nipples.

## Guideline 2

Use educational strategies that promote the development of healthy eating habits, a positive body image and a healthy relationship with food



The attitude and educational practices of people in daily contact with toddlers can influence the development of their body image as well as their current or future relationship with food.

### A positive body image and a healthy relationship with food

Body image is the relationship individuals have with their body and its appearance<sup>127</sup>. It is one of the many aspects of self-esteem<sup>128</sup>. Children under 5 are developing their body image, which is defined by the way others see them<sup>129, 130, 131</sup>.

Adults must be positive role models. They should make sure their words and actions do not reflect their own concerns about their weight and that they do not cause the children to worry about their weight or appearance<sup>86, 132, 133, 134</sup>. It is important to build children's self-confidence based on their strengths (talents, achievements, qualities, etc.), respect their tastes and preferences and encourage them to accept their bodies and understand that everyone's body is different.

Early childhood is a good time to educate children about body diversity and respect for others. Children should learn that comments about weight and appearance are unacceptable and can upset others<sup>135</sup>. Teasing children or alluding to height or weight<sup>134</sup>, to dieting or the myth that some foods can be fattening or during discussions between adults should not be allowed in childcare services. In addition, children's portion sizes should never be determined by the child's weight. Providing children with a healthy, varied diet in an enjoyable atmosphere where they try new foods also helps them develop a healthy relationship with food.

### Democratic intervention<sup>136</sup>

According to the Meeting Early Childhood Needs educational program, democratic intervention is an approach where adults and children share power. This style of intervention allows children to participate in decisions that concern them<sup>10</sup>. The following division of responsibilities is an accurate reflection of this approach:

- The childcare service determines where and when meals and snacks will be eaten;
- The food manager decides what foods and dishes will be served (what);
- The children decide (how much) food they will eat depending on their appetite and preferences.

## Attending to signs of hunger and satiety

Hunger and satiety are innate sensations. Infants and children are therefore very sensitive and show it through signals that childcare personnel must recognize and respond to. The text box on page 37 describes these signs.

Responding when children feel hungry or satisfied is a key factor in establishing a healthy relationship with food<sup>137</sup>. Food should never be used as a reward or punishment. This often leads children to eat more than they need and hinder their ability to recognize signs of satiety<sup>138, 139, 140</sup>. Withholding food or using it as a reward seems to make foods more attractive and enjoyable, while food preferences decrease when children are “forced” to eat food they reject<sup>141, 142, 143</sup>. In addition, infants and children should never be forced to drink or eat more when they are satisfied, even if they have not eaten everything on their plate<sup>144</sup>. Similarly, childcare personnel should not congratulate children when they eat everything on their plate.

It is important to note that desserts and snacks have no special status since they are an integral part of the daily diet<sup>x</sup>. Some children may choose to leave food on their plate to leave a little room for dessert. This behaviour clearly reflects the fact that they are responding to their signs of hunger and satiety.

## Management of appetite and food preferences

Meal and snack times are not appropriate times to show frustration with children or reprimand, restrain or blackmail them<sup>145</sup>.

Children may awkwardly express a food preference when they reject a particular food (e.g. cauliflower) without tasting it. In this case, the adult in charge should encourage them to taste the food, without any pressure or comments. This attitude will gradually encourage children to be open to different tastes, and they will eventually enjoy this particular food<sup>146</sup>.

Children’s appetite and preferences can vary from time to time: children can enjoy a food for a few weeks and refuse to eat it later. Under no circumstances should children be forced to eat a food they do not want. Instead, children should continue to be offered the foods on the cycle menu regardless of these fluctuations. The childcare service must not offer a child something else to eat when he doesn’t like what has been served.

A child is acting on a whim<sup>xi</sup> when he absolutely refuses to eat his meal, just because he would rather have macaroni, for example. If this happens, we recommend that the adult remove the plate without saying anything. The child will be served dessert at the same time as the other children, and if he still refuses to eat, the plate will be removed again without comment. At the next meal or snack time, smaller portions will be served, reminding the child that he can have some more<sup>31</sup>.

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x See Guideline 5 for more information on the nutritional value of desserts provided at childcare services.

xi A whim is an urgent and sudden desire that the adult does not approve of.

## BEST PRACTICES

- 2.1) Congratulate children for their talents, accomplishments and qualities rather than their physical appearance
- 2.2) Avoid any comments or responses regarding weight
- 2.3) Do not tolerate teasing about children's or adults' appearance
- 2.4) Adopt a democratic style during meals and snacks
- 2.5) Attend to signs of hunger and satiety from infants and children
- 2.6) Do not use food as a reward or punishment or to negotiate<sup>147</sup>
- 2.7) Do not congratulate children for having eaten everything on their plate (or for having eaten their vegetables, for example)
- 2.8) Do not make any negative comments or criticize what children have or have not eaten
- 2.9) Serve children dessert or a snack, regardless of what they have eaten previously
- 2.10) Encourage children to try all foods without forcing them



### Did you know that...

A child's appetite varies from day to day? Adults worry when a child eats less than usual, but you must remember that he will not starve. There is no need to pressure him to eat more. It is better to respond to signs that he is hungry or satisfied.

#### **An infant or a child shows that he is hungry when he:**

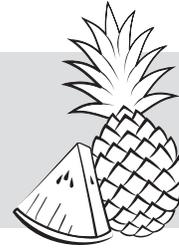
- Sucks his hand
- Says he is hungry
- Has a burning sensation in his stomach
- Has trouble concentrating
- Is particularly irritable
- And when his stomach is grumbling

#### **An infant or a child shows that he has eaten enough food when he:**

- Turns his head away
- Pushes the bottle or spoon out with his tongue
- Says he is not hungry any more
- Says his stomach is full
- Shows less interest in food, plays with it
- Wants to get up, go play, do something else

## Guideline 3

Provide a mealtime context that is conducive to healthy eating and discovering new foods



The atmosphere at meal and snack times helps children enjoy a healthy diet. Children can learn to prefer healthy foods if they become familiar with them, if adults and peers eat them, and if they are associated with positive physical and social experiences<sup>148, 149</sup>.

### Routine

Meals and snacks are routine activities, which must be part of the daily schedule so that children can look forward to them. This means the schedule, time allocated and frequency of meals and snacks. The childcare service sets the times at which meals and snacks are served, although some flexibility may be necessary to allow children to complete activities, depending on their age and abilities.

### Layout of the premises

In order to support healthy eating, the lunchroom layout should meet toddlers' needs. Tables and chairs should be comfortable and arranged to facilitate discussion. Meals should be eaten in small groups to encourage relaxed discussions. In addition to providing opportunities to discuss and learn about food, conversations at the table make meals more enjoyable. The room must be well lit, free of unnecessary noise (e.g. television), located far from the play area and decorated for everyone's enjoyment.

### Attitudes that help children learn how to eat

Meal and snack times provide great opportunities for infants and children to become more self-reliant and self-confident and to strengthen their motor skills. Between 6 and 18 months, infants explore their food and try to feed themselves with their fingers and then with a spoon, peel fruit, etc. It is essential that childcare personnel encourage these baby steps that allow infants to try new food and develop fine motor skills.

Special contact is established when the adult feeding the infant sits in front of him and shows that he enjoys the food. Taking the time to feed the infant while sitting in front of him also allows the adult to notice signs of hunger and satiety more easily, which makes eating a more social experience.

## Instructions and rules

Clear instructions based on children's stage of development help children understand appropriate mealtime practices and behaviours. They should wash their hands before eating; remain seated; use their utensils; not throw food; speak softly, etc. Nevertheless, these instructions should not become excessively rigid and restrictive rules, because enforcing them will become a source of conflict between the adult and the child. A fairly permissive approach is recommended to encourage children to become self-reliant.

## Trying new foods

Many children are reluctant to try new foods. When familiar people eat a food at the same time as the child, the child is reassured and soothed, which encourages him to be more open to this food<sup>142, 150, 151</sup>. That is why, together with the family, childcare personnel play an essential role<sup>152</sup>, They act as role models<sup>153</sup> by eating the same foods as the children and showing that they are interested, curious and enthusiastic about what they are eating. Childcare personnel who cannot or do not want to eat at the same time as the children also have the opportunity to act as role models by adopting a positive and enthusiastic attitude to meals and snacks.



Children tend to find that any new food they try tastes bad. To mitigate this response, childcare personnel should encourage children to enjoy trying new foods based on the children's experience<sup>155, 156</sup>. When asked to describe what they taste, children learn to become familiar with new foods and find out what they like to eat. Becoming aware of new tastes gives children the tools they need to deal with unfamiliar foods and gradually makes them more willing to try them. It is also recommended that a new food be introduced at mealtime along with other familiar foods that most children already enjoy<sup>157</sup>.

### **Taste testing activities**

Beyond introducing new tastes at meal and snack times, activities that stimulate children's curiosity and open them up to the food universe encourage healthy eating<sup>158</sup>.

Occasionally, it is a good idea to involve children aged 3 to 5 in preparing meals and snacks. Educational culinary activities introduce children to various cooking techniques, combine the concept of fun and conviviality with the act of cooking and encourage children to try new food. Culinary preparation activities are also an opportunity to instill good hygiene and food safety practices. In accordance with these practices, it is recommended that cooking workshops be designed where each child prepares his own recipe. It is also recommended that precautions be taken to deal with food allergies.

Trying new foods can also be included in all kinds of scheduled or spontaneous daily activities. By observing and listening to children, childcare personnel can build on children's interest in food. Describing the menu; discussing aromas from the kitchen; encouraging children to observe the shapes and colours of foods (in a book, for example), or discussing the origin and source of food are suitable topics for these conversations.

Healthy eating is also a great topic that childcare personnel can include in planning daily activities such as arts and crafts, role playing, boardgames, stories, etc. Some activities requiring more extensive planning provide an opportunity to cover a theme in greater depth, for example, creating a vegetable garden, visiting a farm, a market, an orchard, etc.

**In all cases, childcare personnel must first and foremost focus on the fun of trying new foods, sensory perception and the source of food rather than its nutritional value and health effects**<sup>137, 159</sup>. Activities where foods are classified as “good” or “bad” should be avoided. Similarly, childcare personnel should be made aware that they should not tell their children about their own beliefs or concerns about food.

### BEST PRACTICES

- 3.1) Offer meals and snacks at regular times, two or three hours apart
- 3.2) Allow plenty of time for meals and snacks
- 3.3) Make lunch rooms fun and child-friendly
- 3.4) Encourage discussions and a pleasant atmosphere during meals
- 3.5) Establish special contact with infants during meals to help them learn how to eat
- 3.6) Gradually encourage infants and children to feed themselves by providing challenges they can meet
- 3.7) Establish rules of conduct for meals for each age group
- 3.8) Introduce and initiate discussion on food colours, textures, shapes, aromas and flavours
- 3.9) Include activities that involve trying new food in daily activities, organized activities and field trips



#### Did you know that...

Many children do not make the connection between a “raw” food and the same food cut into pieces on their plate? You can present the food in the morning so that the children can become familiar with it by looking at it, smelling it and touching it. Later, when the food is presented in small pieces on their plate, they will already be familiar with it and more willing to taste it.

## Guideline 4

Offer a variety of highly-nutritious food to infants between 6 and 18 months of age



### Introduction of food

Food is introduced into the infant's diet around the age of 6 months to meet the child's growing needs that breast milk and commercial formulas cannot satisfy on their own. The period during which food is introduced is an important step in a child's life. This is where children start trying new foods. It is therefore important to gradually introduce a wide variety of foods (types, flavours and colours) of different textures. The order in which foods are introduced may vary depending on different cultures and customs. The *Mieux vivre avec notre enfant de la grossesse à deux ans* guide presents the most recent recommendations regarding the introduction of food in Quebec<sup>126</sup>. Around the age of one, a child's menu will look like other children's menus at the childcare service.

### Collaboration with parents

Working with the parent is especially important during this period, and this collaboration may take many forms. A new food should first be introduced at home, because the food may trigger allergic symptoms. The parent must complete a nutrition plan to inform childcare personnel when new foods are introduced. If necessary, the childcare service may refer the parent to various reliable resources regarding the introduction of food.

## Purees

Commercial purees and purees prepared at the childcare service should contain very few ingredients. Some purees contain one or more high starch foods such as corn starch, tapioca, rice flour or wheat flour. Although safe for infant health, these additives are unnecessary for their development. Purees should not be seasoned (sugar, salt, spices or herbs) because the infant must learn to recognize the taste of food. Once he has tasted raw foods and begins to eat foods serve at the childcare service, adding spices and herbs to his diet will help broaden his tastes. Starting at about 7 months, infants gradually begin to eat soft foods mashed with a fork or small pieces of food.

### BEST PRACTICES

- 4.1) Work with the parent when introducing food
- 4.2) Serve purees that do not contain added sugar, salt, spices or herbs and that contain as few additives as possible



### Did you know that...

Infants are entirely dependent on the adult to meet their basic physiological needs such as drinking and eating, both at home and at the childcare service. Agreeing with the parents on an individual feeding plan for each infant allows us to become more familiar with his eating habits, follow the same eating routine that he has at home and ensure continuity between home and the childcare service. This eliminates a potential source of stress for the infant and makes feeding times more enjoyable.

## Guideline 5

Offer children between 18 months and five years of age appropriate amounts of a variety of highly-nutritious food



### Canada's Food Guide

According to *Canada's Food Guide*<sup>112</sup>, there are four food groups: vegetables and fruit, grain products, milk and alternatives, and meat and alternatives. Each food group contains a wide variety of foods with different textures, flavours and colours. Each group also provides specific nutrients, all essential to child growth and development. There should be at least one food from each of the food groups at each meal, and providing different kinds of food within each food group as the days go by contributes to a balanced diet.

### Milk and water

Milk contains fat that is essential for infant development. Therefore, 3.25% fat milk should be provided to children from 18 months to 2 years of age. Subsequently, 2% or 3.25% fat milk may be provided. Raw (unpasteurized) milk should not be given to children because it may contain bacteria that can cause serious health problems.

There is no specific time when children should drink water. Children should have access to water at all times to meet their hydration needs. Milk and water are still the recommended beverages at childcare services.

### Desserts

The perception that desserts should be sweet is something that adults teach children. For example, children who eat nutritious foods for dessert (yogurt, fruit, oatmeal, etc.) are more likely to build a positive attitude to healthy eating and enjoying eating with others.

Like meals and snacks, desserts served at childcare services must be nutritious. They should be composed of foods from *Canada's Food Guide* that follow the nutrition guidelines presented in the appendix. When desserts are on the menu, children should always be served dessert regardless of whether they have eaten the main meal, because it completes the meal. This approach is consistent with responding to children's signs of hunger and satiety (see Guideline 2).

## Snacks

Because they are small (and have small stomachs too!), children eat small amounts of food at a time. As a result, food has to be served at various times during the day. A balanced snack contains a food from the *vegetables and fruit* group or the *grain products* group (source of carbohydrates) **and** a food from the *milk and alternatives* group or the *meat and alternatives group* (source of protein). These kinds of snacks quickly restore children's energy levels (carbohydrates), and help keep their appetites in check until the next meal (proteins).

As children grow up, many of them will meet their nutritional needs with meals only. We must respect children's decision not to eat snacks.



## The right amount

Enough food should be provided to satisfy hunger at meals and supplement food intake at snack times. The total number of servings recommended for children should be divided between lunch and snacks (see page 48).

*Canada's Food Guide* presents the recommended number of servings for each stage of life starting at age 2. Children 18 months to 2 years eat a little less than older children. The *Mieux vivre avec notre enfant de la grossesse à deux ans* guide also includes a table of recommended portion sizes to be served to children each day<sup>126</sup>.

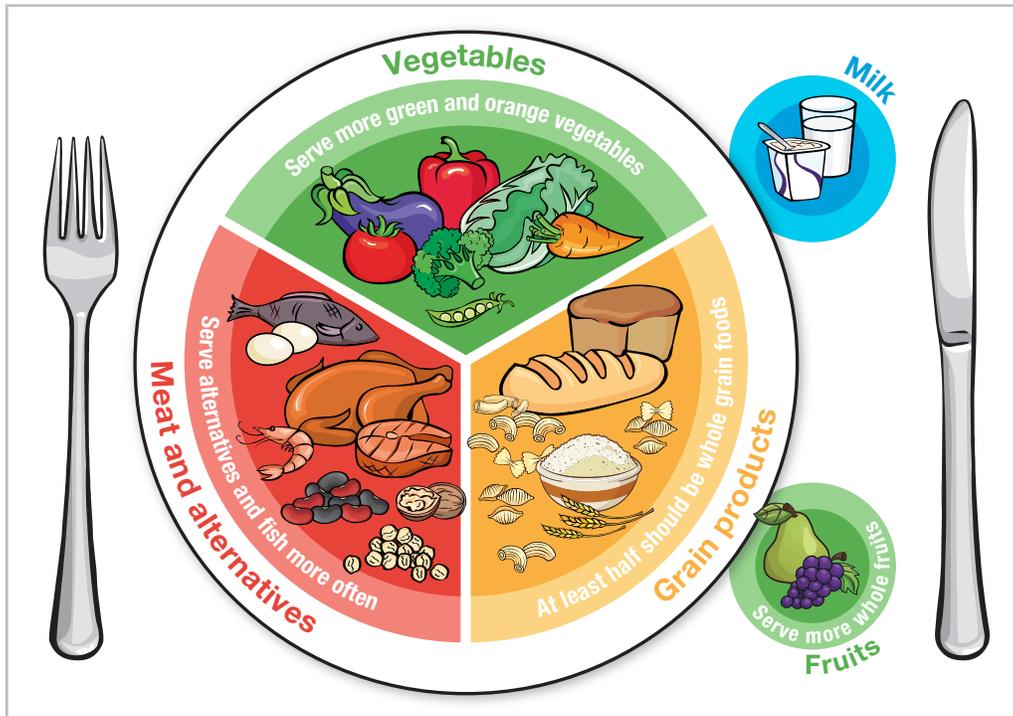
The children's plate should contain the right amount of each food in the meal (see best practice 5.3). In some cases, such as children who have very little appetite or children 2 to 3 years of age who are satisfied more quickly, childcare personnel can start by serving smaller portions of each food on the menu. The children will not feel discouraged because there is too much food on their plate. Childcare personnel can give the children more to eat if they are still hungry.

By the age of 4 or 5, portions eaten at one meal are gradually nearing the serving sizes recommended by *Canada's Food Guide*. At this age, some self-service dishes can be set out (raw vegetables, muffins, fruit, etc.). This practice helps children control their response to signs of hunger and satiety. If this approach is used, clear hygiene guidelines must be communicated and enforced.

**In any case, it is essential that the adult in charge provide the correct proportion of food on the plate, as shown in Figure 4.**

A child may still be hungry after finishing his meal and ask for a second helping. Childcare personnel should always serve a second helping upon request, with the proportions of the various foods similar to those in Figure 4, but in smaller amounts.

**FIGURE 4**



### **Cycle menu**

A 4- to 6-week cycle menu ensures that a wide variety of foods are served. This type of menu repeated exposes children to a variety of foods, which encourages children to become familiar with and enjoy several foods<sup>160, 161</sup>. On average, children need to eat a food 5 to 15 times before finding out whether they really enjoy it<sup>162, 163, 164</sup>.

In addition, cycle menus are an excellent management tool. They allow the person who designs them to visualize all the foods provided, so that highly nutritious foods are provided on a daily basis and occasional foods are provided less often (refer to chapter 3 for the definition of these terms). Cycle menus also make it easier to plan of purchases and organize time and work.

### **Attractive tasty meals and snacks**

The pleasure of healthy eating is highly dependent on the organoleptic qualities (appearance, smell, taste, etc.) of meals and snacks. A food manager who knows that food needs to taste good can be creative and find nutritious, attractive and tasty recipes.

Communication between the food manager, childcare personnel and children is important. To encourage children and childcare personnel to try new foods and become familiar with them, the food manager can announce a new recipe in advance. In addition, when a new dish has been served on 2 or 3 occasions (to give children time to become familiar with it), the food manager can check with the childcare personnel to determine what foods the children enjoy most and least. This will enable him to improve the recipes.

## BEST PRACTICES

- 5.1) Provide daily meals to children 18 months to 5 years of age with foods from all four groups in *Canada's Food Guide*
- 5.2) Provide two nutritious snacks every day from at least two of the four groups in *Canada's Food Guide*
- 5.3) Every day, provide children aged 2 to 5 with food that meets at least 50% of their daily nutritional needs<sup>xii</sup> :
  - At least 2 to 2½ servings of various fruits and vegetables, preferably dark green or orange;
  - At least 1½ to 2 servings of various grain products, half or more of which are whole grain products;
  - At least 1 serving of milk and various substitutes, avoiding low-fat dairy products;
  - At least ½ serving of a variety of meat and alternatives, including at least one meal of fish and a meal of legumes or tofu every week.
- 5.4) Plan and follow a cycle menu that provides a varied, high-quality diet (snacks, meals and desserts)
- 5.5) Prepare tasty, appealing foods by combining different colours, textures and shapes and harmonizing flavours
- 5.6) Make milk and water standard beverages for children
- 5.7) Encourage children to drink water to keep them fully hydrated
- 5.8) Give children access to water at all times



### Did you know that...

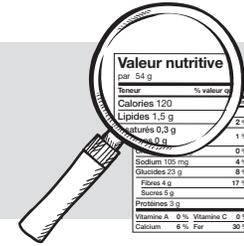
Foods in *Canada's Food Guide* are highly nutritious. Some of the foods presented in each food group are better choices because of their higher nutrient content, such as whole grains and dark coloured fruits and vegetables. For more information, see *Canada's Food Guide* at <https://www.canada.ca/en/health-canada/services/canada-food-guides.html><sup>xiii</sup>.

xii We consider here that most educational childcare services provide children with a meal and two snacks, which is half of their daily food intake. When a childcare services responsible for providing breakfast for children, it should include food from at least three of the four groups in *Canada's Food Guide*.

xiii This link leads to the 2019 version of Canada's Food Guide.

## Guideline 6

Exclude low nutritional value foods and drinks from the daily food offer



Because childcare services must provide exemplary diets, they must focus on daily foods (high nutritional value) and serve fewer occasional foods. Sometimes foods (low nutritional value) do not belong on a regular childcare service menu.

### Processed foods

Salt, sugar and fat are required for optimal child development. They also make food taste better, which makes healthy eating more enjoyable. However, many commercial foods and beverages already contain additional salt, sugar or fat. As a result, educational childcare services should cook most food dishes themselves, because this allows them to choose the ingredients.

When this is not an option, it is important that the childcare service carefully select the processed foods to be purchased, add as little salt and sugar as possible and choose high-quality fats for recipes. Although some types of fat are essential to health, intake of other fats such as saturated and trans fats should be limited<sup>xiv</sup>. In addition, juices or fruit drinks may contain large amounts of either natural (100% pure fruit juice) or added sugar (fruit flavoured “drink”, “cocktail” or “punch”). 100% pure fruit juice should only be offered occasionally and no more than 125 ml per day. Fruit flavoured beverages should not be served to children. The appendix presents some nutritional criteria to guide these choices.

### Sugar substitutes (sweeteners)<sup>xv</sup>

Sugar substitutes are substances that taste sweet but contain less energy than sugar. They are widely used by the industry in various products, especially those with low sugar content or products that are very low in calories.

Little is known about the safety of regular use of sugar substitutes, particularly in young children<sup>165, 166</sup>. As a precaution, childcare services should do their best to avoid providing beverages and foods that contain sugar substitutes. They stimulate the taste for sweet foods and do not provide the energy that children need.

xiv Animal products such as milk, yogurt, cheese and some meats naturally contain a small amount of saturated and trans fats that would not have the same harmful effects as saturated and trans fats from processed foods. Dairy products and meat are therefore primary food choices.

xv Sugar substitutes allowed in Canada are: aspartame, acesulfame-potassium, sucralose, thaumatin, stevia, steviol glycoside, erythritol, neotame, sorbitol, isomalt, lactitol, maltitol, mannitol and xylitol.

## Stimulants

Some drinks may contain a significant amount of caffeine or other natural stimulants. Children are more sensitive to stimulants than adults. Consuming excessive amounts of stimulants may cause children to suffer from anxiety, restlessness and insomnia. This is why coffee, tea, energy drinks and colas<sup>xvi</sup> do not belong in educational childcare services. Nevertheless, chocolate and cocoa powder (and all foods made with them) contain a small amount of caffeine and may occasionally be offered to children in small amounts.

## Reading labels

In order to make informed and wise choices when buying food, it is important to be familiar with the tools available: the list of ingredients and the nutrition facts label.

Ingredients are listed in order of quantity. Potential allergens are also listed.

The nutrition facts label makes it easier to compare and choose foods that contain a small amount of nutrients that should be limited (sodium, saturated and trans fats, etc.) or a large amount of beneficial nutrients (fiber, calcium, iron, etc.). Refer to the appendix, which provides guidelines for choosing foods in childcare services.

## BEST PRACTICES

- 6.1) Provide foods that contain the least amount of sodium and added sugar (see Appendix)
- 6.2) Provide foods that contain as few saturated and trans fats as possible (see Appendix)
- 6.3) Do not serve beverages containing added sugar, with the exception of flavoured fortified soy beverage and flavoured milk beverages containing added sugar<sup>xvii</sup> meeting the criteria in Appendix
- 6.4) Limit the supply of 100% pure fruit juice to 125 ml per day, on an occasional basis
- 6.5) Do not serve foods and beverages containing sugar substitutes (sweeteners)
- 6.6) Add as little sugar as possible and avoid adding sweeteners when preparing desserts and snacks
- 6.7) Do not fry food or buy commercial breaded or previously fried foods
- 6.8) Limit use of salt when preparing meals. Use herbs and spices instead
- 6.9) Do not add salt when serving meals and snacks

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xvi It should be noted that, as with colas, other soft drinks should not be provided at childcare services, in accordance with Best Practice 6.3, because they contain a significant amount of added sugar or sweeteners.

xvii Unlike other beverages containing added sugar, fortified and flavoured soy beverages and flavoured milk contain a significant amount of other nutrients such as protein, calcium and vitamin D. These beverages could therefore be served to children on an occasional basis.



## Did you know that...

### **Special events are also an opportunity to provide healthy food!**

To be consistent with efforts to promote healthy eating at childcare services, most food served at special events (birthdays, Halloween, Easter, field trips, etc.) should follow best food selection practices and guidelines (see Appendix).

Special events could provide an excuse to include some sometimes foods in a menu made up of highly nutritious foods. Childcare services that choose to provide sometimes foods at special events should use their judgment as to **how often** they will be offered. For example, a childcare service might decide to serve cake to celebrate several birthdays at once. Also, these sometimes foods should be offered in **small quantities**, in a menu made up of highly nutritious foods.

While food plays a central role in social celebrations, there are many other ways in which childcare services can celebrate a special occasion, theme activity or birthday. After all, the idea is to make it a unique and special day. The childcare service can do this by giving the children privileges that have nothing to do with food. For example, the birthday child could receive special privileges and attention from her peers and the educator during the celebrations. She could be given hand-made gifts and cards from the children in her group. The group could sing her a nursery rhyme reflecting her interests and qualities. Groups of older children could even compose the song. At the party, the group can play their favourite active game, dance with funny accessories (balloons, scarves, hats, etc.) or at the childcare service, she could welcome a person who does a job that she finds particularly interesting.

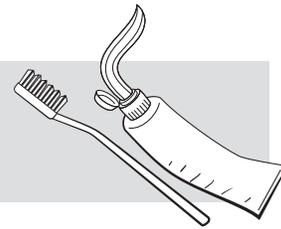
### **Fundraisers should also reflect the principles of healthy eating at childcare services.**

At fundraisers, if the foods and beverages are not nutritious or the activities promote low quality foods (e.g. discount coupons for junk foods), the childcare service is indirectly encouraging families to eat these foods.

Foods and beverages sold or offered at fundraisers must comply with food selection guidelines and best practices (see Appendix). Selling inedible products, or foods with high nutritional value such as bread or citrus fruit, for example, is a good option. Organizing a parent-child rally also provides a great opportunity to raise money.

## Guideline 7

### Prevent situations that may be harmful to health



Some situations can compromise children's health. Some of these situations are directly related to the food provided at childcare services.

#### Food allergies

Food allergies are increasingly common and require constant vigilance on the part of childcare personnel and food managers. All foods containing protein can cause potentially dangerous allergic reactions in sensitive children. The top ten substances most commonly associated with food allergies and allergic reactions are<sup>167</sup>: peanuts, nuts, sesame seeds, soy, milk, eggs, seafood (fish, shellfish), mustard, wheat and other cereal grains containing gluten and sulphites<sup>xviii</sup>.

Childcare services may, at their discretion, adopt a policy prohibiting certain allergens, depending on their client group.

#### Choking

Choking occurs when objects or food particles get caught in the throat or go down the wrong way and block the airway. Children can choke if they eat pieces of food that are too large, eat too fast, fall asleep with a bottle in their mouth, do not chew their food well enough, or cry, laugh or run with food in their mouth. Since childcare services are places where food is eaten several times a day, staff must be vigilant and careful of choking hazards.

Some foods are more likely to cause choking and should not be given to children under 4 years of age: peanuts, nuts, seeds, hard candy, popcorn, raisins, sausage slices, foods stuck on a toothpick or a skewer, etc. In addition, removing bones from meat and fish, the heart and core from fruit, cutting whole fresh grapes in four and grating hard raw vegetables such as carrots, celery and turnips are mandatory safety precautions.

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<sup>xviii</sup>Sulphites are substances that occur naturally in foods or that are used as preservatives.

## Food poisoning

Because children's immune systems are in the developmental stage, children are more vulnerable to the hazards of chemical, physical and microbiological contaminants. Potentially harmful bacteria can cause food degradation and food poisoning. Some foods are more likely to be contaminated with potentially harmful bacteria and should not be served to young children (see Best Practice 7.4).

## Tooth decay

Having healthy teeth allows children to crush and chew food properly. Healthy eating therefore goes hand in hand with good dental hygiene. Tooth decay can develop very early in a child's life, as soon as the first teeth appear, around the age of 6 to 7 months. It can be caused by frequent consumption of sugary foods and drinks, frequent and prolonged bottle feeding<sup>168</sup> or not brushing with fluoride toothpaste.

This is why it is better to eat sugary and sticky foods at mealtimes and serve snacks that do not stick to the teeth and are not very sweet, such as cheese, vegetables and fresh fruit<sup>169</sup>. It is recognized that eating a piece of cheese after meals or as a snack protects against tooth decay<sup>170, 171, 172</sup>. Occasionally, if sweet and sticky foods are provided as snacks (e.g. dried fruit), it is recommended that children also be given milk or water<sup>173, 174</sup>. These drinks can effectively help restore the pH of saliva, which limits the risk of tooth decay.

Brushing teeth with a fluoride toothpaste twice a day, after meals and before bedtime, is a very effective way to prevent tooth decay. Although parents play a vital role in developing this routine, the childcare service can strengthen it by getting the children to brush their teeth with fluoride toothpaste on a regular basis.

## Injuries

Tableware used at meal and snack times must be safe and appropriate for children. The childcare service should therefore provide children with chairs with a backrest and tables adjusted to their height. If this is not the case, booster seats should be available. Infants should have access to high chairs or booster seats. Place settings, which include plates, bowls, utensils and glassware, must be unbreakable and adapted to the abilities of children to promote motor skills development and adequate food intake.

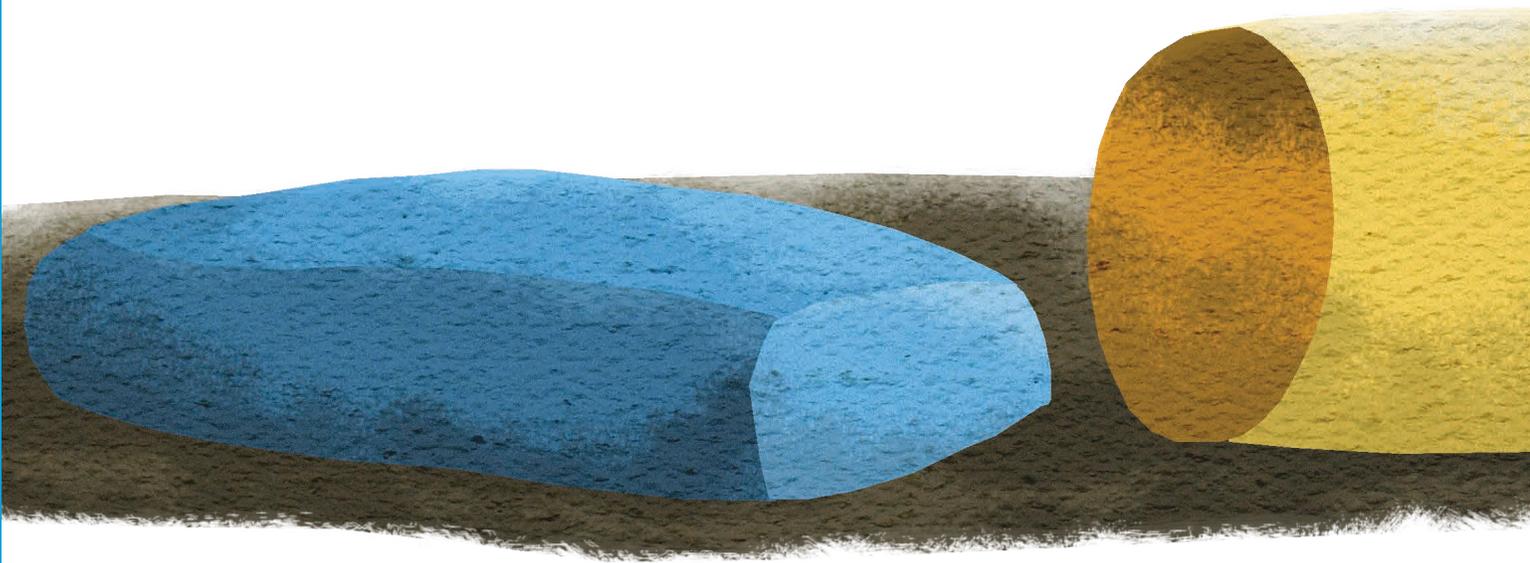
## BEST PRACTICES

- 7.1) Implement a procedure for identifying allergens, ensuring the safety of allergic children and responding appropriately to allergic reactions
- 7.2) Implement a procedure to minimize choking risks and provide an appropriate response to choking
- 7.3) Do not serve honey or products containing honey to children under 12 months
- 7.4) Do not serve the following foods: unpasteurized fruit juice, raw milk, raw milk cheese, raw eggs, raw or undercooked sprouts, raw and undercooked meats, poultry and fish
- 7.5) Serve children water or milk after they have eaten sweet and sticky food
- 7.6) Provide safe equipment appropriate to the children's age and stage of development



### Did you know that...

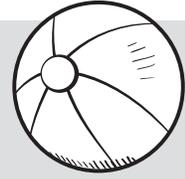
When a child has multiple allergies or the child's family has certain religious beliefs, the parent sometimes brings food from home. To ensure consistency with efforts to create a supportive eating environment, the childcare service should ask parents not to include low nutritional value food in their child's lunch box.



## 4.2 GUIDELINES FOR ENCOURAGING ACTIVE PLAY AND MOTOR DEVELOPMENT

### Guideline 8

Provide various opportunities for active play throughout the day



Active play is any fun activity in which the child is physically active. You do not have to be a physical activity specialist to encourage children to be physically active. By recognizing the special interests of young children, organizing activities and games adapted to their developmental periods, and providing favourable contexts for children to initiate their own play, childcare personnel at educational childcare services play a key role in integrating daily physical activities. Smaller initiatives count to the extent that they require muscular activity, are varied and make the heart beat faster.

### Building on things that interest 0 to 5 year olds

We should keep in mind that young children generally find it difficult to concentrate: they move quickly from one activity to another and are interested in many games that vary constantly. In order to stimulate them and keep them interested, it is advisable to provide a variety of activities they enjoy, at regular intervals. Children can also express their preferences. They then need to be given access to equipment they can use to play several active games or allowed to choose different activities at the same time.



Children have a natural tendency to engage in higher-intensity activities for short periods of time. They find extended activities or games, where the intensity does not vary a lot, discouraging<sup>52</sup>. Inability to concentrate, fidgeting or restless behaviour are signals that it is time to change activities. It is therefore best to give children frequent opportunities throughout the day to play actively rather than to extend a planned activity.

### **Importance of gross motor skills**

Active play is essential between the ages of 0 and 5. This is when gross motor skills are developed, i.e. when the basic skills of movement (throwing, catching, kicking) and locomotion (crawling, walking, running, etc.) are developed. During early childhood, it is essential to focus on developing these skills first, in order to lay the groundwork for the development of fine and more complex motor skills, such as handling a brush or using scissors. Gross motor skills and good muscle tone allow children to discover how they can act and interact with their environment and improve their understanding of reality. Muscle tone is also a prerequisite for proper dissociation of the head, torso and arms, which is necessary for activities involving fine motor skills.

It is important to keep in mind that each child is unique, develops their abilities at their own pace and that motor skills are dependent on growth, maturation and environmental stimulation.

### **Intensity of active play**

After the walking stage, toddlers and young children experience situations requiring them to develop skills that will get them interested in more sustained activities and games<sup>175</sup> such as running, climbing, jumping and playing with balls. Children need to engage in this type of more sustained activity because they can channel their energy and also reduce tension, restlessness and aggressive behavior<sup>10</sup>.

Young children are able to engage in intense activity and they respond well. In addition to developing their physical agility, motor skills and endurance, longer periods of activity and play promote bone growth and physical development, and help prevent obesity<sup>176</sup>. It is therefore important for toddlers to experiment with activities or games of different intensities, without neglecting more vigorous or *high energy* activities or games.

## Examples of activities and games

In infants, focus on activities that require gross motor skills such as spending time on the belly, reaching or grasping balls or other toys, grabbing, crawling and rolling on the floor<sup>121</sup>. It is advisable to<sup>177</sup>:

- Organize a safe environment where the baby can crawl;
- Place several age-appropriate toys around him and let him choose;
- Let the baby repeat the movements that precede walking, on his own.

In 2½ to 5 year olds, repeatedly practising a variety of motor games will develop a wide range of physical abilities. For example<sup>xix, 178</sup>:

- Pedalling a tricycle or bicycle develops leg coordination and power;
- Exploring in fixed play structures and outdoors allows children to adapt their actions in a variety of situations;
- Walking or running on different surfaces with different degrees of inclination develops balance and agility;
- Climbing develops coordination and how the child reacts to gravity;
- Playing ball with hands and feet, running through obstacle courses and labyrinths or playing tag stimulate balance, coordination and agility;
- Dancing and performing body expression activities stimulates the sense of movement, balance and refines action control.

The intensity of these activities can be changed, and they can be performed alone or in groups, with or without equipment.

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xix The examples are taken entirely from page 302 of Chapter 5 of the book entitled *Petite enfance, services de garde éducatifs et développement des enfants : état des connaissances*. See reference 178.

## BEST PRACTICES

- 8.1) Schedule several periods for active play throughout the day
- 8.2) Give the children active play opportunities where the intensity is more sustained: high-energy games!
- 8.3) Provide a variety of activities and games adapted to children's abilities and stages of development, taking their preferences into account
- 8.4) Allow children to make choices, create and initiate active play on their own
- 8.5) Encourage activities and games that promote gross motor skills development



### Did you know that...

**There are several books that provide suggestions or ideas for games, including:**

- MARTIN, Jocelyne, Céline POULIN et Isabelle FALARDEAU. *Le bébé en services éducatifs*, Presses de l'Université du Québec, 2011, 464 p.
- LAUZON, Francine. *L'éducation psychomotrice, source d'autonomie et de dynamisme*, Presses de l'Université du Québec, 2010, 290 p.
- APRIL, Johanne et Anik CHARRON. *L'activité psychomotrice au préscolaire, des activités nécessaires pour soutenir le développement global de l'enfant*, Chenelière éducation, 2013, 218 p.

## Guideline 9

### Limit time spent on sedentary activities



#### Integrating physical activity on a daily basis

In addition to indoor and outdoor play periods at the childcare service, physical activity can be integrated at various times in the course of a day. A number of sedentary activities are essential to development of the whole child, such as reading, drawing, board games, etc. However, these activities should not be extended but rather interspersed with activities or games that require more muscle activity or that are more dynamic, for example, by performing activities while standing at the coffee table, on one leg, on tiptoes, kneeling, sitting on a ball, etc. In short, anything you can imagine, while meeting the children's needs.

#### Transition activities

It is estimated that routine (meals, snacks, naps, dressing and undressing) and transitional activities (cleaning up, transportation, arrivals and departures) account for nearly 50% of the time spent in childcare centres and day care centres, which equals more than 1,200 hours per year<sup>179</sup>.

These activities can stimulate all aspects of child development, including motor skills. For example, between a free workshop period and an outing, children are asked to put away their equipment in storage areas. In order to provide a little more physical activity, they are asked to create an assembly line where everyone passes on an object down the line in a different way. When the children are getting dressed, options can be considered so that the children are not lined up like ducks in a row, just standing there waiting. Childcare personnel can get children to perform small tasks according to their abilities or change the routine a little. Remember, variety is the spice of life<sup>xx</sup>. <sup>179</sup> :

When the children wash their hands:

- Get the children to go to the sink taking baby steps, tiptoeing, walking on their heels, sliding their feet on the ground, etc.;
- Have them complete a challenging journey on the way to the sink: walk with their hands over their head or follow a line drawn on the floor with a hidden ribbon, walk around a chair, walk on imaginary magic stones, etc.

At cleanup time:

- Turn into an astronaut in space who slowly drops the blocks into the box;
- Get the children to do things that challenges their skills: Who can put away his toy, hopping on one leg? Who can put away his mattress as quietly as possible?

xx The animation ideas are from the book entitled *Routines et transitions en services éducatifs*. See reference 179.

When going somewhere:

- Use pipe cleaners to tie bells to the children's ankles and ask them to walk without making any noise. When they arrive at their destination, the children get to ring the bells while dancing to catchy music;
- Find a fanciful way to move in a line based on children's ideas: like a centipede, like a parade of wooden soldiers, etc.

While waiting: make the children dance any way they want to the sound of music!

### BEST PRACTICES

- 9.1) Avoid prolonging rather sedentary activities
- 9.2) Intersperse sedentary activities with activities that require more energy
- 9.3) Make sedentary and transitional activities more interesting
- 9.4) Involve children in tasks according to their ability
- 9.5) Avoid using television sets, screens or audiovisual equipment



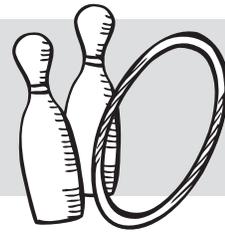
#### Did you know that...

Although current regulations allow a television or other audiovisual equipment to be used in childcare services when it is part of the educational program<sup>12</sup>, this type of activity is associated with sedentary behaviour. Television should be avoided because it reduces the time children spend on physical activity. The small screen hinders their ability to explore their environment, which is so important to child development.

Note that, according to the most recent guidelines on screen time for children aged 5 and under, screen time is not recommended for children under 2 years of age. For children 2 to 5 years old, screen time should be limited to less than 1 hour per day, which includes screen time at home<sup>95</sup>.

## Guideline 10

Encourage active play with fun activities and challenges



### Importance of active play

Play is the main early childhood development and learning tool. Through play, childcare personnel can maximize children's motor potential and bodily autonomy and include more physical activities in their daily routine. Appropriate coaching to provide children with physical and motor challenges is essential to enhancing active play among children.

### Facilitating active play<sup>182</sup>

Facilitating active play requires sustained observation by childcare personnel in order to provide children with new elements, objects to play with and materials that allow them to develop new motor skills.

Facilitating active play can be based on a spontaneous educational response prompted or inspired by a situation that arises (during child-initiated play). Responding spontaneously to active play is not synonymous with childcare personnel "letting children do what they want" or "simply monitoring" them, especially during outdoor play periods. This type of response requires as much preparation as a planned response, because childcare personnel have to think about children's needs and interests on a regular basis. We must also be able to adapt to the various forms of child-initiated play, which is very creative, in order to awaken and actualize its potential.

Facilitating active play may also be based on an educational response planned and organized based on objectives to be achieved or an interest to be developed (during adult-directed or -initiated play). A planned response allows children to repeat a newly learned routine to make it easier to master it, for example throwing objects at a target or sandbags into hoops. Instructions for directed play must be brief, interesting and clear. These games are not meant to test children's abilities, but to enrich their experiences<sup>180</sup>. However, we must avoid overloaded and inflexible daily routines and encourage child-initiated active play as much as possible.

*Child-initiated play is gradually being replaced by structured activities with specific teaching objectives. However, this is a trap that should be avoided. It is important to provide children with a rich environment and time to experience a variety of play experiences<sup>181</sup>.*

## Challenges and fun activities

A good way to keep children motivated is to provide them with difficult activities or challenges that they can overcome: an activity in the zone of proximal development<sup>182</sup> or the zone of “delightful uncertainty”<sup>183</sup>.

The zone of proximal development is the distance between a child’s actual developmental level and the higher level of potential development. This is the area of difficulty where the child can succeed but not easily. If the task the child has to perform does not challenge his physical skills, he will be bored. However, if the task seems beyond the child’s skill level, he will experience anxiety and worry<sup>183</sup>. For example, an adult, who moves a ball so that an infant on the verge of crawling has to move to grab it, is acting in the baby’s zone of proximal development<sup>182</sup>. It is therefore a question of providing help based on the child’s abilities.

*By providing appropriate activities, a childcare service that accommodates a child or children with a (physical and intellectual) disability can make them feel that they are able to engage in a physical activity. The important thing is not whether they successfully complete the activity, but how these children will perceive their own abilities.*

## Supporting autonomy: democratic intervention

Providing support in children’s zone of proximal development involves interacting with them to help them solve a problem, giving them the help they need to do what they can’t do on their own. The intervention is based on observing children’s current abilities and on anticipating their potential abilities, which are currently in the developmental stage. It is important to support democratic intervention, as advocated in the Meeting Early Childhood Needs educational program.

*Democratic intervention encourages children to make their own choices and participate in decisions, to the extent of their abilities and in accordance with rules of safety and conduct. The adult supports children’s initiatives while allowing them to develop at their own pace. The adult encourages the children to maintain relationships with their peers and fit into the group. By focusing on the interests and strengths of each child, this style of intervention promotes self-reliance and self-confidence and provides wonderful opportunities for socializing<sup>10</sup>.*

We therefore need to allow each child to experiment with various activities and experience success in order to improve their confidence in their physical abilities and motor skills (physical skill). This will make the experience much more enjoyable for the child. Directed group activities often limit choices for the child. Childcare personnel are responsible for planning their interventions and feedback to allow the various options that everyone needs to find their zone of proximal development.

Boys and girls should be exposed to the same activities, materials and play items. Boys and girls need to spend their energy, develop their motor skills and learn to relax.

Here is an example of a dance activity that illustrates ways to provide appropriate help and support children's autonomy<sup>xxi, 184</sup> :

1. Instructions – The educator plays music the children can dance to. She names different parts of the body (an arm, a leg, the head, etc.). The educator can also designate one of the children to call out the different body parts. The other children must only shake the body part that has been named. They have to keep the rest of their bodies still.

2. Questioning to reach the zone of proximal development:

The educator observes the children:

- Can the child adjust his position depending on the part of his body that has been named or does he look around without really knowing how to go about it?
- Does he seem to know the different parts of his body as they are named or does he look at his friends before acting?
- Can he isolate the different parts of his body (dissociation) or does the rest of his body move?
- Can he maintain his balance in various situations where his posture seems rather unstable?

The educator questions the children:

- Is there a part of your body that you find difficult to move without moving the rest?
- Which part of your body did you find easiest / most difficult to control? Why?

3. Possible interventions and variants to otherwise stimulate or decrease / increase the level of difficulty:

Introduce new instructions related to:

- Time: slow, medium, fast tempo.
- Space: narrow and wide range of motion.
- Level of energy or intensity required: low and high energy level.
- The relationship between the partners: face to face, in a circle, one after the other, do the same as his partner (mirror game), do the opposite, etc.

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xxi Example inspired by examples illustrated in the book entitled *L'activité psychomotrice au préscolaire : des activités nécessaires pour soutenir le développement global de l'enfant*. See reference 184.

## Managing noise and disruptions

The childcare personnel's attitudes can also determine whether the children play a game that benefits them as much as possible. The extent to which the educator can tolerate a mess, noise and turbulence can promote or rule out certain types of play (e.g. playing with water and sand, a game where the children all yell at the same time, a game that requires lots of room to move in a limited space, etc.).

One way to better manage these situations is to understand the positive effects of different games on developing children's skills. The childcare personnel should be able to state exactly what can be learned and observed during the various game situations.

For instance, when a child initiates a game on his own, he often speaks the most and has the most discussions and relationships with others. Getting him not to talk so much to reduce noise levels can limit these discussions, which are essential to his social development: he learns to express his feelings, cooperate, resolve conflicts and diversify his behavioural skills<sup>185</sup>. Staff should therefore ask themselves the following questions:

- Is there any type of game that I don't like or am not comfortable with (e.g. dancing, dramatic expression, activities with balls or flying objects, etc.)?
- Do I promote this type of game during the day?
- If not, what are the children missing out on?

### BEST PRACTICES

- 10.1) Encourage children to initiate active play as much as possible
- 10.2) Allow toddlers to engage in active play on their own (democratic intervention)
- 10.3) Include stimulating and varied challenges in proposed activities
- 10.4) Support children's physical and motor achievements
- 10.5) Propose activities that promote gender equality and do not include gender stereotypes

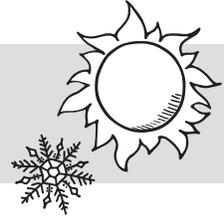


### Did you know that...

Up to 3 years of age, spontaneously exercising skills that are becoming fully developed in a rich and stimulating environment is enough for the child to achieve his full motor potential. Starting at age 3, adult stimulation will become more important. The child needs it to meet motor skill challenges<sup>180</sup>.

## Guideline 11

Play outside every day, as often as possible



### Importance of playing outdoors

Outdoor play provides different learning opportunities from those provided by indoor play. When a child plays outside, he has the opportunity to make decisions and solve problems in an environment where stimuli and conditions vary constantly (wind, sound, uneven terrain, etc.).

Outdoor play stimulates gross motor skills by allowing children to practice more sustained or high-energy activities, perform large movements in all directions (running, climbing, sliding, jumping) and to perform various motor activities (crawling under a picnic table, squatting behind a bush, etc.). Playing outdoors also helps to reduce tension and aggression by letting children spend their extra energy.

Daily outdoor activities are all the more important since children in educational childcare services spend most of their day in a relatively small space with several other children. The vital need for physical activity is not always adequately satisfied at the childcare service, which is why it is important to give children access to outdoor play areas, regardless of the season.

If a childcare service does not have a yard large enough for physical activities, it is a good idea to go for walks on a regular basis and take the children to the municipal park or neighbourhood school.

### Outdoor opportunities

The outdoor environment includes the yard next to the educational childcare service and other places nearby or further away: a swimming pool or municipal park, schoolyard, ball field, interpretive centre, orchard, botanical garden, etc. Playing in a variety of places allows children to enjoy various motor and sensory experiences, depending on the season, at facilities (wading pool, swings, skating rink, snow mound, etc.) and with various objects or in different situations (wood, rocks, sand, tree, grass, raised ground). Sand and water are an inexhaustible source of activities.

Outdoor activities and field trips are good opportunities to inspire children to respect the environment and connect them with nature and its wonders, regardless of the season. The colours and textures of nature naturally prompt children to explore their motor skills: catching, turning, crawling, picking things up and stretching. Outings close to the childcare service promote active travel and physical activity in everyday life.

## Constraints of outdoor play

Healthy, active people spend a lot of time outdoors. Adapting to varying weather conditions and the UV index is one way to strengthen the immune system and children's resistance to disease. Hot, cold or bad weather should not prevent children from playing outdoors. It is therefore appropriate to plan for changing weather conditions and ensure that children dress appropriately for the weather. For example, this may include planning outdoor activities in inclement weather, using sunscreen during the summer, or taking steps to reduce the number of insect bites. Parents should also be contacted to ensure that the children are properly dressed to play outdoors depending on the weather. Creating a box of spare clothes allows everyone to be properly dressed and make the most of outdoor play, especially in underprivileged areas.



## BEST PRACTICES

- 11.1) Play outdoors more than once a day, regardless of the season and temperature
- 11.2) Plan outdoor activities in various areas so that children can enjoy a variety of motor and sensory experiences
- 11.3) Encourage active travel during outings near the childcare service
- 11.4) Ask parents to bring extra clothes for diverse weather conditions
- 11.5) Check weather conditions when planning outings



### Did you know that...

It is important to encourage children to play outdoors every day since this helps children develop a greater variety of play behaviours. The *Activités extérieures dans les centres de la petite enfance et les garderies* guide, produced by the Ministère de la Famille<sup>186</sup>, is a useful reference book for organizing and supervising stimulating outdoor games for children.

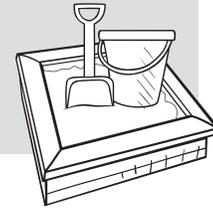
### Examples of outdoor activities involving motor skills<sup>187</sup>

Key experience	Outdoor activity
Moving in place	Crouching in the sandbox, turning to grasp an object, throwing a ball
Moving around	Running in a wide open area, rolling down a grassy hill, jumping in the sand, climbing up the ladder to the slide
Physical activity involving objects	Riding a tricycle, pedal or foot car, pulling a cart or pushing a friend in a cart, kicking a ball, hitting a ball or birdie with a racket, throwing a ball into a basket overhead or on the ground
Following series of movements at the same pace	Moving at the speed of a bird, insect or squirrel, swaying to the sound of the wind
Feeling and reproducing a regular beat	Moving while listening to the sound of a truck backing up



## Guideline 12

Create a stimulating, functional and safe environment, indoors and outdoors



### Appropriate layout of the premises

Special attention must be paid to the physical layout, which is considered an “educator in itself”<sup>188</sup>. The layout of indoor and outdoor play areas should be friendly and stimulating. It should facilitate active play and provide appropriate challenges depending on the children’s developmental stage. Indoors, feel free to remove unnecessary furniture from a room or remove massive, bulky objects from the floor. This will increase the range of the children’s physical activities, allowing them to crawl, roll, hop, dance, etc., easily and safely. Outdoors, installing split playgrounds in the yard allows children to develop different motor skills (play area for the upper body, balance area, etc.) and also encourages children to play in small groups.

### Free access to material

Indoors and out, children should have free access to a variety of attractive game material, adapted to their size and abilities. Free access allows them to exercise control over their universe, which makes them more self-reliant and develops their self-confidence. Sufficient quantities of self-supporting tunnels and small equipment such as balls, blocks and boxes of different sizes as well as hoops will stimulate children’s motor skills and creativity. Renewed on a regular basis depending on the children’s interests, this material will keep them motivated.

Outdoors, children often enjoy large game modules and fixed equipment. However, this type of equipment requires special attention to encourage more physical activity because children on and under equipment tend to discuss or perform dangerous manoeuvres<sup>189, 190, 191</sup>. In order to help them become autonomous and explore their environment on their own, they must be provided with sand, water, tricycles and small equipment that will encourage them to be physically active (active play objects) as well as irregular surfaces which will allow them to exercise their balance and flexibility.

## Equipment purchases and sustainable development

There are many ways to diversify playing equipment while limiting the number of purchases. For example, parents may be asked to bring surplus toys and accessories that can be used for various activities (cans for making stilts, brown paper bags to be used as bags of potatoes, cardboard boxes to replace crazy carpets, etc.). The childcare service may also prefer to rotate play equipment between childcare personnel rather than purchasing new equipment in order to provide children with a wider variety of new toys. However, steps must be taken to ensure that this material is of good quality, clean and in good condition. It's better to buy quality than quantity: a few new durable items every year.

## Well-balance safety

While it is important to keep the basic principles of safety in mind when planning and implementing activities, these principles should not stop children from exploring and having fun. The Ministère de la Famille's *Activités extérieures dans les centres de la petite enfance et les garderies*<sup>186</sup> guide mentions that places and activities must be provided that will allow children to take risks in the yard and in programming activities. These measures will prevent the most adventurous children from seeking other challenges that are too dangerous and unsafe for them.

Climbing, jumping, sliding, etc. allow children to develop and adopt self-protective behaviours to keep themselves safe. These play situations help develop basic skills, self-control, self-confidence and courage if children are given the time and opportunity to discover them at their own pace and in their own way.

Safety also requires clear instructions and proper planning, which take into account the real abilities of the children in the group.

The measurement scales used to conduct the *Grandir en qualité* survey<sup>193</sup> provide information on layout of the premises and equipment for active play and motor development. Motor development equipment includes:

- Water tubs and sandboxes
- Balls and jumping balls
- Blocks and cardboard boxes of different sizes
- Small cars, trucks
- Bowling pins, hoops, skipping ropes
- Large vehicles that can be straddled, pushed or pulled
- Sand and water toys (shovel, bucket, mould, etc.)
- Stacking and sorting toys
- Parachute, cheerleading ribbons
- Carpet for rolling or crawling, play tunnels

Details on a layout of the premises that stimulates child development are also provided in these scales. The layout must allow children to come into direct contact with the equipment so they can choose, handle and store it. In short, allow child-initiated physical activity and play. In general, the children must be able to see and access the equipment. It must be sorted to encourage play, stored in bins accessible to children and laid out to suggest games for toddlers (stacked blocks or blocks placed in a circle).

### **BEST PRACTICES**

- 12.1) Plan an activity based on the location and equipment
- 12.2) Purchase small, attractive, versatile equipment, adapted to the children's developmental stage. Make sure to provide enough equipment and to update it on a regular basis
- 12.3) Facilitate children's access to play equipment
- 12.4) Rotate play equipment between childcare personnel, rather than purchasing new equipment in order to provide children with a wider variety of new toys
- 12.5) Maximize available space for active play and motor activities
- 12.6) Set up split play areas in the yard
- 12.7) Set up play areas so that they provide a variety of stimulating challenges



### Did you know that...

All outdoor play equipment and structures must be age appropriate and meet Canadian Standards Association standards for play spaces and equipment.

If a childcare service does not have a yard or enough indoor space for more sustained physical activities in a secure environment, a room made available by the municipality, a school or a community centre is an option that should be considered. Other nearby childcare services may have similar needs. Setting up a partnership would be in everyone's interest.

For childcare services with more limited space, children can still reach a fairly high level of intensity by performing activities that do not require as much room, such as jumping on one foot and then the other. Creativity is your best friend!

Chapter

# 05

## Implementation requirements

A childcare service that wants to change its practices will not be able to do it all at once or do it alone. Chapter 5 outlines a step-by-step approach to implement the desired changes with the support of partners.

## 5.1 INTEGRATING THE FRAMEWORK IN THE EDUCATIONAL PROGRAM, A POLICY OR ANY OTHER GUIDANCE DOCUMENTS AND ESTABLISHING AN IMPLEMENTATION AND MONITORING PROCESS

It is important that the values, beliefs and standards that define our approach to food, active play and motor development are shared by all concerned: managers, board members, childcare personnel, food managers, etc.

Modifying environments to make them supportive of healthy eating, active play, and motor development can be staggered over time. In some cases, we may want to strengthen or make minor changes to existing practices. In others, we may want to make broader changes to the environment and certain procedures, which will take more time and a step-by-step approach. Based on an initial profile, the childcare service will focus on making necessary practice changes to implement one or more of the guidelines.

The following diagram outlines the steps that each childcare service should take to develop and plan its implementation and monitoring process. The diagram shows that it is an ongoing process. At the end of a first cycle, the childcare setting will start a new cycle by targeting new priorities and actions required to achieve its objectives. It will then choose the next step to take!



## **An essential requirement: engagement**

Each childcare service stakeholder plays an important role in the guideline compliance, implementation and monitoring process. Each step must be completed to make this process a success. The initial engagement step must not be overlooked. Guidelines for an educational program will only make sense if the actors are able to understand and follow them.

For this reason, it is essential that the childcare service appoint a person responsible for taking steps to improve healthy eating, active play and motor development practices. Some childcare services will also work to establish a committee or routinely include an item on the Board of Directors' agenda regarding the framework. This will give the person in charge the opportunity to call upon his colleagues on a regular basis.

### **1. Analysis of the current context**

Before undertaking an action plan, the childcare service will have to develop a profile of the environments at the childcare setting that support healthy eating, active play and motor development: material, equipment, layout, knowledge, practices, etc. The questions on pages 17, 18 and 19 of chapter 2 can help develop this profile. A more in-depth analysis of the context will identify the challenges, barriers and best practices already adopted and those to be consolidated by the childcare service.

### **2. Development of an action plan**

The changes required to integrate guidelines and best practices cannot all be made at the same time or pace. Guidelines and practices to be prioritized will have to be identified based on analysis of the current context, the gap between current practices versus the framework guidelines and realities specific to the childcare service.

Drafting an action plan will make it possible to plan the gradual implementation of the desired changes over a given period of time. It is advisable to allow enough time for everyone to adjust to the new practices and guidelines and comply with them more easily, especially when the changes to be made are substantial given the initial situation. Everyone's roles and responsibilities will then have to be specified.

At this stage, it is also appropriate to target some monitoring indicators to determine whether objectives have been fully or partially achieved in order to keep on track.

In summary, the action plan includes the steps to be taken, the implementation schedule, the roles and responsibilities of the people involved in each stage, as well as indicators to determine whether the steps have been completed correctly.

### **3. Implementation of actions**

This phase involves completing the steps in the action plan by ensuring that everyone plays their role and deadlines are met. It also involves documenting the various steps as they are completed. For example, the person in charge of operations can use a logbook to track changes that are more difficult to achieve as well as achievements. These achievements should be used to continue to engage and motivate staff to achieve objectives.

In this action implementation phase, the childcare service must anticipate potential barriers and elements that can facilitate changes, and make necessary adjustments throughout the process.

### **4. Self-assessment**

It is important to assess the implementation of the action plan to see to what extent practices have been changed. This assessment is an opportunity for the childcare service to hold discussions with the various stakeholders (managers, board of directors, childcare personnel, food managers, etc.) and increase engagement in order to keep on track.

### **5. Improvement**

It is important to periodically review the implementation steps to identify barriers and factors that facilitate the process. It is essential to consult the staff directly involved in implementing the action plan, as well as parents and partners. The action plan will have to be adjusted as needed, according to the results of periodic reviews, in order to keep implementing the desired changes until the objectives are achieved. Ultimately, all guidelines and best practices in the framework should be implemented.

The childcare service also needs to communicate results, highlight positive initiatives and winning practices to staff, board members and parents in order to encourage efforts and recognize successes. Implementing guidelines and best practices is a continuous improvement process.

## Players' contribution

### ■ **Managers** (directors, day care owners)

Managers must make their childcare setting conducive to the implementation of guidelines and best practices, taking their particular situation into account:

- Demonstrate their interest in healthy eating, active play and motor development, and the importance of creating supportive environments;
- Inform staff, board members and parents of the steps to be taken and their progress in order to gain and maintain everyone's interest and buy-in for the proposed changes, which will be implemented over time;
- Perform a review of the educational program (a policy or any other guidance document) to incorporate the guidelines and best practices in the framework;
- Appoint a person responsible for implementing guidelines and best practices, and routinely include an item on this topic on the agenda of staff and board meetings;
- In conjunction with the person in charge, develop an action plan and a plan for self-assessment of the implementation of target guidelines and practices;
- Facilitate staff access to available, relevant and tailored training;
- Support staff in enforcing guidelines by various means.

### ■ **Board of Directors**

It is essential to ensure that board members are allies before initiating the adoption of any new guidelines. Like managers, they must show their interest in healthy eating, active play and motor development and believe in the importance of creating environments that support their adoption:

- Comply with changes in targeted practices;
- Support managers in their approach;
- Encourage staff to buy into the approach;
- Collaborate at certain stages of process development, implementation and monitoring;
- Consider the process in terms of continuous improvement.

### ■ **Childcare personnel and food managers**

In order for childcare service staff to comply with guidelines and best practices, it is essential that they be actively engaged from the outset in the planning, implementation and self-evaluation process. Staff has the following responsibilities:

- Understand the guidelines and best practices in the framework;
- Adopt a positive attitude towards healthy eating, active play and motor development and learn to set aside their own beliefs for the benefit of the children;
- Help review the childcare service’s current situation by identifying factors that facilitate and hinder healthy eating, active play and motor development;
- Help develop the action plan and implement the actions;
- Help make necessary adjustments throughout the process;
- Participate in available, relevant and tailored healthy eating and motor development training.



#### **Did you know that...**

The first factor to be considered when trying to improve motor skills and the menu is the staff’s willingness to become involved, “motivation being the essence of change<sup>59</sup>.” In childcare services, it is easier to make changes if the decision is consensual and supported by motivated staff and committed managers and administrators.

## 5.2 SUPPORT FROM LOCAL, REGIONAL AND NATIONAL PARTNERS

Toddlers spend their daily lives at home, at the educational childcare service and in the community. In order to coordinate actions in the various environments of children's daily life, it is appropriate that healthy lifestyle messages be shared with parents, community organizations, municipalities and any other local actors that can support changes that need to be made to healthy lifestyle practices.

### Parents

Parents can be childcare service allies if they comply with the new target guidelines. It is therefore important to promote guidelines on healthy eating, active play and motor development adopted by the childcare service and the actions that result from it, by communicating with parents. They may be asked to collaborate on various planning or implementation actions. For example, they can help develop a status report by identifying barriers and factors that may affect implementation of actions. Target changes and goals should be presented to all parents in a variety of ways, for example at parent meetings, through a news release or newsletter, or as part of a special activity (e.g. a fundraiser or launch).

Parents are role models for their child. It is therefore important to educate them on the benefits of adopting healthy behaviours. Research shows that children tend to be more active if their parents participate in physical activities, are active with them and spend a lot of time outdoors<sup>194, 195, 196, 197</sup>. Also, parents who prepare meals and give children opportunities to cook enable them to acquire basic cooking skills, a good start to healthy eating<sup>198, 199, 200</sup>. A good way to raise awareness is to organize parent-child activities focused on healthy lifestyles<sup>xxii</sup> (kiosks, challenges, workshops, active games, demonstrations, open houses, etc.).

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xxii Healthy eating activities should encourage children to have fun when trying new foods, use their senses and find out where the foods come from. Activities based on the nutritional value of foods or their effects on health should therefore be avoided.

We also need to recognize and strengthen parents' healthy lifestyle skills. Some may have delicious recipes ideas to share with other parents. Others may have had fun active family experiences. Community-based family organizations can lend a hand since they already offer activities to strengthen parenting skills, for example cooking workshops.

### **Community organizations, municipalities and other local partners**

Community organizations, municipalities and other local stakeholders, such as schools or Health and Social Services Centres (CSSS), can also provide support for educational childcare services, which may vary according to the service available in each community.

### **Sharing resources**

Presenting changes to be made in the childcare service to community and municipal leaders is a good way to begin a partnership discussion. Spaces and equipment may be available to give toddlers opportunities to move, especially for childcare services that do not have a large outdoor play area. Partnerships can also be proposed to several childcare services, with the help of the regional group, in order to use a room made available by the municipality or the neighbourhood school or to provide them with space in the community's municipal garden.

### **Appropriate response in a disadvantaged community**

A childcare service located in a disadvantaged community will have to take this factor into account and seek support from the community. CSSS prevention services, food banks, collective kitchens and family-based community organizations that offer parent-child activities and support to develop parenting skills are examples of tailored community family support services.

### **Local consultation bodies that support changes to practices**

Most localities in Quebec have round tables—local action committees or local partner groups—that encourage key players to commit themselves, invest time and resources and agree on priorities to ensure that the steps they take for the well-being of young children are complementary and consistent. Actors in these engaged communities include CSSSs, family community organizations, municipal libraries, schools, community centres, etc. They are all allies who are in a position to support educational childcare services.

### **Regional and national partners**

In addition to these local initiatives, there are many regional and national partners concerned with child health and development, whose actions help create enabling conditions for healthy lifestyles.

Over the last few years, various partners have gradually developed training and knowledge transfer offers for the educational childcare services network. The partners include regional and national educational childcare associations and groups, educational institutions and training organizations. Other players have developed practical tools that provide educational childcare services with ideas to promote motor skills development in children or offer them balanced menus.

There are also professionals from the regional branches of the Ministère de la Famille in all regions of Quebec who can provide expertise to help educational childcare services with the changes they need to make to their practices. There are also regional intersectorial tables on healthy lifestyles (tables intersectorielles régionales sur les saines habitudes de vie = TIR-SHV) involving several actors, including those in the health and social services network, who are allies for educational childcare services that want to take steps to promote healthy lifestyles.

Depending on the situation in each region, they are all actors who support childcare service initiatives aimed at creating environments that support healthy eating, active play and motor development.

### **5.3 MONITORING AND EVALUATING PRACTICE CHANGES**

In order to ensure the quality of educational childcare services and improve educational practices to promote overall development of children, the Ministère de la Famille will closely monitor progress on implementing guidelines and best practices. Evaluation work, conducted jointly with partners committed to promoting healthy lifestyles, will help educational childcare services evaluate their own approach and the impact of the framework.

# Conclusion

It is often said that it takes a village to raise a child. The Ministère de la Famille is of the opinion that if educational childcare services are responsible for motivating their staff and taking steps to change healthy eating, active play and motor development practices, a group of partners should support their initiative. The will to change educational childcare services together with the support of various partners will enable Quebec toddlers to grow in an environment that provides a healthy diet and allows them to play actively and develop their motor skills.

What would happen if we were to collectively set a five-year goal to ensure that all educational childcare services in Quebec provided environments that promote healthy lifestyles? This would ensure our toddlers' full and harmonious development!





# Appendix

## Food purchasing guidelines

Childcare services will find this guide very useful. The first four sections provide food purchasing guidelines and some food preparation recommendations. Section 5 demonstrates that childcare services can follow these guidelines without incurring additional cost.

### **1** COOKING MEALS AND SNACKS ON SITE

A wide variety of prepared processed foods is now available at grocery stores and distributors<sup>201</sup>. Some processing methods have little effect on the nutritional quality of foods or are even beneficial in ensuring greater nutrient safety or availability.

However, other processing methods that involve adding fat, sugar or sodium and lead to loss of vitamins and dietary fiber can have significant health consequences<sup>202, 203, 204</sup>. By cooking meals and snacks on site using minimally processed or unprocessed foods, childcare services have greater control over the nutritional value of children's meals.

In general, meals and snacks cooked on site using basic ingredients are also less expensive than commercial meals and snacks<sup>200</sup>. For example, a homemade chewy bar may cost about \$0.40, while a commercial chewy bar costs \$0.65<sup>xxiii</sup>.

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xxiiiSeveral factors can affect prices: the recipe, supplier, trademark, sales, etc. Prices shown in this example were correct at the time of publication and are shown as an indication only.

**Educational childcare services are therefore asked to cook most of their meals and snacks themselves.**

The Ministère de l'Agriculture, des Pêcheries et de l'Alimentation's *Guide du manipulateur d'aliments* outlines best hygiene and sanitation practices for ensuring food safety and quality. For more information visit the <http://www.mapaq.gouv.qc.ca> website.



**Did you know that...**

Food from home poses a risk because the childcare service has no way of knowing how it was handled. As a result, it is impossible to ensure that it is safe.

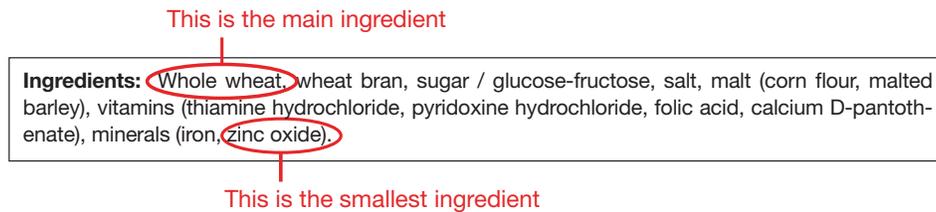
Under certain circumstances (allergies, religion, etc.), the childcare service can serve children lunches that their parents prepared at home. Under no circumstances can these meals be served, in whole or in part, to other children at the childcare service. In addition, raw meat cannot be brought from home and cooked at the childcare service. Parents should be reminded that they are responsible for making sure that the food in the lunch box is safe.

## 2 CHOOSE FOOD WITH CARE

Today, there is a lot of information on food packaging: logos, nutrition claims (e.g. “Trans-fat free”), list of ingredients and a nutrition facts label. Advertising campaigns provide additional information. All these data can sometimes be confusing. We suggest that you use the list of ingredients and the nutrition facts label to plan food purchases for educational childcare services.

### List of ingredients<sup>205</sup>

There is a list of ingredients on all packaged food. The ingredients are listed by weight in descending order. The food has the most of the first ingredient on the list, and the least of the last ingredient on the list. The list of ingredients also makes it easy to quickly determine whether it contains potential allergens.



The list of ingredients sometimes contains unfamiliar words. For example, several ingredients are **sugar** disguised under another name. Words ending in “ose”, such as *sucrose*, *glucose*, *fructose*, *maltose*, etc., as well as the words honey, brown sugar, sugar (invert, liquid, demerara or turbinado), molasses and syrup (e.g. corn syrup) are good examples.

In the same vein, some ingredients are **salt** disguised under another name. The words *brine*, *soy sauce*, *monosodium glutamate*, *garlic salt*, *celery salt* and *onion salt* indicate that the product contains sodium.

Finally, other ingredients indicate the presence of **fats** that should be limited: bacon, butter, cocoa butter, coconut or coconut oil, beef fat, chicken fat, palm oil or palm kernel, bacon, margarine and hydrogenated or partially hydrogenated oils, shortening, tallow, etc.

## Nutrition facts label<sup>205</sup>

Since January 2008, a nutrition facts label must appear on all food packaging, with the exception of homemade bakery products, fresh meat, fresh vegetables and fruit. Nutrition information on the nutrition facts label makes it easier to compare products and meet specific criteria, such as those outlined in Section 4.

The nutrition facts label contains information on the nutritional value of the food, expressed as a *percentage* or in *grams*. On the far right of the nutrition facts label is the Percent Daily Value (% DV), which is used to check whether a food contains few or many nutrients. In Section 4, most of the food choice guidelines are expressed as Percent Daily Value. There is no Percent Daily Value for sugar. In this case, the number of grams of sugar in the food is taken into consideration.

Nutritional value	
per 185 ml (100 g)	
Content	% daily value
Calories 80	
Fats 1 g	1 %
Saturated fats 0 g + Trans fats 0 g	0 %
Cholesterol 0 mg	0 %
Sodium 2 mg	0 %
Carbohydrates 15 g	5 %
Fiber 3 g	12 %
Sugar 7 g	
Protein 3 g	
Vitamin A 1 %	Vitamin C 2 %
Calcium 1 %	Iron 3 %

Quantities expressed as a percentage or grams on the nutrition facts label are based on a serving size. In the example below, a serving of 54 grams of cereal provides 5 grams of sugar.

The serving size at the top of the nutrition facts label is not uniform for all products because it is set by the manufacturer. To verify that a product meets the guidelines outlined in section 4, first make sure that you are comparing equivalent serving sizes. If the serving size is different, you will have to convert the serving size by performing a simple calculation.

Here is an example of a calculation. According to the guidelines outlined in Section 4, breakfast cereals served at a childcare service should contain “8 g of sugar or less per 30 g serving.” To ensure that the adjacent product meets this criterion, you must first calculate the amount of sugar in 30 g of cereal (rule of three):

$$\frac{5 \text{ g}}{54 \text{ g}} = \frac{? \text{ g}}{30 \text{ g}} \quad \text{so} \quad 5 \times 30 \div 54 = 2,7 \text{ g}$$

Nutritional value	
per 54 g	
Content	% daily value
Calories 120	
Fats 1,5 g	2 %
Saturated fats 0,3 g + Trans fats 0 g	1 %
Cholesterol 0 mg	0 %
Sodium 105 mg	4 %
Carbohydrates 23 g	8 %
Fiber 4 g	17 %
Sugar 5 g	
Protein 3 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 6 %	Iron 30 %

The calculation shows that the breakfast cereals contain less than 8 g of sugar per 30 g serving. The final step is to check whether these cereals meet the other guidelines presented in Section 4. If so, these cereals are a good choice for the childcare service.

### **3 A QUESTION OF FREQUENCY**

Providing a healthy diet is not based solely on the nutritional value of food. It also depends on how often the food is served. Foods listed in *Canada's Food Guide* should be given the highest priority in children's daily meals and snacks. Occasional foods that contain added fat, salt or sugar may be served occasionally. Section 5 presents some effective tips for developing the menu.

### **4 NUTRITION GUIDELINES FOR FOOD PURCHASING<sup>xxiv</sup>**

Educational childcare services, whose mission includes ensuring child health and wellness, must focus on daily foods and provide few occasional foods. Sometimes foods do not belong on an educational childcare service's regular menu<sup>xxv</sup>.

#### **But how should we choose these daily foods and foods that should only be eaten occasionally?**

For each food group, criteria are presented for choosing foods to be provided on a daily basis at childcare services. Other criteria are also outlined for choosing foods to be provided on an occasional basis. Childcare services should exercise good judgment as to how often occasional foods are served. Commercial food products that do not meet the criteria should not be served at childcare services.

No nutritional criteria are specified for some types of food, such as chewy bars, for example. A review of commercial bars found that too few of them met the criteria for whole grain, fiber, sugar and sugar substitutes. Educational childcare services are therefore asked to cook foods for which there are no nutritional criteria.

*Reminder: To check whether a food meets the criteria, the food manager should read the ingredient list or the nutrition facts label printed on the package. Section 2 provides instructions.*

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xxiv Criteria that Health Canada uses to update the "Canadian Nutrient File" in *Eating Well with Canada's Food Guide* (June 2013) were considered in selecting the guidelines.

xxv Refer to Chapter 3 to clearly distinguish between "daily food", "occasional food" and "sometimes food".

## 4.1 Vegetables and fruit

### Fruit sauce Canned vegetables and fruit

**Serve only fruit sauces labelled “no added sugar”.**

Sugar does not have to be added to fruit sauce because fruits naturally taste sweet.

**Do not serve fruit sauce or canned fruit containing sugar substitutes (sweeteners).**

The long-term effects of sugar substitutes (sweeteners) on children are unknown<sup>165</sup>. As a precaution, childcare services should not serve foods that contain aspartame, acesulfame potassium, sucralose, thaumatin, stevia, steviol glycoside, erythritol, neotame, sorbitol, isomalt, lactitol, maltitol, mannitol or xylitol.

**Rinse canned vegetables and fruits under running tap water.**

Draining and rinsing canned vegetables and fruits helps remove some sodium (salt) and sugar<sup>206</sup>.

### Fruit juice

Daily...

**Serve fresh, frozen or canned fruit instead of juice (even “100% pure” fruit juice).**

Fresh, frozen or canned fruits contain more nutrients (fiber, vitamins, minerals, etc.) than juices.

Occasionally, when fruit juice is served...

**Choose only fruit juices labelled “100% pure fruit juice”.**

“The regulated term «(name of fruit) juice» means a liquid coming straight from fruits or from the dilution of a concentrate and to which no sugar or preservative has been added (or very little)”<sup>207</sup>.

“Juice made from concentrate” is just as nutritious as “juice not made from concentrate.” The difference between the two is that aromas and taste will be better preserved in juice “not made from concentrate”.

Fruit beverages labelled “drink”, “cocktail” or “punch» are a mixture composed mainly of water, sugar, natural and artificial flavours and dyes and various additives. They should not be served to children.

Some fruit juice are supplemented with various nutrients (calcium, antioxidants, omega-3s, fiber, probiotics, etc.). These juices usually cost more and their added value is often negligible. Other foods that naturally contain these nutrients may be preferred.

**Serve small quantities.**

Because they are acidic and contain sugar, fruit juices can weaken tooth enamel and cause tooth decay. Also, because they are less nutritious than fresh, frozen or canned fruit and are not filling, 100% pure fruit juices should only be served occasionally and not more than 125 ml per day.

**Vegetable cocktail or tomato juice**

Daily...

**Serve fresh, frozen or canned vegetables rather than a vegetable cocktail or tomato juice.**

Fresh vegetables contain more nutrients (fiber, vitamins, minerals, antioxidants, etc.) and are free of less desirable nutrients (sodium, sugar, dyes, etc.).

Occasionally, when vegetable cocktails or tomato juice are served...

**Choose only vegetable cocktails or tomato juice containing 5% or less of the daily recommended sodium intake per 125 ml serving<sup>208</sup>.**

Low-sodium products may seem bland at first to people who drink vegetable cocktails and regular tomato juice on a regular basis. It can take time to get used to a less salty taste.

For a more gradual change, mix the original version with the low-sodium version. Eventually, serve only the low-sodium product!

**Serve small quantities.**

Because they are less nutritious than fresh, frozen or canned vegetables and are not filling, vegetable cocktails and tomato juice should only be served occasionally and not more than 125 ml per day.

<b>Nutritional value</b>	
per 125 ml	
Content	% daily value
<b>Calories</b>	
<b>Fats</b>	
Saturated fats	
+ Trans fats	
omega-6 polyunsaturated fats	
omega-3 polyunsaturated fats	
<b>Cholesterol</b>	
<b>Sodium</b>	<b>5 % or less</b>
<b>Carbohydrates</b>	
Fiber	
Sugar	
<b>Protein</b>	
Vitamin A	Vitamin C
Calcium	Iron

## 4.2 Grain products

### Breakfast cereals

Daily or on a regular basis...

**Serve only cereals containing 8 grams of sugar or less per 30 gram serving.**

There are various sources of sugar, and even if it is not one of the first ingredients, some cereals still contain a lot of sugar.

**Serve whole grain cereals.**

To make sure you are serving whole grain cereals, read the list of ingredients on the product packaging. One of the following terms should be listed as the first ingredient: “whole wheat<sup>xxvi</sup>”, “whole grain<sup>xxvii</sup>”, “brown rice”, “oat flakes” or “oatmeal”.

**Serve cereals containing 8% or more of the daily value for fiber per 30 gram serving.**

Some cereals are made of several kinds of whole grains, but they do not always contain large amounts, which limits fiber content. It is therefore a good idea to serve whole grain cereals that also have 8% or more of the daily value for fiber.

**Do not serve breakfast cereals that contain sugar substitutes (sweeteners).**

The long-term effects of sugar substitutes (sweeteners) on children are unknown<sup>165</sup>. As a precaution, childcare services should not serve foods that contain aspartame, acesulfame potassium, sucralose, thaumatin, stevia, steviol glycoside, erythritol, neotame, sorbitol, isomalt, lactitol, maltitol, mannitol or xylitol.

Nutritional value	
per 30 g	
Content	% daily value
Calories	
<b>Fats</b>	
Saturated fats + Trans fats	
omega-6 polyunsaturated fats	
omega-3 polyunsaturated fats	
Cholesterol	
Sodium	
<b>Carbohydrates</b>	
Fiber	8 % or more
Sugar	8 g or less
<b>Protein</b>	
Vitamin A	Vitamin C
Calcium	Iron

### Hot cereal (oatmeal, oat bran, etc.)

Daily or on a regular basis...

**Serve only plain hot cereal.**

Plain hot cereals (no added flavour) do not contain added sugar. This gives you the opportunity to decide how they will be served. Adding fruit is a nutritious, tasty way to enhance these cereals.

<sup>xxvi</sup> Or any other cereal (oats, rye, kamut, soy, buckwheat, sorghum, spelt, etc.).

<sup>xxvii</sup> Other less frequently used breakfast cereal terms can also refer to whole grains: amaranth, bulgur, millet, wild rice, hulled barley, quinoa and triticale.

## Crackers

Daily or on a regular basis...

**Serve only crackers containing 5% or less of the daily recommended intake for saturated and trans fats per 30 gram servings<sup>208</sup>.**

Fats that should be reduced or eliminated, such as trans fats for example, are used to make some kinds of crackers.

**Serve only crackers containing 15% or less of the daily recommended sodium intake per 30 gram serving<sup>208</sup>.**

Although you can't always see salt on top of the crackers, most of these products contain a lot of salt.

**Serve whole grain crackers.**

To make sure you are serving whole grain crackers, read the list of ingredients on the product packaging. One of the following terms should be listed as the first ingredient: "whole wheat<sup>xxviii</sup>", "whole grain<sup>xxix</sup>", or "brown rice".

**Serve crackers containing 8% or more of the daily value for fiber per 30 gram serving.**

Some crackers are made of several kinds of grains, but they do not always contain large amounts, which limits fiber content.

Nutritional value	
per 30 g	
Content	% daily value
Calories	
<b>Fats</b>	
Saturated fats + Trans fats	5 % or less
omega-6 polyunsaturated fats	
omega-3 polyunsaturated fats	
<b>Cholesterol</b>	
Sodium	15 % or less
<b>Carbohydrates</b>	
Fiber	8 % or more
Sugar	
<b>Protein</b>	
Vitamin A	Vitamin C
Calcium	Iron

## Bread

There are several types of bread: sliced bread, baguettes, loaves, tortillas, pitas, bagels, English muffins, naan, etc.

Daily or on a regular basis...

**Serve whole grain bread.**

Whole grain flour is more nutritious than white flour (also known as "fortified flour") because it provides more fiber, vitamins, minerals and antioxidants. To make sure you are selecting whole grain bread, read the list of ingredients on the product packaging. One of the following terms should be listed as the first ingredient: "whole flour", "whole wheat<sup>xxvi</sup>" or "whole grain<sup>xxvii</sup>".

xxviii Or any other cereal (oats, rye, kamut, soy, buckwheat, sorghum, spelt, etc.).

xxix Other less frequently used terms that describe cracker or bread ingredients can also refer to whole grains: amaranth, bulgur, millet, wild rice, hulled barley, quinoa and triticale.

## Pasta

Daily or on a regular basis...

### **Serve only unseasoned pasta.**

Some pastas are pre-seasoned (carbonara, alfredo, pesto and parmesan, etc.) and sold in ready-to-use bags. They contain a significant amount of sodium. It is therefore best for the childcare service to season pasta on its own, using herbs and pepper instead of salt.

### **Serve whole grain pasta.**

To make sure you are selecting whole grain pasta, read the list of ingredients on the product packaging. “Whole wheat<sup>xxx</sup>”, “whole grain<sup>xxxi</sup>” or “whole wheat flour” should be listed as the first ingredient.

Whole grain pasta has a distinctive taste, different from fortified (white) pasta. Whole grain pasta can gradually be added to the menu using a mixture of the two types of pasta (half fortified, half whole grain) or by serving it with sauces or with ingredients with a more pronounced taste (tomatoes, cheese, spices, etc.) rather than with white sauces. Subsequently, whole grain pasta could be used on its own.

Coloured pastas are not necessarily more nutrient dense than whole grain or fortified (white) pasta, but they can provide some variety, and children may enjoy them.

## Cereal grains

Rice (regular, wild, basmati, etc.), couscous, bulgur, barley, quinoa, etc. can all be referred to as “cereal grains.”

Daily or on a regular basis...

### **Serve only unseasoned cereal grains.**

Some cereal grains are pre-seasoned and sold in ready-to-use containers. They contain a significant amount of sodium. It is therefore better for the childcare service to season cereal grains itself.

### **Serve whole grain cereals.**

Some cereal grains provide more nutritional value: brown rice, hulled barley, whole wheat couscous, bulgur and quinoa are good examples.

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xxx Or any other cereal (oats, rye, kamut, soy, buckwheat, sorghum, spelt, etc.).

xxxi Other less frequently used pasta terms can also refer to whole grains: amaranth, bulgur, millet, wild rice, hulled barley, quinoa and triticale.

## 4.3 Milk and alternatives

### Flavoured fortified soy beverage Flavoured milk

Daily or on a regular basis...

**Serve plain milk and plain fortified soy beverage.**

It is preferable to serve plain milk and plain fortified soy beverages daily instead of flavoured products (chocolate, strawberry, vanilla, etc.). Although flavoured products provide as much calcium as unflavoured products, they are sweeter.

**Do not serve other types of vegetable beverages than fortified soy beverages.**

Some rice, potato or almond drinks are fortified with calcium, vitamin D and other nutrients. Even when fortified, these beverages do not have the same protein content as milk or fortified soy beverages<sup>209</sup>.

Occasionally, when flavoured milk or flavoured fortified soy beverage is served...

**Choose only flavoured milk or flavoured fortified soy beverages containing 20 grams of sugar or less per 250 ml serving.**

If these products are not available, the amount of sugar should be reduced by diluting the flavoured fortified soy beverage or flavoured milk with an equal part of soy beverage or plain milk.

**Do not serve flavoured milk and flavoured fortified soy beverages containing sugar substitutes (sweeteners).**

The long-term effects of sugar substitutes (sweeteners) on children are unknown<sup>165</sup>. As a precaution, childcare services should not serve foods that contain aspartame, acesulfame potassium, sucralose, thaumatin, stevia, steviol glycoside, erythritol, neotame, sorbitol, isomalt, lactitol, maltitol, mannitol or xylitol.

Nutritional value	
per 250 ml	
Content	% daily value
<b>Calories</b>	
<b>Fats</b>	
Saturated fats + Trans fats	
omega-6 polyunsaturated fats	
omega-3 polyunsaturated fats	
<b>Cholesterol</b>	
<b>Sodium</b>	
<b>Carbohydrates</b>	
Fiber	
Sugar	20 g or less
<b>Protein</b>	
Vitamin A	Vitamin C
Calcium	Iron

*It is important to shake the soy beverage container vigorously for several seconds before pouring to thoroughly mix the nutrients, especially the calcium.*

## Yogurt Fresh cheese

Daily or on a regular basis...

### Serve plain yogurt rather than any other flavoured products.

Flavoured yogurt usually contains a significant amount of added sugar. It is therefore recommended to serve plain yogurt with added fruits (fresh, canned, dried or pureed) or serve a blend of plain and flavoured yogurt.

### Do not serve fat-free yogurt.

Yogurt containing more fat provides children with the extra energy they need.

Occasionally, when flavoured yogurt or fresh cheese is served...

### Choose only flavoured yogurt and fresh cheese containing 20 grams of sugar or less per 175 gram serving.

Although rich in nutrients, flavoured yogurt and fresh cheese usually contain a significant amount of added sugar. Children should only be served these foods occasionally.

### Do not serve flavoured yogurt or fresh cheese containing sugar substitutes (sweeteners).

The long-term effects of sugar substitutes (sweeteners) on children are unknown<sup>165</sup>. As a precaution, childcare services should not serve foods that contain aspartame, acesulfame potassium, sucralose, thaumatin, stevia, steviol glycoside, erythritol, neotame, sorbitol, isomalt, lactitol, maltitol, mannitol or xylitol.

Nutritional value	
per 175 g	
Content	% daily value
Calories	
Fats	
Saturated fats + Trans fats	
omega-6 polyunsaturated fats	
omega-3 polyunsaturated fats	
Cholesterol	
Sodium	
Carbohydrates	
Fiber	
Sugar	20 g or less
Protein	
Vitamin A	Vitamin C
Calcium	Iron

## Cheese

Daily or on a regular basis...

**Serve only cheese containing 15% or less of the daily recommended sodium intake per 50 gram serving<sup>208</sup>.**

Although cheese is nutritious, some cheeses may be a significant source of sodium.

Occasionally...

**Cream cheese, cheese spreads, pre-packaged sliced cheese and cottage cheese may be served.**

Cream cheese, cheese spreads and pre-packaged sliced cheese are saltier and generally contain less protein and calcium than any other kind of cheese.

Cottage cheese contains less calcium. It should only be served occasionally.

Nutritional value	
per 50 g	
Content	% daily value
<b>Calories</b>	
<b>Fats</b>	
Saturated fats + Trans fats	
omega-6 polyunsaturated fats	
omega-3 polyunsaturated fats	
<b>Cholesterol</b>	
Sodium	15 % or less
<b>Carbohydrates</b>	
Fiber	
Sugar	
<b>Protein</b>	
Vitamin A	Vitamin C
Calcium	Iron

## 4.4 Meat and alternatives

### Meat Poultry

Daily or on a regular basis...

**Make fresh or frozen, unseasoned meat and poultry top choices.**

Unseasoned fresh or frozen meat and poultry are preferred, because they usually contain less fat, salt and additives or more protein than seasoned meats and poultry, cold cuts and sausages.

**Do not serve cold cuts or sausages.**

Cold cuts (ham, thinly sliced chicken or turkey breast, smoked meat, salami, pepperoni, mortadella, bologna, mock chicken, bacon, etc.) and sausages (smoked or fresh) contain nitrates, nitrites and a significant amount of salt that can be harmful to health<sup>126</sup>.

On childcare service outings, use ground chicken, eggs, tofu, hummus or tuna instead of cold cuts for sandwiches. On outings or picnics, salads containing legumes, rice, couscous or pasta are also good choices.

### Fish and seafood

Daily or on a regular basis...

**Certain species of fish and seafood are preferred.**

Some species should be served on a regular basis because they are low in mercury: salmon, rainbow trout, char, shrimp, mackerel, anchovies, capelin, hake, herring, white sucker, smelt, whitefish, crab, clams, mussels and oysters<sup>210</sup>. However, smoked or salted products contain more sodium (salt).

**Serve canned fish or seafood that contains 15% or less of the daily recommended sodium intake per 75 gram serving<sup>208</sup>.**

Some canned fish and seafood, including seasoned and smoked fish, have had a significant amount of added salt. If you do not opt for unseasoned products, be sure to choose products that contain less salt.

Nutritional value	
per 75 g	
Content	% daily value
Calories	
<b>Fats</b>	
Saturated fats + Trans fats	
omega-6 polyunsaturated fats	
omega-3 polyunsaturated fats	
<b>Cholesterol</b>	
Sodium	15 % or less
<b>Carbohydrates</b>	
Fiber	
Sugar	
<b>Protein</b>	
Vitamin A	Vitamin C
Calcium	Iron

Occasionally...

**Some fish species should only be served occasionally.**

Some types of fish have higher mercury levels. These include fresh or frozen tuna, shark, swordfish, marlin, orange roughy and escolar<sup>210</sup>. Young children should not eat any of these fish more than *once a month*.

Canned white tuna<sup>xxxii</sup> should not be eaten more than *once a week*.

**Canned legumes  
Ready-to-eat legume salad**

Daily or on a regular basis...

**Make unseasoned dried or canned legumes top choices.**

Dry or canned legumes should be thoroughly rinsed with cold water before use. This makes them easier to digest. Most dry legumes also need to be soaked in water for a while to make them easier to cook and digest<sup>xxxiii</sup>.

There are seasoned canned legumes and ready-to-eat legume salads on the market. These products usually contain a significant amount of sodium. It is therefore best if you season legumes yourself with herbs, pepper or homemade salad dressing instead of salt.

Occasionally, when seasoned legumes or ready-to-serve legume salads are served...

**Serve seasoned legumes or ready-to-serve legume salads containing 15% or less of the daily recommended sodium intake per 175 ml serving<sup>208</sup>.**

Canned or ready-to-serve seasoned legumes usually contain a lot of sodium. Therefore, they should only be served occasionally.

Nutritional value	
per 175 ml	
Content	% daily value
Calories	
Fats	
Saturated fats + Trans fats	
omega-6 polyunsaturated fats	
omega-3 polyunsaturated fats	
Cholesterol	
Sodium	15 % or less
Carbohydrates	
Fiber	
Sugar	
Protein	
Vitamin A	Vitamin C
Calcium	Iron

xxxii It is important to distinguish between white tuna and canned light tuna. Canned light tuna, which is made up of other tuna species, is quite safe for young children because it is relatively low in mercury.

xxxiii Soak time varies depending on the type of legume and method used. Refer to the instructions on the packaging.

## 4.5 Other food

### Broths Concentrates Canned soups and cream soups

Daily or on a regular basis...

**Serve broths prepared at the childcare service.**

Make broths yourself to get all the flavour from ingredients that may not otherwise have been served, such as chicken bones, for example, and limit salt. However, homemade broths take longer to make and require sufficient storage space in the refrigerator or freezer.

**If broth prepared at the childcare service is not available, serve only sodium-free broths and concentrates.**

Some companies have developed sodium-free broths and concentrates, which is certainly the best option.

However, if you use a low- or regular-sodium product, we recommend that you dilute it in more water (up to twice the amount indicated on the packaging) and adjust seasoning with herbs.

**Limit use of canned soup or cream soups.**

Canned soup and cream soup contain a large amount of sodium. Some recipes, including pasta-based recipes, suggest that undiluted canned soup or cream soup be used as a sauce (e.g. cream of mushroom or cream of chicken soup). These recipes should be avoided or modified. Instead, use a bechamel sauce cooked on site.

### Dressings

Daily or on a regular basis...

**Serve salad dressings prepared at the childcare service using basic ingredients instead of commercial vinaigrettes.**

It is simple and very economical to prepare salad dressings. Simply mix two parts of oil with one part of vinegar (wine, balsamic, rice or cider vinegar, citrus juice, etc.). Then add the seasonings (garlic, herbs, spices, pepper, etc.), a touch of salt and, if desired, a touch of sweetness (honey, maple syrup, fruit puree, sugar, etc.).

Occasionally, when commercial salad dressing is served...

**Choose only dressings containing 5% or less of the daily recommended sodium intake per 15 ml serving<sup>208</sup>.**

Some commercial dressings contain a significant amount of sodium. They should not be served to children at childcare services.

Nutritional value	
per 15 ml	
Content	% daily value
Calories	
Fats	
Saturated fats + Trans fats	
omega-6 polyunsaturated fats	
omega-3 polyunsaturated fats	
Cholesterol	
Sodium	5 % or less
Carbohydrates	
Fiber	
Sugar	
Protein	
Vitamin A	Vitamin C
Calcium	Iron

## Dips

Daily or on a regular basis...

**Serve dips prepared at the childcare service, with a legume, plain yogurt or vegetable puree base.**

Making dips is simple and very economical. Some dips are more nutritious because they contain a lot of legumes (lentils, chick peas, etc.), plain yogurt or vegetable puree.

All mayonnaise-based dip recipes can easily be improved by replacing the mayonnaise with the same amount of plain yogurt or using half mayonnaise, half plain yogurt.

Occasionally, when a commercial dip is served...

**Choose only dips containing 5% or less of the daily recommended sodium intake per 30 gram serving<sup>208</sup>.**

Some commercial dips contain more sodium. Therefore, only commercial dips containing 5% or less of the daily recommended sodium intake may be served occasionally to children at childcare services.

Nutritional value	
per 15 ml	
Content	% daily value
Calories	
Fats	
Saturated fats + Trans fats	
omega-6 polyunsaturated fats	
omega-3 polyunsaturated fats	
Cholesterol	
Sodium	5 % or less
Carbohydrates	
Fiber	
Sugar	
Protein	
Vitamin A	Vitamin C
Calcium	Iron
Protein	
Vitamin A	Vitamin C
Calcium	Iron

## Pasta sauces

### Sauces for dishes in a sauce

Dehydrated or ready-to-serve, sauces are sometimes served with pasta or are the base of a sauce dish such as vol-au-vent, stew, beef bourguignon, etc.

Daily or on a regular basis...

#### Limit use of sauces.

Sauces contain a significant amount of sodium and have little nutritional value. They should be used sparingly or served in small quantities.

#### Serve sauces prepared at the childcare service, using basic ingredients.

It is best to make sauces yourself using basic low-sodium ingredients. Bechamel sauce and sauces made from meat, legumes or fruit puree are preferred.

Occasionally, when a commercial sauce is served...

#### Choose only sauces containing 20% or less of the daily sodium value per 125 ml serving.

Some commercial sauces contain more sodium. They should not be served to children at childcare services.

Nutritional value	
per 125 ml	
Content	% daily value
<b>Calories</b>	
<b>Fats</b>	
Saturated fats + Trans fats	
omega-6 polyunsaturated fats	
omega-3 polyunsaturated fats	
<b>Cholesterol</b>	
<b>Sodium</b>	<b>20 % or less</b>
<b>Carbohydrates</b>	
Fiber	
Sugar	
<b>Protein</b>	
Vitamin A	Vitamin C
Calcium	Iron

## Meat sauces Stir fry sauces

Dehydrated or ready-to-serve sauces can also be served with meat or to make stir fries.

Daily or on a regular basis...

### Limit use of sauces.

Sauces contain a significant amount of sodium and have little nutritional value. They should be used sparingly or served in small quantities.

Marinating meat gives meat a different taste without having to use sauce. It is simple and very economical to prepare a marinade yourself using basic low-sodium ingredients. Just combine oil with acidic ingredients (vinegar, lemon juice, etc.). Then add a touch of salt (table salt, soy sauce, Worcestershire sauce, etc.) and herbs (herbs, pepper, etc.).

### Serve sauces prepared at the childcare service, using basic ingredients.

It is best to make sauces yourself using basic low-sodium ingredients.

Occasionally, when a commercial sauce is served...

**Choose only sauces containing 15% or less of the daily sodium value per 30 ml serving<sup>208</sup>.**

Some commercial sauces contain more sodium. They should not be served to children at childcare services.

Nutritional value	
per 30 ml	
Content	% daily value
Calories	
Fats	
Saturated fats + Trans fats	
omega-6 polyunsaturated fats	
omega-3 polyunsaturated fats	
Cholesterol	
Sodium	15 % or less
Carbohydrates	
Fiber	
Sugar	
Protein	
Vitamin A	Vitamin C
Calcium	Iron

## 5 FOOD BUDGET

Can I follow these guidelines and stay within my budget? Yes, as long as you plan the menu so that food costs and preparation costs are balanced.

### Food costs

Some foods are nutritious and inexpensive. Adding them to the regular menu will help limit food costs. Here are some examples of food price comparisons, which show that nutritious foods can be affordable.

*Warning! The following prices are only provided as an indication. They are not guidelines. It should be noted that several factors can affect prices: supplier, trademark, sales, etc.*

For example, make seasonal vegetables and fruits top choices. They are more economical and tasty. Large packages of frozen vegetables are generally a good option, because they only cost \$0.45 per serving<sup>xxxiv</sup>.

As shown in Table 1, refined (white) or whole grain products are often sold at similar prices. There is therefore no reason to do without whole grains!

**TABLE 1**

Comparing the price of foods in the Grain products food group	
Food	Approximate cost per serving <sup>xxxii</sup>
Sliced white bread	\$0.18
Sliced whole grain bread	\$0.18
Processed grain tortilla	\$0.22
Whole grain tortilla	\$0.22
White rice	\$0.43
Whole grain rice	\$0.44

Milk and fortified soy beverages are more economical choices than cheese and yogurt. They can sometimes be replaced with milk-based snacks such as blancmange or homemade pudding.

<sup>xxxiv</sup> Refers to a serving listed in *Canada's Food Guide*. Several factors can affect prices: supplier, trademark, sales, etc. The price shown in this example was correct at the time of publication and is shown as an indication only.

**TABLE 2**

Comparing the price of foods in the Milk and alternatives food group	
Food	Approximate cost per serving <sup>xxxiii</sup>
2% milk	\$0.43
Fortified soy beverage	\$0.53
Cheddar cheese	\$0.83
Yogurt	\$0.87

As shown in Table 3, eggs, legumes and frozen or canned fish are inexpensive meat substitutes.

**TABLE 3**

Comparing the price of foods in the Meat and alternatives food group	
Food	Approximate cost per serving <sup>xxxiii</sup>
Eggs	\$0.05
Canned legumes	\$0.45
Tofu	\$0.90
Frozen salmon	\$0.33
Canned salmon	\$0.68
Lean ground beef	\$0.73
French steak	\$0.83
Pork fillet	\$1.52

Some foods are more expensive than others. When planning the menu, **food costs for a meal can be balanced by combining a more expensive food with a less expensive one.** Serving costly foods less often or in smaller quantities is also an effective cost control strategy.

<sup>xxxiii</sup> Refers to a serving listed in Canada's Food Guide. Several factors can affect prices: supplier, trademark, sales, etc. The price shown in this example was correct at the time of publication and is shown as an indication only.

## Food preparation costs

Basic ingredients usually cost less than ready-to-eat foods, but require more preparation time. Take chewy bars for example. They are simple to prepare but require more handling than prepackaged products.

An educational childcare service seeking to improve the quality of the food it serves to children will have to review the entire menu in order to organize the work to ensure sufficient preparation time. Some changes even save a little time and money and improve food quality. For example, you can use whole wheat tortillas instead of pie crust to make a meat pie.

Other changes require the same preparation time, improve the quality of food but cost a little more. For example, fruit gelatin can be prepared with 100% pure fruit juice, neutral gelatin and fruit rather than commercial gelatin powder.

In short, when planning a balanced, nutritious menu, **dishes requiring more preparation should be combined with dishes requiring less preparation for the day's menu.**

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