

# Nutrition Guideline

## Portion Sizes

*For Professional Reference Only*

Applicable to: Nurses, Physicians, and Other Health Professionals

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In materials developed by Nutrition Services the following definitions apply:

- A serving is a standardized amount of food set by a governing body or institution, such as serving sizes shown on Canada's Food Guide.
- A portion is the amount of food an individual chooses to eat.

### Recommendations:

- Consume appropriate food portions to achieve and maintain a healthy body weight and to promote good health.
- Choose the number of servings each day for age as outlined in Canada's Food Guide. These are generally appropriate for most healthy people.
- Daily nutrient and energy requirements can vary depending on gender, body size, age, and activity level.
- It is important to note that the portion size listed on the Nutrition Facts tables on food packages is not always a Food Guide serving size.
- Individuals should compare the amount they actually eat to the amount on the Nutrition Facts table. If they eat double the amount on the table, they will take in double the calories and other nutrients.

### Health Benefits

Eating appropriate portion sizes of food can provide:

- Health promotion through the consumption of the recommended serving size of foods containing key nutrients.<sup>1</sup>
- Reduced risk for chronic diseases such as cardiovascular disease through the increased consumption of high fibre, low fat foods such as fruits, vegetables, whole grains, low fat dairy, lean meats, poultry and fish.<sup>1</sup>
- Weight control through control of serving sizes.<sup>1,2,3,4</sup>

### Key Questions

#### What is the difference between a *portion* and a *serving*?

A *portion* is the amount of food an individual chooses to eat. A *serving* is a standardized amount of food set by a governing body or institution, such as serving sizes developed by Health Canada shown on Canada's Food Guide. Therefore, a portion may be more or less than one Food Guide Serving.

It is helpful for individuals to be familiar with Canada's Food Guide and with what a Food Guide serving is for various foods.

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### How many servings should an individual have in a day?

Canada's Food Guide provides a recommended number of servings from each food group every day, based on age and gender. However, an individual's requirements also depend on his or her body size, activity level, and whether she is pregnant or breastfeeding. The recommended number of servings for each food group is in the table below.<sup>5</sup>

Age in Years	Children			Teens		Adults			
	2-3	4-8	9-13	14-18		19-50		51+	
Gender	Girls and Boys			Females	Males	Females	Males	Females	Males
Vegetables and Fruit	4	5	6	7	8	7-8	8-10	7	7
Grain Products	3	4	6	6	7	6-7	8	6	7
Milk and Alternatives	2	2	3-4	3-4	3-4	2	2	3	3
Meat and Alternatives	1	1	1-2	2	3	2	3	2	3

For some groups, a range of recommended number of servings for a food group is given. In general, children and teens who are at the lower end of the age range or who are less active can choose the lower number of servings in the range, while older or more active individuals can aim for the higher number of servings in the range.

Some groups of people require specific guidance on selecting foods in addition to the pattern recommended in Canada's Food Guide:

- People who are at a healthy weight but need more food, such as those who are very active, should be encouraged to choose extra servings from the four food groups to follow a healthy eating pattern lower in fat, sugar and salt.<sup>5</sup>
- Pregnant and breastfeeding women should eat two to three extra Food Guide Servings from the food groups of their choice to meet their need for extra calories.<sup>5</sup>

Remember to include a variety of foods from each food group to ensure nutrient requirements are met.<sup>1,6,7</sup>

*Refer to Guideline:* General Healthy Eating for Children and Adults; Adult Weight Management

### Why is it important to have more servings from some Food Groups and less from other Food Groups?

To get all the nutrients individuals require, more of some foods need to be eaten and less of others. For example, Vegetables and Fruit are shown in the largest arc in the Food Guide rainbow, and make up the largest proportion of Food Guide Servings. This reflects the important role Vegetables and Fruit have in healthy eating.<sup>5</sup> The successively smaller arcs for Grain Products, Milk and Alternatives, and Meat and Alternatives show that these are also important foods, and that they should be eaten in smaller amounts in a healthy eating pattern.

*Refer to Guidelines:* General Healthy Eating for Children and Adults; Fibre; Vegetable and Fruit Intake; Adult Weight Management

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### Are there different serving sizes for different age groups?

No, Canada's Food Guide lists only one serving size for each food. Different people need to eat different numbers of servings to meet their needs.





However, small children may eat only partial Food Guide servings at one meal. Alberta Health's *Healthy Eating and Active Living* handout series illustrates suggested food serving sizes for children ages 1 to 4 and 5 to 11.<sup>6,7</sup> These resources are based on Canada's Food Guide.

*Refer to guideline:* Children and Adolescents

### Are there any visual cues that can be used to help individuals estimate serving sizes?

It is difficult to estimate how much food is on a plate or in a dish, yet knowing approximately how much food we eat helps ensure that we eat enough to meet nutrient needs, but can also control portion size and calorie intake for weight management.

It may help people to use common household objects as visual cues to serving sizes from Canada's Food Guide. See the table below:



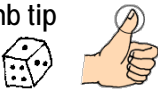
Item	Amount	Food	Number of servings from Canada's Food Guide
<b>Baseball</b> 	1 cup (250 mL)	Salad	1 serving of Vegetables and Fruit
		Fresh, frozen, or canned vegetables or fruit	2 servings of Vegetables and Fruit
		Cold cereal	1 serving of Grain Products
		Rice, pasta, bulgur or quinoa	2 servings of Grain Products
		Milk	1 serving of Milk and Alternatives
<b>Tennis ball</b> 	¾ cup (175 mL)	Whole vegetable or fruit, medium size	1 serving of Vegetables and Fruit
		Hot cereal	1 serving of Grain Products
		Yogurt	1 serving of Milk and Alternatives
		Beans, lentils, or tofu	1 serving of Meat and Alternatives
<b>Hockey puck</b> 	½ cup (125 mL)	Fresh, frozen, or canned vegetables and fruit	1 serving of Vegetables and Fruit
		Rice, pasta, bulgur, quinoa, couscous, ½ small bagel	1 serving of Grain Products
	2½ oz (75 g)	Fish, shellfish, poultry, or lean meat	1 serving of Meat and Alternatives
<b>2 white erasers</b> 	1½ oz (50 g)	Cheese	1 serving of Milk and Alternatives

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Item	Amount	Food	Number of servings from Canada's Food Guide
Golf ball 	2 Tbsp (30 mL)	Peanut or nut butter	1 serving of Meat and Alternatives
2 golf balls 	¼ cup (60 mL)	Dried fruit	1 serving of Vegetables and Fruit
		Nuts and seeds	1 serving of Meat and Alternatives
Dice or thumb tip 	1 tsp (5 mL)	Butter, margarine, oil, or mayonnaise	Oils and Fats

Plates, bowls and glasses can also be tools, but studies have shown that bigger bowls or plates resulted in people serving themselves more food than they realized.<sup>3</sup> These larger portions can cause increased calorie intake and increased body weight. People who want to lose weight should use smaller dishes; people who want to gain weight could benefit from using larger dishes.

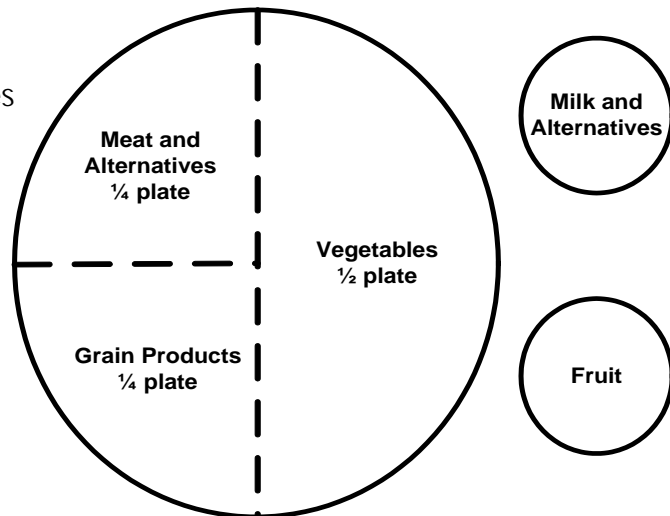
*Refer to Guidelines:* Vegetable and Fruit Intake, Weight Management in Adults

### What does a healthy portion of food look like on a plate?

A healthy meal will help with portion control and meeting recommended servings from the four food groups. A healthy meal will include one food from at least three of the four food groups from Canada's Food Guide.

To build a healthy meal:

- fill ½ of the plate with Vegetables
- fill ¼ of the plate with Meat and Alternatives
- fill ¼ of the plate with Grain Products
- have 1 serving of Milk and Alternatives
- have fruit on the side



*Refer to Guidelines:* General Healthy Eating for Children and Adults; Planning Healthy Meals and Snacks

### How is portion control related to weight management?

Over the years the portion sizes of foods eaten both inside and outside the home has increased. In general, using larger dishes results in more servings, more calories and can contribute to overweight.<sup>2,3,4</sup> Larger portions can lead to increased calorie intake and increased body weight.

Individuals can compare their usual portions of food to Canada's Food Guide to determine if they are meeting the recommended number of Food Guide servings for their age and gender.

Individuals who require weight gain may be encouraged to consume increased portions.

Individuals who are limiting energy intake for weight management should:

- aim for the lower number of servings per day within the recommended serving ranges on Canada's Food Guide to help meet their nutrient requirements; eating foods lower in energy density, such as vegetables, fruit, and whole grains, can enhance a feeling of fullness, called satiety, while providing fewer calories
- be aware of the portion sizes they eat, as portion control is a recognized strategy for reduced calorie intake and weight loss.<sup>4</sup>

Individuals interested in weight management should discuss appropriate strategies with their health care provider.

*Refer to Guidelines: Weight Management in Adults*

### Is the amount of food (serving size) stated in the Nutrition Facts table the same as the recommended serving sizes in Canada's Food Guide?

The amounts (serving sizes) at the top of Nutrition Facts tables are set by the food manufacturer, based on guidelines from the Canadian Food Inspection Agency (CFIA).<sup>8</sup> The CFIA specifies reasonable amounts of the food that would be consumed by an individual at one time.<sup>9</sup> The nutrient information in the table is based on the amount (serving size) at the top of the table.

However, the amounts (serving sizes) in the Nutrition Facts tables are not always the same as the recommended serving sizes in Canada's Food Guide.<sup>9</sup> For example, 1 serving of 100% fruit juice on Canada's Food Guide is ½ cup (125 mL). The Nutrition Facts table on a juice box may provide information for a 1 cup (250 mL) portion, which is 2 servings on Canada's Food Guide.

To determine calories and nutrient intake from a food, individuals should compare the portions they eat to the amount of food listed in the Nutrition Facts table.<sup>9</sup> If they eat double the amount listed on the table, they will take in double the amount of calories and other nutrients listed.

Individuals should follow the recommendations in Canada's Food Guide to choose the amount and type of food needed for their age and gender.

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### Should everybody use Food Guide Servings?

Individuals who have conditions like diabetes and renal failure need to follow special diets that may have serving sizes different from those in Canada's Food Guide. The serving sizes in these diets take precedence over those in Canada's Food Guide when meal planning. Individuals with a health problem should check with their physician or a Registered Dietitian to see if Canada's Food Guide can be used as a basis for their meal planning.

*Refer to Guidelines:* General Healthy Eating for Children and Adults; Label Reading

### Are there any handouts on portion sizes 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](mailto:Nutrition.Resources@albertahealthservices.ca)

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### References

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