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## Preface

The Academy of Nutrition and Dietetics (formerly The American Dietetic Association) and the University of Wisconsin-Stout in Menomonie, Wisconsin, collaborated to produce the first edition (1996) of *Portion Photos of Popular Foods*. Mary Abbott Hess, LHD, MS, RDN, FAND, editor, was then the holder of the Evelyn Von Donk Steenbock Chair at the university and developed this valuable resource to help dietitians and nutrition educators maximize the effectiveness of nutrition education for the public. In 2013, Culinary Nutrition Publishing LLC, an independent publishing enterprise in which Mary Abbott Hess is a partner, obtained the rights to the book and photographs.

This second edition of *Portion Photos of Popular Foods* uses the original photographs but has been redesigned and updated to include *MyPlate*, Reference Amounts Customarily Consumed (RACC), carb counting units and nutrient data. Many book users and nutrition and diabetes educators (see Acknowledgments) provided valuable input, which has been incorporated into this edition. These nutrition educators also suggested that Culinary Nutrition Publishing LLC provide some additional online resources to complement *Portion Photos of Popular Foods*. We plan to develop a website with downloadable handouts to use with clients, teaching ideas and other resources on portion control and related subjects to maximize the effectiveness of nutrition educators.

The editors, designers and publisher have tried to make *Portion Photos of Popular Foods* as engaging, easy to use and attractive as possible. We welcome your suggestions for additional foods to include in future editions as well as tips on portion control that you are willing to share with colleagues. If you develop materials for patient/client education we can share them on the website giving credit to you and your work affiliation. For more information please visit [www.culinarynutritionpublishing.com](http://www.culinarynutritionpublishing.com)

## Acknowledgments

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## Introduction

Studies show that even when they are looking at a food, very few people (including experts) can accurately estimate the amount they are seeing. Many nutrition educators believe that the inability to identify portion size is a major barrier to effective nutrition assessment and education as well as to positive learning outcomes.

*Portion Photos of Popular Foods* is a valuable resource for improving nutrition assessment in a variety of community, clinical, research and public health settings. In addition, it is a convenient and versatile tool for group or individual instruction in classrooms, hospitals, clinics, outpatient counseling facilities and wellness centers.

The book's format is designed to facilitate communication with people of various ages, educational backgrounds, languages and cultures. Because it is composed largely of photos, *Portion Photos of Popular Foods* can be used with clients who have limited reading skills.

## Improving Reporting Accuracy

Practitioners can use *Portion Photos of Popular Foods* to improve the accuracy of food frequency records, 24-hour recalls or diet histories. Because a client's oral or written report of serving sizes can cover a wide range of possibilities and because counseling time is limited, many practitioners translate general measurement terms such as "small" or "regular" into typical portions found in various databases. Much research from large-scale food surveys and individual assessments confirm that estimates based on these data often result in the underreporting of the amount of foods actually consumed. Photos reduce guesswork by allowing the client to identify or confirm portions they usually eat or to indicate they eat more or less than the portions shown. These responses will help practitioners calculate intakes more accurately.

## Teaching Portion Size

*Portion Photos of Popular Foods* is also useful in teaching portion size and portion control. Although clients may report eating "one portion," practitioners must probe to determine the true size of that portion. Larger serving sizes, often far exceeding standard portions, have become the norm. As a result, the public has been encouraged to eat far more than the recommended portions. Many people think that the amount served is one portion, regardless of the size of the serving. The reality is that restaurant servings and single servings at fast-food eateries are often at least twice the size of standard portions. The challenge extends to the supermarket as well where, for example, it is almost impossible to find a "small" (4-ounce) apple.

To complicate matters, "standard" portion sizes vary in nutrition labeling, food exchanges and *MyPlate* guidance. Nutrition educators using the food label, food exchanges or *MyPlate* must help learners understand what constitutes one portion in whatever system they are teaching. Learners can use this book's 350 food photos to identify the actual size of their food choices and to recognize appropriate portions.

## How Foods Were Chosen

*Portion Photos of Popular Foods* pictures 109 of the foods most frequently eaten in the United States. The contents includes all foods shown in the book. The basic foods included were based on national consumption data. The advisory committee determined several portion sizes and forms for each of these foods, resulting in more than 350 food serving sizes for use in nutrition assessment and education. Because the goal is for clients to identify foods as they would normally eat them, part of the design challenge was to provide photos of realistic, attractive food, rather than stylized, arranged or garnished food that might be seen in food magazines or cookbooks.

When portions of similar foods looked about the same, one food was selected as a representative. For example, an apple can also be used to estimate the size of a whole peach, orange or pear. Likewise, the portion sizes of vegetable soup represent the portion sizes of any soup. Although the foods depicted represent many commonly eaten items, food histories will undoubtedly include additional choices. In many cases, practitioners can use one of the pictured foods to assess the quantity of a similar food. For example, the portion sizes for mashed potatoes are a good predictor for those of mashed squash. It is important to keep in mind, however, that even though foods may look similar on a plate or in a bowl, they can have vastly different nutrient profiles. *Portion Photos of Popular Foods* addresses portion size only, not nutrient equivalency.

Foods within the same *MyPlate* food group are presented together. Foods containing full or partial servings of more than one *MyPlate* group – for example, sandwiches, casseroles and pizza – are shown as combination foods. Although sweets and fats are not found in *MyPlate*, they are part of most people's diets and are reported (in fact, often underreported) in diet histories. They are shown on pages 106-115.

Commonly enjoyed foods, such as sliced bread, poached eggs or sugar, are not shown because clients can simply report how many slices, eggs, or teaspoons they have eaten. To discuss sliced bread, however, practitioners can refer to the slice shown with butter or jelly on pages 106 and 109, and ask if that slice is larger or smaller than what the client usually eats and then calculate accordingly.

Some foods, such as whipped cream and gravy, are used with other foods. *Portion Photos of Popular Foods* shows whipped cream on gelatin and gravy over mashed potatoes. These visuals should help clients identify the amount of this type of food they typically eat – the same, more or less than the portions shown.

## Three Portion Sizes

All foods shown in *Portion Photos of Popular Foods* have been carefully photographed to the exact size of the portion on the plate. Using the common measures and gram weights listed in Table One, clients, especially those on special diets that require close attention to portion size, can learn to weigh or measure their food choices. The three servings depicted for each food help learners identify single portions and recognize that their usual food choices (meat, for example) might equal not one but two or even more standard portions or, conversely, might be considerably less than a standard portion. Photos of measures such as cups, glasses, mugs, spoons, scoops and carryout containers are included so practitioners do not have to carry around bulky equipment to demonstrate differences and can be used to encourage clients to measure foods at home.

To ensure that client discussions and food histories are not influenced by identifiable “standard” portions or “right” answers, the book’s advisory committee decided not to identify the portion sizes (volume or weight) of the pictured foods. For the same reason, portion sizes are not always shown in order from small to large.

For some foods, portions are shown in two or three forms; for example, a cantaloupe wedge and cantaloupe cubes. The amount of edible cantaloupe in each is about the same. Showing both forms helps clients choose what they usually eat. Similarly, because the same amount of cheese looks quite different when sliced, cubed or shredded, each portion size for cheese is shown in all three forms. The weight of each form is the same on each plate shown.

Standard retail containers such as juice cans and boxes, yogurt containers and tuna cans are shown because they provide visual clues to portion size. The food and beverages they contain are shown on dishes or in glasses. This presentation helps clients quickly identify the portions they eat and allows educators to point out the containers that fit individual food plans.

A variety of dishware and measures are shown on pages 117-127. The volume of food or liquid in each is described in Table Two on page 136. Cold drink and hot drink cups are filled to about 1/2 inch from the top. Because the amount of beverage (for example, wine or beer) poured into a glass can vary, a collection of different glass sizes and shapes is shown. Counselors may then ask if the amount of liquid shown in the glass or mug is the same, more or less than the client typically drinks.

## Measuring and Weighing Foods

Foods were measured using the standards shown on pages 124-125. A registered dietitian weighed each portion on a calibrated digital gram scale. An observer validated all measures and weights. When the edible portion of a food was not the same as the portion shown (chicken or meat on bone, rind on melon, etc.), the edible portion was separated and weighed after the photograph was taken. Both total and edible weights are listed in Table One on pages 128-135.

In some cases, the gram weights are not exactly equal to the weights in varied measures. For example, one cup of a food may not be exactly double the gram weight of a 1/2 cup portion. This is because a food may be more loosely or tightly packed in a measure or because one sample had larger or smaller pieces within it. These are normal variations and should not be of particular concern.

## Nutritional Information

Table One on pages 128-135 identifies the size of each portion in standard measures or counted pieces; the weight of that portion in grams; and the calories, protein, total fat, saturated fat, cholesterol, total carbohydrate, dietary fiber and sodium for each food pictured. Values are from USDA databases based on actual weights of the pictured foods.

Diabetes educators typically use either Food Exchanges or carbohydrate counting. Exchanges, adapted from *Choose Your Foods: Exchange Lists for Diabetes*, are included in Table One. Larger than standard portions are not translated into multiple exchanges. If carbohydrate (carb) counting is used, each 15 grams of carbohydrate equals 1 carb unit. Table One translates total carbohydrates into carb units for your convenience.



# List of Foods

## ■ Bread, cereal, rice and pasta

Bagel	6
Biscuit	7
Bread, French or Italian	8
Bread stuffing	9
Cereal, cooked, oatmeal or grits, polenta, etc.	10
Cereal, granola Grape-Nuts® or fruit/grain combinations	11
Cereal, ready-to-eat	12
Cornbread	13
Crackers or crispbreads	14
Croissant	15
English muffin	16
Muffin, fruited or plain or cupcake (unfrosted)	17
Pancakes	18
Pasta salad or grain salad or potato salad	19
Popcorn	20-21
Rice	22
Rolls	23
Spaghetti or other pasta or noodles	24
Tortillas or wraps or flatbread	25
Tortilla chips or corn chips or pita chips	26-27

## ■ Vegetables

Broccoli or other cooked vegetable	28
Carrots, raw or other cut raw vegetables	29
Corn	30-31
Coleslaw or other shredded vegetable salads	32
Green salad or raw leafy vegetables	33
Mixed vegetables	34
Potato, baked or baked sweet potato	35
Potato chips	36
Potatoes, French-fried	37
Potatoes, hash-browned	38
Potatoes, mashed or other mashed root vegetables	39
Potatoes, scalloped or other vegetables in sauce	40
Salsa or chutney	41
Spinach or other cooked greens	42
Tomato	43
Vegetable soup or other soups	44

## ■ Fruit

Apple or orange, peach, nectarine, pear, etc.	45
Banana	46
Canned fruit	47
Cantaloupe or honeydew or similar melons	48

Dried fruit, raisins or prunes, apricots, etc.	49
Fruit, cut, mixed or fresh fruit cups	50
Fruit or vegetable juices	51
Grapes	52
Strawberries or other berries	53
Watermelon	54-55

## ■ Milk, yogurt and cheese

Cheese	56
Cottage cheese	57
Ice cream, or frozen yogurt, sherbet, sorbets, gelato	58
Ice cream cone soft-serve	59
Ice cream sundae	60
Milk	61
Pudding	62
Yogurt flavored or plain	63

## ■ Meat, poultry, fish, dry beans, eggs and nuts

Beans or other cooked legumes	64
Chicken breast boneless and skinless	65
Chicken pieces fried	66
Chicken wings fried	67
Cutlet breaded and fried, poultry, pork, veal or vegetable	68
Eggs scrambled or omelet	69
Fish filet	70
Fish steak	71
Ground beef patty or poultry or vegetable patty	72
Luncheon meats, salami or other	73
Meat, roasted and sliced, beef, or lamb, pork, etc.	74
Nuggets, fried, chicken, or fish, scallops, potatoes, etc.	75
Nuts mixed or any kind	76
Peanut butter or other nut butters	77
Pork chop or veal chop or lamb chop	78
Sausages, links or patties or sausage substitute	79
Shrimp breaded and fried	80
Spareribs	81
Steak	82
Tuna, canned or canned salmon or chicken	83
Turkey breast or sliced ham	84

## ■ Combination foods

Beef stew or other stews, chili or baked beans	85
Burrito, any type or sandwich wrap	86
Hamburger fast-food	87
Hot dog on a bun	88
Lasagna or enchilada, moussaka, eggplant parmesan or similar casseroles	89
Macaroni and cheese or ravioli, tortellini or similar items	90
Spaghetti with sauce	91
Pizza thin- and thick-crust	92-93
Submarine sandwich	94
Taco, chicken or beef or bean	95
Tuna salad sandwich or chicken or egg salad sandwich	96
Vegetable stir-fry with poultry, or meat or seafood	97

## ■ Desserts and sweets

Brownie	98
Candy in bite-sized pieces	99
Cake with frosting	100-101
Chocolate bar or other candy bar	102
Cookies, chocolate chip or other cookies	103
Pie, apple or other fruit pies	104
Sweet roll or Danish	105

## ■ Fats, oils, spreads and toppings

Butter or margarine	106
Cream cheese	107
Gravy	108
Jam or jelly	109
Mayonnaise or similar dressings	110
Oil all types	111
Salad dressing, French or other types	112
Sour cream or creamy dips and spreads	113
Syrup or honey	114
Whipped cream or whipped topping (shown on gelatin)	115

## ■ Food measures and containers

Drinking glasses	117
Coffee mugs	118
Paper or waxed cups	119
Carry-out hot cups	120
Wine glasses	121
Champagne, brandy, martini and shot classes	122
Beer mugs, glasses, can	123
Measures	124-125
Plates and bowls (shown in this book)	126-127

 **Bagel**



**Biscuit**



■ **Apple**

*or orange, peach, nectarine, pear, etc.*

