

You Can Meet the Nutrition Goals in a Variety of Ways



Chapter 1

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You Can Meet the Nutrition Goals In a Variety of Ways

Since their inception, the school meals programs have focused on safeguarding children's health and well-being. USDA's *School Meals Initiative for Healthy Children* reinforces this objective by:

- establishing specific nutrition goals for school breakfasts and school lunches
- making available menu planning alternatives to help you meet these nutrition goals.

In this chapter, we'll take a general look at the menu planning approaches USDA has established, including the Traditional Food-Based approach. We'll see what the other approaches have in common with the Traditional approach. In later chapters, we'll focus on how each approach works and the steps you will use to plan a typical menu.

Throughout, we'll keep in mind the nutrition goals established by USDA's 1995 *School Meals Initiative for Healthy Children* which continue to be followed. These nutrition goals are based on:

- the 1989 Recommended Dietary Allowances
- children's calorie (energy) requirements
- the recommendations of the 1995 Dietary Guidelines for Americans

The Dietary Guidelines for Americans are updated every five years to provide the most current nutrition recommendations. Although the current School Meals Initiative nutrient standards are based on the 1995 Dietary Guidelines, when the Dietary Guidelines are updated, the nutrient standards are reviewed and may be revised. The 2005 Dietary Guidelines for Americans made significant changes in dietary recommendations which will have an impact on the Child Nutrition Program requirements. The Food and Nutrition Service will propose various changes to the program regulations to reflect the applicable recommendations of the 2005 Dietary Guidelines. The proposed regulation will be published in the Federal Register and school foodservice professionals will be encouraged to comment.

The 2005 Dietary Guidelines for Americans are described in this document so that school foodservice professionals will be aware of the recommendations and move toward implementing these guidelines in their programs.

Choosing the Menu Planning Approach That's Right for You

- **It's a good idea to consider the merits of each menu planning approach before choosing which to implement. Here's an overview:**

Schools have traditionally used a Food-Based Menu Planning approach that requires specific food components be served in certain amounts.



With this Traditional approach, there are four components — Meat /Meat Alternate, Grains/Breads, Vegetables/Fruits, and Milk — and three established age/grade groups for lunch (specifically, preschool, Grades K through 3, and Grades 4 through 12). There's also an optional age/grade group (for Grades 7 through 12).

However, you may find that the Enhanced Food-Based Menu Planning or one of the Nutrient-Based Menu Planning approaches help you to target meals more closely to the needs of the children you serve.

These menu planning approaches have been specifically designed to provide optional ways for you to create menus consistent with the nutrition goals and nutrient standards. These approaches will help you:

- provide adequate calories, nutrients, and dietary fiber for a specific age group, and
- reduce or limit fat, saturated fat, and cholesterol.

Remember that the nutrition goals — and the nutrient standards designed to achieve these goals — apply to all menu planning approaches. As a result, the nutrition goals and nutrient standards will affect the way the State agency monitors your meals for compliance with program requirements. This will be explained in more detail in later chapters.

We'll examine each of the menu planning approaches in detail in subsequent chapters, but first, let's look at:

- *An overview of the menu planning approaches.*
- *A comparison of menu planning approaches.*
- *The nutrition goals and what they mean for you as a school foodservice professional.*

■ **Traditional Food-Based Menu Planning**

The Traditional Food-Based Menu Planning approach requires specific food group components in specific amounts for specific age/grade groups. It is the approach that schools have used since the National School Lunch Program was established in 1946 and the School Breakfast Program in 1966.

Because this approach was designed before the Dietary Guidelines became part of school meal requirements, the meal plans do not have any *built-in* features that will help you serve meals that comply with these guidelines. You will need to give extra thought to planning meals that meet the nutrition goals — including target calorie levels — while limiting fat, saturated fat, *trans* fat, cholesterol, and sodium.

■ **Enhanced Food-Based Menu Planning**

Enhanced Food-Based Menu Planning is similar to the Traditional approach — it requires specific food group components in specific amounts. However, there are *different* established age/grade groups. And, there are increased servings of Vegetables/Fruits and Grains/Breads. This approach uses meal patterns designed to help ensure consistency with the Dietary Guidelines for Americans.



■ **Nutrient Standard Menu Planning (NSMP)**

NSMP takes a Nutrient-Based approach to menu planning. Instead of working with specific food components in specific amounts, the menu planner works with menu items. This approach requires a nutritional analysis of foods used in school meals prior to the menus being served. To do this, schools must use USDA-approved computer software. When averaged over a school week, the menu nutrient analysis must meet specified targets for nutrients, calories, and Dietary Guidelines recommendations.

What about age/grade groups for NSMP? Here you have some extra choices. You can use the same age/grade groups as used for Enhanced Food-Based Menu Planning. Or, you can use the computer software to customize optional age groups.

■ **Assisted NSMP**

Assisted NSMP is exactly like NSMP *except* an outside consultant or other agency performs all of the functions of menu planning and nutrient analysis. If you do not have computer technology that will allow you to use NSMP, you may wish to choose Assisted NSMP.

■ **Alternate Menu Planning Approaches**

These menu planning approaches allow State agencies and School Food Authorities to develop their own innovative approaches to menu planning—subject to the guidelines established in the National School Lunch Program (NSLP) regulations. Contact your State agency for more information.

You Are Working Toward Specific Nutrition Goals

The School Meals Initiative for Healthy Children established specific nutrition goals for school breakfasts as well as school lunches. These nutrition goals are aimed at...

- providing adequate calories and nutrients for specific age groups, and
- reducing fat and saturated fat to recommended levels.

■ **No matter which menu planning approach you choose, you must meet specific nutrition goals. The nutrition goals will be updated periodically to reflect changes in the Dietary Guidelines for Americans or the Recommended Dietary Allowances. The current nutrition goals are based on:**

- 1989 Recommended Dietary Allowances (RDA)
 - 1/3 RDA for lunch
 - 1/4 RDA for breakfast
 - Age appropriate
- Calorie Goals
 - Age appropriate
- 1995 Dietary Guidelines for Americans



What does this mean for you? Food-based lunch and breakfast meal patterns have been designed to provide a certain percentage of RDA for key nutrients. There are also nutrient standards for school lunch and school breakfast menus that establish the required level of calories and key nutrients to meet the nutrition goals for specific age or grade groups of children.

Regardless of the menu planning approach you follow, your breakfast and lunch menus, when averaged over a school week, should meet the nutrient standards for the selected age or grade group.

Local wellness policies designed by the schools may also set standards for food served in the school and physical activity programs. For more information about this initiative, go to the Team Nutrition Web page at teammnutrition.usda.gov/Healthy/wellnesspolicy.html or your local wellness committee.

The age and grade groups are the same for Enhanced Food-Based Menu Planning, NSMP, and Assisted NSMP which results in similar nutrient standards for these age/grade groups. With NSMP and Assisted NSMP, you have the extra flexibility of customizing age groups. Customizing age groups will allow you to know and provide the nutrients and calories that most closely meet the physiological needs of the children you serve.



A Closer Look at the Nutrient Standards

The nutrient standards for healthy school meals specify target goals for key nutrients for different groups of children. Foods that naturally contain these nutrients also typically contain other essential nutrients not specified in the nutrient standards.

■ ■ ■ ■ ■ ■ ■ ■ The nutrient standards set target goals for the following:

- Protein
- Vitamin C
- Calcium
- Vitamin A
- Calories
- Iron

■ ■ ■ ■ ■ ■ ■ ■ Also, in keeping with the recommendations of the 1995 Dietary Guidelines, the nutrient standards set target goals for fat. These are:

- No more than 30 percent of calories from fat.
- Less than 10 percent of calories from saturated fat. Keep in mind that the percent of calories from saturated fat is part of the percent of calories from total fat.

■ ■ ■ ■ ■ ■ ■ ■ The nutrient standards do not set *specific* target goals for cholesterol, sodium, and dietary fiber. In keeping with the *School Meals Initiative for Healthy Children*, your goal is to work to *reduce* cholesterol and sodium and *increase* dietary fiber.

The nutrient standards and nutrition goals will be updated periodically to reflect changes in the Dietary Guidelines for Americans or the Recommended Dietary Allowances. Although the current nutrition goals are based on the 1995 Dietary Guidelines, information on the 2005 Dietary Guidelines is provided so that schools can begin to work towards these goals.



WHY THE NUTRITION GOALS ARE IMPORTANT...



We all know generally what nutrition is. It's the process by which our bodies take in and use food. But why is it so important? What does good nutrition provide?

Good nutrition provides the calories we need for energy and the nutrients essential for...

- proper growth, repair, and maintenance of body tissues
- resistance to disease and infection
- prevention of deficiencies that lead to problems such as anemia, goiter, scurvy, and rickets.

In recent decades, medical researchers have found that good nutrition can also help reduce the risks of coronary heart disease and certain types of cancer.

In short, while we can sometimes get by with less than an optimum diet, to thrive we need a healthy diet. A healthy diet provides...

- essential nutrients and energy to prevent nutritional deficiencies and excesses
- the right balance of carbohydrate, fat, and protein to reduce risks for chronic disease
- a variety of foods including whole grains, vegetables, fruits, and low-fat and fat-free milk and milk products, and lean meats, poultry, fish, beans, eggs, and nuts.

Start With the Dietary Guidelines for Americans... End Up With Healthier Meals!

The best way to provide healthier food choices in school meals is to apply the core messages of the Dietary Guidelines for Americans to your menus and food items. In fact, the Dietary Guidelines are an important starting point for the nutrition goals set by the *School Meals Initiative for Healthy Children*.

What exactly are the Dietary Guidelines for Americans?

The Dietary Guidelines are a set of recommendations designed for healthy Americans age 2 years and older. The intent of the Dietary Guidelines is to summarize information regarding individual nutrients and food components into recommendations for a pattern of eating that can be adopted by the public. They reflect science-based evidence to promote health and help reduce the risk for major chronic diseases through diet and physical activity.



The Dietary Guidelines are published jointly by the U.S. Department of Agriculture and the U.S. Department of Health and Human Services. Every 5 years, as required by law, the guidelines are reviewed by a panel of experts to determine whether the existing standards should be altered and, if so, to recommend changes.

What is a “Healthy Eating Plan”?

The 2005 Dietary Guidelines describe a healthy eating plan as one that:

- Emphasizes fruits, vegetables, whole-grain foods, and fat-free or low-fat milk and milk products;
- Includes lean meats, poultry, fish, beans, eggs, and nuts; and
- Is low in saturated fats, *trans* fats, cholesterol, salt (sodium), and added sugars.

What do the Dietary Guidelines recommend?

The food and physical activity choices made every day affect your health and the health of your students—how they feel today, tomorrow, and in the future. Students may be eating plenty of food, but not eating the right foods that give their body the nutrients they need to be healthy. They may not be getting enough physical activity to stay fit. Eating right and being physically active aren’t just a “diet” or a “program”—they are keys to a healthy lifestyle. With healthful habits, students may reduce the risk of many chronic diseases such as heart disease, diabetes, osteoporosis, and certain cancers, and increase their chances for a longer life.

The science-based advice of the 2005 Dietary Guidelines for Americans highlights how to:

- Make smart choices from every food group— to include protein, whole grains, vegetables, fruits, and calcium-rich foods.
- Find the balance between food and physical activity.
- Know the limits for fats, sugar, and sodium and how to use the Nutrition Facts Panel.
- Play it safe with food—handle, prepare and store food safely.

Make Smart Choices from Every Food Group

■ **Make half your grains whole.**

Whole-grain wheat, corn, oats, and brown rice help contribute to a healthy diet by providing fiber and other nutrients. Foods made from grains are naturally low in fat unless fat is added during processing or as an ingredient in a recipe. Substituting whole grains for refined grains in foods such as bread, tortillas, taco shells and breakfast cereals is an easy way to increase fiber in your menus.

■ **Vary your veggies.**

Vegetables are key parts of a daily diet and can help reduce the risk of chronic disease. They provide vitamins, minerals, and fiber, and most are low in fat and calories and are filling. Variety is important because different vegetables are rich in different nutrients.

Weekly intake of specific amounts from each vegetable subgroup (dark green, orange, legumes [dry beans], starchy, and other vegetables) is recommended for adequate nutrient intake.

To help meet this recommendation, offer more:

- dark green veggies, such as broccoli, kale, and other dark leafy greens;
- orange veggies, such as carrots, sweet potatoes, pumpkin, and winter squash;
- beans and peas, such as pinto beans, kidney beans, black beans, garbanzo beans, split peas, and lentils.

■ **Focus on fruits.**

People who eat a variety of fruits as part of a healthy diet are likely to have reduced risk of some chronic diseases. Fruits are good sources of potassium, fiber, vitamin C, and folate; are naturally low in fat, sodium, and calories; and have no cholesterol. To help ensure adequate fiber intake, consuming fruits (fresh, frozen, canned, dried) rather than fruit juice for most of your fruit choices is recommended.

■ **Get your calcium-rich foods.**

Consuming foods from the milk group is important for a healthful diet. Drinking and eating foods from the milk group is especially important to children and adolescents, who are developing bone mass and acquiring lifelong habits. Milk and milk products also provide protein and other vitamins that are key to growth and development. Choose fat-free and low-fat milk, cheese, yogurt, and other milk products as part of an overall healthy diet.

■ **Go lean with protein.**

Lean meat, poultry, fish, dry beans or peas, eggs, nuts, and seeds are protein foods and essential for the health and maintenance of the body. Protein is especially important to children and adolescents during their growth stages because proteins function as building blocks for bones, muscles, cartilage, skin, and blood. Including fish, nuts, and seeds helps to provide healthy oils within the diet. Varying choices of lean protein daily can help limit excess saturated fat and cholesterol.

Find the Balance between Food and Physical Activity

■ **Get the most nutrition out of your calories**

Many Americans consume more calories than they need without meeting recommended intakes for a number of nutrients. Healthy school meals can assist children in consuming a variety of nutrient-rich foods and beverages while choosing foods that limit the intake of saturated and *trans* fats, cholesterol, added sugars, and salt. Nutrient-rich foods are those foods that provide substantial amounts of vitamins and minerals and relatively fewer calories.

Foods contain combinations of nutrients and other healthful substances. No one food provides all the nutrients needed for good health. By choosing foods in specified amounts from every food group, a healthful diet with essential nutrients and energy needed to prevent nutritional deficiencies and excesses will be ensured. A healthful diet also provides the right balance of carbohydrate, fat, and protein to reduce risks for chronic disease.

The right number of calories to eat each day depends on age, gender, activity level, and whether one is trying to gain, maintain, or lose weight. Students could use up the entire amount of their daily calories on a few high-calorie items, but chances are they won't get the full range of vitamins and nutrients their body needs to be healthy.

Choose nutrient-rich foods from each food group each day—those packed with vitamins, minerals, fiber, and other nutrients but lower in calories. Serve foods like fruits, vegetables, whole grains, fat-free or low-fat milk and milk products, and lean meats, fish, poultry, beans and nuts.

■ ***Get adequate nutrients within calorie needs.***

Finding the balance between food and physical activity offers important benefits normal growth and development of children, health promotion for all ages, and reduction in chronic diseases that are major public health problems. Overweight and obesity in the United States among adults and children has increased significantly over the last two decades. Poor diet and physical inactivity are important factors contributing to the increase in overweight and obesity.

Healthy school meals can assist children in maintaining a healthy weight. Weight gain results when more food is consumed than the body needs. Calorie needs of children differ due to body size, growth spurts, and varying levels of physical activity.

Eating and physical activity habits begin in childhood. Children are influenced by the foods served at meals and snacks and by watching what others eat and the physical activity that they do. Encourage children to be physically active.

What's important to know about calories?

1) Different foods provide different amounts of calories.

It can be a challenge to get the appropriate amount of calories for our age, size, and activity level — and get those calories from a variety of nourishing foods without too much fat, saturated fat, *trans* fat, and added sugars. But this is recommended in the Dietary Guidelines for Americans.

Thanks to the nutrition information that's available on most food labels, we can know at a glance how many calories a serving of a particular item will give us. We can also see what percentage of those calories come from fat, and saturated fat.

2) Adequate calories are important to children's health. Calorie levels are part of school meal requirements for breakfast and lunch.

Menu planners need to be careful to make sure children get enough calories for growth and activity. This is why the *School Meals Initiative for Healthy Children* sets specific calorie goals for breakfast as well as lunch.



Children and teens are growing rapidly. They need plenty of energy — not only for physical activity, but for proper growth and development as well. Their calorie and nutrient needs are determined not only by age, gender, and activity level but also by size.

Between the ages of 2 and 9 years, a typical child will gain about 4 to 5 pounds per year. The average teenage boy will have his greatest growth from ages 12 through 16 years, during which time he may add approximately 12 inches in height and 50 to 60 pounds in weight. A teenager participating in a competitive sport may need up to 3,000 calories per day.

3) There is a substantial increase in nutrient and calorie needs of children between the ages of 10 and 11 years old.

As a result, students in Grades 7-12 will not have their calorie and nutrient needs met by menus planned for Grades K-6. This is very important to keep in mind as you select age and grade groups and plan meals to reflect the structure of your school(s).

4) As we make an effort to meet the Dietary Guidelines, we must replace the calories lost from limiting fat with calories from foods that are generally lower in fat, especially whole-grain products, vegetables, and fruits.

Each of the menu planning approaches — Enhanced Food-Based, Nutrient Standard Menu Planning (NSMP) and Assisted Nutrient Standard Menu Planning (Assisted NSMP) — have built-in methods to ensure that calorie needs for energy and growth are met as fat and saturated fat are reduced.

The Enhanced Food-Based Menu Planning approach requires increased amounts of grains, vegetables, and fruits.

NSMP and Assisted NSMP require meeting specific age-related calorie goals as measured through the menu nutrient analysis.

The Traditional Food-Based Menu Planning approach does not have any built-in features to accomplish this goal. As a result, schools selecting the Traditional meal pattern must be careful to replace the calories lost from reducing total fat.

■ ***Be physically active every day***

Becoming healthier isn't just about eating healthy—it's also about physical activity. Regular physical activity is important for overall health and fitness. It also helps control body weight by balancing the calories taken in as food with the calories expended each day. People with higher levels of physical fitness are at lower risk of developing chronic disease.

Physical activity helps children have fun, maintain a healthy weight, and:

- Helps build endurance and muscle strength,
- Develop a healthy heart and lungs, bones, and joints, and
- Improve their self-esteem and feelings of well-being.

Children need at least 60 minutes every day and adults need at least 30 minutes of moderate intensity physical activity preferably all days of the week, or most days. Increase the amount of time and endurance of your physical activity for added health benefits and weight management.

Some schools have found that recess before lunch helps students relax and be ready to eat. Work with your school to determine the best time for recess for your students.

Know the Limits

■ **Know your fats—Look for foods low in saturated fats, trans fats, and cholesterol.**

Fats and oils are part of a healthful diet, but the type of fat makes a difference to heart health, and the total amount of fat consumed is also important. Health professionals believe that food habits established in childhood are important in preventing heart disease later in life. They recommend reducing the risk of heart disease by decreasing the amount of total fat, saturated fat, *trans* fat, and cholesterol in the diet. Including healthy fats in the diet and using them in moderation is key to heart health as well as weight management.

The 2005 Dietary Guidelines for Americans recommend a total fat intake for adults between 20 and 35 percent of calories, and from 25 to 35 percent of calories for children and adolescents 4 to 18 years of age, with most fats coming from sources such as fish, nuts, and vegetable oils. They also recommend consuming less than 10 percent of calories from saturated fat and less than 300 mg/day of cholesterol, and keeping *trans* fat consumption as low as possible.

Changes to reduce the amount and type of fat in meals must be practical and acceptable. As children begin to consume fewer calories from fat, they should replace these calories by eating more whole-grain products, vegetables, fruits, and low-fat or fat-free milk and milk products and lean protein-rich foods.

■ **Don't sugarcoat it—Choose and prepare foods and beverages with little added sugars or caloric sweeteners.**

Sugars and many foods that contain them in large amounts supply calories, but they may be limited in vitamins and minerals. Consuming excess calories from foods high in added sugars may contribute to weight gain and lower intake of more nutritious foods. Foods containing sugars and starches also promote tooth decay. Frequently eating or drinking sweet or starchy foods between meals is more likely to harm teeth than eating the same foods at meals and then brushing.

Use the following list to identify the most commonly eaten foods that are high in added sugars (unless they are labeled “sugar free” or “diet”). Limit the use of these beverages and foods. Offer water or low-fat or fat-free milk as a beverage to children.





The major sources of added sugars in the United States include:

- 1) Soft drinks
- 2) Sugars and candy
- 3) Cakes, cookies, pies
- 4) Fruitades and drinks such as fruit punch and lemonade
- 5) Dairy desserts and milk products such as ice cream, sweetened yogurt, and sweetened milk.

Foods contain sugars in various forms. Read ingredient labels for clues on sugar content. A food is likely to be high in sugars if one of these names appears first or second in the ingredient list or if several names are listed: *sucrose, glucose, maltose, dextrose, lactose, fructose, honey, fruit juice concentrate, brown sugar, corn sweetener, corn syrup, high fructose corn syrup, invert sugar, malt syrup, molasses, raw sugar, syrup, table sugar.*

■ **Reduce sodium (salt) and increase potassium.**

Many people can reduce their chances of developing high blood pressure by consuming less salt. Currently there is no way to predict who will develop high blood pressure from eating too much salt. The 2005 Dietary Guidelines recommends:

- Consuming less than 2,300 mg of sodium (about 1 teaspoon of salt) per day.
- Consuming and preparing foods with little salt.
- Consuming potassium-rich foods such as fruits and vegetables.

Research shows that eating less than about 1 teaspoon of salt per day may reduce the risk of high blood pressure. Most of the sodium people eat comes from processed foods, not from the salt shaker. Most Americans consume more salt and sodium than they need. Prepare foods with little salt and choose lower sodium prepared menu items.

Foods with added salt include cured and processed meats, cheeses, and some highly processed foods, such as ready-to-eat snacks, prepared frozen entrées, packaged mixes, canned soups, and salad dressings. Check the sodium content on the Nutrition Facts label and select foods that have less sodium. Foods that are low in sodium (less than 140 mg or 5 percent of the Daily Value [DV]) are low in salt.

Also, encourage children to consume potassium-rich foods, such as fruits (i.e., bananas, orange juice) and vegetables (i.e., sweet potatoes, spinach, tomato products) which counteract some of sodium's effects on blood pressure. When children learn to enjoy meals and snacks without excess salt, they may be protecting themselves from future health problems.



NUTRITION: Know the facts...

Most packaged foods have a Nutrition Facts label. Use this tool to make smart food choices quickly and easily. Try these tips:

- Keep these low: saturated fats, *trans* fats, cholesterol, and sodium.
- Get enough of these: potassium, fiber, vitamins A and C, calcium, and iron.
- Use the % Daily Value (DV) column on the Nutrition Facts Label when possible: 5% DV or less is low, 20% DV or more is high.
- 2,000 calories is the value used as a general reference for adults on the food label. But you can calculate the number of calories that you need at *MyPyramid.gov*.

Make your calories count. Look at the calories on the label and compare them with what other nutrients are in the food to decide if the food provides a high amount of nutrients for the number of calories. When one serving of a single food item has over 400 calories per serving, it is high in calories. Are there also high amounts (>20% DV) of vitamins and minerals for the amount of calories?

Check servings and calories. Look at the serving size and how many servings are actually in the package. If you double the serving size, you double the amount of calories and nutrients, including the % DVs.

Know the limits on fats, salt, and sugars. Read the Nutrition Facts label on foods. Look for foods low in saturated fats and *trans* fats. Choose, prepare, and serve foods and beverages with little salt (sodium) and/or added sugars (caloric sweeteners).

Play it safe with food-handle, prepare, and store food safely.

All those who handle food have a responsibility to keep food as safe as possible. Safe food has little risk of causing foodborne illness (food poisoning). Foodborne illness is caused by eating food that contains harmful bacteria, toxins, parasites, viruses, or chemical or physical contamination.

Young children are at high risk of foodborne illness so be careful to prepare and serve foods using food safety precautions. Never serve unpasteurized juices, unpasteurized milk, fresh bean sprouts, or foods containing raw eggs.

Food handling, sanitation, and safety are regulated by state, county, and city health department codes. Become familiar with the regulations to prevent foodborne illness.

■ **Use Safe Handling and Storage Techniques**

- Be aware of the condition in which perishable foods are purchased and delivered. Inspect foods to make sure frozen foods are frozen solid and refrigerated foods are at the appropriate temperatures.
- Improper temperature control before and after purchasing or delivery can shorten a food's shelf life.
- Date incoming food items. Rotate stock properly. Placing oldest food out front will encourage the use of foods on a "first-in, first-out (FIFO)" basis.

- Keep a daily log of temperature readings. Temperature logs should be maintained for cooking, cooling, holding, and reheating procedures and for refrigerators and freezers.
- Keep cold foods cold (41 °F or below) and hot foods hot (135 °F or above). Bacteria can grow rapidly between 41°F and 135 °F, which includes room temperature. This is known as the danger zone.
- Test internal temperatures of the food before placing it onto a salad bar, display cooler, steam table, or serving line and at least every 2 hours thereafter with a food thermometer.
- Use leftovers only once, and then throw any remaining food away. Despite the appearance of a food, it may not be safe to eat. Safe disposal is indicated if there is a question of whether or not a food is safe to eat. “If in doubt, throw it out.”

KEEPING FOOD SAFE TO EAT

The four core messages of Clean, Separate, Cook and Chill will help you keep the food that you serve safe to eat.

Clean

Practice good personal hygiene

- Adequately restrain hair by using a hairnet or hat.
- Wash hands frequently and properly, for at least 20 seconds with soap and *hot water*. Use a *separate* hand sink, not sinks used for food preparation or dishwashing. Always wash hands after touching hair or face.
- Use disposable towels when drying hands. Discard disposable towels after each use.
- Cough or sneeze into disposable tissues **ONLY**, and wash hands afterwards. If you sneeze on food or food production areas, discard the food and clean and sanitize the food production area.
- Persons with colds, or other communicable diseases should not be permitted to work in food preparation areas.
- All superficial cuts should be covered with a bandage and a disposable glove.
- Any person with an infected cut or skin infection should not be permitted to work with food.
- Use disposable gloves properly. Wash hands before putting on gloves, avoid touching skin, carts, refrigerator, freezer, or oven doors or any unclean surfaces. Throw the gloves away after using or touching anything other than food.

Keep equipment and facilities clean and sanitized

- Clean food preparation and refrigerator surfaces often to eliminate contamination from foods such as raw meats, poultry, fish, uncooked hot dogs, deli meats, and raw vegetables to other foods.

- Keep all equipment such as cutting boards, can openers, grinders, slicers, and work surfaces clean and sanitized. Sanitize equipment and work surfaces between use with raw and cooked foods. Check with local health department codes for a list of sanitizing agents.
- Use plastic cutting boards. Purchase adequate number of cutting boards to prevent cross contamination during food production.
- Wash and sanitize cutting boards in a dishwasher whenever possible. Air dry.
- Follow manufacturer's directions for proper wash and rinse temperatures, when using a mechanical dishwasher.
- *Air drying is recommended:* drying with a towel swabs contaminants over the surface.



Wash Fresh Fruits and Vegetables

- Wash your hands properly before preparing fresh fruits and vegetables.
- Since many fresh fruits and vegetables are served without being cooked, thorough cleaning is critical in preventing foodborne illness.
- Wash all raw fruits and vegetables thoroughly before combining with other ingredients, including unpeeled fresh fruit and vegetables that are served whole or cut into pieces, and fruits and vegetables that are peeled and cut to use in cooking or served ready-to-eat. Wash fresh produce vigorously under cold running water or by using chemicals that comply with the FDA Food Code. Scrub the surface of firm fruits or vegetables such as apples, melons or potatoes using a clean and sanitized brush designated for this purpose.
- Packaged fruits and vegetables labeled as being previously washed and ready-to-eat are not required to be washed.
- For more information on purchasing, preparing, and storing fruits and vegetables, see *The Food Buying Guide for Child Nutrition Programs* at teamnutrition.usda.gov/Resources/foodbuyingguide.html, and *Fruits and Vegetables Galore: Helping Kids Eat More* at www.teamnutrition.usda.gov/Resources/fv_galore.html.

Separate

Avoid cross-contamination

- Use appropriate utensils to pick up and handle food.
- Never touch ready-to-eat foods with your bare hands.
- If using hands, wear disposable plastic gloves and do not touch anything unclean with the gloves. Throw the gloves away after using or touching anything other than food.
- Do not prepare ready-to-eat foods, such as salads, fruits, or vegetables on the same surface that you use to prepare raw uncooked foods, such as raw meats, poultry or fish.
 - As a food safety precaution, you may want to use two sets of cutting boards: one for meats, and one for vegetables and fruits. Buying plastic cutting boards in different colors will help to keep them straight.
 - Store ready-to-eat foods *above* raw uncooked foods.
 - Store raw meat, poultry, eggs, fish, and shellfish in containers on the bottom shelf of the refrigerator and away from ready-to-eat foods, such as lettuce, cut melons, and lunch meats during receiving, storage, and preparation.
 - Prevent juices from raw meat, poultry, or seafood from dripping on ready-to-eat foods, such as salad greens, lunch meats, and cut melons during receiving, in the refrigerator, and during preparation.



Cook

Follow directions

- Follow the directions on the food labels to ensure that proper cooking methods, time, and temperature are used. Also, refer to recipes for specific cooking instructions.

Cook thoroughly

- Cook meat, poultry, fish, shellfish, and leftovers to the correct internal temperature (see chart below).
- To make sure that meat and poultry are cooked all the way through, use a food thermometer.
- Calibrate thermometers on a regular basis.

Cook completely

- DO NOT partially cook foods. Partial cooking may encourage bacteria to grow before cooking is completed.
- Cook foods to minimal required internal temperatures for safety.

Minimum Internal Temperatures for Safety

(based on the 2005 FDA Food Code)

165 °F for 15 seconds	Poultry, stuffing, stuffed fish, pork or beef; pasta stuffed with eggs, pork, casseroles, reheating leftovers.
155 °F for 15 seconds	Ground meats, beef, lamb, veal, pork, pasteurized eggs held on steam table, cubed or Salisbury steaks, fish nuggets or sticks
145 °F for 15 seconds	Seafood, beef, pork, veal steaks, & roasts (medium rare), eggs cooked to order and served immediately.
135 °F for 15 seconds	Fresh, frozen, or canned fruits and vegetables that are going to be held on a steam table or in a hot box.

Keep Hot Foods Above 135°F

- Limit the amount of holding time by batch cooking. Test internal temperatures of the food before placing it onto steam table, or serving line and at least every 2 hours thereafter with a food thermometer.
- Avoid holding foods in the temperature danger zone (between 41°F and 135°F). If the serving of a hot food must be delayed, keep it at a holding temperature of 135 °F or above.

Chill

Refrigerator Storage - Keep Cold Foods at 41°F or Below

- Check refrigerators and freezers frequently with an appliance thermometer. The refrigerator should register 41°F or below. Keep a daily log of temperature readings.
- Cool hot food from 135°F to 70°F within 2 hours. If during the cooling process food temperatures do not reach 70°F immediate action is required or food must be discarded. Cool foods from 70°F to 41°F or below within 4 hours. DO NOT ALLOW ANY FOODS TO COOL AT ROOM TEMPERATURE.
- Refrigerate or freeze properly cooled leftovers in covered, 2-inch shallow containers.
- Divide large containers of soups, sauces, or vegetables so that the smaller portions will cool more quickly. Stirring throughout the chilling process will shorten the total cooling time. An ice paddle or ice bath will also help to rapidly cool foods.
- Leave airspace around containers or packages to allow circulation of cold air so that rapid cooling is ensured.
- Read the labels of bagged produce to determine if it is ready-to-eat. Keep refrigerated and serve before the “use-by” date.
- Date foods so that the length of storage time is easily known. DO NOT taste old leftovers. *When in doubt, throw it out!*

Freezer Storage

- Freeze all food items that you don't plan to use within 2 days.
- While “freezer burn” will not cause illness, it does make certain food tough and tasteless. To avoid “freezer burn” wrap freezer items in heavy freezer paper.
- Label and date freezer packages so that the oldest products can be used first, using the first-in, first out (FIFO) method.
- Place new items to the rear of the freezer, and older items to the front.
- Be sure that thermometers are clearly visible, from the outside of the freezer, so that they can be read and recorded in a log daily.
- The freezer should read 0°F or lower.
- It is safe to freeze foods in their supermarket wrappings, but, if storing for longer than 2 months, rewrap in foil, plastic, or freezer paper.
- Freezing does not destroy bacteria. Bacteria become active again once food is thawed.

Thawing

- Thaw meat, poultry, fish, or shellfish in the refrigerator, microwave (cook immediately), or cold water.

- Thaw frozen meat, poultry, and fish in the refrigerator until pliable (easy to separate).
- DO NOT THAW FOODS AT ROOM TEMPERATURE.

For more information, contact:

- USDA's Meat and Poultry Hotline, 1-888-MP-Hotline (1-888 674-6854).
- FDA's Food Information Center, 1-888-SAFEFOOD (1-888-723-3366).
- www.foodsafety.gov
- www.fightbac.org
- www.fsis.usda.gov/Food_Safety_Education/index.asp

PUTTING IT ALL TOGETHER...

Simple changes, taken one at a time, can add up to a lifetime of better eating habits. The key is to make changes that are right for you and your customers. Examples of how to apply the principles of the Dietary Guidelines in menu planning are the focus of Chapter 4.

Keep these ideas in mind as you apply the Dietary Guidelines for Americans to your menus:

- Remember that children are the prime focus.
- Make gradual changes over time.
- Provide tasty and interesting food choices.

For best results, integrate the food service program with the entire school:

- Promote the program in the school and with parents in the community.
- Work closely with teachers to coordinate nutrition education in the classroom and cafeteria.
- Enlist the support of administrators and boards of education to develop policies that support healthy eating and physical activity.
- Set small goals and achieve them—success promotes success.

MyPyramid

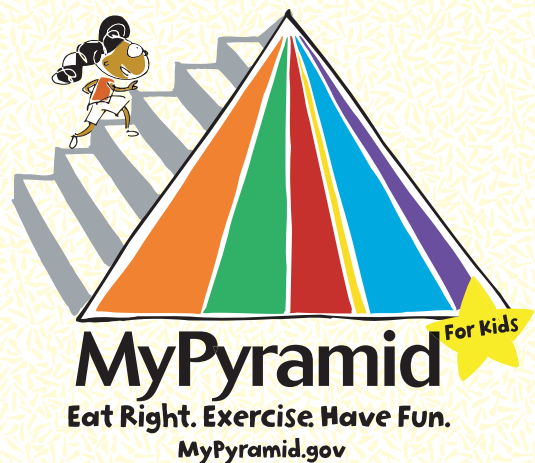
MyPyramid is a symbol that shows how everyone can make food choices for a healthful diet as described in the 2005 Dietary Guidelines for Americans. MyPyramid is not a rigid prescription; it is a personalized guide that lets you choose a healthful diet that is right for you and the children in your program. By using MyPyramid which is shown below, you and your children can get a good picture of the kinds of foods to eat. Access the guide at *MyPyramid.gov*.



MyPyramid divides food into five major food groups: grains, vegetables, fruits, milk, and meat and beans. Each of these food groups provides some, but not all, of the nutrients and energy children need. For proper growth and good health, children need to eat a variety of different foods each day. Each food group is important and foods from each group should be consumed daily in proper amounts. Proportion is shown by the different widths of the food group bands. The widths suggest how much food a person should choose from each food group. The smallest band of MyPyramid, shown in yellow, represents oils. Oils are not a food group, but you need some for good health.

MyPyramid for Kids

USDA adapted MyPyramid to provide special guidance for children found at *teammnutrition.usda.gov/kids-pyramid.html*. Like the traditional MyPyramid, MyPyramid for Kids is an outline of foods to eat each day based on the Dietary Guidelines for Americans. It similarly promotes balanced meals, moderation, and a variety of food choices, with special emphasis on grain products, fruits, and vegetables. Notice the different activities of the children playing around the pyramid. The message is that physical activity is also important to good health and can be achieved in many different ways.



What is the focus of MyPyramid for Kids? The focus of MyPyramid for Kids is to teach children how to choose a variety of healthy foods from each food group daily. It divides foods into five major food groups: Grains, Vegetables, Fruits, Milk, and Meat and Beans. Each color band represents the amount of food from that group that should be eaten daily.

The foods shown in MyPyramid are those that many children know and enjoy. Each of these food groups provides some, but not all, of the nutrients and energy children need. No one food group is more important than another. For proper health and proper growth, children need to eat a variety of different foods each day.

How can you order MyPyramid materials?

To order MyPyramid materials, go to *teammnutrition.usda.gov*.