

# Dietitians of Canada

## Recommendations for School Food and Nutrition for Ontario Ministry of Education

### **Role of Schools in Promoting Healthy Eating**

Schools are uniquely positioned to provide knowledge on healthy eating and to use the school environment to reinforce healthy eating behaviours. Understanding that it is more effective to develop good eating habits in youth than to undo poor habits later in life, schools can make a positive contribution to students' long-term health through:

- ▶ Classroom lessons on healthy eating
- ▶ Modeling healthy food choice by offering only healthy food selections at every opportunity, including foods and beverages sold in school vending machines

School boards' policies on vending machines should ensure that all foods and beverages offered are consistent with Canada's Guidelines for Healthy Eating and Canada's Food Guide to Healthy Eating (CFGHE). Serving size should be consistent with Canada's Food Guide serving sizes or reference amounts (as specified in the Guide to Food Labelling and Advertising, Canadian Food Inspection Agency (CFIA)). All products should be reasonably priced and culturally appropriate.

In the opinion of Dietitians of Canada, school boards have a responsibility when making food available in schools, to offer healthy food choices, as healthy eating plays a vital role in learning and cognitive development. It is well known that poor diet adversely influences the ability to learn and decreases motivation and attentiveness.<sup>1</sup> Furthermore, the food available within the school environment should serve as a model of healthy eating, supporting the health curriculum.

Below is an evaluation of beverages and foods currently available in vending machines located in Ontario elementary schools. The Ministry of Education collected this information in September 2004 and represents 64% of school boards in Ontario. The findings indicate that vending machines in elementary schools contain primarily beverages.

Food Group	Beverage	Contributes Nutrients we need more of	Contributes Nutrients we need less of	Comments
Milk & Milk Products	Milk	Calcium, Vitamin D		Selections should include lower fat and non-fat milk. The type of milk was not specified in the survey.
	Milk Shakes	Calcium, Vit. D	Fat, Added Sugar	Nutrient contribution depends on ingredients
Vegetables & Fruit	100% Fruit Juice	Vitamin C and/or Vitamin A and/or Folacin		100% Fruit Juice is a healthy choice.
Other Foods	Fruit Drink		Added Sugar	Amount of nutrients will vary with the type of fruit drink. There are fruit drinks with added fruit juice from 10%-60%, however 100% fruit juice is still the healthiest choice.
	Soft Drinks		Added Sugar, May contain caffeine	Replaces more nutritious beverages.
	Sport Drinks		Added Sugar Sodium	Not necessary unless a child is involved in at least 90 minutes of intense exercise. Also contain added electrolytes, like sodium and potassium
	Water			Plain water is an essential nutrient and healthy beverage choice

*Note: The beverages that are shaded in green above are healthy choices. These beverages provide key nutrients that children need for healthy development. Those beverages shaded in yellow may provide some nutrients, which will depend on their ingredients.*

Food Group	Food	Contributes Nutrients we need more of	Contributes Nutrients we need less of	Comments
Grains	Granola Bar	May contribute fibre	Fat, Added Sugar	Nutrient contribution will vary depending on the ingredients
	Crackers		Fat, Sodium	Nutrient contribution will vary depending on the ingredients
	Cookies		Fat, Added Sugar	Nutrient contribution will vary depending on the ingredients
Vegetables and Fruit	Fruit	Vitamin C and/or Vitamin A and/or Folacin and/or Fibre		
	Fruit Cups	Vitamin C and/or Vitamin A and/or Folacin		

Food Group	Food	Contributes Nutrients we need more of	Contributes Nutrients we need less of	Comments
Meat and Alternatives	Nuts & Seeds		Salt	Include unsalted choices. Portion size is important. Nut & peanut allergy risk must be considered.
Other Foods	Cakes, donuts & pastries		Fat, especially saturated and trans fat	High calorie, high fat; no significant vitamin or mineral contribution
	Candy (jubes, mints, etc.)		Added sugar	No nutrient (vitamin/mineral) contribution other than energy
	Chips (Corn, Potato, etc.)		Fat, Salt	High calorie, high fat, low nutrient (vitamin/mineral) contribution
	Chocolate Bars		Fat, Added sugar	High calorie, low nutrient (vitamin/mineral) contribution
	Gum			No nutrient contribution; dental risk if contains sugar.
	Popcorn	Fibre	Fat, Salt	Nutrient contribution will vary depending on the ingredients
	Pretzels		Salt	Nutrient contribution will vary depending on the ingredients

*Note: The foods that are shaded in green above are healthy choices. Including more vegetables and fruit and meat alternatives, such as nuts and seeds are part of Healthy Eating.<sup>2</sup> Foods shaded in yellow may provide some nutrients, which will depend on their ingredients.*

### Recommendations for Healthy Food and Beverage Choices in Vending Machines

It is recommended that foods and beverages sold in school vending machines should be consistent with the directional statements of Canada's Food Guide to Healthy Eating (CFGHE) shown in the table on the next page.

Portion sizes should be consistent with CFGHE or reference amounts as specified in Guide to Food Labelling and Advertising, CFIA.

Given the potential risk of life-threatening allergies, it is strongly recommended that foods containing peanuts and other nuts not be made available in schools.

Food Group	Criteria <sup>3</sup>	Recommended Beverages & Serving Sizes <sup>4</sup>	Contributes Nutrients we need more of	Comments
Milk & Milk Products <i>Choose lower-fat milk products more often.</i>	Lower-fat or non-fat (2% MF or less fat). Good or excellent source of calcium. Excellent Source of Vitamin D	milk, flavoured milks, yogurt based drinks, Calcium-fortified soy beverages 250 mL	Calcium Vitamin D (Increase in calcium need prior to puberty: 3-4 servings per day <sup>5</sup> )	Serving size should be consistent with CFGHE - 250 mL
Vegetables & Fruit <i>Choose dark green and orange vegetables and fruit more often.</i>	Good source of Vitamin C and/or Vitamin A and/or Folacin	100% fruit juice; vegetable juice 125 - 250 mL	Vitamin C and/or Vitamin A and/or Folacin	Serving size should be limited to 250 mL, which is equal to 2 servings of vegetables and fruit or 125 mL which is 1 serving.
Other		Water		Plain water is a healthy beverage choice and the preferred fluid for proper hydration

Food Group	Criteria	Recommended Foods (Snacks) & Serving Sizes	Contributes Nutrients we need more of	Comments
Grain Products <i>Choose whole grain and enriched products more often.</i>	Low Saturated Fat. Source of Fibre. Source of a B Vitamin & Iron. Upper Fat Limit of 5g	Grain based bars 30-40g, Muffins and snack breads 55g, Cookies 30g, Crackers 20g	Complex carbohydrates (starch), B vitamins, fibre	Foods high in saturated and trans fat <sup>6</sup> increase the risk of coronary artery disease
Vegetables and Fruit <i>Choose dark green and orange vegetables and fruit more often.</i>	Good source of Vitamin C and/or Vitamin A and/or Folacin and/or Fibre	Fresh fruit (1 piece), canned fruit or 100% fruit sauces (125 mL), fresh vegetables (with a low-fat dip) (125 mL), 100% dried fruit 40g	Vitamin C, Vitamin A, Folacin, Fibre	Fruits and vegetables provide needed nutrients. Dried fruit if eaten as a snack may be concern from a dental perspective and is recommended to be consumed as part of a meal. Brushing should be encouraged after eating dried fruit.

Food Group	Criteria	Recommended Foods (Snacks) & Serving Sizes	Contributes Nutrients we need more of	Comments
Milk Products <i>Choose lower-fat milk products more often.</i>	Lower fat (yogurt - 2% or less M.F.; for cheese - 20% or less M.F.) Source or Good source of calcium	Yogurt 175 mL, Cheese 30 - 50g, Milk puddings - 125 mL	Calcium, Vitamin A	
Meat and Alternatives <i>Choose leaner meats, poultry and fish, as well as dried peas, beans and lentils more often.</i>	Sodium, 480 mg or less. Source of a B vitamin. Source of iron	Ready to eat legumes (plain, uncoated) 30 g.	Protein, B vitamins	Given the potential risk of life-threatening allergies, it is strongly recommended that foods containing peanuts and other nuts not be made available in schools.
Other Foods <i>Taste and enjoyment can also come from other foods and beverages that are not part of the 4 food groups.</i>	Low in fat and low in saturated fat Sodium - 480 mg or less Source of at least one vitamin or mineral	Baked chips, pretzels, plain popcorn 50g		

Vending machines are one way that food is offered in schools. Dietitians of Canada believes that schools should be developing healthy food policies that apply to all foods available in schools including meal and snack programs, cafeteria and tuck shop choices, and items sold as fundraisers or offered during special event days and encourages the education sector to continue with policy development to cover all foods available in schools.

**General Definitions of Nutrient Criteria (per reference amount and serving size on the package)<sup>7</sup>**

Low Fat - 3 gm or less fat

Low Saturated Fat - 2 g or less saturated fatty acids and trans fatty acids combined and 15% or less energy from saturated fatty acids plus trans fatty acids

Source of Calcium - 5% or more of the daily value (55 mg or more of calcium)

Good Source of Calcium - 15% or more of the daily value (165 mg or more of calcium)

Excellent Source of Calcium - 25% or more of the daily value (275 mg or more of calcium)

Good Source of Vitamin C - 30% or more of daily value (18 mg or more)

Good Source of Vitamin A - 15% or more of the daily value (150 RE or more)

Good Source of Folic Acid - 15% or more of the daily value (33 mcg or more)

Excellent Source of Vitamin D - 25% or more of the daily value (1.25 mcg)

Source of B Vitamins - 5% of more of daily value - Thiamine - 0.07 mg or more; Riboflavin - 0.08 mg or more;

Niacin - 1.15 NE or more; Vitamin B6 - 0.09 mg or more

Source of Iron - 5% of more of daily value - 0.7 mg or more

Source of Fibre - 2g or more

Good Source of Fibre - 4g or more

480 mg or less sodium - based on the Heart Health Claim (Health Canada)

## References

- Canadian Food Inspection Agency. 2003. *Guide to Food Labelling and Advertising*. Food Division, Food Inspection Directorate: Ottawa, ON.
- Health Canada. 1992a. *Canada's Food Guide to Healthy Eating*. Minister of Supply and Services Canada: Ottawa, ON.
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- Heart and Stroke Foundation of Canada, Health Check Program criteria. Available at [http://www.healthcheck.org/english/criteria\\_b.htm](http://www.healthcheck.org/english/criteria_b.htm). Accessed on September 27, 2004.
- National Consensus Panel on School Nutrition. 2002. *Recommendations for Competitive Food Standards in California Schools*. California Center for Public Health Advocacy, School Nutrition Consensus Panel.
- Nutrition-Cognition National Advisory Committee. *Statement on the link between nutrition and cognitive development in children*. Tufts University School of Nutrition, Center on Hunger, Poverty and Nutrition Policy, July 1996.
- Ontario Society of Nutrition Professionals in Public Health. School Nutrition Workgroup Steering Committee. *Call to Action: Creating a Healthy School Nutrition Environment*. March 2004.

## Notes

- <sup>1</sup> Nutrition-Cognition National Advisory Council, 1996
- <sup>2</sup> Canada's Food Guide to Healthy Eating, Health Canada. 1992.
- <sup>3</sup> Nutrient Criteria is based on Nutrient Content Claims, Guide to Food Labelling and Advertising, CFIA 2003
- <sup>4</sup> Serving sizes are based on reference amounts, Guide to Food Labelling and Advertising, CFIA and CFGHE
- <sup>5</sup> CFGHE -Focus on Children Six to Twelve Years, Background for Educators and Communicators
- <sup>6</sup> Trans fat is created when an unsaturated fat is processed or hydrogenated. Trans fat raises LDL (bad) cholesterol and lowers HDL(good) cholesterol levels. Trans fat is found in many crackers, cookies and commercially baked products.
- <sup>7</sup> Guide to Food Labelling and Advertising, CFIA, 2003