

The Basics of Eating

Purpose

This section is intended to provide information on the purpose and basics of eating and meal planning for diabetes management.

Objectives

At the end of this section, you will be able to:

- List four reasons for meal planning.
- Explain the purpose of portion size control.
- Accurately complete a food record.

Outline

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*The American Diabetes Association Recognizes this education service as meeting the National Standards for Diabetes Self-Management Education and Support.

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Eating for health

- Food is the source of over 70 nutrients essential to good health.
- All meal plans for diabetes are based on general nutrition principles and guidelines promoting good health and enjoyment of food.
- Two guidelines have been developed by the U.S. Department of Agriculture to summarize healthy food choices.
 - Dietary Guidelines for Americans
 - Promotes quality of food choices
 - Focus on types, not amounts, of specific foods
 - MyPlate
 - More specific to the amounts of foods recommended
 - Recommendations are more specific to an individual

Dietary guidelines for Americans

Make smart choices from every food group.

- Focus on fruits.
- Vary your vegetables.
- Get your calcium-rich foods.
- Make half your grains whole.
- Go lean with protein.
- Know the limits on fats, salt, and sugars.

Find your balance between food and physical activity.

- Be active for at least 30 minutes most days of the week.
- The amount of food you eat should balance with your activity level.

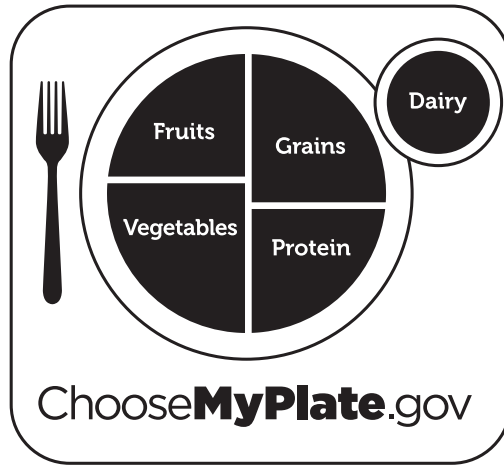
Get the most nutrition out of your calories.

- Use the Nutrition Facts Label on food packages to make smart food choices.
- Know how to prepare, handle, and store food safely.
- If you choose to drink alcohol, do so in moderation.

Nutrition Facts	
Serving Size 1 cup (52g)	
Servings Per Container 8	
Amount Per Serving	
Calories 148	Calories from Fat
% Daily Value*	
Total Fat 1g	2%
Saturated Fat 0g	1%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 86mg	4%
Total Carbohydrate 30g	10%
Dietary Fiber 10g	41%
Sugars 6g	
Protein 14g	
Vitamin A 1%	Vitamin C 0%
Calcium 7%	Iron 14%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
© www.NutritionData.com	

MyPlate

MyPlate was developed to help Americans make healthier food choices. No one food gives you all the nutrients you need to stay healthy. It is best to eat a variety of different foods every day.



Grains 6 ounces	Vegetables 2 ½ cups	Fruits 2 cups	Dairy 3 cups	Protein 5 ½ ounces
<p>Make at least half your grains whole.</p> <p>Aim for at least 3 ounces of whole grains a day.</p>	<p>Vary your veggies.</p> <p>Aim for these amounts each week:</p> <ul style="list-style-type: none"> • 3 cups dark green veggies • 2 cups orange veggies • 3 cups dry beans and peas • 3 cups starchy veggies • 6 ½ cups other veggies 	<p>Pay attention to whole fruits instead of juices, canned fruits, jams and jellies.</p> <p>Eat a variety of fruits.</p> <p>Go easy on fruit juices.</p>	<p>Get your calcium-rich foods.</p> <p>Go low-fat or fat-free when you choose milk, yogurt, or cheese.</p>	<p>Go lean with protein.</p> <p>Choose low-fat or lean meats and poultry.</p> <p>Vary your protein routine. Choose more fish, beans, peas, nuts, and seeds.</p>

These amounts are recommended for people who need 2,000 calories a day.

Reasons for meal planning

- To obtain and maintain health through good nutrition, taking into consideration calorie needs, personal preferences, and lifestyle.
- To achieve and maintain:
 - Blood glucose levels as near the normal range as possible
 - Blood pressure in the normal range below 130/80
 - Blood fats as near the normal range as possible:

Blood fat	Target
Total cholesterol	200 mg/dL (milligrams/deciliter) or less
HDL (high density lipoprotein) “Good cholesterol”	Men: 40 mg/dL or higher Women: 50 mg/dL or higher
Non-HDL cholesterol	Less than 130 mg/dL
LDL (low density lipoprotein) “Bad cholesterol”	100 mg/dL or less 70 mg/dL or less if you have cardiovascular disease
Triglycerides	150 mg/dL or less

- To prevent, delay, or treat diabetes related complications
- To maintain the pleasure of eating by limiting food choices only when indicated by scientific evidence

General eating guidelines for treating diabetes

The following general guidelines are the basics of all meal plans for the management of diabetes

- Eat at least three meals spaced throughout the day.
- Eat snacks **if recommended** by your diabetes team or health care provider.
- Do not skip meals (or snacks if recommended).
- Eat each meal (or snack) about the same time each day.
- Eat about the same amount at each meal each day.
- Pay attention to how much you eat.



Portion size

The amount of food you eat affects your blood glucose levels. It is important for your diabetes control that you are accurate in portion sizes.

Portion control is essential to manage diabetes and weight. A small underestimation of portions can result in a significant difference in carbohydrate, calorie, and fat intake. The importance of these nutrients will be discussed in the next chapters.

Weighing and measuring food

Equipment needed:

- Measuring cup for dry ingredients
- Measuring cup for liquids
- Measuring spoons
- Scale to weigh ounces
- Pen and paper (food record)

Accuracy counts

Let us look at how portion errors could affect your success at controlling blood glucose, blood fats, and your weight. Below is a typical meal with estimated and actual portions listed.

Estimated food Intake	Actual food intake
3 oz roast beef	4 oz roast beef
½ cup mashed potatoes	¾ cup mashed potatoes
1 oz dinner roll	2 oz dinner roll
1 tsp margarine	2 tsp margarine
2 cups garden salad with 2 Tbsp French dressing	2 cups garden salad with 4 Tbsp French dressing
1 cup skim milk	12 oz skim milk
½ cup ice cream	¾ cup ice cream

Difference between estimated and actual values

	Calories	Carbohydrate grams	Fat grams
Estimated	810	62	42
Actual	1270	97	69
Difference	+470	+35	+27

This inaccuracy made once a week for a year would cause a 7-pound weight gain.

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Assessing how you eat now

For best results a food record is used. Food records let you see how you eat for several days at a time. There are a variety of food record forms available to use. The most important things to record are:

- Time of meal/snack and if off schedule
- Foods eaten
- Amount eaten
- Eating place (home, work, etc) especially if different than usual
- Beverages

Food intake records are most accurate if foods are recorded within 15 minutes of eating. It is important to record “extras” used, such as butter, salad dressing, mayonnaise, and beverages. Do not forget those items you just grabbed as you walked past the kitchen counter or candy dish.

Day Sample Date _____

Was this an unusual day: Yes No

If yes, give reason _____

Activity: _____

Time	Food Eaten	Portion	Carbohydrates/Calories
7:30	Orange juice	4 oz.	15g/60
	Whole wheat toast	2 slices	30g/70
	Margarine	2 tsp.	0g/50
	Coffee	8 oz.	0g/0
	Sugar	1 tsp.	4g/16
9:30	Pear	1 large	32g/123
12:00	Sandwich:		
	Whole wheat bread	2 slices	30g/70
	Turkey	2 oz.	0g/117
	Mayonnaise - low fat	3 tsp.	2g/36
	Apple	1 large	32g/125
5:30	Pork chop	6 oz.	0g/331
	Potato-baked	1 large-8 oz.	39g/202
	Corn	½ cup	15g/66
	Sour cream - low fat	3 Tbsp.	3g/65
	Margarine	2 tsp.	0g/50
	Skim milk	12 oz.	18g/129
9:00	Cola	12 oz.	39g/153
	Popcorn, oil popped	4 cups	19g/164
	Margarine	2 tsp.	0g/50
Total Daily Carbohydrates and/or Calories			278g/1877

Hint: If you struggle with overeating, use your food record to note your feelings and thoughts that trigger these eating episodes.

Standard weights and measures

Abbreviations – used to indicate food quantities

Teaspoon..... tsp, also t
 Tablespoon..... Tbsp, also T
 Cup..... c
 Ounce.....oz

Fluid ounce..... fl oz
 Pound.....lb, also #
 Inch..... in or ”

Dry measures – used for measuring solid foods.
 To measure precisely, level off with a flat edge.
 Dry equivalents of measure:

3 tsp	=	1 Tbsp
4 Tbsp	=	¼ cup
5 Tbsp + 1 tsp	=	⅓ cup
8 Tbsp	=	½ cup
10 Tbsp + 2 tsp	=	⅔ cup
12 Tbsp	=	¾ cup
16 Tbsp	=	1 cup



Liquid measures – used for measuring fluids.
 To measure precisely, read at eye level.

2 Tbsp	=	1 fl oz
4 Tbsp	=	2 fl oz or ¼ fluid cup
5 Tbsp + 1 tsp	=	2 ½ fl oz or ⅓ fluid cup
8 Tbsp	=	4 fl oz or ½ fluid cup
10 Tbsp + 2 tsp	=	5 ½ fl oz or ⅔ fluid cup
12 Tbsp	=	6 fl oz or ¾ fluid cup
16 Tbsp	=	8 fl oz or 1 fluid cup or ½ pint



Weight – used to weigh cooked meats.
 To measure correctly, read scale at eye level.

1 oz	=	30 grams	=	1/16 lb
4 oz	=	120 grams	=	1/4 lb
5 oz	=	150 grams	=	1/3 lb
8 oz	=	240 grams	=	1/2 lb
10 oz	=	300 grams	=	2/3 lb
12 oz	=	360 grams	=	3/4 lb
16 oz	=	480 grams	=	1 lb

