Nutrition Guideline
Healthy Infants and Young Children
Plant-based Beverages

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

Recommendations

Birth to Age 2

- Soy, rice, almond, coconut and other plant-based beverages (fortified or non-fortified) are not appropriate alternatives to breastmilk, 3.25% (homogenized) milk or commercial infant formula in the first 2 years of life as they are generally lower in protein, fat, calories and iron.
- Breastmilk is the optimal milk for infants and is recommended for up to 2 years and beyond.
- If an infant is partially breastfed or not breastfed, a commercial infant formula with iron should be provided until 9 to 12 months of age.
- Pasteurized 3.25% milk may be introduced at 9 to 12 months of age and should be offered until age 2.
- Infants who are drinking a commercial soy formula should drink a *follow-up* soy formula from 12 to 24 months of age.
- A child under 2 years of age who is not drinking breastmilk, 3.25% milk or commercial infant formula may benefit from a referral to a dietitian.

Ages 2 and Up

- For children 2 years of age and older, skim, 1% or 2% milk is recommended.
- If milk is not consumed, *Eating Well with Canada's Food Guide* recommends a fortified soy beverage.
- If parents choose another plant-based beverage as a milk alternative for their child, they should look for a product that:
  - is labelled as fortified or enriched;
  - provides at least 6 g of protein per 250 mL (1 cup);
  - provides at least 30% Daily Value of calcium and vitamin D per 250 mL (1 cup); and
  - contains less than 10 g of sugar per 250 mL (1 cup).
- Since plant-based beverages (other than soy) are generally low in protein, children drinking a plant-based beverage as their main milk source should be offered a variety of lean meats, poultry, fish, beans and lentils, eggs, tofu and nuts to ensure adequate intake of protein. A referral to a dietitian may also be considered.

Health Benefits

This guideline will provide information on and considerations for the use of plant-based beverages for infants and young children. This information will assist health professionals when educating parents on appropriate milk choices for infants and young children to help support healthy growth and development.

Plant-based beverages are beverages derived from legumes, nuts, seeds, grains, or potatoes.[1] Some examples include:

Almond	Kamut	Quinoa	Sunflower seeds
Coconut	Oat	Rice	Teff
Flax	Macadamia	Soy	
Hemp	Potato	Spelt	

Breastmilk is the optimal milk for infants and is recommended for up to 2 years and beyond.[2,3] Children under 2 years of age should be drinking breastmilk, 3.25% (homogenized) milk or commercial infant formula with iron.[2,3,4] Compared to these milks, plant-based beverages are generally *lower in* protein, fat, and calories.[4,5,6,7] Plant-based beverages may also be poor sources of calcium and vitamin D. Compared to breastmilk and commercial infant formula, they are also low in iron.[5,6,7] Furthermore, nutrients in breastmilk such as protein and iron are more readily absorbed and efficiently utilized compared to other milks, including plant-based beverages.[8,9,10]

Because of their nutrient profile, if they are used in the first 2 years of life as a substitute for breastmilk, 3.25% milk or commercial infant formula, plant-based beverages will not meet nutritional needs[11] and may contribute to growth faltering.[4,12] If plant-based beverages are used as a whole or major source of nutrition, a child may be at risk of developing marasmus (calorie-protein malnutrition),[4] kwashiorkor (protein malnutrition)[13,14] and/or severe nutritional deficiencies.[13,14,15,16]

If parents choose a plant-based beverage as a milk alternative for their child age 2 years and older, they should look for a product that:

- is labelled as fortified or enriched;[1]
- provides at least 6 g of protein per 250 mL (1 cup);[1]
- provides at least 30% Daily Value of calcium and vitamin D per 250 mL (1 cup); and
- contains less than 10 g of sugar per 250 mL (1 cup).[17]

See '*Definitions*' section at the end of the guideline for descriptions of frequently used terms.

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Key Questions:

How do plant-based beverages compare nutritionally to breastmilk and cow's milk?

Table 1. Nutrient comparison of breastmilk, cow's milk and plant-based beverages (per 250 mL or 8 oz) based on ranges from various products on the market

This table represents some of the common plant-based beverage products available for purchase but is not a complete representation of all products. Considering the variability in nutrient composition of different products, this table illustrates the importance of checking the Nutrition Facts Table of each product carefully. For the nutrient content of infant formulas, refer to: Infant Formulas for Healthy Term Infants – Compendium.

Note: The ranges in the chart below represent a variety of products that vary in nutrient composition. Even though some products contain higher amounts of certain nutrients, most plant-based beverages do not contain the right amount of protein, calcium, vitamin D etc, to be considered as a replacement for milk.

Nutrient	Breastmilk* (whole, mature)	Cow's milk (3.25%)	Soy	Rice	Almond	Coconut	Grain Based (e.g, Oat, Quinoa)	Potato	Hemp
Energy (kcal)	182	155	70 - 150	120 - 140	30- 130	45 - 110	90 - 190	70	60 - 150
Fat (g)	11.0	8.0	0 - 4.0	1 - 3	2 – 5	4 - 10	2 - 9	0	4 - 7
Carbohydrate (g)	18	12	3 – 23	25 - 29	1 - 23	1 - 10	16 - 22	20	1 - 21
Protein (g)	3.0*	8.0	6 - 8	0 - 2	1 - 2	0 - 2	1 - 3	0	2 - 5
Vitamin A (mcg RE)	159	72	0 - 100	0 - 100	0-100	0 - 100	0 - 100	0 - 100	0 - 150
Calcium (mg)	83	291	88- 330	22 - 330	330	0 - 22	0 - 330	30 - 330	22 - 385
Iron (mg)	0.08*	0	0.8 – 2.1	0 – 0.6	0.3 – 2.1	0 – 0.3	0.3 – 5.7	0.6 - 2.0	0.8 – 2.8
Vitamin D (IU)	10	108	0 - 90	0 - 90	0 - 90	0	0 - 90	30	0
Riboflavin (mg)	0.09	0.464	0.38 – 0.40	0.4	0.40	-	0.40	0.2	0.40
Vitamin B_{12} (µg)	0.13	1.14	1.0	1.0	1.0	0.6	1.0	0.8	1.3
Manganese (mg)	0.068	0.010	0.16	0.80	-	2.32[A]	-	-	-
Data Source	CNF #73 (milk, fluid, human [breast milk], whole, mature)[5]	CNF #113 (milk, fluid, whole, pasteurized, homogenized, 3.3% M.F.)[5]	Product Labels 2013, CNF[5]	Product Labels 2013, CNF[5]	Product Labels 2013	Product Labels 2013 **Note:** This does not include canned coconut milk	Product Labels 2013	Product Labels 2013	Product Labels 2013

Breastmilk *also contains anti-inflammatory factors, digestive enzymes, growth factors and immunoglobulins.[4] Furthermore, nutrients such as* ***protein and iron*** *are more readily absorbed and efficiently utilized compared to other milks.[8,9,10]* (Refer to Nutrition Guideline: Breastfeeding & Breastmilk)

- Information not available from source

CNF = Canadian Nutrient File

Nutrition Facts Table Values were calculated using the Canadian Food Inspection Agency Chapter 7 - Nutrient Content Claims, 7.25.4 Claims on foods for adults and children two years of age or over.[18]

[A] E-mail communication from White Wave Consumer Response [whitewaveconsumerresponse@casupport.com] for Silk® True Coconut, Ref: N1816123, 2013 Aug 20, 5:01 PM)

What are the concerns with children under 2 years of age drinking a plant-based beverage as their main milk source?

Potential nutrient deficiencies:
Plant-based beverages generally do not provide the protein and fat content that infants require for growth and development.[4,11] An infant drinking a plant-based beverage as their main milk source would be at risk of failure to thrive,[4] marasmus (protein-calorie malnutrition),[4] kwashiorkor (protein malnutrition)[13,14] and/or severe nutritional deficiencies.[13,14,15,16]

Plant-based beverages also do not contain many of the vitamins and minerals that are naturally present in cow's milk such as vitamin B_{12}, riboflavin, and zinc.[5] Currently, there are no mandatory regulations that plant-based beverages must be fortified.[1] If fortified, these beverages are required to be fortified with vitamin A, vitamin D, vitamin B_{12}, riboflavin, calcium and zinc.[18] It is voluntary to add vitamin B_6, vitamin C, thiamine, niacin, folic acid, pantothenic acid, phosphorus, potassium and magnesium.[18] Fortified plant-based beverages should contain not less than 2.5 g protein and not more than 3.3 g of fat per 100 mL.[1]

As noted in Table 1, many plant-based beverages are not a source of protein. Those beverages that are labelled as fortified but do not have the minimum level of 2.5 g protein per 100 mL, must have the statement "not a source of protein" on the product label.[1] This is based on proposed regulatory amendments to the Food and Drugs Regulations and once approved will be posted on the Regulatory Amendments of *Canada Gazette*, Part II: www.hc-sc.gc.ca/fn-an/legislation/acts-lois/gazette2/index-eng.php.

Potential nutrient toxicities:
Plants such as coconut, soy and rice are naturally rich in manganese[5,19] (See Table 1) and consumption of some plant-based beverages may result in an excess intake of manganese.[16,20] Manganese intake primarily comes from food, water and environmental exposure (e.g. inhalation).[21,22,23] Health professionals should be aware of the concerns described below related to manganese toxicity; however, there is presently no evidence of toxicity occurring directly from food sources, including plant-based beverages.[24]

The tolerable upper intake level (UL) for manganese is 2 mg/day for children 1 to 3 years of age, and 3 mg/day for children 4 to 8 years of age.[8] The UL has not been set for infants at this time.[8] The UL is the highest level of regular intake likely associated with no adverse effects; consumption over the UL increases the risk for adverse effects.[25] Consuming 500 mL (2 cups) of soy beverage, rice beverage or coconut beverage would provide approximately 0.32 mg, 1.6 mg and 4.64 mg of manganese respectively.[5]

Coconut beverages have the greatest potential to exceed the UL for manganese in infants and toddlers.[5] Some coconut beverages can contain up to 16 mg of manganese per serving (250 mL). (E-mail communication from White Wave Consumer Response [whitewaveconsumerresponse@casupport.com] for Silk® True Coconut, Ref: N1816123, 2013 Aug 20, 5:01 PM)

The newborn brain may be more susceptible to manganese toxicity due to a greater expression of receptors for the manganese transport protein (transferrin) in developing nerve cells, and the immaturity of the liver's bile elimination system.[8] Compared to adults, infants and children have higher intestinal absorption of manganese, and lower biliary excretion of manganese.[26,27] Thus, children are especially susceptible to any negative, neurotoxic effects of manganese. Several recent studies in school-aged children have reported deleterious cognitive and behavioural effects following excessive manganese exposure, primarily through drinking water.[16,24,27,28,29] More research is required in this area before specific recommendations can be made around the consumption of plant-based beverages and manganese intake.

Are there any plant-based beverages that are appropriate for children under 2 years of age who are not drinking breastmilk, 3.25% milk or commercial infant formula with iron?

Currently, there are no plant-based beverages on the market that meet the nutrient requirements for children under 2 years of age.[11] Plant-based beverages are not appropriate alternatives to breastmilk, 3.25% milk or commercial infant formula for children under 2 years of age.[4,12]

Although plant-based beverages are not recommended until after 2 years of age,[4,12] some parents may have received individual assessment and recommendations from a dietitian to give a plant-based beverage. These individuals can continue to follow this advice and should be reminded to ensure appropriate follow-up with that healthcare professional. Those who have not received individual assessment and wish to give a plant-based beverage as the child's main milk source may benefit from a referral to a dietitian.

For infants drinking a commercial soy formula, what milk is appropriate from 1 to 2 years of age?

Indications for the use of a commercial soy formula should be limited to those who cannot consume dairy-based products for health, cultural, or religious reasons, such as a vegetarian lifestyle, or infants who have galactosemia.[30,31] Food and Drug Regulations (FDR) regulate commercial infant formulas, including soy formulas, to comply with nutrient and ingredient requirements specific for infants.[32]

For infants drinking soy formula, a *starter* soy formula is appropriate from birth to 1 year of age. In order to help meet calcium requirements,[11] a *follow-up* soy formula should be used between 12 to 24 months.

Soy beverages are not appropriate substitutes for a commercial soy formula as they contain less energy, fat and iron[4] and may not meet the nutritional needs for proper growth and development of a child under 2 years of age.[4,11,12] The nutrient content of most fortified soy beverages is similar to 2% cow's milk,[5] which is not routinely recommended before 2 years of age.[4]

For indications on use and more information on soy formulas refer to the *Infant Formulas for Healthy Term Infants – Compendium & Summary Sheet*.

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Are plant-based beverages appropriate for a child under 2 years of age who is allergic to cow/goat's milk and soy?

Plant-based beverages are not appropriate replacements for milk for children under 2 years of age with an allergy (e.g. cow's milk, soy) and should not be provided as the main milk source unless recommended by a dietitian or physician based on individual assessment.

For information on appropriate formulas for children under 2 years of age with allergies refer to the *Infant Formulas for Healthy Term Infants – Compendium & Summary Sheet*.

Are there any safety concerns with the use of soy formulas or soy beverages?

Current recommendations support the use of commercial soy formulas for healthy term infants when indicated. Indications for the use of commercial soy formula should be limited to those who cannot consume dairy-based products for health, cultural, or religious reasons, such as a vegetarian lifestyle, or infants who have galactosemia.[30,31]

Soy formulas contain phytoestrogens called isoflavones,[30] which are non-steroidal chemicals that are structurally similar to estrogens.[33] Over the past several years, media coverage and medical literature have prompted concerns regarding the phystoestrogens in soy formulas. However, soy formulas have been shown to support normal growth and development, and no overt harm has been proven with the use of currently available soy formulas as the sole source of nutrition for healthy term infants.[30,31]

A lack of sufficient evidence is available to suggest that commercial soy formulas adversely affect endocrine function, development or reproduction in infants.[30,31] However, further research is warranted and the use of soy formulas should be limited to the indications noted above. After 2 years of age, Canada's Food Guide indicates that fortified soy beverages can be consumed as part of a healthy diet.[34]

For indications on use and more information on soy formulas refer to the *Infant Formulas for Healthy Term Infants – Compendium & Summary Sheet*.

When can a child be transitioned to a plant-based beverage? What should parents look for?

For everyone 2 years of age and older, *Eating Well with Canada's Food Guide* recommends 500 mL (2 cups) of fluid milk (skim, 1% or 2%) each day to help meet vitamin D needs.[34] If fluid milk is not consumed, fortified soy beverage is recommended.[34] A fortified soy beverage provides protein, vitamin and mineral composition similar to 2% cow's milk.[5] Plant-based beverages other than soy (e.g. rice, almond, coconut, etc.) are **not** considered suitable replacements for milk.[35]

If parents choose another plant-based beverage as a milk alternative for their child age 2 years and older, they should look for a product that is:

- is labelled as fortified or enriched;[1]
- provides at least 6 g of protein per 250 mL (1 cup);[1]
- provides at least 30% Daily Value of calcium and vitamin D per 250 mL (1 cup); and
- contains less than 10 g of sugar per 250 mL (1 cup).[17]

Currently fortification of plant-based beverages is voluntary in Canada.[1]

Since plant-based beverages (other than soy) are generally low in protein, children 2 years of age and older who are drinking a plant-based beverage as their main milk source should be offered a variety of lean meats, poultry, fish, beans and lentils, eggs, tofu and nuts to ensure adequate intake of protein.

Are there any resources on plant-based beverages for healthy infants and children that I can use with my clients?

For infant nutrition resources visit Nutrition Education Materials at http://www.albertahealthservices.ca/nutrition/Page11115.aspx and click on **Infants**.

For more information related to healthy infants and children see Healthy Parents Healthy Children.

Definitions

Follow-up formula: Follow-up or second-stage formulas are intended for infants 6 months of age and older who are consuming solid foods.[4]

Fortified: Fortification refers to "the addition of one or more vitamins or minerals to a food product".[36]

Galactosemia: "a rare genetic condition of carbohydrate metabolism in which a blocked or inactive enzyme does not allow breakdown of galactose. It can cause serious illness if not identified and treated soon after birth".[36]

Isoflavone: a non-steroidal chemical that is structurally similar to estrogen.[37]

Kwashiorkor: "a severe form of protein-energy malnutrition in young children. It is characterized by swelling, fatty liver, susceptibility to infection, profound apathy, and poor appetite. The cause of kwashiorkor is unclear".[36]

Manganese: a trace mineral involved in the formation of bone and in amino acid, lipid and carbohydrate metabolism.[8]

Marasmus: a severe form of protein-energy malnutrition involving chronic wasting of fat, muscle and other tissues.[38]

Phytoestrogen: a non-steroidal chemical that is structurally similar to estrogen.[37]

Plant-based beverage: a beverage derived from legumes, nuts, seeds, grains, or potatoes.[1]

Soy formula: an infant formula that is soy-based. Soy formula is designed to meet the known nutritional requirements of the healthy term infant. Food and Drug Regulations set the nutritional composition and labelling of commercial infant formula sold in Canada.[2]

References

[1] Health Canada. Government notices – Department of Health, Food and Drugs Act. Interim marketing authorization, Appendix F – interim marketing authorization for amendments to plant-based beverages [document on the Internet]. 1997 Nov 20 [website modified 2005 Jul 26; cited 2013 Nov. 15]. Available from: http://hc-sc.gc.ca/fn-an/legislation/ima-amp/plant_based_beverages-boissons_vegetales-eng.php.

[2] Health Canada, Canadian Paediatric Society, Dietitians of Canada, Breastfeeding Committee for Canada. Nutrition for healthy term infants: recommendations from birth to six months [document on the Internet]. 2012 [updated 2012 Oct 31; cited 2013 Feb 14]. Available from: http://www.hc-sc.gc.ca/fn-an/nutrition/infant-nourisson/recom/index-eng.php.

[3] World Health Organization. The optimal duration of exclusive breastfeeding - Report of an expert consultation, Geneva, Switzerland [document on the Internet]. 2001 Mar [cited 2013 Aug 20]. Available from: http://www.who.int/nutrition/publications/optimal_duration_of_exc_bfeeding_report_eng.pdf.

[4] Canadian Paediatric Society, Dietitians of Canada, Health Canada. Extracts from nutrition for healthy term infants, statement of the joint working group, 2005 [document on the Internet]. 2012 Sept 14 [cited 2013 Feb 04]. Available from: http://www.hc-sc.gc.ca/fn-an/nutrition/infant-nourisson/inf-nutrition-nour-eng.php.

[5] Health Canada. Canadian nutrient file, version 2010 [database on the Internet]. 2012 Apr 26 [cited 2013 Aug 15]. Available from: http://hc-sc.gc.ca/fn-an/nutrition/fiche-nutri-data/index-eng.php.

[6] Abbott Nutrition Canada. Pediatric nutritional products guide. 2012 Apr.

[7] Mead Johnson Nutrition. Health care professionals product handbook. 2012 Jul.

[8] Institute of Medicine. Food and Nutrition Board. Dietary reference intakes for vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc. Washington, DC: The National Academies Press; 2001.

[9] Lönnerdal B. Nutritional and physiologic significance of human milk proteins. Am J Clin Nutr. 2003 June;77(6):1537S-43S.

[10] Institute of Medicine. Food and Nutrition Board. Dietary reference intakes for energy, carbohydrate, fiber, fat, fatty acids, cholesterol, protein and amino acids (macronutrients). Washington, DC: The National Academies Press; 2005.

[11] Health Canada. Dietary reference intakes tables [document on the Internet]. Updated 2010 Nov [cited 2013 April 11]. Available from: http://hc-sc.gc.ca/fn-an/nutrition/reference/table/index-eng.php#rvv.

[12] World Health Organization. Infant and young child feeding. Model chapter for textbooks for medical students and allied health professionals [publication on the Internet]. 2009 [cited 2013 Aug 23]. Available from: http://www.who.int/nutrition/publications/infantfeeding/9789241597494/en/index.html.

[13] Tierney EP, Sage RJ, Shwayder T. Kwashiorkor from a severe dietary restriction in an 8-month infant in suburban Detroit, Michigan: case report and review of the literature. Int J Dermatol. 2010 May;49(5):500-6.

[14] Katz KA, Mahlberg MJ, Honig PJ, Yan AC. Rice nightmare: Kwashiorkor in 2 Philadelphia-area infants fed Rice Dream beverage. J Am Acad Dermatol. 2005 May;52(5 Suppl):S69-72.

[15] Carvalho NF, Kenney RD, Carrington PH, Hall DE. Severe nutritional deficiencies in toddlers resulting from health food milk alternatives. Pediatrics. [serial on the Internet]. 2001 Apr [cited 2013 Oct 21];107(4):E46. Available from: http://pediatrics.aappublications.org/content/107/4/e46.long.

[16] Dietitians of Canada. What are recommendations for the use of plant-based beverages (e.g. soy, rice, almond milk/beverage) during the complementary feeding period in infants? In: Practice-based evidence in nutrition

[knowledge pathway online]. 2013 Jan 2 [cited 2013 Oct 18]. Available from: http://www.pennutrition.com. Access only by subscription.

[17] Alberta Health. Alberta nutrition guidelines for children and youth: a childcare, school and recreation/community centre resource manual [document on the Internet]. 2012 Sept [cited 2016 Mar 14]. Available from: http://www.healthyalberta.com/NutritionGuidelines-Sept2012.pdf.

[18] Government of Canada. Guide to food labelling and advertising. Chapter 7: Nutrient content claims. 7.25.4 Claims on foods for adults and children two years of age or over [document on the Internet]. [modified 2011 Jan 4; cited 2013 July 2]. Available from: http://www.inspection.gc.ca/english/fssa/labeti/guide/ch7-1e.shtml.

[19] Lönnerdal B. Manganese nutrition of infants. In: Klimis-Tavantzis DJ, editor. Manganese in health and disease. Boca Raton: CRC Press; 1994. p. 175– 91.

[20] Cockell KA, Bonacci G, Belonje B. Manganese content of soy or rice beverages is high in comparison to infant formulas. JACN. 2004;23(2):124-30.

[21] World Health Organization. Manganese in drinking water: background document for development of WHO guidelines for drinking water quality [document on the Internet]. 2011 [cited 2014 Feb 07]. Available from: http://www.who.int/water_sanitation_health/dwq/chemicals/manganese.pdf.

[22] Health Canada. Manganese (Technical Paper). May 1979 [updated Nov 1987; cited 2013 Dec 23]. Available from: http://hc-sc.gc.ca/ewh-semt/pubs/water-eau/manganese/index-eng.php.

[23] US Environmental Protection Agency (EPA): Office of Water Health and Ecological Criteria Division. Drinking water health advisory for manganese [document on the Internet]. 2004 Jan [cited 2014 Jan 31]. Available from: www.epa.gov/safewater/ .

[24] Wasserman GA, Liu X, Parvez F, Ahsan H, Levy D, Factor-Litvak P et al. Water manganese exposure and children's intellectual function in Araihazar, Bangladesh. Environ Health Perspect. 2006;114(1):124-29

[25] Institute of Medicine. Dietary reference intakes: the essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006. p. 6, 8.

[26] Ljung K, Vahter M. Time to re-evaluate the guideline value for manganese in drinking water? Environ Health Perspect. 2007;115(11):1533-8.

[27] Linus Pauling Institute: Micronutrient research for optimum health. Micronutrient information centre: manganese [document on the Internet]. 2001 Aug [updated 2010 Mar;cited 2013 Oct 21]. Available from: http://lpi.oregonstate.edu/infocenter/minerals/manganese/.

[28] Bouchard M, Laforest F, Vandelac L, Bellinger D, Mergler D. Hair manganese and hyperactive behaviors: pilot study of school-age children exposed through tap water. Environ Health Perspect. 2007;115(1):122-27.

[29] Wright RO, Amarasiriwardena C, Woolf AD, Jim R, Bellinger DC. Neuropsychological correlates of hair arsenic, manganese, and cadmium levels in school-age children residing near a hazardous waste site. Neurotoxicology. 2006;27(2):210-16.

[30] Canadian Paediatric Society Nutrition and Gastroenterology Committee. Concerns for the use of soy-based formulas in infant nutrition. Paediatr Child Health. [serial on the Internet]. 2009 [reaffirmed 2013 Jan 30; cited 2014 Jan 31];14(3):109-13. Available from: http://www.cps.ca/en/documents/position/use-soy-based-formulas.

[31] Bhatia J, Greer F, and the Committee on Nutrition. American Academy of Pediatrics. Use of soy protein-based infant formulas in infant feeding. Pediatr. 2008;121(5):1062-8.

[32] Government of Canada. Food and Drug Regulations Division 25. Infant foods and infant formula [document on the Internet]. 2010 Apr 9 [cited 2014 Jan 31]. Available from: http://www.inspection.gc.ca/english/fssa/labeti/babbebe.shtml.

[33] Tuohy PG. Soy infant formula and phytoestrogens. J Pediatr Child Health. 2003;39:401-5.

[34] Health Canada. Eating well with Canada's food guide [document on the Internet]. Ottawa, Ontario: Health Canada; 2007 [cited 2014 Jan 31]. Pub 4651. Available from: http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php.

[35] Health Canada. Eating well with Canada's food guide: a resource for educators and communicators [document on the Internet]. Ottawa, Ontario: Health Canada; 2011 [cited 2014 Jan 31]. Pub 4667. Available from: http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/resource-ressource-eng.php.

[36] Brown JE. Nutrition through the lifecycle. 4th ed. Belmont (CA): Wadsworth, Cengage Learning; 2011.

[37] Tuohy PG. Soy infant formula and phytoestrogens. J Pediatr Child Health. 2003;39:401-5.

[38] World Health Organization. Water-related diseases: Malnutrition. [document on the Internet]. World Health Organization; 2001 [cited 2014 Jan 29]. Available from: http://www.who.int/water_sanitation_health/diseases/malnutrition/en/.