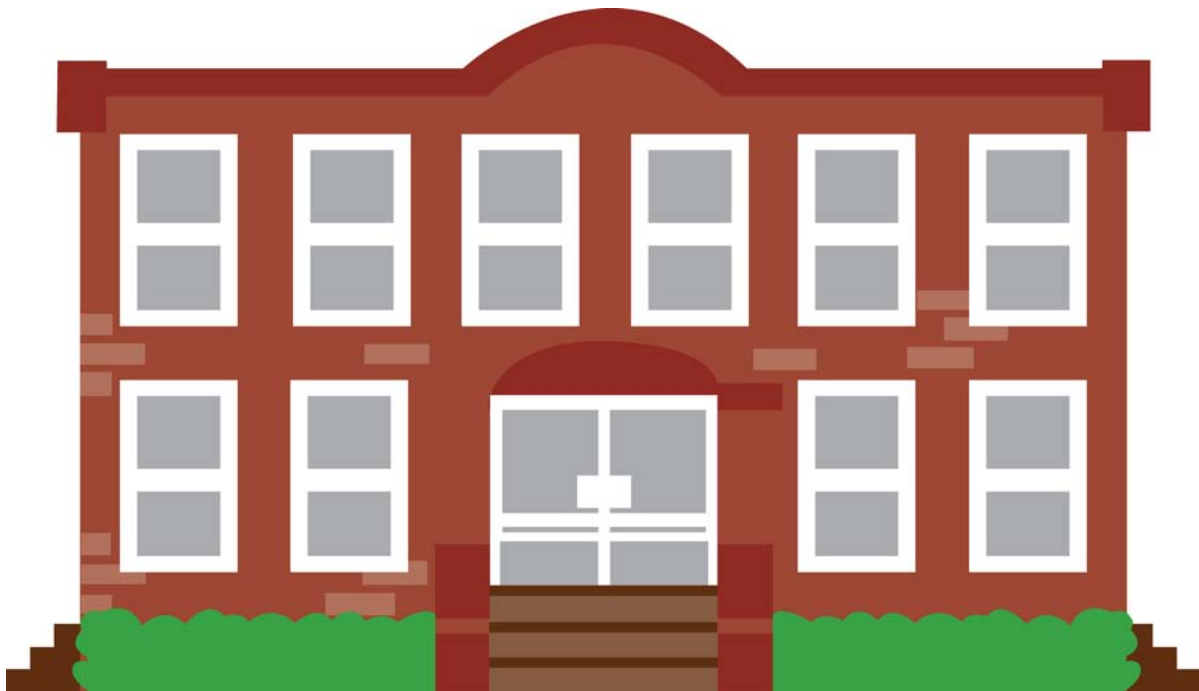


# HEALTHY SCHOOL MEALS



## IMPLEMENTATION OF SCHOOL MEALS INITIATIVE (NUTRIENT STANDARD)

MISSOURI DEPARTMENT OF ELEMENTARY  
AND SECONDARY EDUCATION  
SCHOOL FOOD SERVICES SECTION  
2010

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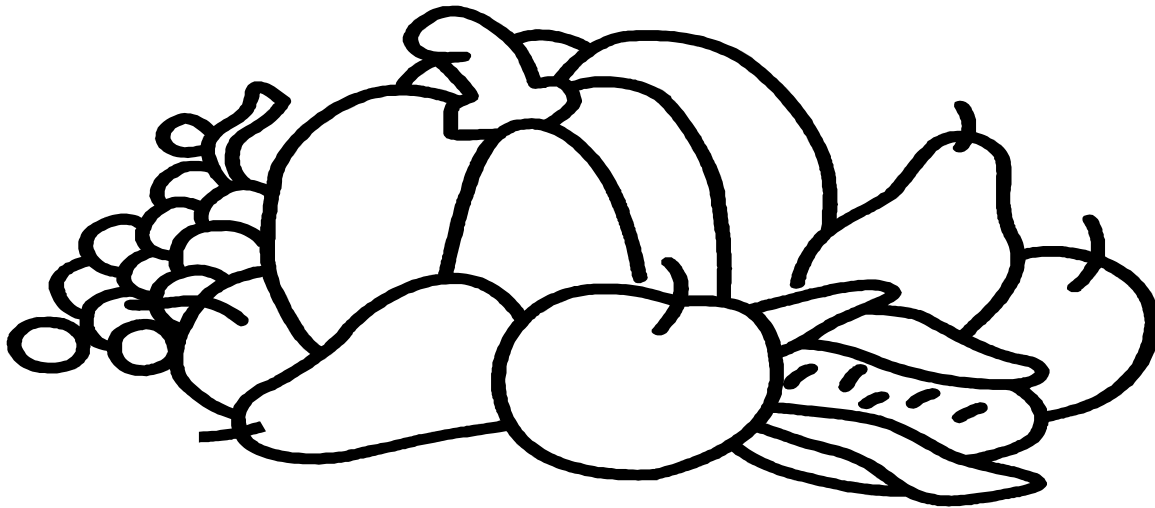
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## **INTRODUCTION**

### **The Purpose for Healthy School Meals**

Nutrition is a vital part of the healthy lifestyle to help prevent disease and disability. There is more to good nutrition than having enough food. It requires eating an adequate balance of healthy food.

Because diet has a long-range effect on health, happiness, education, and success for children, Healthy School Meals is our opportunity to enhance the future for students and their ability to learn. By serving nutritious meals and providing nutrition education through quality school food services, we form a vital link to the physical and intellectual fitness of children.

Americans generally consume too little fiber and too much fat, saturated fat, cholesterol, and sodium. Because we need to improve nutrition habits, our federal, state and local governments have taken steps to help adjust our children's diets.

In 1990, the Dietary Guidelines for Americans were revised to establish appropriate calorie levels from total fat and saturated fat, and to recommend monitoring sodium, cholesterol, and fiber intake for everyone over two years old.

By 1994, Congress passed legislation called the Healthy Meals for Healthy Americans Act, requiring Child Nutrition Programs to comply with the Dietary Guidelines and meet nutrient standards.

In the summer of 1995, the United States Department of Agriculture (USDA) issued new regulations to define how the Dietary Guidelines would be applied to school meals. It was called the School Meals Initiative (SMI).

Since July 1, 1996, compliance with the Dietary Guidelines is to be achieved through a choice of meal planning options for schools to reach the nutrient standards for Healthy School Meals. Local Education Agencies (LEAs) can operate within one of four specific menu planning options: Nutrient Standard, Assisted Nutrient Standard, Enhanced Food Based Menu Planning, or Traditional Food Based Menu Planning.

Schools are reviewed periodically to determine if they are following the menu planning option they selected, and if menus are meeting nutrition standards.

# OBJECTIVES

1. Recognize the required nutrient standards and the recommendations of the Dietary Guidelines.
2. Describe Nutrient Standard and Assisted Nutrient Standard Menu Planning.
3. Identify the proper age/grade group for the nutrient standard option chosen.
4. Recognize a reimbursable meal whether or not Offer versus Serve is implemented.
5. Plan a breakfast and lunch menu that meets Nutrient Standard Menu Planning program requirements.
6. Create standardized recipes with all the required components.
7. Complete Menu Production Records for use in food preparation and serving.
8. Explain how to obtain nutrient data from food manufacturers.
9. Gather and organize the materials needed for a State Agency review.
10. Recognize common data entry errors.
11. Evaluate different components of a nutrient analysis and make menu modifications as needed.



PROGRAM  
REQUIREMENTS  
AND  
REGULATIONS

# THE SMI REVIEW

*This gives a brief overview of what to expect  
if your school is selected for a School Meals Initiative (SMI) review.*

---

The State Agency is required to conduct a SMI review in each Local Education Agency (LEA) once every five years. At a minimum, the State Agency must review one school site for each type of menu planning system that is used within the LEA. If your school is selected for the SMI review, then all your SMI ‘souvenirs’ come into play! A five-day period (one week) will be selected as the review week. In order to do the SMI review, the State Agency will need to review your collection of all required information.

## INFORMATION YOU MUST PROVIDE FOR SMI

- Menus for the entire week.
- Standardized Recipes for all menu items served during the week selected for review.
- Food Production Records for the week selected for review.
- Nutrition Facts from labels or Nutrient Analysis Data forms from manufacturers.
- If you use Nutrient Standard or Assisted Nutrient Standard, you must provide your in-house nutrient analysis that applies to the week selected for review.

For those using Nutrient Standard or Assisted Nutrient Standard, the districts nutrient analysis will be reviewed for accuracy by the State Agency.

An on-site evaluation will also be made to determine if the recorded information and daily practices are consistent. Based on the results of the nutrient analysis and on-site evaluation, recommendations will be developed to bring menus into compliance with nutrient standards.

Never feel discouraged about a mistake or oversight that may be recognized during your SMI review. Value any errors as your opportunity to learn more. Your reviewer will help you solve problems and will answer any questions.

# MENU PLANNING SYSTEMS

*A brief explanation of the two approved menu planning options discussed in this guide.*

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## **NUTRIENT STANDARD MENU PLANNING (NSMP)**

Nutrient Standard Menu Planning is a computer-based menu planning system which allows menus to be planned without conforming to specific food components or quantity requirements. Approved software analyzes the nutrient content of foods prepared for school meals and enables the menu planner to adjust portion sizes and menu items as needed to achieve compliance with the nutrient standards. While menu planners are not bound by strict components and quantity requirements, they must, nonetheless, ensure that children are offered an entrée, milk and at least one other item. This facilitates the identification of meals eligible for Federal reimbursement and ensures that children can receive reasonable level of nutrients and calories daily. However, the meal planner has considerable latitude to decide what will constitute a menu item and entrée. Because the analysis is conducted by computer, and is generated during the actual planning of the meal service, the meal planner can determine precisely the degree to which the meals are in compliance with the nutrient standards and can design changes in the content as necessary.

## **ASSISTED NUTRIENT STANDARD MENU PLANNING (ANSMP)**

Assisted Nutrient Standard Menu Planning is designed for schools that do not have the technical resources to implement Nutrient Standard for themselves but would like to take advantage of the flexibility offered by this menu planning system. Under Assisted Nutrient Standard Menu Planning, the school would use an outside entity such as another school district, or a consultant to conduct a nutrient analysis and develop a menu cycle, recipes, procurement specifications and preparation methods that allow the school to produce meals that meet the nutrient standards. Assisted Nutrient Standard allows for precision in analyzing and modifying meals, although it is somewhat less flexible than Nutrient Standard since any experimentation that the school might want to do, would have to be reanalyzed by the outside entity. Also, while the initial cost may be less than the cost of acquiring equipment and software, the school will be dependent on the outside entity for supportive services, and this factor may prove to be more expensive over time.

# NUTRITION GOALS

*All meals served under the National School Lunch and School Breakfast Programs must strive to meet eight nutrient standards and recommendations of the Dietary Guidelines. This section clarifies the SMI nutrition goals, which apply to all programs, regardless of which menu planning option is used.*

---

According to the SMI, school meals must meet nutrient standards averaged over a week (three to seven consecutive days).

## THE KEY ELEMENTS OF NUTRIENT STANDARDS

- |              |                  |            |              |
|--------------|------------------|------------|--------------|
| 1. Calories  | 3. Saturated Fat | 5. Calcium | 7. Vitamin A |
| 2. Total Fat | 4. Protein       | 6. Iron    | 8. Vitamin C |

The standard for total fat is no more than 30 percent of total calories. The standard for saturated fat is less than 10 percent of total calories. Values for the other nutrients and calories are based on the Recommended Dietary Allowances (RDAs) for specific age groups.

The regulations also seek to reduce sodium and cholesterol and to increase carbohydrate and fiber in school meals. Although specific amounts have not been set for these nutrients and dietary components, you are expected to track them to demonstrate that, over time, you have reduced sodium and cholesterol and increased carbohydrates and fiber in the meals you offer students.

### RECOMMENDED DIETARY ALLOWANCES (RDAs)

The RDAs are set by the National Academy of Sciences/National Research Council and the Food and Nutrition Board. These organizations are independent scientific bodies, not government agencies. The RDAs were set for the first time in 1943 and have been revised periodically, based on reviews of current scientific research. The RDAs are the levels of nutrients that have been determined to be adequate to meet the known nutritional need of most healthy people. It is recommended that you calculate daily nutrients as the average from a five-day school week.

# DIETARY GUIDELINES FOR AMERICANS

The Dietary Guidelines for Americans are published every five years as a joint project of the United States Department of Agriculture and the United States Department of Health and Human Services. While RDAs are established to recommend nutrient adequacy to avoid deficiency diseases, the Dietary Guidelines are written to help people select a diet that promotes optimal health.

## APPLICABLE DIETARY GUIDELINES

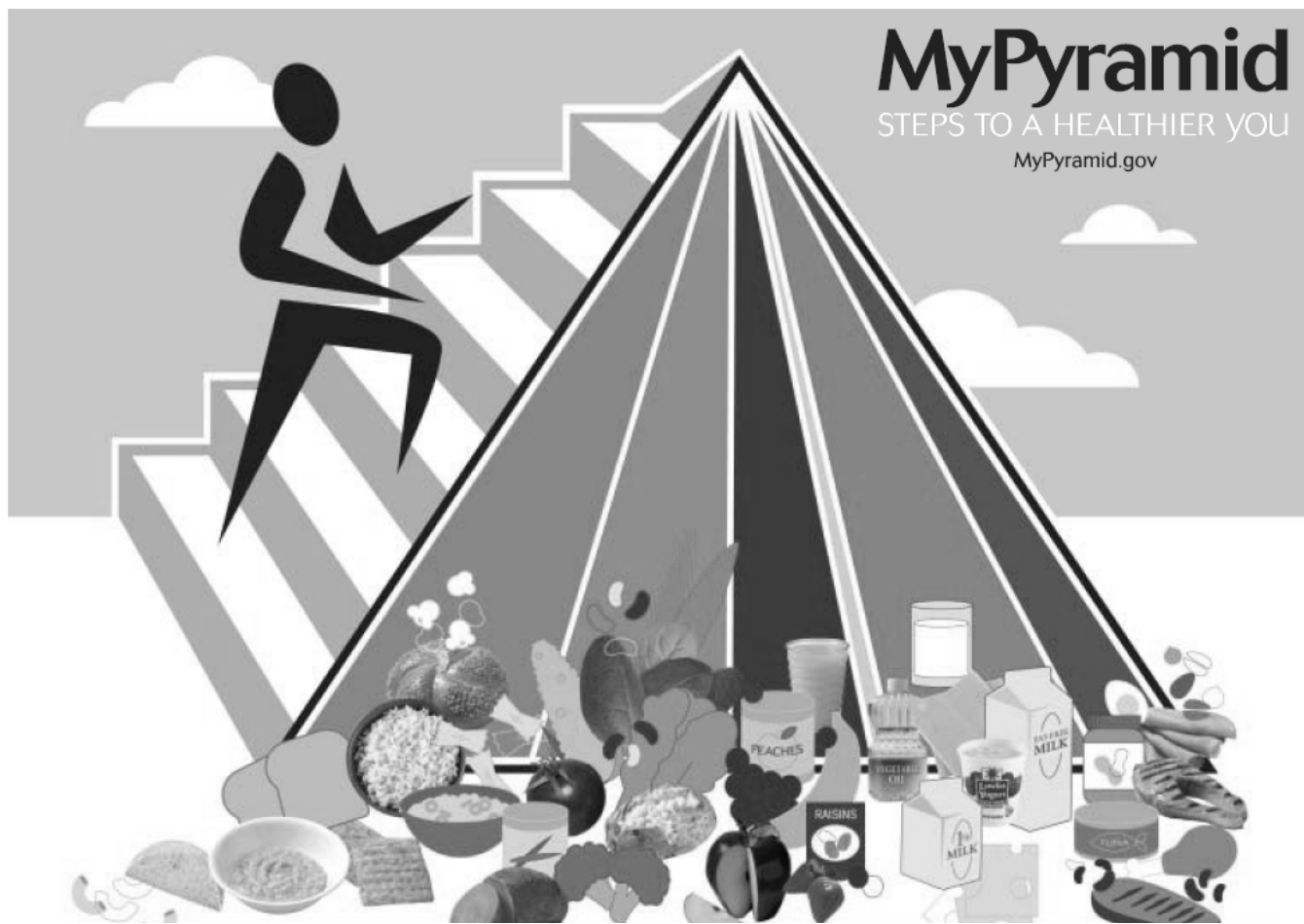
- Eat a variety of foods.
- Limit total fat to 30 percent of calories.
- Limit saturated fat to less than 10 percent of calories.
- Choose a diet low in cholesterol.
- Choose a diet with plenty of vegetables, fruits and grain products.
- Use salt and sodium in moderation.

SMI requires that meals served in the National School Lunch Program contain nutrients that meet one third of the RDAs for calories and eight specified nutrients according to age/grade levels. Meals served in the School Breakfast Program must contain nutrients that meet one-fourth of the RDAs for calories and eight specified nutrients according to age/grade levels. All meals served must meet the Dietary Guidelines. As the RDAs and the Dietary Guidelines are updated, the SMI nutrient standards will be modified to reflect the most current scientific recommendations.

# MyPyramid

STEPS TO A HEALTHIER YOU

MyPyramid.gov



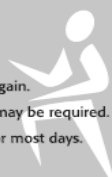
GRAINS Make half your grains whole	VEGETABLES Vary your veggies	FRUITS Focus on fruits	MILK Get your calcium-rich foods	MEAT & BEANS Go lean with protein
<p>Eat at least 3 oz. of whole-grain cereals, breads, crackers, rice, or pasta every day</p> <p>1 oz. is about 1 slice of bread, about 1 cup of breakfast cereal, or 1/2 cup of cooked rice, cereal, or pasta</p>	<p>Eat more dark-green veggies like broccoli, spinach, and other dark leafy greens</p> <p>Eat more orange vegetables like carrots and sweetpotatoes</p> <p>Eat more dry beans and peas like pinto beans, kidney beans, and lentils</p>	<p>Eat a variety of fruit</p> <p>Choose fresh, frozen, canned, or dried fruit</p> <p>Go easy on fruit juices</p>	<p>Go low-fat or fat-free when you choose milk, yogurt, and other milk products</p> <p>If you don't or can't consume milk, choose lactose-free products or other calcium sources such as fortified foods and beverages</p>	<p>Choose low-fat or lean meats and poultry</p> <p>Bake it, broil it, or grill it</p> <p>Vary your protein routine — choose more fish, beans, peas, nuts, and seeds</p>

For a 2,000-calorie diet, you need the amounts below from each food group. To find the amounts that are right for you, go to MyPyramid.gov.

Eat 6 oz. every day	Eat 2½ cups every day	Eat 2 cups every day	Get 3 cups every day; for kids aged 2 to 8, it's 2	Eat 5½ oz. every day
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## Find your balance between food and physical activity

- Be sure to stay within your daily calorie needs.
- Be physically active for at least 30 minutes most days of the week.
- About 60 minutes a day of physical activity may be needed to prevent weight gain.
- For sustaining weight loss, at least 60 to 90 minutes a day of physical activity may be required.
- Children and teenagers should be physically active for 60 minutes every day, or most days.



## Know the limits on fats, sugars, and salt (sodium)

- Make most of your fat sources from fish, nuts, and vegetable oils.
- Limit solid fats like butter, margarine, shortening, and lard, as well as foods that contain these.
- Check the Nutrition Facts label to keep saturated fats, trans fats, and sodium low.
- Choose food and beverages low in added sugars. Added sugars contribute calories with few, if any, nutrients.



U.S. Department of Agriculture  
Center for Nutrition Policy and Promotion  
April 2005  
CNPP-15



# GRADE GROUPS FOR NUTRIENT STANDARD, ASSISTED NUTRIENT STANDARD, AND ENHANCED FOOD BASED MENU PLANNING

## SCHOOL LUNCH

MINIMUM REQUIREMENTS FOR NUTRIENT STANDARD AND CALORIE LEVELS FOR SCHOOL LUNCH  
(School Week Averages)

### GRADE GROUPINGS

Nutrients and Energy Allowances	Preschool	Grades K-6	Grades 7-12	Option for Grades K-3
Energy Allowance (calories)	517	664	825	633
Total Fat	1	1	1	1
Saturated Fat	2	2	2	2
Protein (g)	7	10	16	9
Calcium (mg)	267	286	400	267
Iron (mg)	3.3	3.5	4.5	3.3
Vitamin A (RE)	150	224	300	200
Vitamin C (mg)	14	15	18	15
Cholesterol (mg) <sup>3</sup>	100	100	100	100
Fiber (g) <sup>3</sup>	3	4	7	4
Sodium (mg) <sup>3</sup>	1350	1350	1350	1350

<sup>1</sup>Total fat not to exceed 30 percent of calories over a school week.

<sup>2</sup>Saturated fat to be less than 10 percent of calories over a school week.

<sup>3</sup>State guidance

### OPTIONAL AGE GROUPS FOR NUTRIENT STANDARD AND ASSISTED NUTRIENT STANDARD

OPTIONAL MINIMUM NUTRIENT AND CALORIE LEVELS FOR SCHOOL LUNCH  
(School Week Averages)

### AGE GROUPINGS

Nutrients and Energy Allowances	Ages 3-6	Ages 7-10	Ages 11-13	Ages 14 and Above
Energy Allowance (calories)	558	667	783	846
Total Fat	1	1	1	1
Saturated Fat	2	2	2	2
Protein (g)	7.3	9.3	15.0	16.7
Calcium (mg)	267	267	400	400
Iron (mg)	3.3	3.3	4.5	4.5
Vitamin A (RE)	158	233	300	300
Vitamin C (mg)	14.6	15	16.7	19.2
Cholesterol (mg) <sup>3</sup>	100	100	100	100
Fiber (g) <sup>3</sup>	3	5	6	7
Sodium (mg) <sup>3</sup>	1350	1350	1350	1350

<sup>1</sup>Total fat not to exceed 30 percent of calories over a school week.

<sup>2</sup>Saturated fat to be less than 10 percent of calories over a school week.

<sup>3</sup>State guidance

# GRADE GROUPS FOR NUTRIENT STANDARD, ASSISTED NUTRIENT STANDARD, AND ENHANCED FOOD BASED MENU PLANNING

## SCHOOL BREAKFAST

**MINIMUM REQUIREMENTS FOR NUTRIENT STANDARD AND CALORIE LEVELS FOR SCHOOL BREAKFAST**  
(School Week Averages)

### GRADE GROUPINGS

<b>Nutrients and Energy Allowances</b>	Preschool	Grades K-12	Option for Grades 7-12
Energy Allowance (calories)	388	554	618
Total Fat	1	1	1
Saturated Fat	2	2	2
Protein (g)	5	10	12
Calcium (mg)	200	257	300
Iron (mg)	2.5	3.0	3.4
Vitamin A (RE)	113	197	225
Vitamin C (mg)	11	13	14
Cholesterol (mg) <sup>3</sup>	75	75	75
Fiber (g) <sup>3</sup>	2	4	5
Sodium (mg) <sup>3</sup>	1000	1000	1000

<sup>1</sup>Total fat not to exceed 30 percent of calories over a school week.

<sup>2</sup>Saturated fat to be less than 10 percent of calories over a school week.

<sup>3</sup>State guidance

## AGE GROUPS FOR NUTRIENT STANDARD AND ASSISTED NUTRIENT STANDARD

**OPTIONAL MINIMUM NUTRIENT AND CALORIE LEVELS FOR SCHOOL BREAKFAST**  
(School Week Averages)

### AGE GROUPINGS

<b>Nutrients and Energy Allowances</b>	Ages 3-6	Ages 7-10	Ages 11-13	Ages 14 and Above
Energy Allowance (calories)	419	500	588	625
Total Fat	1	1	1	1
Saturated Fat	2	2	2	2
Protein (g)	5.50	7.00	11.25	12.50
Calcium (mg)	200	200	300	300
Iron (mg)	2.5	2.5	3.4	3.4
Vitamin A (RE)	119	175	225	225
Vitamin C (mg)	11.00	11.25	12.50	14.40
Cholesterol (mg) <sup>3</sup>	75	75	75	75
Fiber (g) <sup>3</sup>	2	3	4	5
Sodium (mg) <sup>3</sup>	1000	1000	1000	1000

<sup>1</sup>Total fat not to exceed 30 percent of calories over a school week.

<sup>2</sup>Saturated fat to be less than 10 percent of calories over a school week.

<sup>3</sup>State guidance

# Missouri Department of Elementary and Secondary Education School Food Services Section

## Guidance on Acceptable Levels of Sodium, Cholesterol, and Fiber

**Levels of Sodium and Cholesterol are the same for all Menu Planning Options**

	<b>Breakfast (1/4)</b>	<b>Lunch (1/3)</b>
Sodium (3 g/day)	1000 mg	1350 mg
Cholesterol (300 mg/day)	75 mg	100 mg

**Average levels for fiber vary with menu planning option**

*Nutrient Standard and Assisted Nutrient Standard Menu Planning*  
Age Groupings

<b>Fiber</b>	<b>Ages 3-6</b>	<b>Ages 7-10</b>	<b>Ages 11-13</b>	<b>Ages 14 and Above</b>
Breakfast [(age plus 5 g) / 4]	2 g	3 g	4 g	5 g
Lunch [(age plus 5 g) / 3]	3 g	5 g	6 g	7 g

*Nutrient Standard, Assisted Nutrient Standard, and Enhanced Food Based Menu Planning*  
Grade Groupings

<b>Fiber</b>	<b>Preschool</b>	<b>K-12</b>	<b>Optional 7-12</b>
Breakfast [(age plus 5 g) / 4]	2 g	4 g	5 g

<b>Fiber</b>	<b>Preschool</b>	<b>K-6</b>	<b>7-12</b>	<b>Optional K-3</b>
Lunch [(age plus 5 g) / 3]	3 g	4 g	7 g	4 g

g-grams  
mg-milligrams

# MEAL REQUIREMENTS

*Specific meal requirements are necessary for both lunch and breakfast under NSMP and ANSMP. These requirements compose a reimbursable meal.*

	<b>Daily Requirements</b>	<b>Weekly Requirements</b>
<b>Lunch</b>	<p><u>Minimum</u> of three Menu items:</p> <ul style="list-style-type: none"> <li>• Entrée – a combination of foods or a single food item that is served as the main course</li> <li>• Fluid Milk – as a beverage</li> <li>• Side Dish – any other menu item that is not a condiment or a food of minimal Nutritional Value served alone, that is not served as part of another item</li> </ul>	<p>When averaged over a school week, meals must meet the appropriate age/grade-based Nutrient Standard.</p>
<b>Breakfast</b>	<p><u>Minimum</u> of Three Menu Items:</p> <ul style="list-style-type: none"> <li>• Fluid Milk – served as a beverage or on cereal or both</li> <li>• Side Dishes – two other menu items that are not a condiment or a food of Minimal Nutritional Value served alone, that is not served as part of another menu item</li> </ul>	<p>When averaged over a school week, meals must meet the appropriate age/grade-based Nutrient Standard.</p>

## OFFER VERSUS SERVE

Offer versus Serve (OVS) can be a valuable asset to the school food service program when implemented accurately. To accomplish this, all food service staff must be knowledgeable about this provision and its purpose.

### General Rules under Offer versus Serve

- Allows students to decline a certain number of menu items from the meal.
- Reduces food waste and food cost.
- Must be implemented in senior high school for lunch.
- Junior high, middle schools, and elementary schools have the option for lunch.

### GOALS

The original intent of Offer versus Serve (OVS) is to

- Minimize plate waste
- Encourage more food choices

Logically, a student who takes and consumes the full meal (all menu items) will receive the full nutritional benefit provided. The fewer the menu items taken and consumed under OVS, the lower the nutritional benefit derived. Although in non-OVS schools students are required to take the reimbursable meal, there is no guarantee that students will consume the full meal.

### RULES

Students must be offered at least three menu items (one menu item must be an entrée and one must be fluid milk). Offer versus Serve is required at the senior high level, but is optional below that level. Students in schools with Offer versus Serve must select at least two of the menu items. If schools offer more than three menu items for a single reimbursable lunch, students may only decline a maximum of two menu items.

Students must select the entrée in order to have a reimbursable lunch. An entrée is defined as a 'combination of foods or a single food item that is offered as the main course.'

### OVS BREAKFAST

Students must be offered at least three menu items (one menu item must be a milk and two other items must be offered). At the school food authority's option, students may participate in offer versus serve. Students must select at least two menu items and decline a maximum of one menu item. There is no requirement for the entrée for breakfast.

### POINT OF SERVICE IDENTIFICATION

For the purpose of identifying a reimbursable meal at the point of service, the menu planner will need to provide students and cashiers with details about the various combinations of menu items (including the various entrees) that may constitute a reimbursable meal.

If the school has a salad bar, the students may be able to make an 'entrée salad' or a 'side salad' (a side dish item) from the various ingredients.

For example, the students and cashiers need to be informed that the entrée salad consist of two scoops of tuna or chicken salad plus a bowl of lettuce and other items. The side salad/menu item could be a bowl of lettuce and other vegetables or a bowl of fruit salad.

# Nutrient Standard Menu Planning

## Offer versus Serve – Lunch

Always offer at least 3 menu items

1 entrée

1 milk

1 side dish

	3 Menu Items	4 Menu Items	5 Menu Items	6 Menu Items
Entrée (student must select one) Hamburger on a bun with French fries Spaghetti with tomato sauce Bean burrito with cheese	1	1	1	1
Milk (student may select one) Skim chocolate Skim unflavored 2% unflavored	1	1	1	1
Sides (menu planner determines number students may select) Corn, peas, orange slices, pineapple tidbits, seasoned broccoli, garlic bread, raisin cookie, side salad with dressing	May select up to one	May select up to two	May select up to three	May select up to four
The <i>maximum</i> number of items a student may select for the unit price	3	4	5	6
The <i>minimum</i> number of items a student may select under offer versus serve (remember: students must take the entrée)	2	2	3	4
May decline up to	1	2	2	2

# Nutrient Standard Menu Planning

## Food Bar Examples

Always offer at least 3 menu items

<p><b><i>Example 1</i></b></p> <p><b>Food Bar as an Entrée</b></p> <p><b>Menu Items</b></p> <p><b>1. Entrée</b> (students must select at least one or may take all)</p> <p>Lettuce, tomatoes, broccoli, carrots, green peppers, shredded cheese, pudding, potato salad, fresh apples, salad dressing, breadsticks, crackers</p> <p><b>2. Dessert Item</b></p> <p>Oatmeal raisin cookie</p> <p><b>3. Milk</b> (student may select one)</p> <p>skim chocolate skim unflavored 2% unflavored</p>	<p><b><i>Example 2</i></b></p> <p><b>Food Bar as a Side Item</b></p> <p><b>Menu Items</b></p> <p><b>1. Entrée</b> (student must select at least one or may take all)</p> <p>Hamburger on a bun with French fries Spaghetti with tomato sauce Bean burrito with cheese</p> <p><b>2. Food Bar</b> (student may select all)</p> <p>Lettuce, chopped tomatoes, carrot sticks, broccoli, pudding, corn salad, strawberries and bananas, salmon salad, macaroni salad</p> <p><b>3. Milk</b> (student may select one)</p> <p>skim chocolate skim unflavored 2% unflavored</p>	<p><b><i>Example 3</i></b></p> <p><b>Designated Entrée on the Food Bar</b></p> <p><b>Menu Items</b></p> <p><b>1. Entrée</b> (student must select at least one or may take all)</p> <p>Lettuce, chopped ham, breadsticks</p> <p><b>2. Food Bar</b> (students may select all)</p> <p>Corn, peas, orange slices, pineapple tidbits, seasoned broccoli, garlic bread, raisin cookie, side salad with dressing, crackers</p> <p><b>3. Milk</b> (students may select one)</p> <p>Skim milk Skim unflavored 2% unflavored</p>
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The maximum number of items a student may select for the unit price	3 menu items
The minimum number of items a student must select under offer versus serve (remember: students must take the entrée)	2 menu items
May decline up to	1 menu item

# Are These Meals reimbursable Under Nutrient Standard Menu Planning?

## Sample Menu #1

Oven-Baked Chicken  
Green Beans  
Canned Peaches  
Hot Roll  
Milk

Student Selects	Reimbursable?	
	Yes	No
Green beans, roll, milk		
Chicken, roll, milk		
Chicken and Peaches		
Chicken, peaches, green beans		
Peaches and milk		

## Sample Menu #2

Oven-Baked Chicken and Roll  
Green Beans  
Canned Peaches  
Milk

Student Selects	Reimbursable?	
	Yes	No
Chicken and roll		
Chicken, roll, milk		
Chicken, green beans, peaches		
Chicken, roll, peaches		
Roll, peaches, milk		

# Are These Meals reimbursable Under Nutrient Standard Menu Planning? ANSWER SHEET

## Sample Menu #1

Oven-Baked Chicken  
Green Beans  
Canned Peaches  
Hot Roll  
Milk

Student Selects	Reimbursable?	
	Yes	No
Green beans, roll, milk		X
Chicken, roll, milk	X	
Chicken and Peaches	X	
Chicken, peaches, green beans	X	
Peaches and milk		X

## Sample Menu #2

Oven-Baked Chicken and Roll  
Green Beans  
Canned Peaches  
Milk

Student Selects	Reimbursable?	
	Yes	No
Chicken and roll		X
Chicken, roll, milk	X	
Chicken, green beans, peaches		X
Chicken, roll, peaches	X	
Roll, peaches, milk		X

MEETING  
COMPLIANCE  
FOR  
SMI

# MENUS

## **Menu Planning**

No matter what menu planning system you use, you will begin by putting food into a plan that will result in a menu that is nutritious and appeals to students. These general points will be important for success in Nutrient Standard and Assisted Nutrient Standard Menu Planning.

## **Driving Force**

The menu is the basis for all food service program activity. The menu drives the planning, purchasing, production, service, cleanup, and nutrition education functions. Menu planning also provides an opportunity for nutrition education and for involving children, parents, and teachers in the program.

## **Management Tool**

Successful management of the National School Lunch and School Breakfast Programs starts with menu planning. The menu is the management tool that controls these program functions. The menu must be planned to be in compliance with federal regulations and program requirements. The menu determines the nutrient content of the meal and the meal acceptability. The acceptability influences the participation rate. The menu also determines the food cost, and its complexity affects labor costs.

The menu controls what food production and purchasing must be done to produce the menu. The food production, which must be done, determines how the work is scheduled. The food to be produced determines what the equipment use and needs are. Employee training needs are determined by which foods are on the menu and how they are prepared and served. The menu plan sets the food service program in motion and controls many of its functions.

# Notes

## **Knowledge Required**

The quality of the meals and the success of the program depends on the knowledge and skills of the menu planner. Menu planners need to know:

- Program purposes and goals, requirements and recommendations.
- Students' food preferences.
- Food cost and the amount of money available.
- Food available for the menu planning period.

## **Cycle Menus**

Using cycle menus developed for breakfast and lunch for any of the menu planning systems will save time and increase efficiency. A cycle menu will not only save time for the grade or age group for which it is planned, but with changes in portion size, the cycle may be adjusted for use with another grade or age group.

To avoid repetition in a cycle menu, changes may be made to incorporate seasonal variations and special events into the cycle. It also allows USDA commodities to be included. This is still easier than starting over every month.

In Nutrient Standard and Assisted Nutrient Standard, there are steps to do before actually completing your plan and analyzing the menu. These steps include entering the recipes and vendor nutrient analysis for menu items you intend to use as well as the RDA age or grade group. Using a cycle menu can save time on these preliminary steps from month to month, leaving more time for training staff and promoting healthful changes.

## **Variety**

Variety in the menu encourages consumption of healthy foods. Choices in meal components should be provided whenever possible. Offer students a selection of foods and types of milk fat content from which to choose.

To increase food consumption and participation in schools that do not offer choices each day, no one meat or form of meat should be served more than three times in a week. ('Form of meat' refers to ground, sliced, pieces, etc.)

# **Notes**

# THE ABCs OF MENU PLANNING

## **1. Collect Menu Resources**

There are many menu resources available to menu planners, including their own old menus. In addition, recipe files such as the USDA Quantity Recipes for School Meals and the USDA Menu Planning Guide will help provide ideas.

## **2. Select the Age or Grade Group**

First select the age or grade group to plan for based on the grades in the school or group of schools for which the menu is planned. The age or grade group selected will determine the type of menu items and the appropriate portion sizes. The portion sizes may be adjusted for other age or grade groups, or as needed to meet program requirements.

## **3. Determine the Number of Choices**

Determine the number of choices that will be offered for each menu item for Nutrient Standard. Providing choices and variety is an important concept whether planning the entrees or the side dishes.

The number of choices you offer in each category depends on your own operation. Look for a balance in cost, nutrients and equipment usage, as well as the labor needed to prepare each item. You may start by adding one or more entrees and then adding a selection of side dishes that compliment the entrée choices.

Offering choices has the added benefit of allowing the introduction of new foods without the usual drop in participation. Letting students ‘take a taste’ of a new menu offering is the ideal way to introduce students to a wider variety of menu selections.

Offering choices at sites where Offer versus Serve is in place encourages students to select food they intend to eat. Offering choices does not need to be extensive: even two choices give students the opportunity to express their individual preference and increase the likelihood that a full meal will be selected.

## Notes

#### **4. Select the Entrée for Lunch or the Main Course for Breakfast**

The entrée usually sets the scene for the rest of the lunch menu and sometimes for the breakfast menu. It may be the determining factor as to whether students elect to eat that day. Therefore, careful planning of the entrée can improve participation (see *Magic Menu Planner* on page 22).

#### **5. Select the Menu Item(s)**

Select other menu items that complement the entrée.

##### **Contrast**

This is the opportunity to add color and texture as you plan the other menu items in the meal. To add color, use bright fruits and vegetables or a colorful dessert item. To add texture, use crisp, firm foods for example:

- Use a green salad or raw vegetable sticks with a soft burrito.
- Use a hard roll or a slice of whole grain bread with spaghetti and sauce.

##### **Balance**

Balance in ‘weight’ and ‘flavor’ can also be achieved as the other menu items are added. If the first menu item planned is heavy, plan a light vegetable or dessert such as fresh fruit. If the entrée is light, add a higher calorie food such as a healthy baked dessert or a cooked vegetable such as potatoes or corn.

To balance flavor, use a combination of mild and strong flavored foods. Too many foods with strong flavors in the same meal may result in an unacceptable meal.

##### **Variety in Shapes and Sizes**

Another opportunity for creating appealing menus is with shapes and sizes. Consider a meal with fish sticks, oven-baked French fries, carrot sticks and a banana. All of the above foods have a similar shape. Presenting foods in several different shapes appeals to children: a baked chicken leg, potato rounds, carrot sticks and a watermelon wedge.

## **Notes**

## **Color**

The last but perhaps one of the most important considerations is color. Consider the menu with fish sticks. Not only was every menu item the same shape, they were also in the same color frame. It helps to use at least two colorful foods in each menu. Vegetable and fruits are a natural way to add eye appeal. It helps to add a bright colored food to a menu with little or no color. For example, add a slice of tomato to a potato salad or put a fresh grape or strawberry on a dish of sliced pears or peaches. A dash of cinnamon or paprika can be used to achieve the same effect

## **6. Provide fluid milk choices**

A variety of fat contents must be made available every day.

## **7. Evaluate**

Evaluate menus to meet nutrient goals. Menu planners using Nutrient Standard will analyze their menus before planning is complete.

## **Publishing Menus**

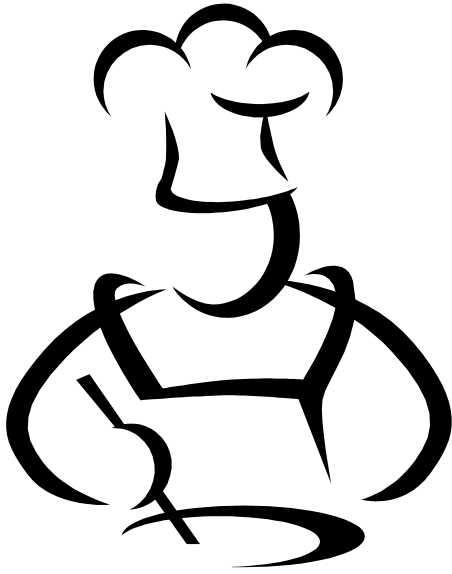
The menu is the number one sales tool for your school food service. Menus are presented in many different forms, ranging from hand written photocopied handouts to highly decorated menu boards.

When you invest the time and energy to develop a creative, healthy menu, take the next step to market it through all possible avenues. Hand out attractive take home-menus, contribute a menu column in the local newspaper, and add your menu to a nutrition column in the school newsletter. Create attention-grabbing menu boards and even broadcast menus over the radio. Add it to the LEAs Web Site.

The Positive feedback and success you experience with this extra effort will make your journey to Healthy School Meals a fun adventure!

# **Notes**

# STANDARDIZED RECIPES



## Notes

### **Why and When to Standardize**

Standardized recipes are an important part of any well-managed food service program. In Nutrient Standard Menu Planning (NSMP), they are crucial in calculating the nutrient value of meals and producing an accurate and valid nutrient analysis for NSMP.

NSMP requires that a standardized recipe must be developed and entered into a computer database recipe file for all menu items having:

- More than one ingredient
- Any preparation tips

Examples include:

- Purchased burrito
- Seasoned vegetables
- Baked, seasoned chicken
- Mixed fresh fruit cup

## Notes

### **Definition of a Standardized Recipe**

A standardized recipe is one that is produced for a specific school district and which is designed to assure the same number and portion sizes, the same taste, food quality, and the cost and nutritional content **EVERY** time the recipe is used – **REGARDLESS** of who makes the product.

In other words, it is a tool used to ensure a consistent quality and cost of a product in a large production kitchen.

### **Benefits of Standardizing**

Besides making it possible to have an accurate and valid nutritional analysis, a standardized recipe will benefit your Child Nutrition Program in nine ways:

1. Assures products provide the nutrient analysis planned by the district.
2. Better quality control and consistency.
3. Portion control.
4. Eliminates waste and guesswork.
5. Fewer cases of 'running out' and having to make substitutions.

**Remember: When you make food substitutions you change the nutrient composition of the meal.**

6. Improves cost control.
7. Closer inventory control.
8. Time savings in food preparation.
9. Reduces training and supervision.

**Remember:** Anyone with basic cooking skills can produce consistent results with a standardized recipe.

## Notes

### Description of a Standardized Recipe

A standardized recipe is a recipe that is produced for a specific school district.

These recipes may need to be modified to adapt them to a specific kitchen, depending on the equipment available.

The ingredients **MUST** stay the same. The assembly and preparation methods used may vary. Standardized recipes have been tested and retested until the consistency is satisfactory for **BOTH** quality and yield. In other words a standardized recipe is consistent in:

- **Yield**
- **Quantity**
- **Taste**
- **Cost**
- **Quality**
- **Nutrients**
- **Time**

### Back to the Basics

A recipe we are about to make calls for a 'pinch of salt'. How big is a pinch of salt? How big would it be in a recipe for four? If we enlarged this recipe from 4 to 400, how big would a pinch of salt be then? Some recipes call for a pat of butter. Would your pat be the same as mine?

Each of us must know and practice accurate measuring techniques to produce standardized, consistent, quality foods. Students react negatively to products that are inconsistent.

Negative customer reaction may mean loss of participation and revenue. If this continues to a significant extent, staffing may need to be reduced.

If food quality is tremendous, students will want to eat with us, and our workload may increase so much we need to add hours or staff.

In quality food service, everyone who is assigned to produce a recipe is responsible for accurately measuring all ingredients each time it is prepared. A measurement error could cause a costly and time consuming mistake for us. How would you feel if you were responsible for ruining 400 servings of the students favorite pizza, the line was opening in 10 minutes and there was no way to make more?

### **Weighing Versus Measuring**

Weighing is the preferred method to measure ingredients for standardized quantity recipes (unless in small amounts such as: tablespoon, cup, etc). It decreases the overall time spent in preparing a recipe and is a much more efficient, accurate, and productive method.

The following page contains a chart for converting measures to weights.

**Proper portioning of cooked products is important, and part of accurate measuring.**



## **Notes**

## COMMON CONVERSIONS FOR WEIGHT AND VOLUME

### CONVERT WEIGHT

**Weight****Formula**

Pounds (lb) to ounces (oz)

Multiply the number of pounds by 16

Ounces (oz) to pounds (lb)

Divide the number of ounces by 16

### CONVERT VOLUME

**Volume****Formula**

Gallons (gal) to quarts (qt)

Multiply the number of gallons by 4

Quarts (qt) to gallons (gal)

Divide the number of quarts by 4

Quarts (qt) to cups (c)

Multiply the number of quarts by 4

Cups (c) to quarts (qt)

Divide the number of cups by 4

Cups (c) to gallons (gal)

Divide the number of cups by 16

Tablespoons (tbsp) to cups (c)

Divide number of tablespoons by 16

Tablespoons (tbsp) teaspoons

Multiply the number of tablespoons by 3

Teaspoons (tsp) to Tablespoons (tbsp) Multiply the number of teaspoons by 3

## Components of Standardized Recipes Include:

### Required Components

1. Name of food item should appear clearly at the top.
2. Category (e.g., entrée, vegetable, grain, etc) and optional recipe number.
3. Ingredients by weight (for dry) and by volume (for liquids). Forms of ingredients (chopped, minced, hot or cold, etc.) must also be provided so cooks know how to prepare ingredients.
4. Directions or instructions for putting the ingredients together to make the dish. The times required for mixing, blending, etc.
5. Description of how the product should look during the mixing and how it should look when it's done.
6. Consistent abbreviations and terms provide workers with a 'key'. Try to use the conventional abbreviations to the maximum extent possible.
7. Cooking and baking temperatures and times  
Be sure to differentiate between conventional or convection oven if both would be available.
8. Include bowl or pan sizes, equipment to use  
Specify the weight or volume of food to be put into each pan.
9. Portion size
10. Serving utensils (ladle, spoodle, disher, etc.)
11. Yield ( Number of portions, gallons, pans, etc)
12. Special instructions, (refrigeration, adding liquid to thin, etc., pre preparation required).

## Notes

## Notes

**The Goal:** Each recipe should be written clearly enough that an inexperienced person could make the dish successfully without having to ask questions.

Optional components might include:

1. Cost information (not encouraged since prices change so much, unless computer generated and tied into inventory pricing)
2. Pre-preparation information (i.e. thawing)
3. Standard of quality expected
4. Time required to produce recipe

### **Abbreviations and Definitions of Cooking Terms**

Imagine that your manager gave a recipe for angel food cake to a new employee and said to prepare 500 servings. When the cakes came out of the oven, they were flat.

The manager couldn't understand why that had happened since a standardized recipe had been used. The employee related exactly how the cakes were made, step by step. All had gone well until the instructions said to fold the stiffly beaten egg whites into the batter. Instead, the employee poured the batter into the egg whites and still using the wire whip, turned the mixer on speed 3. This action took all the air out of the egg whites, causing the cake to fall. Two mistakes were made. The manager assumed the employee understood all the terms in the recipe, and the employee did not follow the recipe exactly as it was written.

Misunderstandings about common terms used in quality food service can result in poor food quality. Since recipe terms and instructions are included in standardized recipes, we need to define terms to prevent disaster or misunderstanding.

*The next page contains terms and abbreviations commonly used in quantity recipes.*

## COOKING TERMS AND ABBREVIATIONS

Terms Used to Describe Oven Temperatures		Glossary of Terms for Processes and Methods			
Very slow oven	250 and 275 °F	Bake	To cook by dry heat, usually in an oven. A suitable cooking method for meat, bread, and many other foods.	Broil	To cook by direct heat from a flame, electric unit, or glowing coals; a suitable cooking method for tender meat cuts.
Slow oven	300 and 325 °F				
Moderate oven	350 and 375 °F				
Hot oven	400 and 425 °F				
Very hot oven	450 and 475 °F				
Extremely hot oven	500 and 525 °F				
<p>Always preheat the oven to the temperature specified in the recipe.</p> <p>Note: Calibrate ovens regularly and check them often with an oven thermometer to make sure preset temperatures are being reached.</p> <p><b>Abbreviations</b></p>		Barbecue	To roast or broil a food which is usually brushed with a highly seasoned sauce.	Brown	To cook food, generally meat, until it is uniformly brown on all sides.
		Baste	To spoon liquids, sauce, or meat juice over food to keep it moist during cooking and to add flavor.	Chill	To cool a food with ice water or refrigeration.
		Beat	To vigorously mix by hand or with mixing equipment to make the mixture light, fluffy, or smooth.	Chop	To cut food into small pieces with a knife or chopping equipment.
Tsp	Teaspoons	Blend	To mix two or more ingredients.	Combine	To mix two or more ingredients together.
Tbsp	Tablespoons				
Oz	Ounces	Boil	To cook rapidly in water or liquid so that bubbles rise and break on the surface.	Cream	To work foods (such as shortening and sugar) together with a spoon or mixer, until soft and fluffy or until thoroughly blended.
Fl oz	Fluid ounces				
Lb or #	Pound	Braise	To cook slowly in a covered container with a small amount of liquid or water. A suitable cooking method for less tender meat cuts.	Crumb	To cover a food with bread or cracker crumbs or to break food such as bread in to fine pieces.
Pt	Pint				
Qt	quart	Bread	To coat food with bread crumbs, cracker crumbs, or flour before cooking.	Cut in	To mix solid fat, such as butter or margarine, into dry ingredients with a cutting motion so that the fat remains in small particles.
Gal	Gallon				
Wt	Weight			Dice	To cut into small cubes with a knife or chopping equipment.
No	Number				
Pkg	Package				
°F	Degree Fahrenheit				
°C	Degree Celsius				
x	Multiply				
÷	Divide				

## COOKING TERMS AND ABBREVIATIONS

Dredge	To coat a food by dipping it in crumbs, flour, cornmeal, sugar, or other coatings.	Marinate	To soak a food, such as meat or vegetables, for a period of time in a sauce with herbs, spices, and condiment to enrich its flavor and/or to tenderize.	Roast	To cook by dry heat, uncovered in an oven. A suitable cooking method for tender meat roasts.
Fold	To combine several food ingredients into a mixture by gently turning the mixture, with a minimum of motions, until the ingredients are blended.	Melt	To turn a solid food into a liquid by heating.	Scald	To heat a liquid, such as milk, to a temperature just below the boiling point. Tiny bubbles will appear around the edge of the pan.
Fry	To cook in fat over heat in a skillet, pan, or griddle or in a fryer.	Mince	To finely chop food, such as garlic, into very small pieces.	Shred	To cut or grate foods into narrow strips.
Glaze	To coat with a mixture to produce a glossy appearance on the food.	Mix	To blend or combine two or more foods or ingredients.	Simmer	To cook in a liquid that is kept just below the boiling point.
Grill	To cook uncovered over direct heat on a griddle or pan, removing fat as it accumulates.	Parboil	To boil in water briefly as a preliminary cooking step. May be used with vegetables and meat.	Slice	To cut a food with a knife or slicing equipment.
Grind	To chop or pulverize food, such as meat, into small particles by using a food chopping device or meat grinder.	Pare	To thinly trim off the outer covering or skin of a food such as potatoes.	Steam	To cook food in steam generated by boiling water or in steam equipment.
Knead	To work with dough, such as bread dough by pressing, folding, and stretching to develop the dough structure.	Peel	To strip off the outer covering of a food, such as oranges.	Stir	To mix ingredients with a circular motion without beating.
Leaven	To cause food, such as bread, to rise and increase volume by adding a leavening agent, such as yeast or baking powder.	Punch down	To remove air bubbles from risen yeast dough by pushing the dough down with the fist.	Whip	To rapidly beat a food, such as eggs or cream, incorporating air to lighten the mixture and to increase its volume. Usually whipping is done with a whisk, fork, or mixing equipment.
		Reconstitute	To bring back a concentrated food, such as a juice concentrate or a dry food, such as nonfat dry milk, to the original state by adding liquid.		
		Rehydrate	To add fluids back into a dried food such as dehydrated onions.		

# DEVELOP A RECIPE FORM TO USE

The advantage of a standardized form is that employees become familiar with the form, and where to look for key information.

## Descriptive/Action Step/Block Form

This is the best form to use for quantity food production. This is the format the USDA uses. Ingredients are listed in the order used on the left side and the procedure for each ingredient is provided on the right. Ingredients are grouped with procedures and divided by solid lines to make the recipe easier to read (may separate by blank lines). This form also makes it easier for the cook to identify what to do with each ingredient and the correct preparation sequence. A particular note is that ingredients requiring advance preparation would be listed first so they are ready when needed later in the actual preparation.

### Descriptive/Action Step/Block Example

Angel Biscuits: 100 portions – 1 each			
Ingredients	Measure	Weight	Method
Yeast	4 Pkg		1. Dissolve yeast in warm water.
Water, warm	1 cup + 4 Tbsp	6 ½ lb.	
Flour		6 ½ lb.	2. Mix flour, baking powder, baking soda, sugar and salt together.
Baking Power	6 ½ lb.		
Baking Soda	4 Tbsp		
Sugar	½ cup		
Salt	2 tsp		
Shortening		2 lb.	3. Cut in shortening.
Buttermilk	½ gal		4. Add Buttermilk to yeast mixture and combine with flour mixture. Knead slightly. Roll out in one-half inch thickness and cut with floured, two-inch biscuit cutter.
Butter, melted	½ cup		5. Brush one 18 x 26 inch pan with butter. Let rise slightly overnight in refrigerator.
			6. Bake in 400°F conventional oven for 30 minutes <b>OR</b> Bake in 350°F convection oven for 15 minutes.
			7. Serve one for 1 bread equivalent.

**REMINDERS:** Directions must be simple, clear, and easy to understand words. Use as few words as possible. To make it easier to follow the recipe, list ingredients separately for each time they are used. For example, if eggs are added at different times in different amounts when making a dessert, list them separately. Using this format will simplify both direction and writing food preparation.

# PUTTING IT ALL TOGETHER: CREATING A RECIPE BOOK

As you standardize the recipes, you will build your kitchen's recipe book. A recipe book is a binder for routine reference, containing one page for each recipe and every food item you use and every menu item you make, including condiments, milk, jellies, crackers, etc.

The recipe book is the master blueprint for all the food items used and all the menu items served in all the meals you make for your students. It is a guide to what can be used in creating menus. If there is no recipe then the item cannot be part of the menu. If a new menu item is desired, then a recipe must be created.

Here is an example of how to organize your recipe book:

## **Entrée**

BBQ Wrap  
Veggie Pizza  
Chicken Nuggets  
Deli Sandwich

## **Fruits and Vegetables**

Apples  
Orange Wedges  
Broccoli Florets  
Canned Commodity Peaches  
Baby Carrots  
Celery Sticks

## **Grains/Breads**

Whole Wheat Roll  
Saltine Crackers  
Sliced Whole Grain Bread

## **Condiments**

Low-Fat Ranch Dressing  
Mayo  
Ketchup  
Mustard

## **Milk**

1% White  
Non-Fat Chocolate  
Skim

The recipe book should have a page for every item on this menu – standardized recipes and single food items.

# STANDARDIZED RECIPE

Recipe Name \_\_\_\_\_

Recipe Number: \_\_\_\_\_

Number of Servings: \_\_\_\_\_

INGREDIENTS	MEASURE		PREPARATION DIRECTIONS
List in order used	Weight	Volume	
<p>Yield: _____ (weight or volume)</p> <p>Portion Size: _____</p>	<p>Additional Information: _____</p> <p>Meal Pattern Contribution: _____ (Food Based Menu Planning Only)</p>		

RECIPE CONTINUED

<b>INGREDIENTS</b>	<b>MEASURE</b>		<b>PREPARATION DIRECTIONS</b>
List in order used	Weight	Volume	

# STANDARDIZED RECIPE COMMERCIALY PREPARED PRODUCTS

Product Name: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

## MANUFACTURER'S NUTRIENT SPECIFICATIONS

Nutrient Submission Form  Yes  No

Manufacturer's Nutrient Label Attached  Yes  No

Other  Please Specify:

## PREPARATION DIRECTIONS

Equipment Type/Size and Cooking Time/Temperature

Yield: \_\_\_\_\_

(weight or volume)

Portion Size: \_\_\_\_\_

Additional Information: \_\_\_\_\_

# MENU PRODUCTION RECORDS

The menu production record is a valuable tool in the menu planning process. It serves the dual purpose of demonstrating compliance with program requirements and communicating the menu to staff.

## **Menu Items**

Menu items include any single food or combination of foods offered as part of a reimbursable meal. Menu items under Nutrient Standard and Assisted Nutrient Standard Menu Planning are entrée, side dishes and milk for lunch; and milk and side dishes for breakfast.

Recording this information will help cashiers and servers to understand the contribution of food items. The product description should be given on any convenience type or single item food. Also, include the form of the menu item as appropriate (i.e. fresh apples, USDA sliced peaches, rainbow hamburger buns, Tyson chicken nuggets 4401, catsup, etc.) *Do not list vendor names – Only brand names.*

## **Quantity of Food Prepared**

Site staff must keep records verifying that the planned menu was actually prepared and served. The production record is the management tool for doing that. The amount of each food prepared to meet meal pattern requirements and adult and a la carte servings must be recorded. The amounts should be shown as total pounds, cans, cases, etc.

Give the recipe number of the menu item. List a USDA recipe number, local school recipe number, or manufacturer's product code of each menu item. Any menu item that contains two or more ingredients must have a standardized recipe, (i.e. seasoned or buttered corn, tossed salad, salad bar, lasagna, rolls, fruit salad, cookies, etc.)

## **Age/Grade Groups**

The menu planner must indicate the age/grade groups on the food production record. For any menu items to be adjusted, the recipes and products, the adjusted portion sizes and grade group must all be listed.

## Notes

## Notes

### **Planned Number of Portions**

Projecting the number of portions is the first step in determining how much food to order and how much time to plan for preparation and equipment usage.

### **Portion Size**

The portion size indicated on the recipe or on the purchased product case must be shown on the food production record. Listing the portion size on the food production record is a safeguard to ensure that the correct portion size is served.

### **Actual Student Servings**

Staff must record the number of portions of each item that was actually served to students.

### **Actual Serving**

Staff should record the number of servings sold a la carte and the number of adult servings.

Staff should record leftovers on the food production record. In some schools they also record whether they are to be frozen for use later or incorporated into the menu in the next few days. It is important to be able to track the source of leftovers.

### **Comments**

Record any substitutions you make in the menu. Include student comments about menu items and any special circumstances or situations. Your comments will be helpful for future reference.

### **Number of Meals Served**

Record the total number of adult meals and reimbursable student meals served. Do not include a la carte sales or second meals.

### **Condiments**

Condiments such as mustard, catsup, jelly, salad dressing and gravy are not counted as a menu item in Nutrient Standard. However, all foods count toward the nutrient analysis when it is time to analyze and adjust the planned menu. Therefore, menu planners must include the projected servings and portion sizes of all condiments in their menu plan.

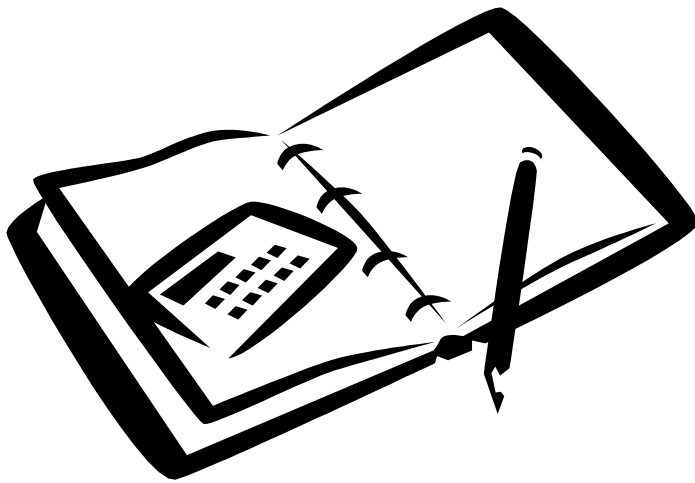
*For example*, if a packet of catsup (9 grams) is made available for hamburgers, the menu should include the projected number of packets historically served.

**Actual Number of Meals Served**

Record the total number of reimbursable student meals by age/grade group and non-reimbursable meals (adult meals and student second meals) served.

**Computer Generated Production Record**

The production records produced from USDA approved software is sufficient to use in your food service program.



**Notes**

Department of Elementary and Secondary Education  
NUTRIENT STANDARD LUNCH PRODUCTION RECORD

No	Name	Portion Size	Reimbursable	Ala Carte	Total	Recipe Source
Monday 4/30/05						
10258	Hot ham and cheese	Servings	55		55	local
45687	Fruit cocktail, canned light syrup	.5	50		50	
45896	Cauliflower, raw fresh	.25 cup	45		45	
45698	Broccoli, raw fresh	.25 cup	30		30	
26895	Royal Brownie	1 each	55		55	USDA C-4
23986	Milk variety	½ pint	55		55	local
14895	Dressing, ranch, Kraft free #675	2 TBSP	45		45	
Tuesday 5/1/05						
00014	Taco, beef: MOD	2 each	55		55	USDA D-13:MOD
98563	Bananas	1 each	40		40	
86957	Whole wheat sugar cookies	1 cookie	42		42	USDA C-30
12679	Rice, cooked brown	.25 cup	35		35	USDA B-3
23986	Milk variety	½ pint	55		55	local
Wednesday 5/2/05						
75698	Hot dog on bun: turkey hot dog	Serving	55		55	
56983	Potato puffs: frozen cooked	.5 cup	50		50	
52369	Apples, fresh	1 each	45		45	
56396	Green beans, frozen, boiled	.25 cup	36		36	
23986	Milk Variety	½ pint	55		55	
02569	Ketchup: individual	2 each	55		55	local
00589	Mustard: yellow, prepared	1TBSP	25		25	
Thursday 5/3/05						
63967	Chicken Tetrazzini	6 oz	50		50	USDA D-42
05012	Quick Baked Potatoes	1 half	49		49	USDA I-17
00378	Rolls, wheat: scratch (yeast)	Each 1 oz	55		55	USDA B-16
41256	Grapes, fresh	1 cup	50		50	
23986	Milk Variety	½ pint	50		50	local
Friday 5/4/05						
00548	Pizza with cheese topping	Servings	55		55	USDA D-30
02586	Rice Krispie Treats (058859)	1 treat	55		55	Kellogg's
02148	Corn, frozen, yellow	.25 cup	45		45	
45896	Cole Slaw	.5 cup	40		40	USDA E-6
23986	Milk variety	½ pint	55		55	local

# NUTRIENT STANDARD LUNCH – MENU PRODUCTION RECORD

ACTUAL NUMBER OF MEALS SERVED

REIMBURSABLE

NON-REIMBURSABLE

Age/Grade \_\_\_\_\_ Students \_\_\_\_\_ Adults \_\_\_\_\_

Age/Grade \_\_\_\_\_ Students \_\_\_\_\_ Second Meals \_\_\_\_\_

Date: \_\_\_\_\_

School: \_\_\_\_\_

Offer versus Serve:     Yes     No

Menu Items	Quantity Prepared (recipe number or pounds, # 10 cans, each, cases, etc)	Age/Grade Group:			Age/Grade Group:			Actual		Internal Temperatures(s)/ Time(s)	Comments
		Planned Number Portions	Portion Size	Actual Student Serving	Planned Number Portions	Portion Size	Actual Student Serving	Adult Serving	Leftover		
Entree											
Side Dishes (at least two)											
Condiments											

## DIRECTIONS FOR NUTRIENT STANDARD LUNCH MENU PRODUCTION RECORDS

### HEADING

- **ACTUAL NUMBER OF MEALS SERVED**  
Record the total number of reimbursable student meals by age/grade group and non-reimbursable meals (adult meals and student second meals) served.
- **DATE**  
Write the calendar date this menu was served.
- **SCHOOL**  
Fill in the school name.
- **OFFER VS. SERVE**  
Check yes or no.

### MENU ITEMS

Menu items include any single food or combination of foods offered as part of a reimbursable meal. Breakfast menu items for Nutrient Standard and Assisted Nutrient Standard Menu Planning are milk and side dishes (at least two). Include brand names and identification numbers of purchased prepared food items. Condiments should also be included on production records.

Indicate the amounts of food prepared in terms of pound/ounces, # 10 cans, or recipe number. When unsure of how to list a particular food in purchased units, check to see how the food is listed in the *Food Buying Guide*.

### QUANTITY PREPARED AGE/GRADE GROUP

Record the number of planned portions and portion size for each age/grade group used in your school(s). Be sure that a form or documentation such as a standardized recipe, a Nutrition Facts Label, or nutrient analysis data is available to explain the portion size.

### ACTUAL

- **A LA CARTE**  
Record the actual number of a la carte items sold for each menu item.
- **ADULT SERVINGS**  
Record the number of adult servings actually served.
- **LEFTOVERS**  
Record the number of servings left over.

### COMMENTS

Record any changes or substitutions made in the menu.

# NUTRIENT STANDARD BREAKFAST – MENU PRODUCTION RECORD

ACTUAL NUMBER OF MEALS SERVED

REIMBURSABLE

NON-REIMBURSABLE

Age/Grade \_\_\_\_\_ Students \_\_\_\_\_ Adults \_\_\_\_\_

Age/Grade \_\_\_\_\_ Students \_\_\_\_\_ Second Meals \_\_\_\_\_

Date: \_\_\_\_\_

School: \_\_\_\_\_

Offer versus Serve:  Yes  No

Menu Items	Quantity Prepared (recipe number or pounds, # 10 cans, each, cases, etc)	Age/Grade Group:			Age/Grade Group:			Actual		Internal Temperature(s)/ Time(s)	Comments
		Planned Number Portions	Portion Size	Actual Student Serving	Planned Number Portions	Portion Size	Actual Student Serving	Adult Serving	Leftover		
Milk											
Side Dishes (at least two)											
Condiments and Other Foods											

## DIRECTIONS FOR NUTRIENT STANDARD BREAKFAST MENU PRODUCTION RECORD

### HEADING

- **ACTUAL NUMBER OF MEALS SERVED**  
Record the total number of reimbursable student meals by age/grade group and non-reimbursable meals (adult meals and student second meals) served.
- **DATE**  
Write the calendar date this menu was served.
- **SCHOOL**  
Fill in the school name.
- **OFFER VS. SERVE**  
Check yes or no.

### MENU ITEMS

Menu items include any single food or combination of foods offered as part of a reimbursable meal. Breakfast menu items for Nutrient Standard and Assisted Nutrient Standard Menu Planning are entrees, side dishes, and milk. Include brand names and identification numbers of commercially prepared food items. Condiments should also be included on production records.

### QUANTITY PREPARED

Indicate the amounts of food prepared in terms of pound/ounces, # 10 cans, or recipe number. When unsure of how to list a particular food in purchased units, check to see how the food is listed in the *Food Buying Guide*.

### AGE/GRADE GROUP

Record the number of planned portions and portion size for each age/grade group used in your school(s). Be sure that a form or documentation such as a standardized recipe, a Nutrition Facts Label, or nutrient analysis data is available to explain the portion size.

### ACTUAL

- **A LA CARTE**  
Record the actual number of a la carte items sold for each menu item.
- **ADULT SERVINGS**  
Record the number of adult servings actually served.
- **LEFTOVERS**  
Record the number of servings left over.

### COMMENTS

Record any changes or substitutions made in the menu. Include student comments about the menu items and any special circumstances or situations.

# NUTRIENT DATA

*This section guides you through the process of collecting processed food product nutrient data. For programs using Nutrient Standard, nutrient data must be collected and entered into your software for all manufactured foods that are not included in the National Nutrient Database for Child Nutrition Programs.*

---

Each processed food item is distinct in the nutrients it contributes to your menu. The manufactured product's nutrient data shows the amount of nutrients it contains.

## PRODUCT NUTRITION DATA IS AVAILABLE IN TWO FORMS

- Nutrition Facts is a section on the product label
- Or you can obtain manufacturer's nutrient data directly from your food manufacturer, food distributor, or food broker. Ask to speak to the manufacturer's corporate dietician.

### AS PURCHASED OR AS SERVED

Every manufacturer must clarify if their product nutrient data is *as purchased* or *as served*. *As served* are those processed foods that do not have ingredients added or fat absorbed during preparation. *As purchased* are all foods that have ingredients added in preparation, such as milk, eggs, and oil in bakery mixes; food with preparation methods, like bake or fry, or foods that gain or lose moisture or fat during preparation.

### Which foods require nutrient data from the manufacturer?

Typical food items that will need nutrient data include salad dressings, cookies, snack chips, refried beans, heat and serve foods (examples: burritos, frozen pizza, chicken nuggets),.

Generic items generally do not require nutrient data. Examples are milk, fresh/frozen/canned fruits and vegetables, grain items (cereal, pasta, rice) and unprocessed meat. These items are already included in the National Nutrient Database for Child Nutrition Programs. However, you must be specific on the menu production records about the form of these items (Examples: peaches in light syrup, non-fat chocolate milk, ground beef with less than twenty percent fat, commodity cheese blend, or brown rice).

## What information from the manufacturer is necessary for my nutrient analysis?

Attain and record the information below. Record the nutrient content information per portion.

### NUTRIENT INFORMATION REQUIRED FOR ANALYSIS

- Brand
- Product Name
- Product Code Number
- Package Size
- Portion Size
- Number of Servings per Package
- Calories
- Protein in Grams
- Total Fat in Grams
- Percentage of Calories from Saturated Fat
- Calcium in Milligrams
- Iron in Milligrams
- Vitamin A in Retinal Equivalents
- Vitamin C in Milligrams

## How do I collect nutrition data if it is not included on the manufacturer's product label?

- Make a list of all products needing nutrient data.
- Call or write the manufacturer, food distributor, or food broker to request the nutrient data information be provided to you in writing. You can also send a Nutrient Data Submission Form for processed food product analysis.
- Note the date when you requested the nutrient information.
- Make sure the nutrition data indicates if it is based on *as purchased* or *as served*. If not indicated, call the manufacturer for clarification.
- Check off each nutrient data sheet received on the product list.
- Review the nutrient data. You may decide to choose another product with a different nutrient composition.
- The manufacturer's nutrient data is not always complete! If that is the case, you must re-contact the manufacturer to order the missing information. Note the date the request was made.

## ORGANIZATION OF FILES

Store this information in a binder using the tabs listed below. Place the appropriate data behind each suggested tab making sure that the product name is easy to identify.

- Beans/Legumes
- Breakfast Food
- Condiments & Salad Dressings
- Desserts
- Entrée
- Fruits and Vegetables
- Grains & Breads
- Sandwiches
- Sauces & Gravies
- Soups & Salads

## NUTRIENT ANALYSIS DATA FORM

Data submitted for this product is on (check one):

“As Served” Basis: \_\_\_\_\_ “As Purchased” Basis: \_\_\_\_\_

Brand: \_\_\_\_\_

Product Name: \_\_\_\_\_

Product Code: \_\_\_\_\_

CN Label Number: \_\_\_\_\_

Package Size: \_\_\_\_\_ lb. \_\_\_\_\_ fluid oz. \_\_\_\_\_ grams

Standard Serving: \_\_\_\_\_  
 Number of Servings  
 per Package: \_\_\_\_\_

Weight per Serving: \_\_\_\_\_ grams

Analysis Based on: \_\_\_\_\_ 100 grams or servings

**A value must be entered for each nutrient. If the food item does not contain a specific nutrient enter zero (0).**

<u>Nutrients</u>	<u>Measurement</u>	<u>Fill in Nutrient Value</u>	<u>Unit Weight</u>
Calories	xxx		kcal
Protein	xx.xxx		grams
Total Fat	xx.xxx		grams
Saturated Fat	x.xxx		grams
Carbohydrates	xx.xxx		grams
Total Dietary Fiber	xx.xx		grams
Cholesterol	xx.xx		milligrams
Calcium	xx.x		milligrams
Iron	xx.xxx		milligrams
Sodium	xx.x		milligrams
Vitamin C	x.xx		milligrams
Vitamin A	x.x		IU
Fat Change (+/-)*	xxxx		% N/A
Moisture Change (+/-)*	xxxx		% N/A

\* If available

# INSTRUCTIONS

## Submission of Nutrient Data to the Local Education Agency from the Food Manufacturer

A value must be submitted for each required nutrient per serving, edible portion, in the unit of measure indicated, and to the number of decimal places indicated on the form. If a food item does not contain a specific nutrient, enter zero (0). Do not leave any spaces blank on the data submission form. If any required nutrient values are missing, the food product can be entered into the local database, but the missing nutrient values must be marked as “missing” rather than zero (0).

The nutrient data to be submitted on the “as served” basis for any food that does not have ingredients added in preparation or fat absorbed during preparation.

The nutrient data to be submitted on the “as purchased” basis for 1) any foods that have ingredients added in preparation, such as milk, egg, and oil added to the baked product mixes; 2) foods that have varying preparation methods, i.e. bake or fry; 3) foods that are prepared by frying, and 4) any food that gains or loses moisture during preparation. Additional data is required for “as purchased” nutrient data submissions.

If a food item gains or loses fat during preparation, provide the percentage of fat gain or loss when the product is prepared \_\_\_\_\_ +/- change.

If a food item gains or loses moisture during preparation, provide the percentage of moisture gain or loss when the product is prepared \_\_\_\_\_ +/- moisture change.

Fat may be gained or lost in cooking some foods, thereby changing the caloric value of food. Methods of preparation such as breading, frying, or baking affects this fat gain or loss. For example, chicken baked in the oven will lose fat during cooking. While batter-coated or breaded chicken that is deep-fried will gain fat during cooking. If fat is absorbed or gained, calories will be increased. If fat is lost calories will be decreased in recipes where a fat gain or loss occurs, the fat changes are limited to those ingredients that are cooked together. For example, a fat gain occurs in deep-frying of French fries because fat is absorbed by the ingredients in the food item. Fat is lost from a broiled hamburger patty in which the fat has been drained.

This information will be used to develop and analyze the nutritional content of the recipe and will allow each Local Education Agency to prepare the food products according to regional preference.

# Nutrition Facts Label

Product Name: \_\_\_\_\_

Product Number: \_\_\_\_\_

Brand Name: \_\_\_\_\_

# DATA ENTRY FOR NUTRIENT ANALYSIS

# CREATING A THEME BAR

Salad bars and other food bars such as pasta bars, taco bars, deli bars, potato bars, etc. can serve as the complete reimbursable lunch or as a food or menu item which is part of the reimbursable lunch. The nutrient analysis of the food bar is based on historical usage of food bar items.

Standardized recipes are developed for food bars and are entered into the database at the local level. The recipe should be constructed based on a “typical” day.

## **TO DEVELOP THE STANDARDIZED RECIPE FOR A FOOD BAR:**

1. The number of servings the recipe produces would be the number of people who use the food bar, regardless of whether by students or reimbursable meals, by adults or a la carte sales.
2. The serving size would be entered into the computer as “one serving”.
3. Determine the amount of each food of the following ingredients for the recipe using the following steps:
  - Determine the amount of each ingredient placed on the food bar on a typical day (the amounts placed on the bar at the beginning of the meal service plus any additions to the bar during the meal service).
  - Determine the amount of each ingredient left over on the food bar at the end of the meal service.
  - Subtract the amount left over from the amount placed on the food bar for each ingredient to determine the amount of each ingredient to enter for the recipe.

Once the recipe has been developed and entered into the database, it can be used in planning and/or analyzing the day’s menu. The number of servings entered into the menu for nutrient analysis would be the estimate number of students who are expected to select a reimbursable meal from the food bar or estimated number of servings of the menu item which will be selected as part of a reimbursable meal if the food bar does not offer a full

## Notes

A separate recipe should be developed for each variation of the food bar. For example, if you rotated two salad bars, one that featured iceberg lettuce and another bar that featured fresh spinach, two separate recipes would need to be developed. If other ingredients vary, each separate combination would need a separate recipe.

*The following pages are suggestions for setting up theme bars.*

Salad Bar

Pasta Bar

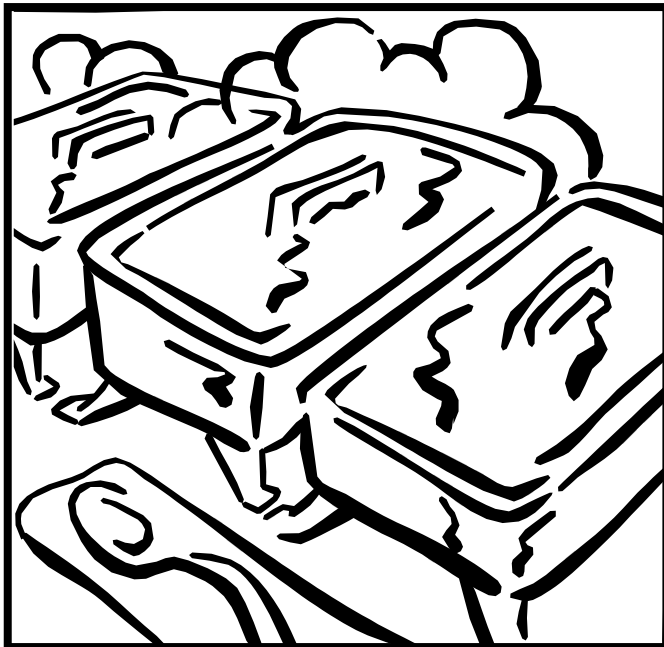
Deli Bar

Mexican Bar

Potato Bar

Soup and Sandwich Bar

Breakfast Bar

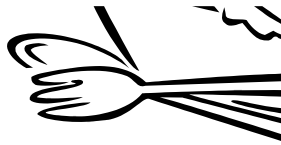


## Notes

# KEEP YOUR STUDENTS IN LINE WITH FOOD BARS

## Salad Bar

Lettuce - can be mixed or plain slaw  
 Special salad - pasta or other  
 Broccoli  
 Cauliflower  
 Fruit - canned or fresh – pieces  
 Crackers or Bread, Croutons  
 Cottage Cheese  
 Shredded American Cheese  
 Eggs  
 Croutons  
 Tomatoes – in season  
 Carrots  
 Celery  
 Radishes



## Deli Bar

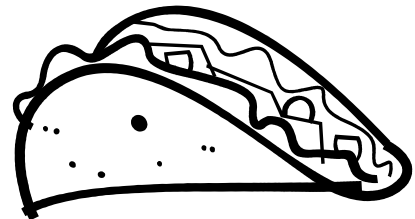
Variety of Breads  
 homemade or purchased White and  
 Whole Wheat sandwich, Deli, Kaiser, or  
 Seven Grain Bun, Hamburger, or Coney  
 bun  
 Meat – Portioned  
 Cheese  
 American sticks and slices, Mozzarella  
 sticks or slices  
 Condiments  
 Pickles  
 Mustard  
 Mayonnaise  
 Tomatoes – in season

## Pasta Bar

Three Pasta Choices  
 Spaghetti  
 Rotini  
 Third choice  
 (noodles, nuggets, fettuccini, shells,  
 macaroni, wheels, etc)  
 Two Sauces  
 Red – spaghetti sauce with meat added  
 White – cheese sauce with bread  
 Bread  
 Rolls – homemade  
 French Bread  
 Margarine  
 Condiments  
 American Cheese, shredded  
 Parmesan Cheese  
 Mushrooms (occasionally)  
 Croutons  
 Chopped Ham

## Mexican Bar

Taco Meat  
 Nacho Cheese Sauce  
 Hard and Soft Taco Shells  
 Taco Salad Bowl (fried 8” tortilla)  
 Soft Tortilla – for burrito  
 Chips  
 Nacho flavor or Plain  
 Condiments  
 Taco Sauce  
 Lettuce and Cheese cups  
 Black olives



## Potato Bar

Baked Potato  
Cheese Sauce  
Taco Meat, BBQ Beef, or chili  
Cheese  
Broccoli or Winter Mix  
Mixed Vegetables  
Low Fat Sour Cream or Low Fat Yogurt  
Croutons  
Bacon Bits  
Butter



## Breakfast Bar

Choice of Juice  
Orange, Apple, Grape, Pineapple, Juice Blends  
Choice of Fresh Fruit  
Banana, Orange, Apple  
Choice of canned fruit  
Applesauce, Pineapple, Peaches  
Choice of breads  
Muffins – Blueberry, Chocolate Chip, Plain, Cranberry, Apple  
Toast – Plain or Cinnamon  
Cinnamon Rolls (Homemade)  
Coffee Cakes (Homemade)  
Pancakes  
Choice of cereals  
Rice Krispies, Corn Flakes, Raisin Bran, Cheerios, Wheaties, Honey Nut Cheerios, Shredded Wheat – experiment!  
Choice of Protein  
Ham and Egg Sandwich (Homemade Biscuits)  
Sausage Biscuit (Homemade Biscuit)  
Ham and Cheese Rollup (Homemade)  
Ham and Cheese on English Muffin

## Soup and Sandwich Bar

Choice of Sandwich  
Ham, turkey, tuna, cheese, peanut butter  
Choice of Soup  
Vegetable, hamburger vegetable, chicken noodle, turkey noodle, tomato  
Choice of crackers or breads  
Rolls, French bread, assorted crackers, cheese crackers (homemade), croutons

Or try a Soup and Salad Bar



# SIMPLE AVERAGING

For nutrient analysis, simple averaging means giving equal weight to every item within each menu choice. If a school/school district had no menu choices, simple averaging for nutrient analysis could be accomplished by planning a menu for one meal and by entering each menu item as one serving. However, there are almost always choices, if for nothing other than milk.

The chart below demonstrates giving equal weight in the nutrient analysis for each of 3 entrée choices.

<b>Nutritional Analysis Based on Simple Averages</b>			
<b>Entrée Items</b>	<b>Actual Servings Planned</b>	<b>Data Entry Servings Planned</b>	<b>Nutrient Composition</b>
Pizza	200	300	33.3%
Baked Chicken	50	300	33.3%
Chef's Salad	50	300	33.3%
<b>Total</b>	<b>300</b>	<b>900</b>	<b>100%</b>

To perform simple averaging for multiple choices, it is necessary to know the portion size as well as the number of choices that will be offered and the number of selections that a student can make within each group of choices. It is not necessary to know the number of student meals planned or the number of servings planned for each menu item. Instead, the number of planned meals entered into the nutrient analysis software should be a number which is easily divisible by the number of choices.

## Notes

## Notes

The number 900 works well because, for choices up to 6, it comes out to an even number of planned servings for each choice. For example, if you use the number 900 as the meals planned, you would distribute planned servings of individual food items according to the following chart:

A student may select one serving from this number of side dish choices	Number of planned servings to enter for Menu Planning
1	900
2	450
3	300
4	225
5	180
6	150

If a student may select more than one item from a group of choices, multiply the number of planned servings for menu planning obtained from the chart above by the number of items the student may choose. For example, if four choices are offered, you would select the number 225 from the chart above; if the student may select two items from the four choices, you would multiply 225 by 2 to determine the number of planned servings to enter into the computer for each of the four choices.

$225 \times 2 = 450$  = the number of planned servings to enter for menu planning for each choice.

Or, for example if five choices are offered, you would select the number from the chart above; and if the student may select two items from the five choices, you would multiply 180 by two to determine the number of planned servings to enter into the computer for each of the five choices:

$180 \times 2 = 360$  = the number of planned servings to enter for menu planning for each choice.

## EXAMPLE OF DETERMINING PROJECTED SERVINGS USING SIMPLE AVERAGING

**Projected Meals: 900**

	<b>Menu</b>	<b>Projected Servings</b>	<b>Steps Necessary to get Projected Servings for Computer Entry</b>
Select one	Chicken Nuggets Spaghetti with Meat Sauce	450 450	$\frac{900 \text{ Projected Meals}}{2 \text{ menu item choices}} = 450$ projected servings for each menu item in this group
Select two	Baked Potato Wedges Seasoned Green Beans Steamed Corn Tossed Salad Fresh Fruit Cup	360 360 360 360 360	$\frac{900 \text{ Projected Meals}}{5 \text{ menu item choices}} = 180$ servings  $180 \times 2 \text{ food item selections} = 360$ projected servings for each menu item in this group
Select one	Dinner Roll Corn Muffin Garlic Bread	300 300 300	$\frac{900 \text{ Projected Meals}}{3 \text{ menu item choices}} = 300$ projected servings for each menu item in this group
Select one	Whole Milk 1% Chocolate Milk Skim Milk 1% Lowfat Milk	225 225 225 225	$\frac{900 \text{ Projected Meals}}{4 \text{ menu item choices}} = 225$ projected servings for each menu item in this group

# WEIGHTED ANALYSIS

The weighted nutrient analysis methodology gives more weight to the nutrients in popular foods that may be frequently selected from a choice or Offer versus Serve menu. This allows for a greater contribution of nutrients to come from the foods selected more frequently. Menu items that are less popular and selected by fewer students will contribute fewer nutrients to the nutrient analysis, as demonstrated in the example below:

## Weighted Nutrient Analysis

<b>Nutritional Analysis Based on Simple Averages</b>			
<b>Entrée Items</b>	<b>Actual Servings Planned</b>	<b>Data Entry Servings Planned</b>	<b>Nutrient Composition</b>
Pizza	200	200	66.7%
Baked Chicken	50	50	16.7%
Chefs Salad	50	50	16.7%
Total	300	300	100%

The calculation method for computing a weighted nutrient analysis will require the planner to enter:

- Total number of planned reimbursable meals for each day of a weekly menu.
- Portion size(s) for each menu item/condiment.
- Projected numbers of servings for each portion size for each menu item which will be part of a reimbursable meal.

Note:

Only reimbursable meals are included for nutrient analysis; therefore, the total number of projected servings for each portion size for each menu item and the total number for planned reimbursable meals must not include adult meals or a la carte sales.

If all schools in the same age or grade group follow the same centralized menu, weighting should reflect the projected total number of meals planned and the projected servings and portion sizes for each menu item

## Notes

# COMMON DATA ENTRY ERRORS

## Notes

### Errors in Data Entry of Ingredients:

- Incorrect measurement used, base weight per servings used on nutrition facts label should be entered.
- Certain ingredients can be entered as either a percentage or weight (Vitamin A, Calcium, etc.).
- (Nutrikids only) if product does not have a specific nutrient enter 0 rather than leaving 'N/A' so the analysis won't have missing nutrients.

### Errors in Data Entry of Recipes:

- Incorrect food item selected from database.
- Measurements wrong, such as, weight/volume errors, incorrect measurement of food items, incorrect recipe serving sizes, incorrect recipe yield, etc.
- "As purchased" weight used rather than "Edible Portion".
- Common moisture losses and fat gains during deep fat frying are not incorporated into the recipe (see chart on following page).
- Recipes entered have not been standardized or standardized recipes have been entered but not used.
- Food item (ingredient) left off recipe.
- Not using a milk variety specific to the school.

### Errors in Data Entry of Menus:

- Incorrect food item/recipe selected from the database.
- Portion size wrong.
- Planned production data (or appropriate numbers for simple averaging) are incorrect.
- Condiments are not entered as menu items, e.g., mayonnaise, mustard and or ketchup for hamburgers.
- Menu item left off of the nutrient analysis, e.g., bun for hamburgers.

## COMMON MOISTURE AND FAT CHANGE VALUES (%) FOR PURCHASED PREPARED FOODS THAT ARE FRIED

Food Item	Moisture Change %	Fat Change %
Burrito	-11%	+9.5%
Chicken, Nuggets or Patties, breaded or battered, pre-fried, frozen	-10%	+4%
Corn Dogs, pre-fried, frozen	-8%	+2.5%
Fish Nuggets, Portions, Sticks, breaded or battered, oil blanched, frozen	-10%	+4%
Funnel Cake, from mix	-31%	+10%
Hush Puppies, pre-fried, frozen	-8%	+2.5%
Potatoes, French fried, oil-blanching, frozen	-27.5%	+3.5%
Potatoes, chopped and formed, rounds and nuggets, oil-blanching, frozen	-10%	+2.5%
Steak, chicken fried, pre-fried, frozen	-5%	+3.5%
Taco Shell, flour, for Taco Salad	-22%	+19%
Vegetables, battered or breaded (eggplant, squash, okra, etc.)	-20%	+8%

# MENU MODIFICATION

# MENU ADJUSTMENT AND MODIFICATION

If you find that your weekly menu nutrient analysis does not meet the nutritional goals, look at the frequency, portion size, and balance of foods to modify the menu.

## **Evaluate the Nutrient Analysis of the Menus**

Evaluate how well the current menu meets the appropriate Nutrient Standard. This will help to determine what, if any, changes must be made to meet the Nutrient Standard.

- How do the menus compare to the Nutrient Standards? What areas need changes? Which areas are okay?
- Do the menus have sufficient calories? Remember the importance of adequate, consistent calorie levels, which are close to the appropriate Nutrition Standards.
- Are the menus too high in fat or saturated fat?
- Are the menus low in calcium, iron, vitamin A or vitamin C?

## **Review the Menus for Variety by Looking at the Frequency to Which Menu Items are Offered**

The frequency with which particular food or type of food is offered will affect the nutrient content of the menu.

- Are a variety of meats, fruits, vegetables, and grain products offered? Are some whole grains offered?
- Should the total number of low fat or low saturated fat food or menu items be increased?
- Are higher vitamin A or high vitamin C foods needed?
- Can a popular high fat item be served fewer times in a cycle or week?

## Notes

## REVIEW THE PORTION SIZE

After making the adjustments on how often foods are served, recheck the nutrient analysis. If there are still discrepancies, look at the portion size of problem food(s).

- Can a smaller serving be offered of popular foods that may be contributing too much fat, saturated fat, or sodium?
- Can the quantity of high fat ingredients in a recipe be reduced?
- Can a high fat ingredient in a recipe be changed to a lower fat ingredient?
- Can the portion size of a menu item be increased to provide the nutrients needed to meet the Nutrient Standard?

## CHECK FOR BALANCE

Next we look at the balance of foods within each day and week.

- Keep calories consistent – throughout entire week.
- Are the colors in the menu pleasing to the eye?
- Are the food flavor combinations pleasing to the taste?
- Does the menu have a pleasing contrast in shapes, sizes, textures, and temperatures?
- Are there too many foods high in fat or saturated fat in the same day of the same week?
- Can a high fat entrée be balanced with low fat side dishes or other low fat entrees during the week?

After deciding which foods to change and/or which foods to add to the menu, nutrient values need to be recalculated and compared to the Nutrient Standards.

*The following pages are resources to use when making menu modifications.*

## Notes

# QUICK WAYS TO CLIP THE FAT IN MEALS

- ✂ Purchase lower-fat brands of favorite items.
- ✂ Read nutrient labels and compare products.
- ✂ Bake foods instead of frying. i.e.--French fries, chicken nuggets.
- ✂ Use low-fat or fat-free salad dressings.
- ✂ Use low-fat shredded cheese instead of sliced cheese to top burger or hot dogs.
- ✂ Substitute eggs with egg whites. When a recipe calls for 1 egg use 2 egg whites.
- ✂ Trim visible fat from meat.
- ✂ Offer jams, jellies and honey instead of margarine.
- ✂ Purchase chicken or turkey hot dogs and corn dogs. Be sure to check the label.
- ✂ Use 1% or skim milk in cooking.
- ✂ Replace part of the oil or margarine in cake and cookie recipes with applesauce, plain nonfat yogurt, or prune puree.
- ✂ Serve ice milk, sherbet or frozen yogurt instead of ice cream.
- ✂ Reduce the portion size of high fat foods and increase portions of lower fat foods. An example: offer a ½ cup of French fries and ¾ cup of fresh fruit instead of ¾ cup of French fries and ¼ cup of fresh fruit.
- ✂ Serve high fat foods less often.
- ✂ Steam vegetables or cut the amount of added margarine used in half or even leave it out.
- ✂ Braise (brown) meats in low-fat broth.
- ✂ Season with spices instead of butter or margarine.
- ✂ Substitute sour cream with plain low-fat yogurt, or nonfat sour cream.
- ✂ Thicken sauces and gravies with cornstarch instead of a roux (a flour and margarine mixture).

- ✂ Remove hardened fat from stock which has been chilled.
- ✂ Drain grease off browned ground beef and rinse with HOT water.
- ✂ Offer pretzels instead of potato chips.
- ✂ Serve flavored bagels instead of donuts.
- ✂ Remove skin from poultry before preparing.
- ✂ Reduce the amounts of nuts in a recipe by half or leave them out.
- ✂ Offer 1% and skim milk instead of 2% or whole milk.
- ✂ Sauté in vegetable oil spray or chicken broth rather than oil.
- ✂ Use evaporated skim milk in place of regular evaporated milk.
- ✂ Offer more fresh fruits, vegetables, and whole wheat grains.

### **REMEMBER**

- ☞ Change one ingredient at a time when making substitutions in recipes.
- ☞ Keep quiet until you hear the applause. Don't announce substitutions made to reduce fat. Many people think low-fat means bland, tasteless food.
- ☞ If you are using a new spice, you could give a little history about the spice and set some out for the students to investigate.
- ☞ Don't give up after one try, especially with fruits and vegetables. It may take 8 to 10 exposures to a food before it is accepted by students.

# ADDING IRON

The best sources of iron are meat sources, however iron can be found in a variety of other food sources.

To give you an idea:

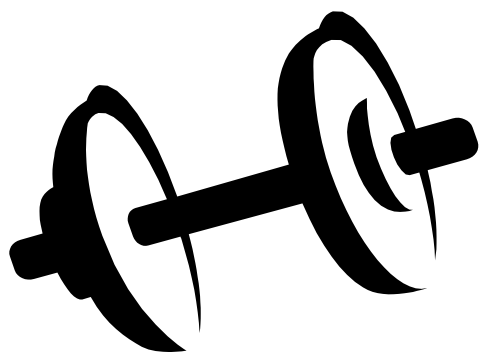
<u>FOOD</u>	<u>IRON (mg)</u>	<u>FOOD</u>	<u>IRON (mg)</u>
Beef liver, braised (3 oz)	5.8	Red kidney beans, cooked (1/2 cup)	2.6
Lean ground beef, broiled (3 oz)	1.8	Lima beans (1/2)	2.5
Skinless chicken breast (3 oz)	1.1	Pretzels (1 oz)	1.3
Pork, lean, roasted (3 oz)	1.0	Whole wheat bread (1 slice)	0.9
Salmon, canned with bone (3 oz)	0.7	Egg yolk, large (1)	0.7
Fortified breakfast cereal (1 cup)	4.5-18	Raisins, seedless (1/3 cup)	1.1
Bran (1/2 cup)	3.5	Peanut butter, chunky (2 TBSP)	0.6
Spinach, boiled (1/2 cup)	3.2	Apricots, dried (3)	0.6

Add dried fruits to desserts.

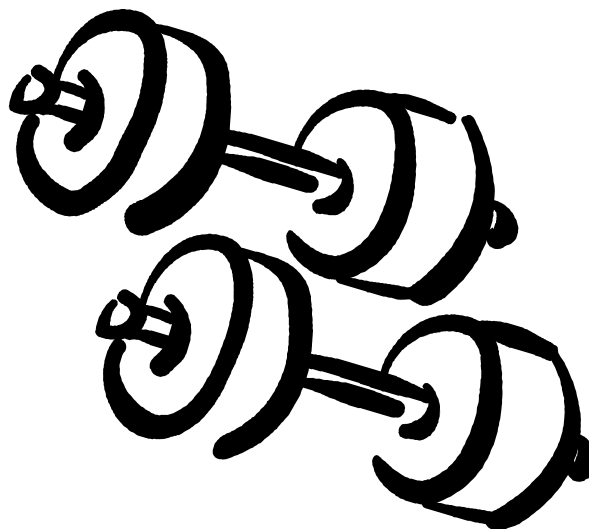
Offer fortified cereals made from whole grains frequently.

Use molasses in baking whenever possible.

Offer iron-rich foods such as those listed above.



**A Bit About Iron**  
 Iron from animal foods such as beef is better absorbed by your body than iron from plant foods.



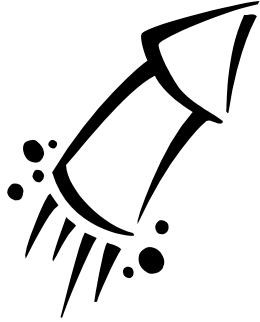
Iron is better absorbed by the body when consumed with vitamin C rich foods.

# GREAT WAYS TO REDUCE SODIUM

- Check food labels and compare products. When looking for salt on a food label it may be referred to as Na, salt, soda, or sodium.
- Limit the amount of commercial soup base you use in recipes. Choose a low sodium version.
- Use herbs and spices for seasoning instead of salt. Good seasonings to use include garlic, onion, and citrus juice.
- Drain and rinse canned vegetables.
- Limit the number of prepared foods you use. These are often loaded with salt.
- Items like soy sauce and teriyaki sauce are items which are high in sodium.
- In recipes with the exception of those containing yeast, reduce salt by 50% or omit it totally.
- Reduce or skip the salt in cooking water.

# VITAMIN VARIETY

*It is recommended that Vitamin A-rich foods be offered at least twice a week and Vitamin C-rich foods be offered at least three times a week.*

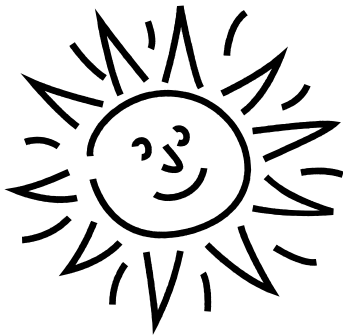


## FRUITS AND VEGETABLES EXPLODING WITH VITAMIN A

apricots  
broccoli  
cantaloupe  
carrots  
collard greens  
kale

lettuce-romaine, red and green leaf  
mango  
papaya  
peaches (except canned)  
prunes  
pumpkin

spinach  
squash  
sweet potato  
tomato  
turnip greens



## SUNNY SOURCES OF VITAMIN C

asparagus  
broccoli  
brussels sprouts  
cabbage  
cauliflower  
grapefruit  
honeydew  
kale

kiwi fruit  
mango  
mustard greens  
orange  
papaya  
peppers  
pineapple

plums  
potato  
spinach  
strawberries  
tomato  
turnip greens  
watermelon

# HOW TO INCREASE VITAMINS A & C IN SCHOOL MEALS!

- Offer an assortment of fresh fruits for students to choose.
- Fix a fresh fruit salad.
- Include spinach in a quiche or a fresh lettuce salad.
- Offer strawberries on top of angel food cake.
- Create a deluxe pizza with broccoli, shredded carrots, red and green peppers, chopped tomatoes and chopped spinach.
- Include pumpkin in desserts.
- Try stir fried vegetables over rice.
- Once every few weeks treat the students to an exotic fruit or vegetable, star fruit, kohlrabi and many others.

## WHY DO WE NEED FOODS RICH IN VITAMIN A AND VITAMIN C SO OFTEN?

Some of the functions of Vitamin A in the body include: preventing night blindness, promoting healthy skin, and increasing infection-resistance.

Vitamin C helps the body repair blood vessels, improve wound-healing, and develop strong bones and teeth. It also helps your body to better absorb iron from the foods you eat.

Sources: Menu Planning Guide Dec. 1983 USDA  
Vitamins and Minerals in the Food Guide Pyramid Where are They Hiding? Cooperative Extension, NCR-540  
Eating Smart Even When You're Pressed for Time. National Cattlemen's Beef Association 1996



# BREAKFAST MENU IDEAS

Cereal – Try Frosted Mini Wheats, Cheerios, or Raisin Bran to add more fiber to breakfast

Hot oatmeal cereal with cinnamon, brown sugar, and raisins

Homemade muffins USDA recipe B-12 and B-20

Pancakes USDA recipe B-13

Pop Tarts

French Toast Sticks USDA recipe J-3

Biscuits USDA recipe B-4

Biscuits with Sausage

Breakfast Burrito with salsa USDA recipe J-2

Granola USDA recipe J-1

Breakfast Pizza

Breakfast Tacos

Graham crackers

Breakfast bars

Ham and cheese biscuit

Bagels with cream cheese

Cinnamon rolls USDA recipe B-8

Yogurt with fruit served with granola

Bagel French toast

Omelets

Cinnamon and sugar toast

Canadian bacon

Fresh fruit salad – kiwi, grapes, oranges, bananas, apples, strawberries

Melons – watermelon, cantaloupe, honeydew

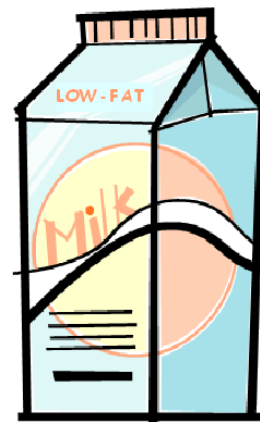


# SHRINK SATURATED FAT

Saturated fats are fats that are firm at room temperature. They are primarily found in animal foods, such as meat, poultry, butter, whole milk, and from palm coconut, and palm kernel oils. But that doesn't mean saturated fat can't be found in other items. Here are some ways to decrease the amount of saturated fat found in your school lunches.

## WAYS TO REDUCE SATURATED FAT TO LESS THAN 10% OF TOTAL CALORIES

- Offer 1% or skim milk.
- Omit margarine from vegetable recipes. When cooking corn, green beans, peas, and others forget the margarine.
- Decrease the serving size or the number of times cheese is served.
- Read food labels and compare different brands of processed products.
- Check the portion size of the item that contains the largest amount of saturated fat in your menu. Can the serving size be smaller? This can easily be accomplished in Nutrient Standard Menu Planning.
- Use liquid vegetable oils instead of solid fats in recipes.
- Decrease total fat in meals.
- Check and compare salad dressings. Use nonstick spray while cooking.
- Use skim milk in cooking.



# GREAT WAYS TO PUMP-UP CALORIES

- Increase servings size of fruits, vegetables, and breads/grain offered.
- Compare calories in brands of reduced fat chocolate milk.
- Strive for more servings of bread, grains, pastas, rice, pretzels, and rolls.
- Add fruit juice to gelatin dessert.
- Offer low fat dessert items like: New Oatmeal Cookies angel food cake, rice krispie treats, and instant pudding made with skim milk.
- Add non-fat dry milk to soups, casseroles, and sauces.
- Serve fruit juice.
- Add dried fruit to recipes, desserts, or serve plain.
- Provide jams and jellies when bread items are served.



# INCREASING GRAINS/BREAD SERVINGS

Try a variety of USDA recipes and make the most of commodity products you receive to increase grains/breads served.

Rice pudding USDA C-33 and C-15

Rice pilaf USDA B-22

Pasta salad with a variety of fresh vegetables & fat free Italian dressing

Homemade rolls USDA B-16

Cinnamon rolls USDA B-8

Graham crackers

Animal crackers

Pretzels, large soft or hard

Muffin squares USDA B-12

Oatmeal muffin squares USDA B-20

Bread stuffing USDA B-6

Bread pudding

Biscuits USDA B-4



## Additional Ways to Increase Breads or Grains

- Purchase larger buns or thicker slices of bread like Texas Toast.
- Serve larger portions of the grains/bread items.
- Offer bread sticks with the entrée.
- Serve grain based desserts such as low-fat cakes and cookies.
- Use a thicker pizza crust or serve bread sticks with pizza.
- Serve cornbread with chili in addition to crackers.

# GREAT WAYS TO “FIBER UP” SCHOOL LUNCH

Currently there is not a standard set by the USDA for fiber in school lunches. However, it is recommended in the Dietary Guidelines for Americans that fiber be increased in the American diet. What role does school lunch play? School lunches are an excellent opportunity to increase the fiber in a child's diet. Many children eat school lunches and fiber can be increased without significant flavor changes.

Why should we increase the amount of fiber in the diets of school children? Many studies have shown that dietary fiber can decrease an individual's chance of developing some forms of cancer and reduce the risk of heart disease later in life. But there are some other reasons:

- It helps you feel full longer.
- High fiber foods like beans tend to be inexpensive to serve.
- Foods highest in fiber are often whole foods, like fresh fruits and vegetables, requiring little preparation on the part of food service staff.
- Many high fiber foods are naturally low in fat.

## “FIBER UP”

- Switch to whole grain breads, cereal and buns, and bagels.
- Plan to serve legumes two to three times a week.
- Increase the number or serving size of fruits and vegetables.
- Check food labels for fiber facts.

## “Fiberize” Your Cooking Style

- Add legumes, vegetables, grains, and fruit to soups and salads.
- Experiment with unfamiliar grains like barley and buckwheat.
- When making rolls gradually increase the percent of whole wheat flour to 50%.
- Serve cookies and baked goods made with whole wheat flour.
- Look for ‘whole grain’ in front of oat, wheat, rice, corn and barley on labels of breads and breakfast cereals.
- Include oatmeal in baked goods.
- Add dates and raisins to baked goods.
- Substitute dishes using dried peas and beans for protein servings.
- Add whole grain or vegetable pasta to your usual pasta dishes.
- Add bran to casseroles, meatloaf, and cooked cereal.
- Keep peels on fruits and vegetables.
- Add extra vegetables to soups, casseroles, salads, and rice dishes.

# HOW MUCH FIBER DO STUDENTS NEED?

To determine the amount of fiber needed for students use this simple formula:

**Age of student + 5 grams = fiber needed**

Example: 10 year old + 5 grams = 15 grams of fiber daily

To determine the grams of fiber recommended for breakfast of a ten year old student divide by 4 and for lunch divide by 3.

Example:

**15 grams / 4 = 3.75 grams of fiber for breakfast**

**15 grams / 3 = 5 grams of fiber for lunch**



## WHAT TO LOOK FOR ON THE LABEL!

High fiber = 5 or more grams per serving




Good source = 2.5 to 4.9 grams per serving

More or added fiber = at least 2.5 grams or more per serving than traditional product.

## Sources of Fiber

<u>Food</u>	<u>Amount</u>	<u>Grams of Fiber</u>
<b>Grains</b>		
Raisin Bran Cereal	1 cup	7
Shredded Wheat Cereal	1 cup	6
Oatmeal	1 cup	4
Whole Wheat Bread	1 slice	2
Bran Muffin	1 small	2
Fruit Filled Cereal Bar	1 bar	1
Barley	½ cup	15
<b>Vegetables</b>		
Cooked green peas	½ cup	4
Cooked Broccoli	½ cup	2
Baked Potato With Skins	1 med	4
Cooked Carrots	½ cup	2
Lentils	½ cup	8
Pinto and Navy Beans	½ cup	3
<b>Fruits</b>		
Apple with Peel	1 med	3
Orange	1 small	2
Raisins	¼ cup	2
Banana	½ med	1

# Calendar of Best Buys

<p><b>JANUARY</b> Apples Grapefruit Oranges Pears</p>	<p><b>FEBRUARY</b> Apples Pears Grapefruit Oranges</p>	<p><b>MARCH</b> Apples Grapefruit Oranges Pears Strawberries</p>
<p><b>APRIL</b> Asparagus Pineapple Strawberries</p>	<p><b>MAY</b> Asparagus Pineapple Strawberries Tomatoes</p>	<p><b>JUNE</b> Asparagus Cherries Corn Melon Strawberries Tomatoes</p>
<p> <b>JULY</b> Berries Cherries Corn Grapes Lemons Melon Nectarines Peaches Plums Strawberries Tomatoes</p>	<p><b>AUGUST</b> Apples Corn Grapes Melon Nectarines Peaches Pears Plums Tomatoes</p>	<p><b>SEPTEMBER</b> Apples Broccoli Cauliflower Green Pepper  Grapes Peaches Plums Tomatoes Winter Squash</p>
<p><b>OCTOBER</b> Apples Broccoli Brussels Sprouts Cauliflower Cranberries Grapes Oranges Pears Pumpkin Sweet Potatoes Winter Squash</p>	<p><b>NOVEMBER</b> Apples Broccoli Brussels Sprouts Cauliflower Cranberries Grapefruit Grapes Oranges Pears Pumpkin Sweet Potatoes Winter Squash</p>	<p><b>DECEMBER</b> Apples Cranberries Grapefruit Grapes Oranges Pears Sweet Potatoes Winter Squash </p>

# RESOURCES

# RESOURCES

*This chapter lists by topics the resource materials for Food Service Directors, on-site Food Service Managers and Food Service staff members.*

*Ask your State Agency consultant how you can access resources after you identify which information may help you reach Healthy School Meals.*

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## **Nutritional Requirements**

- USDA *Healthy School Meals Training*; workshop and manual
- USDA *Assisted NuMenus*; manual
- USDA *Approved Software*; list
- ASFSA/SFSF *Trimming the Fat*; manual and companion disk

## **Menu Planning for School Meals**

- USDA *Quantity Recipes*
- USDA *Tool Kit for Healthy School Meals*; recipes and promotion manual
- USDA *School Lunches Challenge*; recipes
- USDA *Assisted NuMenus*; manual
- USDA *Menu Planner for Healthy School Meals*; manual

## **Procurement**

- *USDA Food Buying Guide*
- *Choice Plus*; handbook

## **Marketing**

- USDA *Tool Kit for Healthy School Meals*; recipes and promotion manual
- USDA *Healthy School Meals Training*; workshop and manual
- *Culinary Techniques for Healthy School Meals*; NFSMI videos and lessons

## **Food Production**

- *Tool Kit for Healthy School Meals*; USDA recipes and training manual
- USDA *School Lunch Challenge*; recipes
- USDA Commodity Recipes

## **Sanitation and Safety**

- *Serving it Safe*; CD ROM self-instruction and USDA training manual

## **All Topic Areas**

- MEALTALK; USDA Internet discussion group (<http://mealtalk@nal.usda.gov>)

## **Nutrition Education**

### **Federal/Public Associations:**

- Food & Nutrition Information Center, U.S. Department of Agriculture  
Beltsville, MD 2070-2351  
(301) 504-5719
- National School Food Service Management Institute,  
P.O. Drawer 188, University, MS 38677  
(800) 321-3054
- USDA/Human Nutrition Information Service, Publications for Sale  
6505 Belcrest Rd., Hyattsville, MD 20782  
(202) 783-3238
- American School Food Service Association  
Emporium, 2620 South Galapago Street, Englewood, CO 80110  
(800) 782-0728

### **State Associations**

- Department of Elementary and Secondary Education  
P.O. Box 480, Jefferson City, MO 65102  
(573) 751-3526
- Department of Health and Senior Services  
P.O. Box 570 Jefferson City, MO 65102-0570  
(573) 751-6400  
Films and Literature Unit  
Nutrition Education and Training (NET) Program  
(573) 751-6183
- Extension Publications, University of Missouri  
2800 Maguire Blvd, Columbia, MO 65211  
(800) 292-0969
- Department of Agriculture  
P.O. Box 630, Jefferson City, MO 65102  
(573) 751-6001

# SOURCES

Ann Robinson, Ph.D., Cindy Baugh B.S., Associate & Lumina Training Associates. (1997). *Tools for Success with Healthy School Meal*. Birmingham, AL; Virginia Department of Education

Carol Miller & Sally Stevens (1997). *Standardizing Recipes*. Denver, CO: Colorado Department of Education, Nutrition Unit

Oregon Department of Education, Child Nutrition Programs. (1997). *Travel Guide to Healthy School Meals*. Salem, OR

United States Department of Agriculture, Food and Consumer Service. (1996). *Healthy School Meals Training*. Washington DC: Author

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