

Serving Sizes for Vegetables and Fruits for Preschoolers in the Afterschool Snack Program

This guidance applies to preschoolers (ages 1-4) in the U.S. Department of Agriculture's (USDA) Afterschool Snack Program (ASP) of the National School Lunch Program (NSLP). For more information, see the Connecticut State Department of Education's (CSDE) handouts, *ASP Meal Pattern for Preschoolers* and *Menu Planning Guidance for Preschoolers in the ASP*. For detailed guidance on the ASP meal pattern requirements for preschoolers, see the CSDE's guide, *Menu Planning Guide for Preschoolers in the NSLP, SBP, and ASP*.



The USDA's final rule, *Child and Adult Care Food Program: Meal Pattern Revisions Related to the Healthy, Hunger-Free Kids Act of 2010* (81 FR 24348), and the [final rule corrections](#) (81 FR 75671), updated the NSLP, SBP, and ASP meal patterns for preschoolers, effective October 1, 2017. The NSLP, SBP, and ASP meal patterns for preschoolers are the same as the Child and Adult Care Food Program (CACFP) meal patterns for children.



Meal Pattern Requirements

School food authorities (SFAs) must ensure that snack menus provide the required food components and serving sizes in the ASP meal pattern for preschoolers. The five snack components include milk, meat/meat alternates, vegetables, fruits, and grains. Snack menus must include any two of the five components. For example, a reimbursable snack may include one serving of the vegetables component and one serving of the fruits component (such as ½ cup of carrots and ½ cup of peaches), because fruits and vegetables are two separate components. The USDA's *CACFP Best Practices* recommends serving a vegetable or fruit for at least one snack component. Offer versus serve (OVS) does not apply to the ASP.

Healthy Food Certification Requirements

In addition to meeting the ASP meal pattern, ASP snacks served to preschoolers in public schools that choose the healthy food option of Healthy Food Certification (HFC) under Section 10-215f of the Connecticut General Statutes must comply with the Connecticut Nutrition Standards (CNS). The following fruit and vegetable products are exempt from all nutrient standards of the CNS:

- fresh and frozen fruits and vegetables with no added ingredients except water;
- canned fruits with no added ingredients except water or that are packed in 100 percent juice, extra light syrup or light syrup, all without added artificial sweeteners, nonnutritive sweeteners, or sugar alcohols, and no added fats (including chemically altered fat substitutes); and
- low sodium or no salt added canned vegetables with no added fats.

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All other fruit and vegetable products are not exempt and must meet the CNS. For example, dried cranberries with added sugar do not meet the CNS and cannot be served in ASP snacks. For more information on the CNS, visit the CSDE's [HFC](#), [CNS](#), and [List of Acceptable Foods and Beverages](#) webpages.

Crediting Overview

Vegetables include fresh, frozen, canned, and rehydrated dried vegetables; and pasteurized full-strength vegetable juice. A serving of cooked vegetables must be drained. For example, a serving of canned corn cannot include the water in which it is packed, and a serving of baked beans cannot include the sauce in which it is packed. Dried vegetables (such as potato flakes) credit when rehydrated if the manufacturer's product formulation statement (PFS) provides specific documentation on the amount of vegetables per serving. Dried vegetables used for seasonings (such as dried onion and dried parsley) do not credit. Legumes credit as either the vegetables component or the meat/meat alternates component, but not both in the same snack. For information on crediting legumes, see the CSDE's handout, [Crediting Legumes in the NSLP and SBP](#). The USDA's [CACFP Best Practices](#) recommends at least one serving per week of dark green vegetables, red and orange vegetables, beans and peas (legumes), starchy vegetables, and other vegetables

Fruits include fresh, frozen, canned (in light syrup, water, or fruit juice), and dried fruits; and pasteurized full-strength fruit juice. Fresh and frozen coconut credit, but dried coconut, coconut flour, and coconut oil do not. A serving of canned fruit may include the 100 percent juice in which the fruit is packed, but cannot include water or syrup.

Pasteurized full-strength juice (fruit, vegetable, or combination) credits as the fruits component or vegetables component at only one preschool meal or ASP snack per day. All juice sources count toward the daily juice limit, including fruit and vegetable juice; frozen pops made from 100 percent juice; pureed fruits and vegetables in smoothies; and juice from canned fruit in 100 percent juice. For more information, see the CSDE's handouts, [Crediting Juice for Preschoolers in the NSLP, SBP, and ASP](#) and [Crediting Smoothies for Preschoolers in the NSLP, SBP, and ASP](#). The USDA's [CACFP Best Practices](#) recommends serving whole fruits (fresh, frozen, canned, and dried) more often than juice. Juice does not provide the same nutritional benefits as whole fruits and vegetables, which provide fiber, fewer calories, and more nutrients.

The minimum serving size for the vegetables component and fruits component is $\frac{1}{2}$ cup. Vegetables and fruits credit based on the yields in the USDA's [Food Buying Guide for Child Nutrition Programs](#) (FBG). All vegetables and fruits credit based on the volume served, except for:

- raw leafy greens such as spinach and lettuce, which credit as half the volume served, e.g., $\frac{1}{2}$ cup of raw leafy greens credits as $\frac{1}{4}$ cup of the vegetables component.; and
- dried fruit such as raisins and mixed dried fruit, which credits as twice the volume served,

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SFAs must obtain a PFS (or Child Nutrition (CN) label, if available) to document the crediting of processed commercial combination foods that contain vegetables or fruits, such as vegetable egg rolls, hummus, and fruit-filled turnovers. For more information, see the CSDE's handouts, *Child Nutrition (CN) Labeling Program*, *Product Formulation Statements*, *Accepting Processed Product Documentation*, and *Crediting Commercial Meat/Meat Alternate Products in the NSLP and SBP*.

Menu Planning

SFAs may choose to serve more than one vegetable to meet the vegetables component and more than one fruit to meet the fruits component. The minimum creditable amount of fruits and vegetables is $\frac{1}{8}$ cup. The following examples show menu items that provide the full $\frac{1}{2}$ -cup serving of the vegetables component or fruits component:

- $\frac{1}{2}$ cup of oranges;
- $\frac{1}{2}$ cup of carrots;
- $\frac{1}{4}$ cup of blueberries and $\frac{1}{4}$ cup of strawberries;
- $\frac{1}{2}$ cup of mixed vegetables (e.g., peas and carrots);
- $\frac{1}{2}$ cup of mixed fruits (e.g., fruit salad);
- $\frac{1}{2}$ cup of mixed vegetables and fruits (e.g., carrot-raisin salad);
- $\frac{1}{4}$ cup of broccoli and $\frac{1}{4}$ cup of red peppers;
- $\frac{1}{8}$ cup of mandarin oranges, $\frac{1}{8}$ cup of diced apple, $\frac{1}{8}$ cup of banana; and $\frac{1}{8}$ cup of strawberries;
- $\frac{1}{4}$ cup of raisins (credits as $\frac{1}{2}$ cup);
- 1 cup of salad greens (credits as $\frac{1}{2}$ cup); and
- $\frac{1}{2}$ cup of salad greens (credits as $\frac{1}{4}$ cup) and $\frac{1}{4}$ cup of tomatoes.

Menu planners should consider the serving size of menu items and plan snack menus to make it easy for children to take a reimbursable snack. When snack menus include the minimum $\frac{1}{2}$ -cup serving from more than one fruit or vegetable, children must take the full $\frac{1}{2}$ -cup serving to count as one of the two required snack components. OVS is not allowed in the ASP. Children must take the full serving of both snack components for a reimbursable snack.



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Fresh Vegetables and Fruits

SFAs should use the yields in the FBG to ensure that fresh vegetables and fruits provide the full ½-cup serving required by the ASP preschool meal pattern. Table 1 shows the required serving size for some common fruits and vegetables listed in the FBG.

Table 1. Required serving size for common fresh vegetables and fruits in the FBG		
Food	FBG serving size	Amount for ½ cup
Broccoli	1 medium spear = about ¼ cup	2 medium spears
Carrot sticks	3 sticks (4 inches by ½ inch) = ¼ cup	6 sticks (4 inches by ½ inch)
Celery sticks	3 sticks (4 inches by ½ inch) = ¼ cup	6 sticks (4 inches by ½ inch)
Cucumber sticks, pared or unpared	3 sticks (4 inches by ¾ inch) = ¼ cup	6 sticks (4 inches by ¾ inch)
Radishes	7 small radishes = ¼ cup	14 small radishes
Tomato slices, medium (2 ⅛ to 2 ¼ inch diameter)	5 slices (⅛-inch thick) = ¼ cup	10 slices (⅛-inch thick)
Tomato slices, large (2 ½ to 2 ¾ inch diameter)	4 slices (⅛-inch thick) = ¼ cup	8 slices (⅛-inch thick)
Tomatoes, cherry	3 whole cherry tomatoes = ¼ cup 5 half cherry tomatoes = ¼ cup	6 whole cherry tomatoes 10 half cherry tomatoes
Apples, 125-138 count ¹	1 apple = 1 cup ¼ apple = ¼ cup	½ apple
Apples, 100 count ¹	1 apple = 1 ¼ cups ⅕ apple = ¼ cup	⅔ apple
Banana, 150 count (petite) or 100-120 count ¹	1 banana = ½ cup ½ banana = ¼ cup	1 banana
Grapes, seedless, large	7 grapes = ¼ cup 14 grape halves = ¼ cup	14 grapes 28 grape halves
Orange, 138 count ¹ (Arizona or California)	½ orange = ¼ cup 1 orange = ½ cup	1 orange
Orange, 125 count ¹ (Florida or Texas)	½ orange = ¼ cup 1 orange = ⅝ cup	1 orange

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Table 1. Required serving size for common fresh vegetables and fruits

Food	FBG serving size	Amount for ½ cup
Orange, 113 count ¹ (Arizona or California)	½ orange = ¼ cup 1 orange = ⅝ cup	1 orange
Pear, 150 count ¹	½ pear = ¼ cup 1 pear = ½ cup	1 pear
Pear, 120 count ¹	½ pear = ⅜ cup 1 pear = ¾ cup	¾ pear
Pear, 100 count ¹ (D’Anjou or Bosc or Bartlett)	1 pear = 1 ¼ cups ½ pear = ⅝ cup	½ pear

¹ The count pack is the number of whole fruits that that fit into a case. The smaller the count, the larger the size of the fruit.

For additional portioning information, see the portion control charts, *Start with Half a Cup: Fresh Fruit Portioning Guide for Schools* and *Start with Half a Cup: Fresh Vegetable Portioning Guide for Schools*.

Whole Fresh Fruit

The crediting information for one piece of fresh fruit (whole or cut-up) varies depending on its type and size (count pack). The count pack is the number of pieces of fruit that fit into a case. The smaller the count, the larger the size of one piece of fruit. For example, the FBG indicates that:

- one 60-count plum, one 2 ⅛-inch diameter peach, and one 150-count petite banana each credit as ⅜ cup of fruit;
- one 100-120-count banana, one 150-count pear, one 80-count peach, one 138-count orange, and one 45-count (2-inch diameter) plum each credit as ½ cup of fruit; and
- one 113-count and 125-count orange each credit as ⅝ cup of fruit.



SFAs must ensure that an individual piece of fresh fruit (whole or cut-up) provides the required ½-cup serving of the fruits component for the ASP preschool meal pattern. If the amount is less than the full serving, the snack menu must include the additional amount from the fruits component to meet the full-required ½-cup serving. For example, one clementine credits as ⅜ cup of fruit,

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which is less than the full-required $\frac{1}{2}$ -cup serving for preschoolers. To credit as the full fruits component, the snack menu must include an additional $\frac{1}{8}$ cup of fruit. The additional serving may be from the same fruit or a different fruit. **Note:** For a reimbursable snack, children must take both fruit items (one component) and the full serving of the other snack component. OVS is not allowed in the ASP.

Table 2 lists the FBG's meal pattern contribution of some fresh fruits and the additional amount needed to provide the minimum serving of the fruits component in the ASP preschool meal pattern.



Table 2. Meal pattern contribution of whole fresh fruits

Fruit (one piece, whole or cut-up)	Preschool meal pattern contribution (from FBG)	Additional amount for $\frac{1}{2}$ cup ¹
Apple, 125-138 count	1 cup	0
Apricot, medium (1 $\frac{3}{8}$ -inch diameter)	$\frac{1}{4}$ cup	$\frac{1}{4}$ cup
Banana, 150 count, petite	$\frac{1}{2}$ cup	0
Banana, 100-120 count, regular	$\frac{1}{2}$ cup	0
Clementine, whole, peeled	$\frac{3}{8}$ cup	$\frac{1}{8}$ cup
Grapefruit, 27-32 count, large	1 cup	0
Kiwi, 33-39 count	$\frac{1}{4}$ cup	$\frac{1}{4}$ cup
Nectarine, size 88-96 (2 $\frac{1}{4}$ -inch diameter)	$\frac{1}{2}$ cup	0
Nectarine, size 56-64 (2 $\frac{3}{4}$ -inch diameter)	$\frac{3}{4}$ cup	0
Orange, Arizona or California, 113 count	$\frac{5}{8}$ cup	0
Orange, Florida or Texas, 125 count	$\frac{5}{8}$ cup	0
Orange, Arizona or California, 138 count	$\frac{1}{2}$ cup	0
Peach, size 88 and 84 (2 $\frac{1}{8}$ -inch diameter)	$\frac{3}{8}$ cup	$\frac{1}{8}$ cup
Peach, size 64 and 60 (2 $\frac{1}{2}$ -inch diameter)	$\frac{2}{3}$ cup	0
Peach, size 80	$\frac{1}{2}$ cup	0

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Table 2. Meal pattern contribution of whole fresh fruits

Fruit (one piece, whole or cut-up)	Preschool meal pattern contribution (from FBG)	Additional amount for ½ cup ¹
Peach, size 56	¾ cup	0
Peach, size 56	¾ cup	0
Pear, 150 count	½ cup	0
Pear, 120 count	¾ cup	0
Pear, D’Anjou, Bosc or Bartlett, 100 count	1 ¼ cups	0
Plum, purple, red, or black, size 45 and 50 (2-inch diameter)	½ cup	0
Plum, purple, red, or black, 2 ½-inch diameter	⅝ cup	0
Plum, Japanese or hybrid, size 60 and 65	⅜ cup	⅛ cup
Tangerine, 120 count	⅜ cup	⅛ cup

¹ The minimum amount of the fruits component is ½ cup. The additional amount of fruit can be from the same fruit or a different fruit. **Note:** Children must take the full ½-cup serving to count as one of the two required snack components. OVS is not allowed in the ASP.

Resources

Accepting Processed Product Documentation in the NSLP and SBP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/AcceptDoc.pdf>

Afterschool Snack Program (CSDE webpage):

<https://portal.ct.gov/SDE/Nutrition/Afterschool-Snack-Program>

Afterschool Snack Program Handbook (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/ASP/ASPHandbook.pdf>

Afterschool Snack Program Meal Pattern for Preschoolers (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/ASP/ASPmealpatternpreschool.pdf>

Afterschool Snack Program Menu Form for Ages 1-2 (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/ASP/Forms/ASPmenuform12.doc>

Afterschool Snack Program Menu Form for Ages 3-4 (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/ASP/Forms/ASPmenuform34.doc>

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Afterschool Snack Program Sample Menu for Ages 3-4 (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/ASP/Forms/ASPmenuform34.pdf>

CACFP Best Practices (USDA):

https://fns-prod.azureedge.net/sites/default/files/cacfp/CACFP_factBP.pdf

Comparison of Meal Pattern Requirements for Preschoolers and Grades K-12 in the ASP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/ASP/ASPComparisonPreschoolK12.pdf>

Connecticut Nutrition Standards (CSDE webpage):

<https://portal.ct.gov/SDE/Nutrition/Connecticut-Nutrition-Standards>

Crediting Foods in Preschool Meals (“Documents/Forms” section of CSDE webpage):

<https://portal.ct.gov/SDE/Nutrition/Meal-Patterns-Preschoolers-in-School-Nutrition-Programs/Documents>

Crediting Juice for Preschoolers in the NSLP, SBP, and ASP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/CreditJuicePreschool.pdf>

Crediting Legumes in the NSLP and SBP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/CreditLegumes.pdf>

Crediting Smoothies for Preschoolers in the NSLP, SBP, and ASP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Creditsmoothiepreschool.pdf>

Crediting Soup in the NSLP and SBP:

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/CreditSoup.pdf>

Food Buying Guide for Child Nutrition Programs (USDA):

<https://www.fns.usda.gov/tn/food-buying-guide-for-child-nutrition-programs>

Healthy Food Certification (CSDE webpage):

<https://portal.ct.gov/SDE/Nutrition/Healthy-Food-Certification>

List of Acceptable Foods and Beverages (CSDE webpage):

<https://portal.ct.gov/SDE/Nutrition/List-of-Acceptable-Foods-and-Beverages>

Meal Patterns for Preschoolers in School Nutrition Programs (CSDE webpage):

<https://portal.ct.gov/SDE/Nutrition/Meal-Patterns-Preschoolers-in-School-Nutrition-Programs/Documents>

Menu Planning Guidance for Preschoolers in the ASP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/ASP/ASPmenuguidancepreschool.pdf>

Menu Planning Guide for Preschoolers in the NSLP, SBP, and ASP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Preschool/mpgpreschool.pdf>

Noncreditable Foods for Preschoolers in the NSLP, SBP, and ASP:

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/Noncredpreschool.pdf>

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Product Formulation Statement for Vegetables and Fruits (USDA):

https://fns-prod.azureedge.net/sites/default/files/resource-files/PFS_Documenting_Vegetables_Subgroups_Fruits.pdf

Product Formulation Statements (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/NSLP/Crediting/PFS.pdf>

Sample Completed Product Formulation Statement for Fruits (USDA):

<https://fns-prod.azureedge.net/sites/default/files/resource-files/PFSsamplefruits.pdf>

Sample Completed Product Formulation Statement for Vegetables (USDA):

<https://fns-prod.azureedge.net/sites/default/files/resource-files/PFSsamplevegetables.pdf>

Start with Half a Cup: Fresh Fruit Portioning Guide for Schools:

<https://portal.ct.gov/-/media/SDE/Nutrition/SWHAC/PortionGuideFruit85x14.pdf>

Start with Half a Cup: Fresh Vegetable Portioning Guide for Schools:

<https://portal.ct.gov/-/media/SDE/Nutrition/SWHAC/PortionGuideVeg85x14.pdf>

USDA Memo CACFP 09-2017: Vegetable and Fruit Requirements in the Child and Adult Care Food Program; Questions and Answers:

<https://www.fns.usda.gov/cacfp/vegetable-and-fruit-requirements-cacfp-qas>

USDA Final Rule (81 FR 24348): Child and Adult Care Food Program: Meal Pattern Revisions Related to the Healthy, Hunger-Free Kids Act of 2010:

<https://www.fns.usda.gov/cacfp/fr-042516>

USDA Final Rule Corrections (81 FR 75671): Child and Adult Care Food Program: Meal Pattern Revisions Related to the Healthy, Hunger-Free Kids Act of 2010:

<https://www.federalregister.gov/documents/2016/11/01/2016-26339/child-and-adult-care-food-program-meal-pattern-revisions-related-to-the-healthy-hunger-free-kids-act>

USDA Memo CACFP 08-2017: Questions and Answers on the Updated Meal Pattern Requirements for the Child and Adult Care Food Program:

<https://www.fns.usda.gov/cacfp/questions-and-answers-updated-meal-pattern-requirements-child-and-adult-care-food-program>

USDA Memo SP 40-2019, CACFP 17-2019 and SFSP17-2019: Smoothies Offered in Child Nutrition Programs:

<https://www.fns.usda.gov/cn/smoothies-offered-child-nutrition-programs>

Vegetable Subgroups in the CACFP (CSDE):

<https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Crediting/VegGroupCACFP.pdf>

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For more information, review the CSDE's [Menu Planning Guide for Preschool Meals in the NSLP, SBP, and ASP](#) and visit the CSDE's [ASP](#) and [Meal Patterns for Preschoolers in School Nutrition Programs](#) webpages, or contact the [school nutrition programs staff](#) in the CSDE's Bureau of Health/Nutrition, Family Services and Adult Education, 450 Columbus Boulevard, Suite 504, Hartford, CT 06103-1841.

This handout is available at <https://portal.ct.gov/-/media/SDE/Nutrition/ASP/aspVFservingpreschool.pdf>.

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