

## Lesson 1: Energy Intake

### Introduction

In this lesson students have the opportunity to practise the self-assessment skills they have learned in previous years related to healthy eating. The suggested learning strategies facilitate a review of the information in *Eating Well with Canada's Food Guide* (Health Canada), including Food Guide Servings, and offer students the opportunity to develop a healthy eating goal.

#### REFERENCES



The following guides may be downloaded or ordered from the Health Canada website at [www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php](http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php):

Health Canada. *Eating Well with Canada's Food Guide*. Ottawa, ON: Health Canada, 2007.

---. *Eating Well with Canada's Food Guide: First Nations, Inuit and Métis*. Ottawa, ON: Health Canada, 2007.

---. *My Food Guide*. 7 Jan. 2008.

For website updates, please visit Websites to Support the Grades 11 and 12 Curriculum at [www.edu.gov.mb.ca/k12/cur/physlth/](http://www.edu.gov.mb.ca/k12/cur/physlth/).



### Specific Learning Outcomes

**12.NU.1** Demonstrate understanding of the difference between a portion of food and a Food Guide Serving.

**12.NU.2** Evaluate personal food intake using *Eating Well with Canada's Food Guide*.



### Key Understandings

- Energy needs are higher during adolescence than at any other time of life.
- Commercial food portions have distorted consumer perception of reasonable food serving sizes.
- *Eating Well with Canada's Food Guide* (hereafter referred to as *Canada's Food Guide*) is a helpful resource to guide consumers in balanced eating.



## Essential Questions

1. What is the difference between a portion of food and a Food Guide Serving?
  2. How is *Canada's Food Guide* used to evaluate food intake?
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## Background Information

### Making Healthy Food Choices with *Canada's Food Guide*

The food we eat supplies our bodies with the essential nutrients (carbohydrates, fats, proteins, vitamins, minerals, and water) needed for growth, health, and daily functioning. These fundamental needs change throughout life, from early childhood, through adolescence, and into every stage of adulthood. Nutrient and energy needs are at their highest during the adolescent years. Bone and tissue development during this period, along with the increased blood volume associated with rapid growth, contributes to the increased nutrient and energy needs during adolescence. Meeting these requirements with nutrient-dense foods supports proper growth and development. By learning to make healthy food choices early in life we can decrease the risk of future health problems.

*Canada's Food Guide* describes a pattern of eating (i.e., the type, amount, and quality of food to consume each day) based on changing needs of males and females throughout the life cycle. The eating patterns take into account energy and nutrients required to support growth, as well as calories/energy required at various ages to support healthy weight.

#### NOTE TO TEACHER

The eating patterns recommended in *Canada's Food Guide* are based on the energy needs of the majority of Canadians. Following this pattern is designed to support healthy weight throughout the life cycle.

### ***Food Portions***

North Americans suffer from “portion distortion.” A *food portion* (or *serving of food*) is the amount of food an individual chooses to eat. There is no *standard* amount for everyone. For example, a toddler’s food portion will be much smaller than an adult’s portion. An adolescent boy’s serving of food will likely be larger than that of an adult male.

As food portions have increased over the years, consumers have changed their expectations of a *reasonable* serving of food, both at home and away from home. Consequently, we are eating more than ever, without realizing it. It is increasingly important to understand how to use *Canada's Food Guide* effectively.

## ***Food Guide Servings***

*Canada's Food Guide* recommends different numbers of daily Food Guide Servings in each food group for males and females at various ages. A *Food Guide Serving* is a reference amount of food in each food group. It helps people compare how much they eat with what is recommended in *Canada's Food Guide*. Everyone two years of age or older should consume the recommended number of Food Guide Servings each day.

The recommended Food Guide Servings help us plan for and consume the right amount of energy and nutrients throughout the day as meals and snacks. Physical activity increases our energy and nutrient requirements. If we are very active, our extra caloric needs should ideally come from a choice of nutrient-dense foods (i.e., larger portions or a greater number of servings from the four food groups).

## ***Foods to Limit***

*Canada's Food Guide* encourages us to limit consumption of foods and beverages that are high in calories, fat, salt, or sugar, or those that do not contain significant amounts of nutrients. No recommended number or size of servings is identified for the diverse category of “foods to limit,” which ranges from soft drinks to potato chips. We are encouraged to consume fewer of these “less healthy choices.” Foods to limit are not a regular part of the eating pattern identified in *Canada's Food Guide*.



## **Suggestion for Instruction / Assessment**

### Identifying Food Guide Servings

This learning activity is designed to help students understand Food Guide Servings, using *Canada's Food Guide* as a reference. The menu items listed in RM 1–NU represent a day's food intake for someone between 14 and 18 years old.

#### *Directions/Description*

Provide each student with a copy of RM 1–NU. Ask students to

- indicate the number of Food Guide Servings and the food group(s) each menu item represents
- place an asterisk (\*) in the Foods to Limit column when a food contains added high fat or high sugar components (e.g., salad dressing)
- calculate the total number of Food Guide Servings consumed from each food group
- enter the number of Food Guide Servings that males and females their age require from each of the four food groups



Refer to RM 1–NU: Food Guide Servings Analyzer.

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## Suggestion for Instruction / Assessment

### Food Group Servings Are Not As Big As You Think

This learning activity gives students hands-on practice in measuring serving sizes. Select a few students to demonstrate this learning activity for the class. If time allows, have all students participate.

#### *Materials Required*

Set up a measuring station with the following items:

- measuring cups, bowls, plates, glasses
- food scale
- various foods and beverages from each of the four food groups (see following list for suggestions)
- a copy of RM 2-NU: A Guide to Food Guide Serving Sizes **OR** a copy of *Serving Size Poster* (Dairy Farmers of Manitoba)

Suggested Foods and Beverages to Measure			
Vegetables and Fruit	Grain Products	Milk and Alternatives	Meat and Alternatives
<ul style="list-style-type: none"> <li>▪ whole fruit or vegetables</li> <li>▪ canned fruit or vegetables</li> <li>▪ juice (water with food colouring may be substituted for this learning activity)</li> </ul>	<ul style="list-style-type: none"> <li>▪ two different cereals (e.g., puffed wheat and o-type cereal)</li> <li>▪ dry pasta (e.g., rotini, macaroni)</li> </ul>	<ul style="list-style-type: none"> <li>▪ milk (water may be substituted for this learning activity)</li> <li>▪ yogurt</li> <li>▪ cheese</li> </ul>	<ul style="list-style-type: none"> <li>▪ canned beans</li> <li>▪ canned meat or fish</li> <li>▪ lunch meat (food model may be used)</li> </ul>

#### *Directions/Description*

Have students

- serve food portions they *usually* eat (e.g., they pour the amount of cereal they normally eat into a bowl)
- estimate serving amounts (describe how many servings they *think* this amount represents)
- measure the amount by pouring the food or drink into a measuring cup

#### NOTE TO TEACHER

The intent of Food Guide Servings is **not** to limit portions of food at each meal to one Food Guide Serving. The measure is designed to help consumers understand how to meet the recommended amount of food consumption in each food group daily (e.g., the serving of potatoes on a plate may be two Food Guide Servings, or the large bowl of cereal eaten each morning may be three or four servings).

For grain products, one can often use weight/measure on food packages or labels to identify servings. For example, a loaf of bread may weigh 450 g and contain 16 slices:

$$450 \div 16 = 28 \text{ g or 1 serving}$$

(30 g = 1 serving of grain products)

- identify the actual number of Food Guide Servings by comparing the amount they usually eat with the amount recommended, using one of the following as a guide:
  - *Canada's Food Guide*
  - RM 2–NU: A Guide to Food Guide Serving Sizes
  - *Serving Size Poster* (Dairy Farmers of Manitoba)



Refer to RM 2–NU: A Guide to Food Guide Serving Sizes.

#### REFERENCE



The following poster is available from Dairy Farmers of Manitoba. The order form is available online at <[www.milk.mb.ca/NutritionOrder/default.asp](http://www.milk.mb.ca/NutritionOrder/default.asp)>.

Dairy Farmers of Manitoba. *Serving Size Poster*. Winnipeg, MB: Dairy Farmers of Manitoba, 2008.



#### Suggestion for Instruction / Assessment

##### How Do I Measure Up?

Working individually, students reflect on their personal food intake. Using RM 3–NU, students analyze their food intake relative to recommendations in *Canada's Food Guide*. After students have assessed their own food consumption for one day, they write a healthy eating goal in their Goal Manager (RM 4–FM).



Refer to RM 3–NU: How Do I Measure Up? and RM 4–FM: Goal Manager (Excel spreadsheet).

The Excel spreadsheet is available on the CD-ROM version of this document, as well as online at <[www.edu.gov.mb.ca/k12/cur/physhlth/](http://www.edu.gov.mb.ca/k12/cur/physhlth/)>.

