

Nutrition Guideline

Food and Drinks High in Calories, Fat, Sugar or Salt

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

Recommendations

Children and adults should limit their intake of foods and drinks that do not fit into any of the Canada's Food Guide groups, as these foods are typically high in calories, fat, sugar and salt.

Limit these foods by:

- Eating and drinking less pop, sugar-sweetened drinks, energy drinks and alcohol.
- Eating less candy, chocolate, cakes, cookies and other sweet baked goods, granola bars, potato chips and high sugar, high salt, high fat snack foods.
- Eating less white or brown sugar, honey, jam, syrup.
- Limiting juice to 100% juice, not more than ½ cup (125 mL) a day.
- Limiting foods high in sugar, salt or unhealthy fat to one to two per week.

Health Benefits

A diet with limited intake of foods high in calories, fat, sugar and salt helps to:

- Maintain weight and prevent extra weight gain.¹
- Decrease risk for dental carries. Sugar is a well-established risk factor for dental carries.²
- Meet nutritional requirements. High sugar foods (candy, pop, baked goods and high sugar cereals), may displace more nutritious foods in the diet and thereby contribute to nutritional deficiencies.
- Decrease risk of high blood pressure and heart disease.^{3,4}

Key Questions

Can foods high in calories, fat, sugar, or salt fit into a healthy diet?

The *Alberta Nutrition Guidelines*^{5,6} provide guidance about foods high in calories, fat, sugar, or salt. The *Guidelines for Children and Youth* recommend providing no more than one serving of about 100 calories once a week. The *Guidelines for Adults* recommend limiting these foods (Choose Least Often foods) to about once a week. In general, the guidelines recommend limiting the availability of foods high in calories, fat, sugar, or salt, and eating small servings.

Why should we limit foods high in fat, sugar and salt?

Foods and drinks high in calories, fat, sugar and salt can negatively affect health when they make up a large proportion of what an individual eats. These food and drinks do not contain all of the important nutrients found in foods from Canada's Food Guide, and excess calories from these foods could contribute to weight gain.

Foods high in sugar, salt or unhealthy fat should be limited to one to two per week.⁶

Refer to Guideline: General Healthy Eating for Children and Adults; Heart Healthy, Sodium

Nutrition Guideline

Food and Drinks High in Calories, Fat, Sugar or Salt

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

What is a healthy amount of fat in an individual's diet?⁷

Canada's Food Guide recommends including a small amount - 30 to 45 mL (2 to 3 tablespoons) - of unsaturated fat each day.¹ This includes vegetable oils used for cooking such as canola, soybean and olive oil, salad dressings, non-hydrogenated margarines and mayonnaise.

Individuals should limit their intake of saturated fats, and limit or avoid intake of trans fat by:

- Limiting butter, hard margarine, lard and shortening.
- Eating meat alternatives such as beans, lentils and tofu often
- Choosing lean meats prepared with little or no fat
- Trimming the visible fat from meats and removing the skin from poultry
- Choosing lower fat milk alternatives

To limit total fat intake, individuals can:

- Read the Nutrition Facts label on food packages, and use this information to choose foods low in total fat, saturated and trans fat.
- Use cooking methods such as roasting, baking, or poaching that require little or no added fat.
- Order lower fat foods when eating out.
- Limit fried foods and high-fat bakery items.

Refer to Guidelines: Heart Healthy; Eating Out; Label Reading

What is a healthy amount of salt in an individual's diet?

Limiting sodium (salt) intake is recommended for all individuals for prevention of hypertension, cardiovascular disease, stroke and kidney disease. Evidence also exists that a diet high in sodium is a risk factor for osteoporosis, stomach cancer and asthma.³

The recommended upper limit for sodium intake is 2300 mg a day for adults and adolescents.^{3,8} Due to the high-sodium food supply and the current high levels of sodium intake, a reduction in sodium intake to 1500 mg per day is not easily achievable at present. In the interim, a daily intake of less than 2300 mg sodium is recommended for most adults.^{3,8} The closer an individual can get to a daily intake of 1500 mg the better.⁸ Lower intakes are recommended for adolescents and children as shown in the table above.⁸

Most Canadians' intake of sodium greatly exceeds the recommended upper limit.³ Most Canadians eat about 3,400 mg of sodium per day.³ The majority of the sodium (about 77%) we eat comes from processed/packaged foods or restaurant foods. Other sources include adding salt during cooking and at the table as well as salt occurring naturally in foods.³

Individuals can reduce salt intake by:

- Cutting down on adding salt at the table and in cooking.
- Reducing the amount of salt and sodium containing condiments (i.e. garlic salt, seasoning salt, soy sauce, ketchup, mustard, gravies, pickles, sauerkraut).

Nutrition Guideline

Food and Drinks High in Calories, Fat, Sugar or Salt

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

- Limiting intake of processed and packaged foods (i.e. canned or packaged soups, luncheon meats,)
- Reading the Nutrition Facts table on food labels. Foods with a % Daily Value higher than 15% are high in sodium. Choose these foods less often.
- Comparing brands of food and choosing those with the lower % Daily Value and smaller amounts of sodium listed on the Nutrition Facts table.
- Avoiding salty snacks foods such as potato chips and pretzels.
- Limiting fast foods and food prepared in restaurants.
- Eating more fresh foods, especially vegetables and fruit.
- Shopping for and using low sodium products.
- Eating smaller portion sizes of food that contain salt.

Refer to guideline: Sodium

What is the difference between natural and added sugar?

Canada's Guide to Food Labelling and Advertising indicates that the term *sugars* means all monosaccharides and disaccharides.⁹ Sugar intake includes sugar that occurs naturally in food (naturally occurring sugar) and sugar that is added during food processing (added sugar).¹⁰

Naturally occurring sugars are in some food and beverages found on Canada's Food Guide. For example, lactose is a natural sugar in milk, and fructose is a natural sugar in fruit.⁹ These drinks and foods contain natural sugar and are also full of nutrients. They are recommended as part of healthy eating and contribute to good health.

Added sugars are defined as all sugars and syrups that are added to foods during processing and preparation.⁹ Foods and beverages that are major sources of added sugars include regular (non-diet) soft drinks, fruit drinks, sweets, candies and chocolates, cakes, cookies and other baked items, fruit beverages, and sweetened breakfast cereals.

Sources of added sugar include:

- Table sugar (sucrose) comes from raw sugar cane or the beet sugar plant. Sucrose is produced naturally in plants.¹¹ Other sugars that are very similar to table sugar: brown sugar, cane juice extract, evaporated cane juice, demerara or turbinado sugar.⁹
- High-fructose corn syrup is chemically similar to sugar (sucrose) and tastes just as sweet. Some people have raised concerns about high-fructose corn syrup. However, there no clear evidence that high-fructose corn syrup is less healthy than other types of added sugars.¹²
- Glucose is a simple sugar that is found in table sugar (sucrose)
- Dextrose is a simple sugar found in honey.
- Fructose is a sugar that is naturally found in fruit.
- Molasses is a by-product of processing sugar cane or beet sugar plants.
- Honey is a type of added sugar that is made from bees using the nectar from flowers.
- Syrup – there are a variety of syrups used in food or beverage drink production.

Nutrition Guideline

Food and Drinks High in Calories, Fat, Sugar or Salt

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

- Other words in ingredient lists on food labels that mean sugars: corn syrup, galactose, glucose-fructose, invert sugar, lactose, liquid sugar, maltose, treacle.⁹
- Words that end in “ose” are usually sugars.

Both added sugars and naturally occurring sugars have the same amount of calories. When consumed in large amounts both can lead to weight gain and other health problems. Foods containing added sugars usually offer little or no vitamins and minerals. Very high amounts of added sugars are associated with lower vitamin and mineral intakes^{13,14} and are therefore more likely to have a negative impact on health.

Refer to Guideline: General Healthy Eating for Children and Adults

What is an acceptable amount of added sugar in an individual's diet?

The World Health Organization advises that people should have no more than 10% of their caloric intake from added sugar to reduce the risk of chronic disease such as cardiovascular disease, obesity and diabetes.^{15,16} According to the Dietary Reference Intakes (DRI), individuals who consume higher amounts of sugar are more likely to have decreased intake of vitamins and minerals and other important nutrients.¹⁷

Approximate Recommended Maximum Intake of Added Sugar

Age	Approximate daily amount in teaspoons
Children (4 - 8 years)	8
Youth (9 – 13 years)	10.5
Teenagers (14 – 18 years)	13
Female adults (19 – 50 years)	11.5
Male adults (19 – 50 years)	15

Calculations based on energy intakes from Eating Well with Canada's Food Guide,¹⁸ with the maximum added sugar being 10% of total calories,^{14,15} and value of 4 grams sugar per teaspoon.¹⁹

Tips for using added sugar in moderation include:

- Limiting added sugar in coffee, coffee-based drinks, and tea
- Limiting sugar-sweetened beverages like pop, fruit drinks, fruit-ades, fruit punches, iced tea, energy drinks, flavoured waters
- Limiting high sugar desserts, baked goods like muffins and donuts, granola bars, cakes, cookies, candy, cereals, jam, syrup and honey
- Choose foods with little or no added sugar

Refer to Guideline: General Healthy Eating for Children and Adults

Nutrition Guideline

Food and Drinks High in Calories, Fat, Sugar or Salt

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

Are sugar substitutes all right for children to eat?

The Alberta Nutrition Guidelines for Children and Youth recommend that children and youth avoid sugar substitutes.⁵ Alberta Health Services is mandated to follow Alberta Health and Wellness' Alberta Nutrition Guidelines for Children and Youth (includes preschool to high school). In therapeutic counselling dietitians should individualize their messages about the use of sweeteners for each client according to their assessment and nutrition care plan.

How can foods be prepared with less fat and sugar?

Fat and sugar can be naturally present in foods, or may have been added during preparation. Favorite recipes can be made healthier by adding little or no fat and sugar to them.

Cooking with less fat

- Choose lean cuts of meat and remove any visible fat. Remove the skin from chicken and turkey.
- Use low fat cooking methods that do not need fat to be added and/or help extra fat drip off such as:
 - baking
 - steaming
 - grilling
 - boiling or poaching
 - microwaving
 - roasting on a grill so fat can drip off
 - slow cooking in a crock pot
 - sautéing or stir-frying with broth or juice instead of oil
- **Drain fat left over from cooking.** Drain browned ground beef in a strainer and rinse with hot water.
- Chill gravy, stews, or soup until the fat hardens on top. Remove the fat layer and throw it in the garbage.
- Use strong flavoured cheeses such as old cheddar or parmesan in a recipe and cut the amount in half.
- Chill gravy, stews or soup until the fat hardens, then remove the fat layer.
- Replace some of the meat in recipes with extra vegetables or legumes like pinto, navy or kidney beans or lentils. Replace ground beef in a recipe with vegetarian ground "meat", or ground chicken, or turkey.
- Make cream sauces or soups less often. Use low fat evaporated milk instead of cream.
- Make marinades with little or no oil.
- Try flavouring foods with spices, herbs, lemon or vinegar, wine, or sherry instead of using high fat **sauces** such as Alfredo or butter chicken sauce.

Cooking with less sugar

- Use less sugar when making sauces.
- Use less ready-made high sugar sauces such as sweet and sour or honey garlic sauce.
- Try flavouring foods with spices, herbs, lemon or vinegar, wine, or sherry instead of sauce.
- Marinate meats instead of serving in sauces made with sugar
- When cooking for adults, try using Splenda[®] instead of sugar in recipes.

Nutrition Guideline

Food and Drinks High in Calories, Fat, Sugar or Salt

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

Baking with less fat

Muffins, quick breads and cakes:

- Whole milk or cream can be replaced with buttermilk, plain yogurt, skim milk, soy milk or fat free or low fat sour cream.
- Some or all of the fat in a recipe can be replaced with an equal amount of pureed fruit such as prunes, peaches, pears, bananas, or applesauce.
- Powdered icing sugar can be sprinkled on cakes instead of using icing.

Cookies:

- Cookies need some fat so they can spread out during baking. A little fat is also needed so they stay chewy or crispy and do not break apart.
- Half the fat can be replaced by the same amount of applesauce.

Pies:

- It is difficult to replace the shortening in a pastry crust however the suggestions below aid in reducing the fat of a recipe: as does.
 - Use only bottom crust and no top crust.
 - Make fruit crisps instead of pie.
 - Make a crumb crust of graham, vanilla or chocolate wafers or gingersnap crumbs instead of pastry.

Baking with less sugar

- Choose recipes that have less sugar.
- Try cutting down on the sugar, syrup, or molasses in your recipes. For example, instead of 1 cup (250 mL) of these, use $\frac{2}{3}$ or $\frac{3}{4}$ cup (150 or 175 mL).
- Fruit puree used to lower the fat in a recipe will also help to sweeten your baked good.
- Fresh berries or dried fruits (cherries, raisins, apricots) can add sweetness to a recipe when you have decreased the amount of sugar.
- Reduce sugar by half in muffin, loaf, or cookie recipes. Some or all of the sugar you leave out can be replaced with an sugar substitute
- Sugar substitutes that withstand the heat of baking or cooking include sucralose (Splenda®) and cyclamates (Sugar Twin®, Sweet 'n' Low®).
- Aspartame can be used if temperature is less than 400°F for less than 50 minutes.
- Sugar substitutes should be added to the liquid ingredients for even distribution.
- All the sugar in pies, cheesecake, fruit crisps and puddings can be replaced with a sugar substitute.

What is a healthy drink?

The body needs water and other fluids to help digest food, cool the body and move nutrients and wastes through the body. Fluid needs depend on age, gender, body size, and activity level.²⁰

Beverages sweetened with sugar such as iced tea, pop and fruit drinks can contribute significantly to daily caloric intake and weight gain.¹⁴ For example, that 1 can of pop contains 10 teaspoons of sugar.

Nutrition Guideline

Food and Drinks High in Calories, Fat, Sugar or Salt

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

Water and low fat milk are the healthiest drink choices. **Water** is a calorie-free way to satisfy thirst. Other healthy choices are fortified soy beverages, and 100% fruit juices (limit juices to ½ cup [125 mL] daily).⁵

Low fat milk provides calcium and vitamin D for healthy bones and to prevent disease. Unflavoured fortified soy beverages are good choices for people who are allergic to milk, lactose intolerant, or for people who do not drink milk.

- Choose skim or 1% milk. Drink 2 cups (500 mL) a day.
- Flavoured low fat milks are higher in sugar and calories than plain milk. Drink them only once in a while.

The body does not feel as full after consuming calories as a beverage compared to consuming calories from solid foods. Drinking pop or juice does not generally mean that less food will be eaten at the next meal or later in the day.^{21,22}

Refer to Guidelines: General Healthy Eating for Children and Adults; Children and Adolescents

What about fruit and vegetable juice?

Any drink labeled as 'fruit juice' is 100% juice. Products called "drink", "beverage", "punch", "-ade", or "cocktail" have little or no fruit juice in them. They are made of mostly sugar, flavouring and water.

100% fruit juice contains vitamins and minerals but also has about the same amount of sugar and calories as regular pop. 100% vegetable juice is lower in sugar and calories but contains sodium (salt). For these reasons, **limit juice to no more than ½ cup (125 mL) per day**.^{5,6}

- Choose whole fruits and vegetables instead of juice. They contain fibre and increase satiety.⁷
- If choosing 100% juice, look for 100% juice with no added sugar and low-sodium vegetable juices (100 mg sodium or less per serving).^{5,6}

Refer to Guideline: Vegetable and Fruit Intake

What about soft drinks?

Soft drinks (pop), punches, drinks, cocktails, iced tea, sweetened coffee drinks, and slushes be limited or avoided completely, as these drinks contain little or no nutritional value. One to two high sugar drinks can easily make up a large portion of a person's daily caloric intake.

Diet pop contains no sugar and no calories, but also does not contain any nutrients. If calorie reduction is the goal, then diet pop is a better choice than regular pop. Diet pop can be enjoyed occasionally by adults, but make sure it does not replace healthy food in the diet, and intake of sugar substitutes does not exceed recommended amounts. The Alberta Nutrition Guidelines for Children and Youth recommend that children and youth avoid diet beverages made with sugar substitutes.⁵

Refer to Guideline: Children and Adolescents; General Healthy Eating for Children and Adults

Nutrition Guideline

Food and Drinks High in Calories, Fat, Sugar or Salt

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

What about sports drinks?

Sport drinks like Gatorade® and Powerade® are high in sugar and contain added sodium and potassium. For most people, water is still an excellent first choice during and after exercise. Sports drinks are intended for individuals who participate in intense activity for longer durations.^{23,24}

Refer to Guideline: General Healthy Eating for Children and Adults; Children and Adolescents

Are energy drinks safe to drink?

Energy drinks are marketed as providing mental and physical stimulation to the consumer. They are generally high in calories and sugar. For example, a 1 cup (250 mL) can of Red Bull™ contains 110 kcal and 7 teaspoons of sugar. Energy drinks often also contain high levels of caffeine (50-200 mg per can), which exceed the maximum caffeine recommendations for most children and teens.²⁵

Health Canada makes the following recommendations with regard to energy drinks:

- Children and teens, pregnant and breastfeeding women, and individuals sensitive to caffeine should avoid energy drinks.^{24,26}
- Energy drinks should not be mixed with alcohol.²⁴
- Energy drinks should not be confused with sports drinks and should not be used for fluid replacement. During physical activity, water should be consumed for rehydration.²⁴

What about mineral and specialty waters?

Mineral waters naturally contain minerals such as calcium, but amounts vary. These waters are calorie-free and can be an alternative to plain water. Some specialty waters have added vitamins and minerals, but the amounts added vary and the cost of these drinks is high. Specialty waters can be flavoured and may contain calories depending on the type of sweetener used. Read the label and be aware of what has been added. Choose calorie-free brands if trying to lose weight.

What about drinks containing caffeine?

Caffeine is found in coffee and coffee-based drinks, colas, tea and energy drinks.

- Adults should limit caffeine to no more than 400 mg per day.²⁷ This equals about 3 cups (250 mL each) of coffee, as the caffeine content of different coffees can vary depending on type of coffee and how it is prepared.
- Women of childbearing age should limit caffeine to no more than 300 mg per day.²⁶ This is equal to 2 cups (500 mL) of coffee.

Switching to non-caffeinated drinks may be advised if jittery feelings or trouble sleeping is experienced or when taking medications.

Nutrition Guideline

Food and Drinks High in Calories, Fat, Sugar or Salt

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

Coffee-based drinks with fat and/or sugar added are high in calories. Use the tips below to make lower calorie choices.

- Choose black coffee or herbal tea with sugar substitute.
- Choose 1% milk in coffee/tea.
- Use flavoured coffee beans instead of flavoured creamers.

The use of caffeinated beverages by children and adolescents should be avoided.⁵

Refer to Guideline: General Healthy Eating for Children and Adults

What about alcohol?

Alcohol is high in calories. Using mixes such as juice or regular pop adds sugar and more calories to alcohol.

Drinking too much of any type of alcohol can:

- Cause weight gain.
- Raise blood fats, especially triglycerides.
- Interfere with medications you take.

Alcohol should be limited as follows:^{28,29}

- Women: limit consumption to 1 drink per day and no more than 9 drinks per week.
- Men: limit consumption to 2 drinks per day and no more than 14 drinks per week.

One drink is:^{27,28}

- 12 ounces (355 mL) of beer.
- 5 ounce (150 mL) glass of wine.
- 1 ½ ounces (45 mL) of liquor.

If individual choose to drink, sip slowly to make drinks last longer. Use water, club soda or diet pop as a mix to make drinks lower in calories.

Are there any handouts on food and drinks high in calories, fat, sugar and salt I can use with my clients?

Refer to approved provincial Alberta Health Services nutrition handouts to support patient education. For more information, contact Nutrition.Resources@albertahealthservices.ca

Nutrition Guideline Food and Drinks High in Calories, Fat, Sugar or Salt

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

References

1. Health Canada. Eating Well with Canada's Food Guide [document on the internet]. 2007. [Cited: 2012 Nov 14] Available from: http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index_e.html
2. The Canadian Dental Association [homepage on the internet]. Nutrition [about 2 screens]. 2005 [Cited: 2012 Nov]. Available from: http://www.cda-adc.ca/en/oral_health/cfyt/dental_care/nutrition.asp
3. Sodium Working Group. Sodium Reduction Strategy for Canada. Recommendations of the Sodium Working Group [document on the internet]. Ottawa: Minister of Health. 2010 [cited 2012 Nov 14]. Available from: www.healthcanada.gc.ca/sodium
4. Lichtenstein AH, Appel LJ, Brands M, Daniels S, Franklin B, Harris WS et al et al. Diet and lifestyle recommendations revision 2006. A scientific statement from the American Heart Association Nutrition Committee. *Circulation*. 2006;114:82-96
5. Government of Alberta. Alberta nutrition guidelines for children and youth [document on the internet]. 2011 [cited 2012 Nov 15]. Available from: <http://www.health.alberta.ca/documents/Nutrition-Guidelines-Children-AB-2011.pdf>
6. Government of Alberta. Alberta Nutrition Guidelines for Adults [document on the internet]. 2012 [cited 2012 Nov 15]. Available from: URL: <http://www.health.alberta.ca/documents/Nutrition-Guidelines-Adults-AB-2012.pdf>
7. Health Canada. Eating Well with Canada's Food Guide: A Resource for Educators and Communicators [document on the Internet]. 2007 [cited 2012 Nov 15]. Available from: http://www.hc-sc.gc.ca/fn-an/alt_formats/hpfb-dgpsa/pdf/pubs/res-educat-eng.pdf.
8. Standing Committee on Scientific Evaluation for Dietary Reference Intakes. Food and Nutrition Board. Institute of Medicine. Dietary reference intakes for water, potassium, sodium, chloride and sulfate. Washington (DC): National Academies Press; [document on the internet]. 2004 [cited 2012 Nov 15]. Available from: http://books.nap.edu/openbook.php?record_id=10925&page=R1
9. Canadian Food Inspection Agency. 2003 Guide to food labelling and advertising [document on internet]. 2003 [cited 2012 Aug 28]; Available from: <http://www.inspection.gc.ca/english/fssa/labeti/guide/toce.shtml>
10. Canadian Sugar Institute [document on the internet]. Carbohydrate News—Dietary reference intakes for sugars [about 7 screens]. 2004 [cited 2012 Nov 15]. Available from: <http://www.sugar.ca/english/healthprofessionals/carboIssue9.cfm>.
11. Canadian Sugar Institute [document on the internet]. Sugar from field to table [about 5 screens]. no date [cited 2012 Nov 15]. Available from: <http://www.sugar.ca/english/consumers/sugarfromfield.cfm>
12. Nelson J. What is high-fructose corn syrup? What are the health concerns? [document on the internet]. Mayo Clinic. 2012 Sep 27 [cited 2012 Nov 14]. Available from: <http://www.mayoclinic.com/health/high-fructose-corn-syrup/AN01588>
13. Institute of Medicine. Dietary reference intakes: energy, carbohydrate, fiber, fat, fatty acids, cholesterol, protein and amino acids. Chapter 6: Dietary Carbohydrates: sugars and starches [document on the internet]. Washington, DC: National Academies Press. 2002 [cited 2012 Nov 15]; 265-338. Available from: http://www.nap.edu/openbook.php?record_id=10490&page=265
14. Kranz, S. Adverse effect of high added sugar consumption on dietary intake in American preschoolers. *J Pediatrics*. 2005;146(1):105-11.

Nutrition Guideline

Food and Drinks High in Calories, Fat, Sugar or Salt

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

15. World Health Organization, Food and Agriculture Organization of the United Nations. World Health Organization Technical Report Series 916. Diet, nutrition and the prevention of chronic diseases [document on the internet] 2003. [cited 2012 Nov 15]. Available from: http://whqlibdoc.who.int/trs/WHO_TRS_916.pdf
16. World Health Organization. WHO/FAO release independent expert report on diet and chronic disease [document on the internet] 2003 [cited 2012 Nov 15]. Available from: <http://www.who.int/mediacentre/news/releases/2003/pr20/en/>
17. Institute of Medicine. Dietary reference intakes: energy, carbohydrate, fiber, fat, fatty acids, cholesterol, protein and amino acids. Chapter 6: Dietary Carbohydrates: sugars and starches [document on the internet]. Washington, DC: National Academies Press. 2002 [cited 2012 Nov 15]; 265-338. Available from: http://www.nap.edu/openbook.php?record_id=10490&page=265
18. Katamay S, Esslinger K, Vigneault M, Johnston J, Junkins B, Robbins L, et al. Eating well with Canada's Food Guide (2007): Development of the food intake pattern. Nutrition Reviews [serial on the internet]. Special Article. 2007 [cited 2012 Nov 15]; 65(4): 155-66. Available from: http://www.hc-sc.gc.ca/fn-an/alt_formats/hpfb-dgpsa/pdf/pubs/fd_int_pat-ela_mod_alim-eng.pdf
19. Health Canada. Sweets, sugars, granulated. Food code: 4318. In: Canadian Nutrient File 2010 [database on internet]. 2010 [cited 2012 Nov 15]. Available from: <http://webprod3.hc-sc.gc.ca/cnf-fce/start-debuter.do?lang=eng>.
20. Committee on Scientific Evaluation for Dietary Reference Intakes. Food and Nutrition Board. Institute of Medicine. Dietary reference intakes for water, potassium, sodium, chloride and sulfate [document on the internet]. Washington (DC): National Academies Press. 2004 [cited 2012 Nov 15]; Available from: http://books.nap.edu/openbook.php?record_id=10925&page=R1
21. Malik VS, Schulze MB, Hu FB. Intake of sugar-sweetened beverages and weight gain: a systematic review. Am J Clin Nutr. 2006;84:274-88
22. Drewnowski A, Bellisle F. Liquid calories, sugar, and body weight. Am J Clin Nutr 2007;85:651-61
23. Dietitians of Canada, American College of Sports Medicine, American Dietetic Association. Joint position paper: Nutrition and athletic performance. J Am Diet Assoc. 2008;109(3):1-26.
24. Dietitians of Canada. Sports Hydration. In: Practice-based Evidence in Nutrition [PEN]. 2012 July 27 [cited 2012 Nov 15]. Available from: <http://www.pennutrition.com/KnowledgePathway.aspx?kpid=8180&trid=12387&trcatid=467> Access only by subscription
25. Health Canada. Information for Parents on Caffeine in Energy Drinks [Internet]. 2011 October [cited 2012 Nov 15]. Available from: http://www.hc-sc.gc.ca/ahc-asc/media/nr-cp/_2011/2011-132bk-eng.php
26. Health Canada. Healthy Canadians: Caffeinated beverages and energy drinks [Internet]. 2011 [updated 2011 Jul 26; cited 2012 Nov 15]. Available from: <http://www.healthycanadians.gc.ca/kids-enfants/food-aliment/drinks-boissons-eng.php>
27. Health Canada [homepage on internet]. It's your health: Caffeine [about 5 screens]. 2011 [updated 2010 March; cited 2012 Nov 16]. Available from: <http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/food-aliment/caffeine-eng.php>
28. American Heart Association Nutrition Committee, Lichtenstein AH, Appel LJ, Brands M, Daniels S, Franklin B et al. Diet and lifestyle recommendations revision 2006. A scientific statement from the American Heart Association Nutrition Committee. Circulation. 2006;114(1):82-96.

Nutrition Guideline

Food and Drinks High in Calories, Fat, Sugar or Salt

For Professional Reference Only

Applicable to: Nurses, Physicians and Other Health Professionals

29. Canadian Diabetes Association Clinical Practice Guidelines Expert Committee. Nutrition therapy. In: Canadian Diabetes Association 2008 clinical practice guidelines for the prevention and management of diabetes in Canada. Can J Diabetes. 2008; 32(1):S40-5.