

Calculating Ounce Equivalents of Grains in the Child and Adult Care Food Program

Grains are an important part of meals in the Child and Adult Care Food Program (CACFP). To make sure children and adults get enough grains at CACFP meals and snacks, minimum required amounts for grains are listed in the meal pattern as ounce equivalents (oz eq). Ounce equivalents tell you the amount of grain in a portion of food.



Below are three ways you can determine how much of an item you need to serve at CACFP meals and snacks:

- 1 Grains Measuring Chart for the CACFP:** This chart shows the amount of common grain items equal to a $\frac{1}{2}$ ounce equivalent, 1 ounce equivalent, and 2 ounce equivalents. Find the chart in the “Using Ounce Equivalents for Grains in the Child and Adult Care Food Program” worksheet at fns.usda.gov/tn/meal-pattern-training-worksheets-cacfp.
- 2 Food Buying Guide for Child Nutrition Programs (FBG):** Use this application’s “Exhibit A Grains Tool” to enter information from the Nutrition Facts label of the grain product. It will calculate how many ounce equivalents are in one serving. Use the application’s “Recipe Analysis Workbook” to determine the ounce equivalents of grains in a serving of a standardized recipe. The FBG is available at foodbuyingguide.fns.usda.gov.
- 3 Calculation Method:** Use the information on the item’s Nutrition Facts label, and follow the steps for “Calculating Ounce Equivalents for Grains” beginning on page 2 of this worksheet.

Calculating Ounce Equivalents for Grains

What is the requirement?

- 1 Determine the minimum amount of grains you need to serve. Look at the table below. Find the age group of your participants and the meal or snack you are serving.

Write the minimum amount of grains required here: ___ ounce equivalent(s).

Example: You want to serve grains at lunch to 4-year-olds. The minimum amount of grains required at lunch for 1- through 5-year-olds is a $\frac{1}{2}$ ounce equivalent.



Age Group and Meal	Minimum Amount of Grains Required
1- through 5-year-olds at Breakfast, Lunch, Supper, and Snack	$\frac{1}{2}$ ounce equivalent
6- through 18-year-olds at Breakfast, Lunch, Supper, and Snack	1 ounce equivalent
Adults at Snack	1 ounce equivalent
Adults at Breakfast, Lunch, and Supper	2 ounce equivalents

- 2 Find the grain item you are serving on the Grains Ounce Equivalents Chart on pages 4 and 5.

Next, find the amount of required ounce equivalent(s) (from Step 1).

Write the weight of the required ounce equivalent(s) here: _____ grams (g)

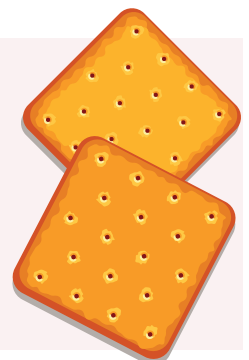
ITEM	$\frac{1}{4}$ oz eq equals	$\frac{1}{2}$ oz eq equals	$\frac{3}{4}$ oz eq equals	1 oz eq equals	2 oz eq equals
Bread Sticks (hard)	6 g	11 g	17g	22 g	44 g
Bread-Type Coating	6 g	11 g	17g	22 g	44 g
Chow Mein Noodles	6 g	11 g	17g	22 g	44 g
Crackers, Savory	6 g	11 g	17g	22 g	44 g

Example:

You are serving savory whole-wheat crackers at lunch to **4-year-olds**.

Step 1 shows that you must serve at least a **$\frac{1}{2}$ ounce equivalent** of grains at lunch.

The Grains Ounce Equivalents Chart shows that a **$\frac{1}{2}$ ounce equivalent** of savory crackers weighs **11 grams**.



Calculating Ounce Equivalents for Grains

How much is needed to meet the requirement?

Brand C Cheese Crackers

Nutrition Facts	
about 16 servings per container	
Serving Size 16 pieces (32g)	
Amount per serving	
Calories 140	
% Daily Value*	
Total Fat 5g	6%
Saturated Fat 0.5g	3%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 150mg	8%
Total Carbohydrate 48g	8%
Dietary Fiber 2g	7%
Total Sugars 4g	
Includes 4g Added Sugars	8%
Protein 2g	
Vitamin D 0mcg	0%
Calcium 32mg	2%
Iron 0.87 mg	4%
Potassium 90mg	0%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

3 Now look at the Nutrition Facts label of the grain item you are serving. Find the serving size. Write the weight of one serving here:

___ grams

One serving of these crackers weighs 32 grams.

4 Find the number of items or pieces in one serving. Write the number of items here:

___ items

There are 16 crackers (pieces) in one serving.

5 Divide the weight (grams) of one serving (from Step 3) by the number of items (pieces) in one serving (from Step 4):

___ grams ÷ ___ items = ___ grams per item

32 grams ÷ 16 crackers = 2 grams per cracker

6 Divide the weight of the required ounce equivalent(s) (from Step 2) by the weight per item (from Step 5):

___ grams ÷ ___ grams per item = ___ items

11 grams ÷ 2 grams per cracker = 5.5 crackers

7 *[As Needed]* If the answer in Step 6 ends in a fraction (such as 5 ½) or a decimal (such as 5.5), round the number up to the next whole number.

Five and a half (5.5) rounds up to 6 crackers. Serve at least 6 Brand C cheese crackers to 4-year-olds to meet the minimum amount of grains required at lunch for this age group in the CACFP.

More training, menu planning, and nutrition education materials for the CACFP can be found at TeamNutrition.USDA.gov.

Grains Ounce Equivalents Chart



ITEM	¼ oz eq equals	½ oz eq equals	¾ oz eq equals	1 oz eq equals	2 oz eq equals
Bagels	7 g	14 g	21 g	28 g	56 g
Batter-Type Coating	7 g	14 g	21 g	28 g	56 g
Biscuits	7 g	14 g	21 g	28 g	56 g
Bread Sticks (hard)	6 g	11 g	17 g	22 g	44 g
Bread-Type Coating	6 g	11 g	17 g	22 g	44 g
Breads	7 g	14 g	21 g	28 g	56 g
Bulgur/Cracked Wheat*	7 g	14 g	21 g	28 g	56 g
Buns	7 g	14 g	21 g	28 g	56 g
Cereal, Breakfast (all types, including grits, oatmeal, ready-to-eat, etc.)*	7 g	14 g	21 g	28 g	56 g
Cereal Grains (barley, quinoa, etc.)*	7 g	14 g	21 g	28 g	56 g
Chow Mein Noodles (ready-to-eat)	6 g	11 g	17 g	22 g	44 g
Corn Muffins	9 g	17 g	26 g	34 g	68 g
Cornbread	9 g	17 g	26 g	34 g	68 g
Crackers, Savory	6 g	11 g	17 g	22 g	44 g
Crackers, Sweet	7 g	14 g	21 g	28 g	56 g
Croissants	9 g	17 g	26 g	34 g	68 g
Croutons	6 g	11 g	17 g	22 g	44 g

oz eq = ounce equivalent(s)

g = grams

*Weights listed refer to the dry/uncooked version of the item. For example, 28 grams of uncooked barley, breakfast cereal, rice, etc. equals 1 ounce equivalent of grains.



Grains Ounce Equivalents Chart



ITEM	¼ oz eq equals	½ oz eq equals	¾ oz eq equals	1 oz eq equals	2 oz eq equals
Egg Roll Wrappers	7 g	14 g	21 g	28 g	56 g
English Muffins	7 g	14 g	21 g	28 g	56 g
French Toast	18 g	35 g	52 g	69 g	138 g
Muffins (all, except corn)	14 g	28 g	42 g	55 g	110 g
Pancakes	9 g	17 g	26 g	34 g	68 g
Pasta (whole grain-rich or enriched; all types)*	7 g	14 g	21 g	28 g	56 g
Pie Crust (for savory pies)	9 g	17 g	26 g	34 g	68 g
Pita Bread	7 g	14 g	21 g	28 g	56 g
Pizza Crust	7 g	14 g	21 g	28 g	56 g
Pretzels, Hard	6 g	11 g	17 g	22 g	44 g
Pretzels, Soft	7 g	14 g	21 g	28 g	56 g
Rice*	7 g	14 g	21 g	28 g	56 g
Rolls	7 g	14 g	21 g	28 g	56 g
Stuffing (weights apply to bread in stuffing)*	6 g	11 g	17 g	22 g	44 g
Taco Shells	7 g	14 g	21 g	28 g	56 g
Tortilla Chips	7 g	14 g	21 g	28 g	56 g
Tortillas	7 g	14 g	21 g	28 g	56 g
Waffles	9 g	17 g	26 g	34 g	68 g

oz eq = ounce equivalent(s)

g = grams

*Weights listed refer to the dry/uncooked version of the item. For example, 28 grams of uncooked barley, breakfast cereal, rice, etc. equals 1 ounce equivalent of grains.



Try It Out!

Follow the steps on pages 2-3 to answer the questions below.

A

You want to serve **Brand P hard pretzels** at snack at your afterschool center to children ages 7 to 10 years old. How many pretzels do you need to serve to meet the minimum amount of grains required for this age group?

Nutrition Facts

11 Servings Per Container

Serving Size 20 Pretzels (30g)



B

You want to serve brown rice and **Brand T soft flour tortillas** at supper to your adult participants. You will serve 1 ounce equivalent of brown rice. How many tortillas do you need to serve to meet the remaining 1 ounce equivalent of grains required?

Nutrition Facts

10 Servings Per Container

Serving Size 2 Tortillas (56g)



Step	1	2	3	4	5	6	7
You need to serve at least 15 Brand P hard pretzels to meet minimum serving amounts for grains at snack for this age group.	1 oz eq	22 g	30 g	20 pretzels	1.5 grams (30 grams ÷ 20 pretzels)	14.6 pretzels (22 grams ÷ 1.5 grams)	15 pretzels
You need to serve 1 Brand T soft flour tortilla to meet the remaining 1 ounce equivalent of grains required at supper for this age group.	1 oz eq	28 g	56 g	2 tortillas	28 grams (56 grams ÷ 2 tortillas)	1 tortilla (28 grams ÷ 28 grams)	1 is a whole number; no rounding needed
Minimum Amount of Grains Required	1 oz eq	Weight of Required Oz Eq	Weight of One Serving of Grain Item	Number of Items in One Serving	Weight of One Item (Weight of One Serving ÷ Number of Items)	Number of Items to Serve (Weight of Required Oz Eq ÷ Weight of One Item)	[As Needed] Round Up Items

Answers

A

B