

Teaching Nutrition in Saskatchewan Concepts and Resources Grades 4 and 5

*Developed by:
Public Health Nutritionists of Saskatchewan*

The purpose of *Teaching Nutrition in Saskatchewan: Concepts and Resources* is to provide credible Canadian based nutrition information and resources. The Guide was developed using the Saskatchewan Health Education Curriculum (2010) accessed from <http://www.curriculum.gov.sk.ca/>

Within the Curriculum, Comprehensive School Community Health (CSCH) is highlighted as an integral part of a health education program. This is also noted in the Saskatchewan Ministry of Education guidance document, *Nourishing Minds: Towards Comprehensive School Community Health: Nutrition Policy Development in Saskatchewan Schools* (<http://www.education.gov.sk.ca/nutrition>).

One of the four integrated components of CSCH is high quality teaching and learning. *Teaching Nutrition in Saskatchewan* supports the health education curriculum by assisting educators in identifying accurate and high quality nutrition information related to the health education outcomes for each grade.

The **Nutrition Concepts and Resources** section, found on pages 2-8 in this resource, identifies nutrition concepts and resources relating to grade-specific provincial health education curriculum outcomes. These lists only refer to the curriculum outcomes that have an obvious logical association to nutrition. They are only suggestions and not exclusive. Suggested resources which are mostly Canadian websites or resources that you can borrow are listed on page 34.

The **Nutrition Background Information** section, found on pages 10 -34, provides educators with current and reliable Canadian healthy eating information. Several content based information sheets are included in this section.

The Public Health Nutritionists of Saskatchewan work together to promote, support and protect the nutritional health of people living in Saskatchewan. To reach a public health nutritionist in your area, contact your local health region. Saskatchewan health region contact information is available at <http://www.health.gov.sk.ca/health-regions-map>.

NOTE: Although every effort has been made to ensure the web links in this document are updated and accurate, due to the dynamic nature of the internet, some hyperlinks may no longer be active. If this has occurred, try searching for the resource on the internet through a search engine such as Google.

For more information:

Heather Carnegie, School Nutritionist
Food For Thought Project
306-765-6609
hcarnegie@paphr.sk.ca

Table of Contents

Topic	Page
Nutrition Concepts and Resources Grade 4	2
Nutrition Concepts and Resources Grade 5	5
Nutrition Background Information	
• Healthy Eating for Children and Youth	10
• Water and Beverages	12
• Nutrition Truths	14
• Factors Influencing Eating Behaviours in Children and Youth	16
• Nutrients for Health	18
• Label Reading	20
• Taking Action on Healthy Eating	22
• Weight Bias	24
• Determinants of Health	25
• Evaluating Reliable Nutrition Information	26
• Food Marketing	27
• Food Tracking	28
• Processed Foods	29
• Changing Food Practices	31
• Nutrient Needs in Adolescence	33
• Nutrition Resources and References	35

This resource was developed by the School Age Committee of the Public Health Nutritionists of Saskatchewan:

Chelsea Brown, R.D. and
Helen Flengeris, R.D.
Regina Qu'Appelle Health
Region

Heather Carnegie, R.D.
Food For Thought,
Prince Albert Parkland
Health Region

Laura Vollet, R.D.
Cypress Health
Region

Barb Wright R.D.
Sun Country Health
Region

To reach a public health nutritionist in your area, contact your local health region. Saskatchewan health region contact information is available at <http://www.health.gov.sk.ca/health-regions-map>.

Health Education - GRADE 4

Health Education Goal 1: Develop the understanding, skills, and confidences necessary to take action to improve health

Curriculum Outcome	Nutrition Concepts	Resources: Background Information, Sample Activities, etc.*
USC4.1 Assess what healthy eating and physical activity mean for pre/adolescence.	What is Healthy Eating? <ul style="list-style-type: none"> • Canada Food Guide • Regular eating habits • Water and beverages 	Nutrition Background Information: <i>Healthy Eating for Children and Youth</i> (page 9); <i>Water and Beverages</i> (page 12) Canada's Food Guide www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php ; <i>My Food Guide, Take the Guided Tour</i> The Student Body: Promoting Health at Any Size (thestudentbody.aboutkidshealth.ca Healthy Eating module) <i>teacher background, classroom activities</i> Act Now BC www.bced.gov.bc.ca/health/active_living/physical_activity_learning.htm (grade 4, Lesson 1, page 9-15) <i>Portions and Servings</i> Action Schools BC www.actionschoolsbc.ca/key-resources-equipment/supplementary-resources/healthy-eating-action-resource-%E2%80%93-grades-k-7 (page 92, 100) <i>How Much is a Food Guide Serving, Sugar Shocker</i>
	Nutrition Truths	Nutrition Background Information: <i>Nutrition Truths</i> (page 14) Nutrition Tools for Schools www.nutritiontoolsforschools.ca/ (In the Classroom Action Guide) <i>Evaluating Nutrition information and Nutrition in the Net</i>
	Opportunities for and Barriers to Healthy Eating	Nutrition Background Information: <i>Factors Influencing Eating Behaviours in Youth</i> (page 16) Action Schools BC www.actionschoolsbc.ca/key-resources-equipment/supplementary-resources/healthy-eating-action-resource-%E2%80%93-grades-k-7 (page 97, 107) <i>Have a Blast, Advertising Healthy Choices</i>

Health Education - GRADE 4 Continued

Health Education Goal 1: Develop the understanding, skills, and confidences necessary to take action to improve health

Curriculum Outcome	Nutrition Concepts	Resources: Background Information, Sample Activities, etc.*
USC4.1 Assess what healthy eating and physical activity mean for pre/adolescence.	Healthy Food Choices	<p>Nutrition Background Information: <i>Nutrients for Health</i> (page 18), <i>Label Reading</i> (page 20)</p> <p>Action Schools BC www.actionschoolsbc.ca/key-resources-equipment/supplementary-resources/healthy-eating-action-resource-%E2%80%93-grades-k-7(page 95, 104) <i>Making Fast Food Healthier; Shake the Salt Habit</i></p> <p>Alberta Health Services www.albertahealthservices.ca/2918.asp(grade 4, page 21-25) <i>Five kinds of Nutrients, Vitamins for a Healthy Body</i></p> <p>Health Canada, Eat Well and Be Active Toolkit www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/toolkit-trousse/index-eng.php Activity Plan #1 <i>Benefits of Eating Well and Being Physically Active, Activity Plan #2 Make Each Serving and All Physical Activity Count</i></p> <p>Mission Nutrition www.missionnutrition.ca/eng/educators/index.html(Grade 4-5, Mission 1, 2, 5) <i>Exploring Body Fuel, Exploring Vitamins and Minerals, Exploring Food Choices</i></p>
	Taking Action on Healthy Eating	<p>Nutrition Background Information: <i>Taking Action on Healthy Eating</i> (page 22)</p> <p>Alberta Health Services www.albertahealthservices.ca/2918.asp(grade 4, page 26-27) <i>Using Your Imagination</i></p> <p>Health Canada, www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/toolkit-trousse/index-eng.php Eat Well and Be Active Toolkit Activity Plan #3 (children): <i>Setting SMART Goals</i></p> <p>Mission Nutrition www.missionnutrition.ca/eng/educators/index.html(Grade 4-5, Mission 5) <i>Exploring Food Choices</i></p>

Health Education - GRADE 4 Continued

Health Education Goal 1: Develop the understanding, skills, and confidences necessary to take action to improve health

Curriculum Outcome	Nutrition Concepts	Resources: Background Information, Sample Activities, etc.*
USC4.5 Examine how identity (i.e., self-concept, self-esteem, self-determination) is influenced by relationships that are formed with others.	Weight Bias	Nutrition Background Information: <i>Weight Bias</i> (page 24)

Health Education Goal 2: Make informed decisions based on health-related knowledge

Curriculum Outcome	Nutrition Concepts	Resources: Background Information, Sample Activities, etc.*
DM4.1 Investigate the importance of personal responsibility and communication in making informed decisions related to healthy eating and physical activity	Determinants of Health	Nutrition Background Information: <i>Determinants of Health: Factors Influencing Health Decisions</i> (page 25)

Health Education Goal 3: Apply decisions that will improve personal health and/or the health of others

Curriculum Outcome	Nutrition Concepts	Resources: Background Information, Sample Activities, etc.*
AP4.1 Design and apply, with guidance, two four-day action plans that require communication related to healthy eating and physical activity	Take Action on Healthy Eating	Nutrition Background Information: <i>Take Action on Healthy Eating</i> (page 22) Alberta Health Services www.albertahealthservices.ca/2918.asp (grade 4, page 18-20) <i>A Healthy Day, My Food Diary</i> Mission Nutrition www.missionnutrition.ca/eng/educators/index.html (Grade 4-5, Mission 6) <i>Exploring Vitality</i>

Health Education - GRADE 5

Health Education Goal 1: Develop the understanding, skills, and confidences necessary to take action to improve health		
Curriculum Outcome	Nutrition Concepts	Resources: Background Information, Sample Activities, etc.*
USC5.1 Analyze personal eating practices	Sources of reliable nutrition information	<p>Nutrition Background Information: <i>Evaluating Reliable Nutrition Information</i> (page 26)</p> <p>Health Canada www.healthcanada.gc.ca/foodguide (interactive tool) My Food Guide</p> <p>Health Canada www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/toolkit-trousse/index-eng.php Fat well and Be Active Toolkit</p> <p>Health Region dietitians and nutritionists http://www.health.gov.sk.ca/health-region-list</p>
	Food Marketing	<p>Backgrounder: <i>Factors Influencing Eating Behaviours in Children and Youth</i> (page 16)</p> <p>Canadian Produce Marketing Association Freggietales (free registration required) www.freggietales.ca/htmlPages/parentsTeachers.html (grade 5, page 76) <i>You can't fool me! A closer look at advertising and media influences</i></p> <p>Action Schools BC www.actionschoolsbc.ca/key-resources-equipment/supplementary-resources/healthy-eating-action-resource-%E2%80%93-grades-k-7 (grade 5, page 107) <i>Advertising Healthy Choices</i></p> <p><i>Food Ad Tricks: Helping Kids Understand Food Ads on TV</i> www.youtube.com/watch?v=xA14pAGW4UA</p> <p>Food Share Food, Media and Marketing Educator notes www.foodshare.net/educator-tools (page 4-10) <i>Types of Advertisements, Advertisements for "real" foods, Raisin Taste Testing, Green Smoothies</i></p> <p>Media Smarts mediasmarts.ca/ (search for activity name on website) <i>Advertising All Around Us, Junk Food Jungle, Looking at Food Advertising</i></p>

Health Education - GRADE 5 Continued

Health Education Goal 1: Develop the understanding, skills, and confidences necessary to take action to improve health		
Curriculum Outcome	Nutrition Concepts	Resources: Background Information, Sample Activities, etc.*
USC5.1 Analyze personal eating practices	Label Reading	<p>Backgrounder: <i>Label Reading</i> (page 20)</p> <p>Canadian Produce Marketing Association Freggietales (free registration required) www.freggietales.ca/htmlPages/parentsTeachers.html (page 68, 72) <i>Know what you eat! Understanding Food Labels, Being Food Smart! At Fast Food Restaurants Labels</i></p> <p>Health Canada healthycanadians.gc.ca/eating-nutrition/label-etiquetage/index-eng.php (information and interactive tools) <i>Food Labels</i></p> <p>Eat Right Ontario www.eatrightontario.ca/en/Videos/Nutrition-Labelling.aspx <i>Nutrition Label Video Series</i></p>
	Healthy Eating Habits	<p>Backgrounder: <i>Healthy Eating for Children and Youth</i> (page 11), <i>Nutrition Truths</i> (page 14), <i>Evaluating Reliable Nutrition Information</i> (page 26)</p> <p>Action Schools BC www.actionschoolsbc.ca/key-resources-equipment/supplementary-resources/healthy-eating-action-resource-%E2%80%93-grades-k-7 (page 127 - 128) <i>Know your Nutrients, Chart your Nutrients</i></p> <p>Canadian Produce Marketing Association Freggietales (free registration required) www.freggietales.ca/htmlPages/parentsTeachers.html (page 80) <i>Boost it up! The Power of Fruits and Veggies</i></p> <p>Health Canada www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/guide-trans-trad-eng.php <i>Translated versions of Canada's Food Guide</i></p> <p>Health Canada www.hc-sc.gc.ca/fn-an/pubs/fnim-pnim/index-eng.php <i>Eating Well with Canada's Food Guide - First Nations, Inuit and Métis</i></p> <p>Home Economics Victoria www.homeeconomics.com.au/favicon.ico <i>Making Healthy Choices, making Healthy Food Grade 4-6 (Lesson 6 page 21) Tasting fruit and Vegetables Fast, fresh and fabulous (Lesson 7, page 23)</i></p>

Health Education - GRADE 5 Continued

Health Education Goal 1: Develop the understanding, skills, and confidences necessary to take action to improve health		
Curriculum Outcome	Nutrition Concepts	Resources: Background Information, Sample Activities, etc.*
USC5.1 Analyze personal eating practices	Eating practices and diets	<p>Alberta Health Services www.albertahealthservices.ca/2918.asp (grade 5; page 33, 36) <i>What is Vegetarianism, What is Diabetes</i></p> <p>Food Day School Curriculum* www.foodday.org/ (lesson 1, page 9) <i>Eat Real</i></p> <p>*note this is an American resource. For more Canadian Food Day resources refer to fooddaycanada.ca</p> <p>Health Canada www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/guide-trans-trad-eng.php <i>Translated versions of Canada's Food Guide</i></p> <p>Canadian Diabetes Association www.diabetes.ca/diabetes-and-you/healthy-living-resources/diet-nutrition <i>Diet and Nutrition</i></p> <p>Dietitians of Canada www.dietitians.ca/Your-Health/Nutrition-A-Z/Vegetarian-Diets.aspx <i>Vegetarian Diets</i></p>
	Food Tracking	<p>Background: <i>Food tracking for children and youth</i> (page 28)</p> <p>Alberta Health Services www.albertahealthservices.ca/2918.asp (grade 5; page 28) <i>Food Journal</i></p> <p>Dietitians of Canada www.eatracker.ca/ (interactive tool) <i>EATracker</i></p> <p>Health Canada www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php <i>My Food Guide, My Food Guide Servings Tracker</i></p>
	Opportunities for and barriers to healthy eating	<p>Background: <i>Factors Influencing Eating Behaviours in Children and Youth</i> (page 16)</p> <p>Act Now BC Healthy Eating and Physical Activity Learning Resource www.bced.gov.bc.ca/health/active_living/physical_activity_learning.htm (grade 5, page 9, 15 and 22) <i>The Interview, Strategies for making Healthy Choices, Advertising Healthy Eating Choices</i></p>

Health Education - GRADE 5 Continued

Health Education Goal 1: Develop the understanding, skills, and confidences necessary to take action to improve health		
Curriculum Outcome	Nutrition Concepts	Resources: Background Information, Sample Activities, etc.*
USC5.1 Analyze personal eating practices	Processed Foods	Background: <i>Processed Foods</i> (page 29) Food Processing Activity http://www.nutrition411.com/specials-centers/toddler-and-kid/ck209-for-healthcare-professionals/ck224-education-and-counseling/item/29385-food-processing-lesson-plan/
	Food Environment	Backgrounder: <i>Factors Influencing Eating Behaviours in Children and Youth</i> (page 16), <i>Changes in the Food Environment</i> (page 31) Agriculture in the Classroom www.aitcnl.ca/resources/resources (page 7 Eat Canadian: The Canada Label
	Food for growth and movement	Backgrounder: <i>Nutrient Needs in Adolescence</i> (page 33)
USC5.4 Analyze the connections between personal identity and personal well-being and establish strategies to develop and support a positive self-image.	Weight Bias	Nutrition Background Information: <i>Weight bias</i> (page 24) Yale Rudd Centre, Schools and Educators www.yaleruddcenter.org/what_we_do.aspx?id=200

Health Education Goal 2: Make informed decisions based on health related knowledge		
Curriculum Outcome	Nutrition Concepts	Resources: Background Information, Sample Activities, etc.*
DM5.1 Analyze possible obstacles and envision solutions to addressing health challenges related to personal eating practices	Opportunities and barriers to healthy eating	Nutrition Background Information: <i>Determinants of Health</i> (page 25), <i>Factors Influencing Eating Behaviours in Children and Youth</i> (page 16)

Health Education - GRADE 5 Continued

Health Education Goal 3: Apply decisions that will improve personal health and/or the health of others		
Curriculum Outcome	Nutrition Concepts	Resources: Background Information, Sample Activities, etc.*
AP5.2 Design and implement with guidance, two 5-day action plans that embrace health opportunities or address health challenges related to personal eating practices	Taking action on healthy eating	Nutrition Background Information: <i>Taking Action on Healthy Eating</i> (page 22).

Healthy Eating for Children and Youth

Developing and maintaining a healthy eating pattern during the preteen and teenage years is important for health, growth, and cognitive development. Research shows that the eating habits developed at this age carry on to adulthood. Adolescence is a time of transition. Eating habits of youth tend to be affected by influences outside of the family, and as such are vulnerable to unhealthy changes.

Good nutrition is about making healthy food choices. When planning meals and snacks it is important to remind students that the majority of the food they consume should be from the four food groups of Canada's Food Guide. Canada's Food Guide provides guidance about the **amount** and **types** of foods that youth need to eat daily to be healthy. For more information about Canada's Food Guide go to <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>

Amount:

Canada's Food Guide provides examples of the amount of food that make up one Food Guide Serving. The Food Guide Serving is a reference amount to help people understand how much food is recommended. The amount of food a person eats at a meal or snack may be more or less than one Food Guide Serving. In some cases, the amount may be close to what a person may eat at one serving but not always.

Canada's Food Guide recommends how many Food Guide Servings people should eat from each of the four food groups. The number of recommended servings is different for people at different stages in life and is different for males and females. The recommended number of Food Guide Servings is an average amount that people should try to eat each day.

Food portions, particularly for restaurant meals and packaged food items, are large. For example, a 6 inch size submarine style bun is equivalent to about 2-3 Food Guide servings of Grain Products. For examples of Food Guide Serving sizes go <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/basics-base/serving-portion-eng.php>.

Recommended number of Food Guide Servings Per Day

	Aged 9-13	Aged 14-18	
	(Male and Female)	Male	Female
Vegetables and Fruit	6	8	7
Grain Products	6	7	6
Milk and Alternatives	3-4	3-4	3-4
Meat and Alternatives	1-2	3	2

A good way to learn about Food Guide Serving sizes is to have the youth measure the foods they eat for a day or two. Next, have them compare the amount they eat to the recommended number of Food Guide Servings for their age and sex. For this activity, students can use the My Food Guide Serving Tracker found here <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/track-suivi/index-eng.php>.

Type:

The types of food youth eat are just as important as the amount they eat. Canada's Food Guide provides guidance about the types of food to choose from each food group.

- Eat at least one dark green and one orange vegetable each day
- Have vegetables and fruit more often than juice
- Make at least half of your grain products whole grain each day
- Drink skim, 1%, or 2% milk each day
- Have meat alternatives such as beans, lentils, and tofu often
- Eat at least two food guide servings of fish each week
- Include a small amount of unsaturated fat each day
- Satisfy your thirst with water

Foods to Limit

Canada's Food Guide also recommends limiting foods high in calories, fat, sugar or salt (sodium) such as cakes and pastries, chocolate and candies, cookies and granola bars, doughnuts and muffins, ice cream and frozen desserts, french fries, potato chips, nachos, and other salty snacks, alcohol, fruit flavoured drinks, soft drinks, sports and energy drinks, and sweetened hot or cold drinks.

Balancing the Food

Eating three regularly timed meals and two to three snacks daily is an important way for youth to get the nutrients needed as they grow and develop and to maintain energy throughout the day.

Eating Breakfast

It is important to start every day by eating breakfast. Breakfast replenishes energy lost during a night's sleep. The body goes through fasting during sleep and the morning meal is meant to "break the fast". Eating breakfast can become a habit when eaten regularly at a young age and when it's part of the regular household routine. Skipping breakfast may result in missed nutrients, which are difficult to make up as the day goes on.

A healthy breakfast includes at least three of the four food groups. Examples of breakfasts are:

- Whole grain cereal, milk, banana
- Whole wheat toast, scrambled egg, orange
- Plain oatmeal, yogurt, berries
- Whole grain bagel, nut butter, apple
- Whole grain tortilla with beans and cheese

Healthy Snacks

Snacks that include foods from the four food groups help children meet their daily nutrient needs. Healthy snacks include at least two of the four food groups of Canada's Food Guide. Examples of healthy snacks are:

- fruit with yogurt dip
- sliced vegetables with hummus (chickpea dip)
- whole grain crackers with cheese
- half of a sandwich and milk
- fruit and yogurt smoothie

Sometimes there is confusion regarding snacks. Some foods are commonly advertised as “snack foods” such as chips, candies, soft drinks, fruit flavoured snacks, and cakes. These are often high in fat, sugar, and salt and should **not** be considered healthy snacks.

Lunch and Supper

Family meals eaten at home are important for the growth and development of children and youth. Kids who eat meals at home tend to eat healthier.¹ Sitting down together and talking about the day during meal times helps family members manage stress. For youth, family meals are linked to a lower risk of substance abuse, sexual activity, depression and school problems.²

A healthy lunch or supper includes food from all four food groups.

References:

- Health Canada. (2012). Healthy Eating After School: Integrating healthy eating into physical activity after school initiatives. Accessed November 20, 2013 from <http://www.hc-sc.gc.ca/fn-an/pubs/nutrition/heas-saae/index-eng.php>
- Health Canada. (2007). Eating Well with Canada's Food Guide: A Resources for Educators and Communicators. Retrieved November 20, 2013 from <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/resource-ressource-eng.php>
- Health Canada.(2007). Eating Well with Canada's Food Guide. Retrieved November 20, 2013from <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>
- Public Health Nutritionists of Saskatchewan. (2013). Teach Nutrition in Saskatchewan: Grades 1-3 Nutrition Concepts and Resources.

¹Hammons, A., and B.Fiese. (2011). Is Frequency of Shared Family Meals Related to the Nutritional Health of Children and Adolescents? *Pediatrics* 127, e1565.

²Fulkerson, J., D. Neumark-Sztainer, P. Hannan, and M. Story.(2008).Family Dinner Meal Frequency and Adolescent Development: Relationships with Developmental Assets and High-Risk Behaviors.*Obesity*16, 2529–2534.

Water and Beverages

Water

Water makes up 60% of the human body weight. Water is a structural component to all cells and is essential to all bodily fluids such as blood, urine, and sweat. Water helps to transport nutrients and remove wastes from the body.

Our bodies naturally lose water throughout the day through breathing, urine, bowel movements and sweat. Water losses increase in hot environments and during physical activity. Water is also lost during illness such as fever and diarrhea.

Water needs to be constantly replaced for us to function and live well. Dehydration can occur when we lose more fluid than we take in. Some symptoms of dehydration include thirst, fatigue, weakness, headache, irritability, and dizziness.

Drinking water is one way to make sure the water lost is replaced. Other sources of water include food such as vegetables and fruit, soups and other beverages. Listed below are points to consider when choosing other beverages.

Milk and Fortified Soy Beverages

Low fat milk and fortified soy beverages are not only a source of water but are also good sources of protein, calcium and vitamin D. Canada's Food Guide recommends consuming two cups (500mL) of skim, 1% or 2% milk or fortified soy beverage every day.

100% Fruit Juice

Although 100% unsweetened fruit juice is a source of water and other nutrients, Canada's Food Guide recommends choosing vegetables and fruit more often than juice because they contain more fibre. It is easy to drink a large amount of juice and this can displace eating other healthy foods.

Sweetened Beverages

Sweetened beverages such as fruit drinks and cocktails, sports drinks, soft drinks and energy drinks provide sugar or artificial sweeteners but virtually no nutrients and can be sources of caffeine and sodium. These beverages also have been shown to displace other nutritious beverages such as milk. It is healthiest to limit or avoid sweetened beverages.

Sports Drinks

The key ingredients in most sports drinks are water, sugar, and electrolytes (sodium and potassium). Most youth who participate in physical activity and sport do not need the extra sugar and electrolytes provided by these beverages. Although these beverages are marketed and sold to the general public as part of a healthy lifestyle, they are only useful in very specific circumstances. In most cases, water is the best choice.

Energy Drinks

Energy drinks claim to give extra energy, improve concentration and enhance performance. These claims are not proven and in fact, there is more proof that they can be harmful. Caffeine is one of the main ingredients of energy drinks. One beverage will likely have more caffeine than what a child will or teen should have in a day. Caffeine can cause trouble sleeping, increased heart rate, restlessness, irritability, nervousness and headache.

Energy drinks also contain sugar, herbs, B vitamins, amino acids, and flavourings. There is no proof that these added ingredients will provide any benefits.

Energy drinks are NOT the same as sports drinks. Energy drinks can actually decrease sports performance because they contain large amounts of sugar and carbonation, which can cause an upset stomach during activity and dehydration.

Energy Drinks are **not** recommended for children or teens. The amount of caffeine they contain is often higher than the limit for children and youth.

Vitamin Water

Vitamin waters are bottled drinks that contain water, sugar (or artificial sweetener), natural flavours, citric acid, minerals, vitamins and herbs. There is no scientific proof that vitamin waters provide any health benefits. Although vitamin waters come in many fruit flavours, they contain less than 1% fruit juice and contain only a few of the nutrients that we need each day. Most healthy people can get the nutrients needed by eating a variety of healthy foods from Canada's Food Guide. If a vitamin or mineral supplement is required, vitamin waters will likely not provide the nutrients needed in the correct amounts. Care must be taken since vitamins and minerals taken as a supplement can be dangerous when taken in large amounts. These drinks are generally not needed or recommended.

For more information go to the following websites:

Information for Parents on Caffeine in Energy Drinks <http://www.hc-sc.gc.ca/ahc-asc/media/nr-cp/2011/2011-132bk-eng.php>

Energy Drinks video <http://www.healthycanadians.gc.ca/video/boissons-energ-drinks-eng.php>

DC Sugary drinks fact sheet for adults, parents, seniors and teens <http://www.dietitians.ca/Nutrition-Resources-A-Z/Factsheets/Sugary-Drinks/Sugary-Drink-Sense-Factsheets.aspx>

The Juicy Story on Drinks <https://www.eatrightontario.ca/en/Articles/Child-Toddler-Nutrition/The-Juicy-Story-on-Drinks.aspx>

References:

Dietitians of Canada.(2010). Current Issues – Reducing Consumption of Sugar-sweetened Beverages: Does Taxation have a Role? Retrieved from Practice-based Evidence in Nutrition (PEN). Retrieved January 20, 2013 from: <http://www.pennutrition.com>. Access only by subscription.

Otten, J., J. PitzHellwig, L. Meyers (Eds.). (2006). Dietary Reference Intakes: the Essential Guide to Nutrition Requirements. Institution of Medicine of the National Academies.Retrieved from http://www.nal.usda.gov/fnic/DRI/Essential_Guide/DRIEssentialGuideNutReq.pdf

Nutrition Truths

It seems there is a new diet that comes out every year, each claiming to be the best. Nutrition information is found everywhere including the internet, radio, news, magazines, and from parents, friends, colleagues, athletes, movie stars, doctors, and talk show hosts. The hard part is knowing which source to believe. Listed below are the truths developed by Dietitians of Canada³ about some common nutrition misconceptions.

Detox Diets

The Truth: There is no scientific evidence to support the need for detoxification diets. Detox diets claim to “cleanse” the body of toxins, but the liver, kidneys and intestine already do this effectively. Detox diets typically involve fasting (going without food for a period of time) followed by a strict diet which includes a restricted number of foods. Fasting frequently or fasting for several days may cause unhealthy side effects such as headaches, dehydration, low blood pressure or an irregular heartbeat. Some detox diets include intestine-clearing supplements that have a laxative effect and can be more harmful than healthful.

Carbohydrates

The Truth: Carbohydrates get a lot of negative media attention. There are many ‘low carb’ diets and meal plans claiming to be the best and easiest way to lose weight. The truth is most people who try to follow drastic diets like these may lose weight initially but often regain the weight as well as more weight following the diet. Because so many nutritious foods contain carbohydrate, people following these strict “low-carb” diets miss out on the nutritional benefits of healthy carbohydrate rich food choices like whole grains, fruit, starchy vegetables, and legumes.

Wheat and Gluten

The Truth: Wheat and gluten also get a lot of negative attention. A gluten-free diet is the only healthy way of eating for people with celiac disease or gluten sensitivity, but it is not necessary for everyone else. Gluten-free diets take a lot of work, can be restrictive and expensive and should be discussed with a registered dietitian. Gluten is a type of protein found in grains like wheat, barley and rye, and any foods made with these grains. Unless you have celiac disease or gluten sensitivity, or you are allergic to one of these grains, you do not need to avoid them. Whether the grain you choose is gluten-free (such as corn, rice, millet or quinoa) or not, enjoying more whole grains is a healthy choice.

Superfoods

The Truth: No food has superpowers to keep you healthy on its own. Even if a food is bursting with a few popular nutrients, it will be missing many nutrients necessary for health. There is no official definition of a “superfood”, and the term is sometimes used to market trendy, expensive and unique foods. Many common foods are equally as nutritious, less costly, and more widely available however receive less attention.

Sugar and Diabetes

The Truth: Eating too much sugar does not cause diabetes. Diets with too many calories can lead to weight gain, and being overweight is one of the main risk factors for type 2 diabetes. Other risk factors such as family history, age (40 and older) and ethnicity also play a role. You can reduce your risk of developing type 2 diabetes by eating a healthy diet, maintaining a healthy weight and being physically active. It is recommended that all people eat foods that have little or no added sugar, fat and salt. Foods that are high in sugar, such as cookies, candies and soft drinks, are often low in nutrients and high in calories.

³Dietitians of Canada is a trusted source of accurate and reliable nutrition information. For more information about Dietitians of Canada go to <http://www.dietitians.ca/>

Weight Loss Diet

The Truth: Weight loss diets have been shown to increase fatigue and irritability, reduce metabolism, reduce muscle mass, and weaken the immune system. Obviously, none of those attribute to good health! For good health it is important to have a healthy eating and exercise pattern you can maintain.

Vegetarian Diet

The Truth: A well-planned vegetarian diet can be healthy for people of any age. Including foods from all four food groups of Canada's Food Guide will help vegetarians meet their nutritional requirements. A registered dietitian can provide guidance in meal planning.

Health is a complex issue and there are many factors that affect it. Your best bet to keep your body healthy is to eat a variety of foods, be physically active, and manage stress.

Factors Influencing Eating Behaviours in Children and Youth

As children become older, influences on eating behaviours increase. At a young age, adults provide all meals and snacks for children. As kids get older, they tend to shop and prepare more of their own foods and their food choices are influenced by other youth. In order to fit in, youth may feel they need to eat the same foods as their peers.

Food environment

Many meals and snacks are eaten outside of the home. The food choices that are available where youth live, learn and play influence what they eat. This includes foods in schools, childcare facilities, recreational facilities and foods sold in their neighbourhood.

Children may rely on the food available at school to provide or supplement their breakfasts, lunches and snacks. The implementation of nutrition policies in schools is associated with healthier food consumption patterns among students.⁴

Recreational facilities provide a space for physical activity but unhealthy food choices are often readily available.⁵ Food provided many not be consistent with what is needed before, during and after physical activity

Fast food restaurants and convenience foods are common in school neighbourhoods and recreational facilities. Youth often walk and eat at to such establishments during their free time.

Time

Studies tell us that there is a decline in breakfast consumption with increasing age.⁶ Eating breakfast is related to having an overall healthier diet.⁷ As youth become busy with activities and increases in responsibilities there may be less time to plan, prepare and eat healthy meals and snacks, especially breakfast.

Family Meals

Children and youth who participate in family meals on a regular basis tend to eat better than those who do not. Enjoying regular family meals is associated with a higher consumption of vegetables and fruits, milk products and overall nutrients.⁸ In addition, family meals have been associated with enhancing family relationships, supporting healthy choices and improving school performance.⁹

Food Marketing

Advertising targeting children and youth often promotes low nutrient foods and rarely promotes healthy food choices such as vegetables and fruit. Studies show that children are more likely to request, buy or consume foods that are advertised on television.¹⁰ Often food marketing provides misleading or incomplete information about food which can lead to youth misunderstanding the nutritional value of foods that are marketed.¹¹

⁴Dietitians of Canada. (2012). What is the evidence that the implementation of school nutrition policies/guidelines improves the nutritional intake of elementary school and high school aged-children? In: Practice-based Evidence in Nutrition (PEN). Retrieved Nov 19, 2013 from <http://www.pennutrition.com> (Access only by subscription).

⁵Olstad, DL., K. Raine and McCargar. (2012). Adopting and implementing nutrition guidelines in recreational facilities: public and private sector roles. A multiple case study. BMC Public Health. Retrieved November 19, 2013 from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3490726/>

⁶Taylor JP, S. Evers and M. McKenna.(2005). Determinants of healthy eating in children and youth. *Can J Public Health*. Jul-Aug;96 Suppl 3:S20-6, S22-9.

⁷Storey KE, R. Hanning, A. Lambraki, P. Driezen, S. Fraser, L. McCargar. (2009). Determinants of diet quality among Canadian adolescents. *Can J Diet Practice and Research* 70(2):58-65.

⁸Taylor, Evers , and McKenna, loc.cit.

⁹Public Health Nutritionists of Saskatchewan. (2013). Teaching Nutrition in Saskatchewan: Concepts and Resources: Grades 1 to 3.

¹⁰Taylor, Evers , and McKenna, loc.cit.

¹¹Public Health Nutritionists of Saskatchewan, loc. cit.

A recent Canadian survey found that 45% of youth in grades 6-12 in the Prairie Provinces reported over 2 hours of screen time each day. Screen time included watching T.V. or videos; playing video games and playing games or surfing the Internet on a computer.¹² Both television and internet are sources of food advertising. Food companies use these media to market their products through interactive websites, online games and entertaining videos. Also, food product placements during movies and television programming entice children and youth to desire the placed product.

Body Image

A Canadian survey found that only a third of young people aged 11-15 years who are of normal weight feel that their body is about the right size.¹³ Media images of unrealistic body sizes and shapes along with comments from family, friends, role models and peers about weight can influence youths' body image and can in turn increase the risk of unhealthy dieting behaviours. Adult role models that are themselves dieting or have poor body image may also influence the emergence of dieting and unhealthy weight control practices.

Sport

Participation in sports and other physical activities can influence youth's eating habits. As they learn about the role of healthy eating and exercise, youth may choose healthier food options. Unfortunately, many unnecessary products such as energy drinks and soft drinks are marketed by professional athletes or promoted by some coaches and can influence youth's choices.

In addition, sports such as wrestling, football, gymnastics and dance in which body size plays a role due to aesthetics of weigh-ins also affect youth's eating habits.

Food Skills

Recent literature indicates that there has been a decrease in food skills over the years.¹⁴ Therefore, youth and families may rely on less healthy pre-packaged and convenience foods. In addition there is the concern that opportunities for children and youth to gain 'traditional', basic or 'from scratch' cooking skills from family members may be limited. When kids are involved in food preparation and cooking, it encourages healthy habits that can last a lifetime.

Food Selection

The foods that are currently available in our communities, homes and schools have changed drastically over the last 30 years. The Food Selection Generations Ago project on the next page can illustrate how our eating environment has changes in the last generation.

¹²Leatherdale, ST and Ahmed,R. (2011). Screen-based sedentary behaviours among a nationally representative sample of youth: are Canadian kids couch potatoes? *Chronic Diseases and Injuries in Canada* 31(4): 141-146.

¹³Public Health Agency of Canada.(2008). Healthy Settings for Young People in Canada.retrieved December 31, 2013 from <http://www.phac-aspc.gc.ca/hp-ps/dca-dea/publications/yjc/index-eng.php>

¹⁴Health Canada. (2010). Improving Cooking and Food Preparation Skills: A Synthesis of the Evidence to Inform Program and Policy Development Retrieved December 31, 2013 from <http://www.hc-sc.gc.ca/fn-an/nutrition/child-enfant/cfps-acc-synthes-eng.php>

Nutrients for Health

The body requires nutrients and energy from food to live, grow and function. Carbohydrate, protein and fat are nutrients that provide energy for the body. The amount of energy that a specific food supplies is called calories.

Carbohydrate

- Sugar and starch are different types of carbohydrate, which are broken down to glucose in the body. The body and brain use glucose to function. Carbohydrate is the body's preferred source of energy.
- About half of the number of calories eaten should come from carbohydrates each day. Carbohydrate is found in grain products, vegetables, fruit and some milk products. Dried peas and beans also contain carbohydrate.

Protein

- Protein is made up of amino acids. Protein helps the body grow and develop. The protein in food is broken down to help build and repair tissue like muscle, organs, skin, hair and nails. It can also be used to make glucose for energy; however, this only happens when there isn't enough carbohydrate available to be used for energy. Although protein is used in the development and repairing of muscle tissue, eating a lot of meat and high protein foods does not help build a muscular body. Exercise and a balanced eating pattern are required to build extra muscle.

Foods such as meat, poultry, fish, eggs, nuts and seeds, milk, cheese, and yogurt are good sources of protein. Grain products also provide some protein in smaller amounts. Most Canadians get enough protein by eating a variety of foods based on Canada's Food Guide.

Fat

- The fat found in food plays an important role in the growth and development of children. Fat is a key source of energy and helps the body absorb vitamins A, D, E and K. Everyone needs some fat. However, eating too much fat, particularly saturated and trans fats, can contribute to heart disease, some cancers, obesity and other conditions. It is important that children eat foods naturally low in fat such as vegetables and fruit, grain products and low fat meats. Nutrient rich foods that are high fat such as peanut butter and cheese should not be restricted during childhood.

Vitamins and minerals are nutrients that work with carbohydrate, protein and fat to help the body grow and function. The nutrients that are of particular importance for children are:

Calcium and Vitamin D

- Calcium and vitamin D play important roles in bone health. Foods such as milk, yogurt, and cheese contain calcium. The body can produce some vitamin D when exposed to sunlight but the process can be affected by many things such the use sunscreen and the time of the year. Food is an important source of vitamin D although few foods are naturally rich in the nutrient. Milk, fortified soy beverages, fatty fish, fish oils and margarine are sources of vitamin D.

Iron

- Iron is a nutrient that helps carry oxygen in the blood throughout the body. Not eating enough iron can cause anemia, which can leave the body tired and make it hard to concentrate and learn. The best sources of iron include lean meats, poultry, fish, green leafy vegetables, dried fruit and cereals. However, plant sources of iron are not absorbed as well as animal sources. Consuming foods high in vitamin C (oranges, strawberries, kiwis, tomatoes, red peppers, etc.) along with plant sources of iron can improve absorption.

Reference:

Otten, J., J. PitzHellwig, L. Meyers (Eds.). (2006). Dietary Reference Intakes: the Essential Guide to Nutrition Requirements. Institution of Medicine of the National Academies. Retrieved from

http://www.nal.usda.gov/fnic/DRI/Essential_Guide/DRIEssentialGuideNutReq.pdf

Mission Nutrition.(2007). Grades 4-5 Teacher Notes. Retrieved April 18, 2013 from

<http://www.missionnutrition.ca/missionnutrition/eng/educators/4to5.html>

Label Reading

Food labels found on packaged foods include the Nutrition Facts table and ingredient list.

Nutrition Facts table

The Nutrition Facts table makes it easier to answer questions about the foods we buy. It includes information on the amount of calories and 13 core nutrients based on the listed serving size. It also includes the Percent Daily Value (%DV) to help compare the nutrient content of different food products.

The Nutrition Facts table can help people to:

- Learn about a food's nutritional value (calories and nutrients).
- See if a food contains a little (5% DV or less) or a lot (15% DV or more) of a nutrient.
- [Compare two products](#) to make better food choices.
- Better manage special diets (for example, a low-sodium diet).
- Eat more or less of a nutrient.

Nutrition Facts	
Per 9 crackers (23 g)	
Amount	% Daily Value
Calories 90	
Fat 4.5 g	7 %
Saturated 2.5 g	13 %
+ Trans 0 g	
Cholesterol 0 mg	
Sodium 280 mg	12 %
Carbohydrate 12 g	4 %
Fibre 1 g	4 %
Sugars 0 g	
Protein 3 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 2 %	Iron 8 %

Serving Size

All of the nutrition information in the [Nutrition Facts table](#) is based on a specific amount of food called a “serving size.” The serving size is listed at the top of the Nutrition Facts table. The serving size is not necessarily a suggested portion of food to eat. It is a reference amount for the calories and nutrients on the Nutrition Facts table. It is important to compare the serving size at the top of the Nutrition Facts table to the amount usually eaten. For example, if the amount usually eaten is twice the amount of the suggested serving size, it is necessary to double the values for calories and the nutrients to estimate the nutrients consumed.

Percent Daily Value (% DV)

The % Daily Values (%DV) section of the Nutrition Facts table provides a quick overview of nutrients in the food. It can be used to compare the nutrient content between two or more foods.

If a food provides close to 5%DV of a specific nutrient it is considered to contain “a little” of the nutrient. If a food provides about 15% or more of a nutrient it is considered to contain “a lot” of the nutrient.

When comparing foods, choose the one with more calcium, iron, vitamins and fibre. Choose the food with less fat, saturated fat and sodium.



Ingredient list:

The ingredient list shows all the ingredients in a packaged food.

INGREDIENTS: SUGAR, RICE FLOUR, CORNSTARCH, SOY FLOUR, BAKING POWDER (CONTAINS SODIUM ACID PYROPHOSPHATE, SODIUM BICARBONATE, CORNSTARCH, AND MONOCALCIUM PHOSPHATE) GLUTEN-FREE NATURAL FLAVOR, SALT, XANTHAN GUM & GUAR GUM

Ingredients are listed in order of weight, beginning with the ingredient that weighs the most and ending with the ingredient that weighs the least. This means that a food contains *more* of the ingredients found at the beginning of the list, and *less* of the ingredients at the end of the list.

Reading the ingredient list can help people to check if a food product has a certain ingredient and to avoid specific food

ingredients in the case of a food allergy or intolerance.

For interactive food label reading activities and tools visit:

[http://healthycanadians.gc.ca/eating-nutrition/label-etiquetage/index-eng.php#Interactive Tools](http://healthycanadians.gc.ca/eating-nutrition/label-etiquetage/index-eng.php#Interactive_Tools)

To learn more about the ingredient list visit: <http://healthycanadians.gc.ca/eating-nutrition/label-etiquetage/index-eng.php>

References:

Health Canada.(2014). Food Labels. Retrieved July 15, 2014 from <http://healthycanadians.gc.ca/eating-nutrition/label-etiquetage/index-eng.php>

Health Canada.Nutrition Labelling.(2014). Retrieved July 15, 2014 from <http://www.hc-sc.gc.ca/fn-an/label-etiquet/nutrition/index-eng.php>

Health Canada.(2014). The % Daily Value. Retrieved April 18, 2013 from <http://www.hc-sc.gc.ca/fn-an/label-etiquet/nutrition/cons/dv-vq/index-eng.php>

Taking Action on Healthy Eating

As part of the Saskatchewan Ministry of Education, Health Education curriculum, students are required to analyze certain health behaviors and to identify certain actions that are unique to their needs to improve their health.

It is important that students focus on healthy eating actions that are positive, measurable and practical. For example, a student could choose to drink milk at noon instead of a sugar sweetened beverage such as iced tea.

Below are ways children can take action for healthier eating and ways classroom education can support those actions:

- If a student currently consumes 1 serving of Milk Alternatives per day, an action could be to consume 1 more serving of Milk Alternatives every day for 1 week. Have students brainstorm specific ideas to increase their intake (e.g. drink milk with dinner, bring yogurt or cheese for a snack). If your school does not have a milk program, consider starting one. Selling milk at school is a great way to offer a nutritious and refreshing drink to students at school and to raise money for school programs and extra-curricular activities.
- At this age, students may be purchasing some of their own snack and food items at school or at a local convenience store. Encourage students to make healthy choices and help them to list ideas of healthy snacks. Have students brainstorm ideas of how they can make healthier choices when purchasing foods (e.g. purchase a piece of fruit and milk from the canteen or a convenience store instead of chips and a pop).
- For students aged 9-13 years, *Eating Well with Canada's Food Guide* recommends 6 servings of vegetables and fruit per day. A student could decide to try tasting two new vegetables or fruit each week. In the classroom, try highlighting a vegetable or fruit each month and encourage students to try something new.
- Since there is a strong link between eating breakfast and learning, student actions can focus on breakfast. Students could aim to include 3 out of the 4 food groups at breakfast for 5 days. Have students list quick breakfast ideas (e.g. yogurt, fruit, and cereal) or encourage students to attend the breakfast program if your school has one. If your school does not have a breakfast program, consider keeping a snack basket in the school office for students who come to school without breakfast. Encourage students to get involved in making their own breakfast if they do not already do so. Encourage students to get creative with their breakfast. Cereal and toast are not the only options for breakfast. Try some fun ideas such as a tortilla with peanut butter wrapped around a banana or a blended up a fruit and milk smoothie with a whole grain muffin.
- Students may be unsupervised in the after school time period and may consequently choose less healthy options for snacks. Having ideas of how to make healthy snacks that taste great can help avoid this. Encourage students to cut up fresh vegetables and fruit for a quick “ready to eat” snack as soon as they get home. Try providing students with a fun snack idea once a week that they can try making once they get home. Some fun snack ideas can be found at: http://www.heartandstroke.com/site/c.iklQLcMWJtE/b.3483957/k.A115/Recipes_Kidfriendly_snacks.htm
- Food preparation activities provide children with the opportunity to try new foods and to develop positive attitudes and behaviours around food and eating. Introducing snack preparation activities in your classroom can be a great way to teach kids about foods and foster the development of food skills.

Encourage hands-on experiences with food at home by providing students with recipes they can try or asking them to work with their caregivers to come up with their own recipes.

When asking students to take action on healthy eating, it is important to consider students may not be able to control the types or amounts of foods that are available to them. Refer to page 18 regarding factors influencing health choices.

References:

TeachNutrition.org. Helping Your Students Meet their Nutrition Goals. (2012). Retrieved August 17, 2013 from http://ontario.teachnutrition.org/bulletin-board/pages/news/12-01-20/Helping_your_Students_Meet_their_Nutrition_Goals.aspx

Alberta Health Services.(2012). Healthy Eating and Active Living for ages 13 to 18 Years.Retrieved August 17, 2013 from <http://www.albertahealthservices.ca/2928.asp>.

Weight Bias

What is weight bias?

Weight bias refers to negative attitudes towards individuals due to their weight. These negative attitudes result in stereotypes, prejudice and unfair treatment towards these people. This can be expressed through teasing, physical aggression, cyber-bullying, rejection, and rumors. Not only can this be embarrassing for a child, youth or adult, it can also have serious consequences on their physical, social and psychological health.

Why does weight bias occur?

Weight bias occurs because we live in a culture where there is a perception that being thin is desirable. We are exposed to misleading messages about weight from various means such as television, movies, books, magazines and the internet. These false messages tell us people are “bad if they are fat” or “good if they are thin”. A consequence of these messages is that it is socially acceptable to judge people’s characters, personalities and behaviours based on weight. For example, overweight people are often perceived as being lazy, lacking will power, and being unreliable. When family members, friends, and education professionals reinforce these false messages, individuals can be stigmatized and hurt.

How does weight bias affect students?

Children and youth who experience weight bias are vulnerable to many consequences that can affect their emotional and physical well-being. Students who experience teasing or discrimination because of their weight can have low self-esteem, poor body image, and are more likely to experience symptoms of depression and anxiety. A student’s physical health may also be affected in various ways. Children who experience weight biases are more likely to try unhealthy weight control or binge eating behaviours and avoid physical activities at school where teasing often occurs.

Taking action

All people deserve safety, respect, and acceptance in their community and classroom. Just as we should not tolerate racial or gender bias toward others, we should not tolerate weight bias. If you witness weight bias occurring in your school, intervene right away. To learn how to address weight bias within your classroom and school, refer to the resources “Teachers: How to Address Weight Bias in Your Classroom” and “Tips for Reducing Weight Bias” that can be found at www.YaleRuddCenter.org

References:

- Dietitians of Canada.(2010). Current Issues Reducing Consumption of Sugar-Sweetened Beverages: does taxation have a role? In: Practice-based Evidence in Nutrition (PEN). Retrieved November 21 from: <http://www.pennutrition.com>. (Access by subscription only).
- Yale Rudd Center for Food Policy and Obesity. (2008). Weight Bias: The Need for Public Policy. Retrieved November 20, 2013 from <http://www.naafaonline.com/dev2/about/BrochuresWeightBiasPolicyRuddReport.pdf>
- Yale Rudd Centre for Food Policy and Obesity.(2013).Emotional & Physical Health Consequences.Retrieved November 20, 2013 from http://www.yaleruddcenter.org/what_we_do.aspx?id=202

Determinants of Health: Factors Influencing Health Decisions

Personal decision making is an important factor for overall health. In the preadolescent and adolescent years, youth can gradually make more decisions regarding the types of foods to eat or drink and where they will consume these foods. In most cases, providing healthy foods for youth to choose from continues to be the responsibility of parents, caregivers or school community.

It is important to recognize that decisions about what foods to eat and how much to eat are not simply matters of personal choice. There are also many other factors that influence health behaviors. These are called the Determinants of Health.

Key Determinants of Health

- Income and Social Status
- Social Support Networks
- Education and Literacy
- Employment/Working Conditions
- Social Environments
- Physical Environments
- Personal Health Practices and Coping Skills
- Healthy Child Development
- Biology and Genetic Endowment
- Health Services
- Gender
- Culture

Although personal health practices are determinants of health, it is important to consider other factors that influence personal health decisions. Below is a simple story that shows that health is impacted by a complex set of factors or conditions that determine the level of health of every Canadian.

"Why is Jason in the hospital?"

- Because he has a bad infection in his leg.
 - But why does he have an infection?
- Because he has a cut on his leg and it got infected.
 - But why does he have a cut on his leg?
- Because he was playing in the junk yard next to his apartment building and there was some sharp, jagged steel there that he fell on.
 - But why was he playing in a junk yard?
- Because his neighbourhood is kind of run down. A lot of kids play there and there is no one to supervise them.
 - But why does he live in that neighbourhood?
- Because his parents can't afford a nicer place to live.
 - But why can't his parents afford a nicer place to live?
- Because his Dad is unemployed and his Mom is sick.
 - But why is his Dad unemployed?
- Because he doesn't have much education and he can't find a job.
 - But why ...?"

For more information on the determinants of health see <http://www.phac-aspc.gc.ca/ph-sp/determinants/>

Reference

Public Health Agency of Canada.(2011). What Determines Health? Retrieved November 7, 2013 from <http://www.phac-aspc.gc.ca/ph-sp/determinants/>.

Evaluating Reliable Nutrition Information

Everyone has to eat; so many people are interested in the newest nutrition trends. The science of food and nutrition, however, seems to be changing all the time, and as a result it is hard to keep up-to-date with new findings. Also, nutrition information is available everywhere, particularly on the internet and social media, so it can be hard to know what to believe.

Because there is so much nutrition information out there, it is important to know that a lot of it is untrue and misleading. The information can be based on personal beliefs rather than proven fact. Also inappropriate conclusions are gleaned from poor research studies. This means that the information may not be accurate and may actually be harmful. When selecting resources or sharing nutrition information, consider the following:

1. **Where is the information coming from?** The most credible nutrition expert is a Registered Dietitian (R.D.). Professional organizations (e.g. Dietitians of Canada), government or health agencies (e.g. Health Canada, Public Health Agency of Canada) or non-profit organizations (e.g. Canadian Diabetes Association) are also sources of reliable nutrition information.
2. **Is the information Canadian?** Nutrition recommendations in Canada are different from those in the United States and other countries. *Canada's Food Guide* is uniquely designed to address nutrition issues in Canada. Using *Canada's Food Guide* in the classroom reinforces the importance of referring to Canadian recommendations. Avoid using food guides and resources from other countries such as MyPlate or MyPyramid from the United States.
3. **Are they trying to sell something?** Avoid using resources that promote a certain food product or use of supplements.
4. **Is it a scientific fact or a personal opinion?** Reliable and accurate nutrition information should be based on research evidence. Make sure the resource has references at the end. If there are no references or you are uncertain from where the information comes, it may be based on personal opinion and not facts. Personal stories can be misleading and are not reliable sources of nutrition information.
5. **How old is the resources?** Always check the date of the information or resources to make sure it is current.
6. **Does the resource or information recommend avoiding certain foods or food groups from *Canada's Food Guide* (e.g. no bread diets)?** Studies show that we need a variety of foods from all four food groups to meet our nutritional needs. No food has all the nutrients needed and avoiding certain food groups can increase risks of nutritional deficiency.

Adapted from:

Nutrition Tools for Schools. Evaluating Nutrition information: what should you believe. (2007). Retrieved July 15, 2014 from <http://www.hamilton.ca/NR/rdonlyres/B07CAD16-DB89-43EF-9C2B-554E4DE195E6/47058/EvaluatingNutritionInformationWhatShouldYouBelieve.pdf>

Food Marketing

Studies have shown that food marketing to children and youth strongly influences food preferences, food requests and eating habits. Unfortunately, the foods that are heavily marketed are often highly processed and fast foods high in fat, sugar, salt and calories while containing few nutrients. Unprocessed highly nutrient dense foods, like vegetables, fruit and whole grains are rarely promoted.

For years, food companies have targeted children and youth with a wide variety of unhealthy food products. Television commercials during Saturday morning cartoons and advertisements in youth magazines were common place years ago. Recently, unhealthy food is marketed in a many other ways, some more obvious than others. For example, food companies market to children and youth through entertaining videos on social media, downloads and games on branded websites, in apps for cell phones and tablets, and in contests and gifts within some schools.

Although all children and youth are vulnerable to these marketing tactics, research notes that 8-12 year old children are more susceptible to it than younger age groups since they watch more television, are more likely to have their own money and spend more time away from their parents.

It is becoming difficult to limit the exposure of children and youth to this type of marketing. Helping children to become aware of the different ways in which food companies market products to them is one way to decrease the impact of these marketing techniques. Some studies note that children who are 11 years of age can understand the intent of food advertisements. Unfortunately, teaching media literacy has not been proven to balance the effects these food advertisements have. It is important, therefore, to decrease access children and youth have to marketing by decreasing screen time and avoiding marketing within the school community environment. Marketing within the school environment includes accepting sports or educational equipment with food company logos on them and accepting funding from or promoting food or beverage companies.

Reference:

Dietitians of Canada. (2010). Advertising of Food and Beverages to Children: Position of Dietitians of Canada. Retrieved August 7, 2014 from <http://www.dietitians.ca/Dietitians-Views/Children-and-Teens/Advertising-of-food-and-beverages-to-children.aspx>.

Food Tracking for Children and Youth

Food tracking such as counting how many vegetables and fruits are consumed in a day helps students become more aware of their eating habits. Comparing students eating patterns with those noted in Canada's Food Guide can help to affirm healthy eating behaviours and identify areas that could improve. When doing food tracking activities with students, it is important to note that complete accuracy and showing perfect eating habits are not the ultimate goals.

Remind students that one day of record keeping is not expected to reflect usual eating habits. Eating habits vary from day to day. Habits over a number of days make up usual eating patterns. Food tracking for one or two days allows students to reflect on current eating habits without being too overwhelming.

Creating a non-judgemental climate will encourage students to be honest. Remind students that there are no right or wrong answers. By completing the activity with the students you model how to do the activity accurately.

Be sensitive about the possibility that a child's family may not be able to provide enough nutritious foods at home. You may want to do tracking activities on days that students can participate in a snack or meal program at school or in the community.

Processed Foods

What do whole grain breads, orange slices and potato chips have in common? They are all processed foods.

Processed foods have received a bad reputation over the years. Often these foods are blamed for the increased number of people with chronic disease and weight issues. It is important to know that processed foods are more than potato chips and TV dinners. Although we need to be cautious of some processed foods, many can be part of a positive healthy eating pattern.

What is a processed food?

Almost all of the food and beverages we consume have been processed to some degree. Changing foods in any way from how they are found in nature is food processing. Peeling, chopping, cooking, and pasteurizing are all food processing methods, so it is almost impossible to find many foods in our diet that have not been processed in some way. Foods are processed for many reasons. Milk is pasteurized to destroy harmful bacteria, fresh vegetables are frozen to preserve them for another time, and grains are milled into flour to make various breads. Some foods are fortified to enhance or replace vitamins lost in processing such as Vitamin D which is added to low fat milk. Food processing itself is not an issue and can actually be the healthiest option, the concern is the amount of processing and what other foods are added during the processing. Typically processed foods are grouped in categories similar to those below.¹⁵

1. **Minimally processed:** These foods have had some processing but it does not significantly change the nutritional makeup of the food. The processing makes these foods more accessible, convenient and often safer to eat. Examples of minimally processed foods would be chopping vegetables to make a salad, butchering an animal to make fresh meat, freezing vegetables to store for later, and pasteurizing milk to kill bacteria. These foods do not have the addition of additives such as sugar, flour or salt.
2. **Processed ingredients:** Some foods are processed to create food ingredients such as flour, sugar, salt and oil. These ingredients are not consumed as is but are added to foods. For example, wheat is processed into whole wheat flour to make bread. Oil is extracted to be used in foods such as baked goods and salad dressing.
3. **Ultra-processed (also called highly processed):** These foods are created when minimally processed foods are combined with processed ingredients. They do not have any resemblance to the food they are made from. Examples of these foods include chicken nuggets, hot dogs, fruit snacks, ice cream, and some breakfast cereals.

Ultra-processed, or highly processed foods, are the items of most concern. Highly processed foods tend to be high in fat, sugar, salt and calories while contain few vitamins, minerals or fibre. They are often designed to be “ready to eat”, reheated or be portable. These foods are highly marketed and are often easily accessible in canteens, convenience stores and schools. This availability enables them to be consumed at anytime, anywhere and while doing other things such as driving a vehicle, working on a computer or watching television. These types of eating behaviours lead to mindless eating and can cause over consumption of these foods. Research has shown that our modern excess eating is a normal response to an over accessible and marketed food environment. It is inappropriate to consider that eating habits are simply a matter of personal choice.

¹⁵Monterio, C. A. (2009). Nutrition and Health: The issue is not food nor nutrients so much as processing. *Public Health Nutrition*. 12(5): 729-731.

References

- Eat Right. Academy of Nutrition and Dietetics. Reviewed by S. Denny. (2014). Avoiding Processed Foods? Surprise! This is Processed Too!. Retrieved July 15, 2014 from <http://www.eatright.org/Public/content.aspx?id=6442471055>)
- Monterio, C. A. (2009). Nutrition and Health: The issue is not food nor nutrients so much as processing. *Public Health Nutrition*. 12(5): 729-731.
- Garduno Diaz, S. (2011). Ultra-processed foods. Retrieved July 15, 2014 from <http://www.leeds.ac.uk/yawya/science-and-nutrition/Ultra%20processed%20food.html>
- Johns Hopkins Bloomberg School of Public Health. (2010). Teaching the Food System: Lesson Plan 5 Food Processing. Retrieved July 15, 2014 from <http://www.jhsph.edu/research/centers-and-institutes/teaching-the-food-system/>

Changing Food Practices

Our Food Environment

Our food environment influences how and what we eat and is quite different now than it was in the past. Today, not only do we have more types of food available, it is available in more places, comes in larger packages and serving sizes, and is advertised to us everywhere we turn. All of these things influence our behaviours, causing us to eat more, even when we are not hungry and to eat different foods than what was consumed years ago. We live very busy lifestyles and our food environment has adapted accordingly. Fast food drive-thrus, take-out restaurants and convenience stores are on almost every street corner. As a result, we rarely cook meals from scratch, know less about how to prepare our food, or even where it is grown or what happens to it when it is thrown away.

Access, Availability and the Environment

Generations ago where people got their food from was limited. Either they gathered, grew, raised or hunted it themselves or purchased it from a local market. Food was prepared and eaten at home or shared with family and friends in their community. Today, food is much more readily available where we live, learn, work and play. Food is sold in schools, recreation centres, gas stations, hardware stores, movie theatres, and shopping malls.

Not only is food everywhere but there is also an ever increasing variety of foods available for those who can afford it. In the past, the type of food people ate depended on the kind of food available in that specific region and on the growing season at that time. Now, we import food from all over the world, so most items are available at the nearest grocery store year round, from grains and produce to an overwhelming abundance of processed foods. Although it is nice to have a variety of food available at our fingertips, when it travels such great distances and produces so much waste, there is an environmental cost to this convenience. This is one good reason to seek out locally produced foods in the community when possible.

Food Skills

Today, compared to in the past, we lead busier lifestyles. As a result, we depend on quicker, more convenient foods. Some examples include fast food restaurant meals and individually packaged ready-to-eat/heat meals and snacks. We rarely cook from scratch and eat less fresh, whole foods like vegetables and fruit. These convenience foods are often less nutritious and more heavily packaged, creating a great deal of garbage and waste. Since people cook less, many are losing some of these food skills, which are an important part of developing healthy eating habits. Food skills include knowledge about food and healthy eating, cooking and nutrition; planning for healthy meals, adjusting recipes and using leftovers; cooking and food preparation; gardening and raising food and an understanding about where our food comes from.^{16,17}

Food Practices

Traditional Food Practices

Traditional food practices are often associated with healthier eating, more affordability and a passing on of cultural knowledge. Today, compared to the past, we see less use of and knowledge about traditional foods in

¹⁶Region of Waterloo Public Health.(2010). Food Skills of Waterloo Region Adults. Retrieved August 11, 2014 from <http://chd.region.waterloo.on.ca/en/researchResourcesPublications/resources/FoodSkills.pdf>

¹⁷Health Canada.(2011). Improving Cooking and Food Preparation Skills: A Synthesis of the Evidence to Inform Program and Policy Development. Retrieved August 11, 2014 from <http://www.hc-sc.gc.ca/fn-an/nutrition/child-enfant/cfps-acc-synthes-eng.php>

many cultures. As a result, there is often an increased reliance on more expensive and less nutritious commercial foods, and a loss of skill and cultural knowledge.

Family and Communal Meals

Eating meals together without TV, cell phones and computers, provides the opportunity to bond with others, share in conversation and enjoy meals together. They are also associated with better health. In the past eating together with few distractions was the norm, but unfortunately today we are getting away from this practice and need to start bringing it back!¹⁸

Food Waste

In the past when there were food shortages and we were solely responsible in producing some of our food, there was this notion about food being precious, valued and not to be wasted. Although for some, this still holds true, for others it is less of a concern. Canadian households throw out almost 40% of their food.¹⁹ Food wastes placed in plastic garbage bags does not break down and produce harmful substances rather than good fertilizer found in compost. It is important to limit food waste not by forcing ourselves or others to always finish our plates, but rather to buy only what we need, cook and serve just enough, use or give away what is left, and compost what cannot be used.²⁰

¹⁸Regina Qu'Appelle Health Region.(2014). Food Mentoring Program Manual.

¹⁹Toronto Food Policy Council.(2013). Food Waste Fact Sheet. Retrieved August 11, 2014 from <http://tfpc.to/resources/food-waste-fact-sheet-presented-by-helene-st-jacques-to-the-public-works-and-infrastructure-committee-march-19-2013>

²⁰Regina Qu'Appelle Health Region loc. cit.

Nutrient Needs in Adolescence

During adolescence, teens grow rapidly and as a result have increased energy and nutrient needs. Total nutrient needs are higher during adolescence than at any other time in the lifecycle. Nutrition and physical growth are related; good nutrition is necessary for youth to grow well. Poor eating habits during the adolescence can influence physical growth and can increase the risk for developing chronic diseases, such as heart disease, cancer, and osteoporosis.

During growth spurts youth will probably be hungrier than usual. Typically though, this hunger slows down once an adolescent has stopped growing. Offering adolescents a variety of foods with the recommended number of servings from each food group as listed in *Canada's Food Guide*, will help youth get all the nutrients they need.

Active youth generally need extra calories to fuel their activity levels, performance **and** their growth. If teens don't eat enough, their bodies are less likely to work to the best of their ability and may even break down rather than build up muscles. Extreme diets and calorie restrictions could lead to growth problems and other serious health risks for both girls and boys, so are not recommended. Sports drinks, vitamin waters and energy drink are marketed and sold to youth. Sports drinks are only useful in very specific circumstances. Vitamin waters are unnecessary and could be harmful if consumed in large amounts. And energy drinks are not recommended for youth due to the high amount of caffeine they contain. In most cases, water is the best choice.

When talking about nutrition with adolescents, it is important to focus on healthy eating habits and physical activity to achieve and maintain a health and not on body weight or shape.

Reference

Story, M., J. Stang. (Eds.). (2005). Nutrition Needs of Adolescents. Retrieved July 15, 2014 from http://www.epi.umn.edu/let/pubs/img/adol_ch3.pdf

Nutrition Resources and References

Resources

- Act Now BC. Healthy Eating & Physical Activity Learning Resource Grade 4 (no date) available at www.bced.gov.bc.ca/health/healthy_eating/physical_activity_learning.htm
- Action Schools BC –Classroom Healthy Eating Action Resource Grades K—7 (2012) available at: www.actionschoolsbc.ca/key-resources-equipment/supplementary-resources/healthy-eating-action-resource-%E2%80%93-grades-k-7
- Alberta Health Services – Curriculum Based Resources available at: www.albertahealthservices.ca/2918.asp
- Canadian Produce Marketing Association Freggietales (free registration required) www.freggietales.ca/htmlPages/parentsTeachers.html
- Eat Right Ontario www.bced.gov.bc.ca/health/healthy_eating/physical_activity_learning.htm Nutrition Label Video Series
- EATracker www.eatracker.ca (interactive tool)
- Food Share Food, Media and Marketing Educator notes www.foodshare.net/educator-tools
- Health Canada, Eating Well with Canada’s Food Guide(2007) available at: www.healthcanada.gc.ca/foodguide
- Health Canada, Eat Well and Be Active Toolkit www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/toolkit-trousse/plan-eng.php
- Home Economics Victoria <http://www.homeeconomics.com.au/favicon.ico>
- Media Smarts mediasmarts.ca/ the activities are not necessarily updated to the 2007 Canada’s Food Guide
- Mission Nutrition www.missionnutrition.ca/
- Nutrition Tools for Schools www.nutritiontoolsforschools.ca/: This database requires a free registration prior to accessing most of the resources
- Public Health Nutritionist: Saskatchewan Regional Health Authorities have Public Health Nutritionists who can assist educators in accessing accurate and up to date nutrition information. A provincial list of all health authorities is available at: www.health.gov.sk.ca/health-region-list
- The Student Body: Promoting Health at Any Size thestudentbody.aboutkidshealth.ca/: The Student Body training modules primary prevention resources designed to help children develop positive body image and reduce their risk for developing unhealthy eating behaviours.

Educators’ Nutrition Information References

- Canadian Diabetes Association www.diabetes.ca/diabetes-and-you/healthy-living-resources/diet-nutrition Diet and Nutrition
- Dietitians of Canada www.dietitians.ca/Your-Health/Nutrition-A-Z/Vegetarian-Diets.aspx Vegetarian Diets
- Health Canada, *Eating Well with Canada’s Food Guide: A Resources for Educators and Communicators* (2007) available at: www.healthcanada.gc.ca/foodguide. Information regarding ordering copies of Canada’s Food Guide is available at this link.
- Saskatchewan Ministry of Health, *Healthy Foods for My School* (2012) available at: www.health.gov.sk.ca/healthy-foods-for-my-school
- Saskatchewan Ministry of Education, *Nourishing Minds Towards Comprehensive Community Health: Nutrition Policy Development in Saskatchewan Schools* available at <http://www.education.gov.sk.ca/nourishing-minds>
- Yale Rudd Centre for Food Policy and Obesity www.yaleruddcenter.org/