



Student Resource Guide

5. Nutrition and Exercise



Nutrition and Exercise

OUTCOMES

When you complete this session, you will be able to:

- Describe why it is important for individuals to have an adequate intake of water everyday.
- List the five nutrients in foods that are necessary for growth, normal functioning, and maintaining life.
- Use the Food Plate ("MyPlate") to plan healthy meals.
- Read and understand food labels ("Nutrition Facts").
- Define the three types of diets: regular, modified, and therapeutic.
- Describe why it is important to know about each individual's dietary preferences and needs.
- List tips for assisting individuals with weight loss.
- List tips for saving money when food shopping.
- Identify ways to make mealtime a happy and successful part of the day.
- Describe four simple steps to prepare and store food safely.
- Identify ways to help individuals make physical activity part of their daily routine.

KEY WORDS

Key Word	Meaning	In My Own Words
Allergy	A sensitivity to a certain substance, including foods, that can cause reactions in the body.	
Anaphylactic Shock	A life-threatening event that can cause an individual's breathing to stop if emergency medical treatment is not immediately available.	
Bacteria	A microorganism commonly called a germ, capable of causing an infection.	

KEY WORDS (CONT.)

Key Word	Meaning	In My Own Words
Calorie	A unit of energy.	
Cross Contamination	The spread of bacteria from one food product, or another source, such as hands, to another food product.	
Essential Nutrients	Carbohydrates, protein, fat, vitamins, and minerals are the five nutrients found in food that are necessary for growth, normal functioning, and maintaining life.	
Food borne Illness	Sickness caused by eating contaminated food, sometimes called food poisoning.	
Obese	Weighing 15 or more pounds than the largest healthy weight in the healthy weight range for a person's height and sex.	
Therapeutic Diet	A diet prescribed by a doctor that contains certain nutrients and eliminates other nutrients that are problematic to the person because of a health condition.	

Nutrition and Exercise

Eating a healthy diet and getting regular exercise helps people stay in the best possible health. As a DSP, you are involved in the planning, purchase, and preparation of meals and you support individuals in activities of daily living. This gives each of you many opportunities to promote good health through nutrition and exercise.

Did you know:

- Poor diet and physical inactivity leads to 300,000 deaths each year in the United States—second only to tobacco use?
- People who are overweight or obese increase their risk for heart disease, diabetes, high blood pressure, arthritis-related disabilities, and some cancers?
- Approximately 50% of adults with developmental disabilities in the United States are considered obese?

- Not getting enough exercise is associated with needing more medicine, and visiting a doctor, and being hospitalized more often?

People may decrease the risk of heart disease and cancer if they eat a healthy diet that:

- Contains at least five servings of fruits and vegetables
- Is low in fat, saturated fat, and cholesterol
- Contains plenty of whole-grain breads and cereals

People who eat a healthy diet and are physically active can expect to live longer, healthier lives. This is true for you and the individuals you support.

Nutrition: We Are What We Eat!

We Need Water to Stay Healthy

An adequate amount of daily water intake is by far the most important of all the dietary requirements for the body and is essential to life. A person may live for several weeks without food, but can only survive for a few days without water. That is because our bodies are 72% water and we lose about 10 cups of water each day through sweating, going to the bathroom, and breathing. The amount of water we lose each day increases when the temperature is hotter. Water needs to be replaced every day.

Features of water:

- Has no calories. **Calories** are units of energy found in food and drinks. If we take in more calories, or energy, than we use doing physical activities, we gain weight.
- Regulates the body's temperature
- Carries minerals, such as sodium, through the body
- Regulates waste removal

Most people should drink 8-12, 8-ounce glasses of water everyday. Some people need more water if they:

- Suffer from constipation
- Experience heavy sweating/perspiration
- Live in a warm climate
- Use tranquilizers or anticonvulsants
- Experience heavy drooling
- Have a high intake of fiber
- Experience Urinary Tract Infections (UTIs)

A Note About Other Fluids

Sugar and caffeine are dehydrating to the body. If you drink a lot of coffee, cola (even diet cola), and other similar liquids, you need to drink more water than the average person.

Fluids such as sodas and juices contain added sugar. This means you are consuming "empty" calories or calories with no nutritional benefit. Some fluids contain caffeine as well as sugar (Coke, Pepsi, tea, and coffee).

Always remember: Especially for individuals on anti-depressants, tranquilizers, and anti-psychotic medications they may need additional fluids.

The 5 Essential Nutrients in Foods

Good nutrition contributes to good health. Poor nutrition can shorten our lives and make our lives less fulfilling. For good health, all people need certain nutrients in the proper quantity depending on their physical size, their daily activity level, and the rate their bodies burn food for energy.

All food is made up of the following five **essential nutrients** necessary for growth, normal functioning, and maintaining life:

1. Carbohydrates

Provide energy and fuel for the body. Good sources of carbohydrates are whole grains, vegetables, and fruits.

2. Protein

Is essential for body growth and development. It also provides energy. Good sources of protein are milk, eggs, cheese, fish, poultry, lean meat, peas, beans, seeds, and nuts.

3. Fat

Provides energy for the body. Some fat is essential for growth and development. Too much fat, especially saturated fat can cause health problems.

Nutrition: We Are What We Eat! (cont.)

The three types of fat are:

- **Saturated fat:** Found in animal foods such as beef, pork, chicken, eggs, and cheese.
- **Polyunsaturated fat:** Found in vegetable oils such as corn, soybean, and sunflower.
- **Monounsaturated fat:** Found in oils such as olive, canola, and peanut.

4. Vitamins

People need 14 vitamins to stay healthy. Fruits and vegetables are excellent sources of vitamins. The eight B vitamins and vitamin C are not stored in the body. You need a good source of these everyday. Each vitamin has a recommended daily amount that is necessary for good health.

5. Minerals

The body needs 16 minerals to stay healthy. Minerals activate the body's biochemical processes.

Other Key Components of Food:

In addition to the 5 essential nutrients food also contains:

- **Cholesterol**
Found in all food from animal sources. Our liver produces all of the cholesterol our bodies need, so we don't need it from food.
- **Salt (Sodium)**
Mineral essential to the body in small amounts. Salt is found naturally in many foods. Too much salt can cause high blood pressure and make many medical problems worse, including pre-menstrual syndrome, heart disease, and kidney disorders. See Appendix 5-C for ways to reduce salt in the diet.
- **Dietary Fiber**
Helps prevent constipation. It also helps lower blood cholesterol thereby reducing the risk of heart disease.
- **Calories**
A calorie is a unit of energy. Energy comes from the food we eat.

Menu Planning and Nutrition

Planning meals is the best way to ensure that we eat a healthy and nutritious diet. Menus are the written plan of daily meals. Menus are required in all Community Care Licensed facilities. Shopping lists can be made from menus to help make grocery shopping easier. Individuals living in the home where you work should be encouraged to participate in menu planning, to the extent they can. For more suggestions see, "Top Ten Tips for a great plate" in Appendix 5-A.

When planning a menu, it helps to think about the following things:

- The recommended nutritional guidelines
- The dietary preferences and needs of each individual in the home
- Community Care Licensing requirements
- Your household's budget

Dietary Guidelines

The U.S. Department of Agriculture introduced new dietary guidelines for 2015 - 2020. The guidelines focus on eating patterns. An eating pattern refers to the combination of all the foods and beverages a person eats and drinks over time. A large body of science now shows that healthy eating patterns and regular physical activity can help people achieve and maintain good health and reduce the risk of chronic disease throughout life. While the core parts of healthy eating patterns in the 2015 - 2020 Dietary Guidelines are the same as those from previous Dietary Guidelines (vegetables, fruits, whole grains, low-fat and fat-free dairy, and protein foods - all with little to no added sugars, saturated fats, and sodium), the emphasis of the 2015 - 2020 Dietary Guidelines is on the importance of the totality of what you eat and drink as a whole package.

MyPlate shows “healthy eating style” and “healthy eating patterns” that are highlighted in the Dietary Guideline. Each “slice” of the MyPlate represents one of the five food groups. The food groups are:

1. Grains:

Grains include any food made from wheat, rice, oats, cornmeal, barley, or another cereal grain. “Whole grains” include whole-wheat flour, bulgar (cracked wheat), oatmeal, whole cornmeal, and brown rice. **Make half your grains whole.**

2. Vegetables:

Any vegetable or 100% vegetable juice make up the Vegetable group. Vegetables may be raw or cooked; fresh, frozen, canned or dried/dehydrated. **Vary your veggies.**

3. Fruit:

Any fruit or 100% fruit juice make up this food group. Fruits may be fresh, canned, frozen or dried; and may be whole, cut-up, pureed, raw or cooked.

Focus on fruits.

4. Dairy:

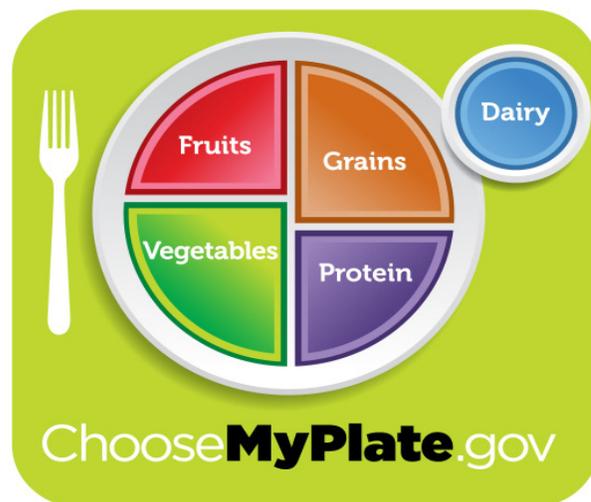
All fluid milk products and many foods made from milk, like cheese and yogurt, are in this food group. Although cream cheese, cream and butter are made from milk, they don't count in the Milk group because they contain little or no calcium. Make your Milk choices fat-free or low-fat.

Get your calcium-rich foods.

5. Protein:

All foods made from beef, pork, poultry, fish, dry beans or peas, eggs, nuts and seeds are part of the Protein group. Make your meat and poultry choices lean or low-fat. Select a variety of protein foods to improve nutrient intake and health benefits, including 8 ounces of cooked seafood per week. **Go lean.**

Source: Your Personal Path to Health: Steps to a Healthier You. Available for download at: <http://www.choosemyplate.gov/>.



A C T I V I T Y

Meal Planning Using MyPlate

Directions: Plan a meal using at least one serving from five food groups on MyPlate. Write down what meal you are planning (i.e., breakfast, lunch, dinner, snack) and identify each food group and food in the spaces provided below.

.....
Meal Planned:

.....
Food Group:

Food:
.....

Food Group:

Food:
.....

Food Group:

Food:
.....

Food Group:

Food:
.....

Food Group:

Food:

Food Labels

A Nutrition Facts label is found on almost all packaged foods. The label shows how a food fits into the daily diet and gives information regarding serving size, calories, fat, cholesterol, sodium (salt), carbohydrates, fiber, sugar, protein, vitamins, and minerals. The labels make it easier to compare one food with another. The labels also allow you to check the claims made on the package. For example, a product may say “fat free,” but contain as many calories as the regular product per serving because the fat was replaced by sugar. Sample nutrition labels are discussed on the following page.

Here are some important things to know when reading Nutrition Facts:

- Ingredients are listed in descending order by volume or weight (most-to-least).
- Calories in a serving and the calories from fat are given in numbers.
- Vitamins and minerals are only listed if they are at least 1% of the daily requirement.
- The Percentage Daily Values are based on a 2,000 calorie diet. Many people are on lower calorie diets.
- Total fat, cholesterol, sodium, carbohydrate, and dietary fiber are given both as numbers in grams and percentages of Daily Value. The Daily Values for these essential nutrients set upper limits for the amount to eat each day to stay healthy.

ACTIVITY

Reading a Food Label

Directions: Read a food label and answer the following questions. Be prepared to share information from the food label with the class.

Name of Food:

1. How many servings does your package contain?
2. How many calories per serving?
3. When eating this food, do you think a person normally eats more or less than the serving size?
4. What is the main ingredient of your food? How do you know?
5. Would you serve this food to someone who is trying to:
 - Reduce his or her cholesterol? Why or why not?
 - Increase fiber? Why or why not?
 - Limit salt (sodium)? Why or why not?
6. What food group or groups does this food belong to on MyPlate?
7. Is this food a good source of any vitamins and minerals? If yes, list them:
8. Does this food contain added sugars? Some names for added sugars include: sucrose, glucose, high fructose corn syrup, corn syrup, maple syrup and fructose.

Meeting Individual Preferences and Needs

It is important to know about individuals' food preferences because enjoying the foods they like increases their quality of life. Some food preferences relate to what each person ate while growing up. Cultural and religious traditions also can influence what foods people prefer to eat or avoid. For example, people of the Muslim faith do not eat pork and in many Asian cultures rice is included with most meals. It's best to ask and not assume about what someone wants. Typically, the DSP can respond sensibly to preferences, unless whole classes of important foods are ruled out. In that case, seek advice from the individual's doctor and others such as a dietitian or behavior specialist.

It is also important to know about special nutritional needs that individuals may have, so that they can maintain their best possible health. Many individuals may have complex nutritional needs because of a chronic health condition. For example, someone with cerebral palsy may have difficulty chewing and swallowing, or a person with diabetes has to limit sugar and the type of carbohydrates he or she eats. You must know each individual's health history and health plans in the IPP to meet each individual's nutritional needs.

The different types of diets are:

- **Regular**
A balanced diet that includes a variety of foods. This is the type of diet most of us should be eating.
- **Modified**
A diet altered in texture such as pureed, chopped, or cut into small bites. If a person has trouble chewing and swallowing due to cerebral palsy, absence of teeth, or some other condition, a modified diet may be ordered by the physician or dietitian. Always notify the individual's doctor if he or she is observed to have a new

onset of difficulty chewing, swallowing, or coughing during mealtime. An order can be written for a person's beverages (including water) to be thickened.

- **Therapeutic**
A **therapeutic diet** is a doctor-prescribed diet that contains certain nutrients and eliminates other nutrients that are problematic to the individual because of a health condition; for example, the diabetic diet has a reduced amount of sugar. Following a therapeutic diet is similar to taking medications. Both are prescribed by the doctor to treat a health condition and if not taken or followed regularly can result in severe health problems.

Dietary Supplements

Food is the best source for vitamins and minerals. If people eat a nutritious, well-balanced diet, most do not need vitamin and mineral supplements, often called simply, "vitamins."

There are exceptions, however, especially if a person is taking certain medications regularly. The use of supplements should be discussed with each individual's doctor. Individuals should not take vitamin, mineral, or herbal supplements unless they are prescribed.

Food Allergies

Sometimes people need to avoid or restrict specific foods, such as peanuts or dairy products, because of an allergy. An **allergy** is a sensitivity to a certain substance, including foods, that can cause mild to life-threatening reactions in the body. Food allergies can make a person have symptoms such as a stomachache, diarrhea, hives (red, blotchy skin bumps), itchy and watery eyes, or a runny nose. When a food allergy is suspected, be careful to keep the individual away from such foods and have the individual see a doctor.

Food Allergies (cont.)

When an individual has a known allergy to a food or medication, all records must be marked with this information. Marking it in red to ensure that it will be easily noticed by all caregivers is a good idea.

Important: Some severe food allergies can cause anaphylactic shock. **Anaphylactic shock** is a life-threatening event that can cause an individual's breathing to stop if emergency medical treatment is not immediately available.

Weight Management and Reduction

A person is considered **obese** if he or she weighs 15 or more pounds than the largest healthy weight for that person's height and sex. Obesity is common in individuals with developmental disabilities. This is most often due to lack of physical activity, poor diet, and for some disabilities, a decreased need for calories. Another contributing factor can be the use of high calorie foods for rewards in behavior intervention programs. Obesity can cause heart disease, high blood pressure, and diabetes.

Obesity also causes problems in day-to-day living for individuals. Obesity can make the following activities more difficult:

- Walking
- Self-care and maintaining good hygiene
- Transferring for wheelchair users

Obesity can also require frequent replacement of braces and orthotics.

Treatment of obesity involves changing the food the individual eats, decreasing the total daily caloric intake, offering foods low in fat, serving smaller portions, and increasing the daily activity level by walking or doing other exercise. The planning team, including the individual's doctor, should be involved in developing plans in the IPP. The help of a behaviorist and dietician may also be useful.

In general, treating obesity requires changing daily routines for eating and activities. Some routines to look at include

- Amount of TV watching
- Snacking throughout the day
- Receiving food as a reward for preferred behavior
- Eating as a social activity; for example, a weekly outing to a fast food restaurant can be replaced by a weekly outing to the bowling alley

A Note about Calories:

- What happens if we take in too many calories and slow down our activity level? We gain weight.
- What happens if we take in more calories and increase our activity? We stay the same in weight or lose a little.
- What happens if we take in fewer calories and increase our activity? We lose weight. We need to balance calories from a variety of food with daily exercise.

Remember: Consult with the individual's doctor before beginning any weight loss program.

Weight Management and Reduction (cont.)

Estimates of Daily Caloric Need

- Older adults and women who are not active need 1,600 calories per day.
- Most children, teenage girls, active women, and inactive men need 2,200 calories per day.
- Teenage boys, active men, and some very active women need 2,800 calories per day.

To help visualize a common portion size, compare its size to a common item. Use the following examples:

- 1/2 cup fruit, vegetable, cooked cereal, pasta or rice = a small fist
- 3 ounces cooked meat, poultry, or fish = a deck of cards
- 1 muffin = a large egg
- 1 teaspoon butter or margarine = a thumb tip
- 1 small baked potato = a computer mouse
- 1 pancake or waffle = a 4-inch CD
- 4 small cookies (like vanilla wafers) = 4 casino chips
- 1 medium apple or orange = a baseball (not softball)
- 2 tablespoons peanut butter = a golf ball

If you calculate calories, be honest about the portion size consumed and multiply it by the correct number of servings contained.

Tips for Assisting Individuals with Weight Loss

- Stress good eating, not dieting.
- Keep food out of sight and unavailable except during meal and snack time.
- Limit drinks other than water to meal and snack times; dilute other drinks with water.
- Avoid regular sodas and other sugary drinks.
- Serve larger portions of lower calorie foods (vegetables and fruits) and smaller portions of higher calorie foods.
- Keep low fat, low calorie foods such as fruits and vegetables available at all times.
- Use smaller plates and cups.
- Eat smaller portions.
- Look for fat-free and other non-fat dairy products.
- Look for non-fat or low-fat desserts such as fat-free pudding or gelatin.
- Do not reward good eating with dessert.
- Use non-food rewards such as books, outings, or cosmetics and/or preferred activities.

Material adapted from Nutrition Wellness in the Residential Setting. With thanks to Ida Dacus, nutritionist at SCLARC and the USC UAP dieticians for their dietary suggestions.

A C T I V I T Y

Healthy Food Choices for Managing Weight

Directions: *Eating less fat reduces the number of calories and often cholesterol. Brainstorm substitutes that would result in less fat in the diet.*

Instead of:

Choose:

- | | |
|--|-------|
| 1. <i>Whole milk</i> | _____ |
| 2. <i>Ice cream</i> | _____ |
| 3. <i>Butter, margarine</i> | _____ |
| 4. <i>Regular cheese</i> | _____ |
| 5. <i>French fries or hash browns</i> | _____ |
| 6. <i>Sour cream</i> | _____ |
| 7. <i>Oil-packed tuna</i> | _____ |
| 8. <i>Frying in oil, butter, margarine, lard</i> | _____ |
| 9. <i>Fatty meats</i> | _____ |
| 10. <i>Vegetables in cream or butter sauce</i> | _____ |
| 11. <i>Potato chips</i> | _____ |
| 12. <i>Cakes, cookies, pastries</i> | _____ |
| 13. <i>Tacos, taquitos, egg rolls</i> | _____ |

Adapted with thanks from work by Terri Lisagor, MS, RD and SCLARC's "Nutrition Wellness in the Residential Setting."

Some Community Care Licensing Requirements

Here are some general Community Care Licensing requirements for food service:

- Food must meet nutritional needs of those served.
- Each meal should provide at least one-third of the servings recommended in the USDA's "Basic Food Group Plan—Daily Food Guide" for the age group served.
- All food shall be selected, stored, prepared, and served in a safe and healthful manner.
- All food shall be protected against contamination.
- No more than 15 hours should pass between the third meal of one day and the first meal of the following day.
- Between-meal snacks must be made available unless limited by dietary restrictions prescribed by a physician.
- Food should be cut, chopped, or ground to meet individual needs.
- A variety of menus should be planned.
- Menus should be written one week in advance. Dated copies of the menus as served should be kept on file for at least 30 days.
- Special diets must be provided according to the recommendations of a doctor or dietitian.
- All persons engaged in food preparation and service shall observe personal hygiene and food services sanitation practices.

Food Shopping on a Budget

Most households shop twice a week for food, sometimes picking up milk and fresh produce (vegetables, fruits, and meats) more frequently. In addition, most households have a budgeted amount of money to spend on food. Staying within the budget is especially challenging in the

residential setting where the preferences and needs of each person as well as Community Care Licensing requirements must be met. Following are some shopping tips that will help you stay within the food budget while providing tasty, nutritious food.

Top 10 Food Shopping Tips

1. Shop with a list.
2. Know your way around the store. Start by wheeling your shopping cart around the outside aisles of the store.
3. Choose fruits and vegetables that are "in season" when the price is relatively low.
4. Watch for sale items with nutritional value.
5. Save with coupons and preferred shopper cards.
6. Remember that "convenience" foods cost more.
7. It pays to stoop down to lower shelves. Food at eye level is usually more expensive than food on shelves near the floor.
8. Read labels, especially when buying a new item.
9. Save by purchasing store brands vs. national brand-name items.
10. Larger sizes are usually a better value.

Diet and Nutrition

Much of what we eat is based on habit and what we find tasty. As with most things, moderation is the key. As individuals begin to eat more nutritious

food and drink plenty of water, it is wise to make changes gradually to give taste buds a chance to adapt. Reducing fat or excess salt in our diet can be hard, so make food fun and talk about changes.

Mealtime Management

Mealtimes are an important social aspect of the day and should be structured to encourage safe eating habits and good nutrition. Remember, prevention is the number one priority. This section provides suggestions for making mealtime a happy and successful part of the day.

At mealtime you must consider the

- Individual
- Food Served
- Environment

The Individual

- Pay attention to the individual's feeding skills, appetite, food preferences, allergies, attention span, and behavioral factors that may influence mealtime.
- Follow all doctor's orders for a modified or therapeutic diet.
- Follow any specific plans in the IPP for mealtime safety; for example, the individual needs supervision because of a choking risk.
- Leave two to three hours between meals and snacks to encourage a good appetite.
- Discourage constant snacking with high calorie food (candy, cookies, soda).
- Medications may influence mealtime. Talk to the doctor about giving them at times they do not interfere with mealtime.

The Food Served

- Serve food at the proper temperature and in an attractive manner.
- Separate food on the plate; don't mix it together.
- Encourage use of adaptive equipment if needed.
- Take care to serve food in the best way for the individual to eat (bite-size pieces, chopped, pureed, finger foods).

The Environment

- Ask the individual what would make mealtime special.
- Set the table attractively. Pretty tablecloths, attractive or festive placemats, and flowers make people feel good. Party themes spice up a meal.
- Offensive smells in the home should be eliminated before mealtime starts.
- Help should be available to the level the individual needs. You should sit beside the individual if feeding assistance is necessary.
- TV and loud music can be distracting. Meals are best without TV; however, some individuals may like soft music.
- Plan table seating to make sure that individuals sit by others with whom they are comfortable.
- Mealtime should not last longer than half an hour.
- It's important for you to talk to residents, initiating conversation with those who are unable to do so.

Food Safety and Preparation

Bacteria is a microorganism commonly called a germ, capable of causing an infection. Harmful bacteria that enter the food supply can cause food borne illness. **Food borne illness** is sickness caused by eating contaminated food, sometimes called food poisoning. Millions of cases of food borne illness occur each year. Very young children, pregnant women, the elderly, and people with some types of chronic health conditions are at greater risk of getting sick from harmful bacteria. Some may become ill after ingesting only a few harmful bacteria; others may stay well after ingesting thousands. Often, it is hard to tell if food is unsafe because you can't see, smell, or taste the bacteria it may contain. The good news is that cooking and handling food safely can prevent most cases of food borne illness.

Adapted from material found on www.Foodsafety.gov.

Four Simple Steps to Food Safety

1. Clean—Wash Hands and Surfaces Often

Bacteria can spread throughout the kitchen on cutting boards, utensils, sponges, and counter tops.

- Wash your hands with hot soapy water before handling food.
- Wash your cutting boards, dishes, utensils, and counter tops with hot soapy water after preparing each food item and before you go on to the next food.
- Use plastic or other non-porous cutting boards. Wash cutting boards in hot soapy water or run through the dishwasher after use.
- Consider using paper towels to clean up kitchen surfaces. If you use cloth towels, wash them often in the hot cycle of your washing machine.

2. Separate—Don't Cross-Contaminate

Cross-contamination is the spread of bacteria from one food product to another. This is especially true

when handling raw meat, poultry, and seafood. So keep these foods and their juices away from ready-to-eat foods.

- Separate raw meat, poultry, and seafood from other foods in your grocery shopping cart and in your refrigerator.
- Use a different cutting board for raw meat products.
- Always wash hands, cutting boards, dishes, and utensils with hot soapy water after they come in contact with raw meat, poultry, and seafood.
- Never place cooked food on a plate that previously held raw meat, poultry, or seafood.

3. Cook—Cook to Proper Temperature

Food safety experts agree that foods are properly cooked when heated for a long enough time and at a high enough temperature to kill the harmful bacteria that cause food borne illness. See Appendix 5-B on page S-25 for Safe Cooking Temperatures for Meat and Poultry.

- Use a thermometer, which measures the internal temperature of cooked foods, to make sure meat, poultry, casseroles, and other foods are thoroughly cooked.
- Cook roasts and steaks to at least 145°F. Cook whole poultry to at least 165°F.
- Cook ground beef, where bacteria can spread during processing, to at least 160°F. Do not eat ground beef that is still pink inside.
- Fish should be opaque and flake easily with a fork.
- When cooking in a microwave oven, make sure there are no cold spots in food where bacteria can survive.
- Bring sauces, soups, and gravy to a boil when reheating. Heat other leftovers thoroughly to at least 165°F.

4. Chill—Refrigerate Promptly

Most bacteria multiply at temperatures between 40° and 140°F. This is the “danger zone.” Refrigerate foods quickly because cold temperatures keep harmful bacteria from growing and multiplying. Set your refrigerator no higher than 40°F and the freezer unit at 0°F. Check these temperatures occasionally with an appliance thermometer. Community Care Licensing regulations outline the “Thaw Law,” which requires the following:

- Refrigerate or freeze perishables and prepared food and leftovers within **two hours**.
- Never defrost food at room temperature. Thaw food in the refrigerator, under cold running water, or in the microwave. Marinate foods in the refrigerator.
- Divide large amounts of leftovers into small shallow containers for quick cooling in the refrigerator.
- Don’t pack the refrigerator. Cool air must circulate to keep food safe.

Proper food preparation is also important in making food taste good and easier to eat, for preserving the nutrients, and in reducing fat and cholesterol. Food that is prepared badly can end up being one-third as nutritious as when it is prepared well.

Vegetables

- Fresh vegetables should be eaten soon after being purchased.
- Vegetables should be washed in running water, but not left to soak.
- Some veggies such as potatoes need scrubbing to remove the dirt. It is better not to peel such vegetables, because nutritional value will be lost.
- Avoid boiling vegetables because nutrients will end up in the water. Instead you can microwave, steam, or stir-fry vegetables in water or a little bit of oil.
- Vegetables should not be overcooked and they should be eaten right away.
- Vegetables should maintain their fresh color, generally, and not end up wet and soggy.
- Frying vegetables (or any other items) can make them taste good, but excess oil and calories can be a problem.

Meat, Poultry, and Eggs

A high amount of bacteria is associated with food that comes from animals. Therefore, more preparation needs to be taken before eating these items. As with vegetables, there are various methods of cooking these foods.

- Frying in oil or fat will retain most vitamins, but add to the fat content of the food.
- Wok cooking (high heat with little water or oil) works well; however, avoid using too much salt.
- Steaming works well, as does roasting, baking, or broiling, although some nutrients will be lost.

A C T I V I T Y

Food Safety Word Match

Directions: Draw a line from the word to its matching definition.

Word	Definition
1. Two-hour rule	A. The spread of bacteria from one food product to another. Harmful bacteria can also be transferred to food from another source, such as hands.
2. Personal hygiene	B. Defrost foods in the refrigerator, microwave, or under running water. Never defrost food on the kitchen counter.
3. Perishable food	C. Keeping work areas free from dirt or bacteria.
4. Cross-contamination	D. Foods that can become unsafe or spoil quickly if not refrigerated or frozen.
5. Contaminated food	F. Cleanliness, keeping yourself clean.
6. Danger Zone	G. Perishable food should not be left at room temperature longer than two hours.
7. Food borne illness	H. Food that contains harmful bacteria.
8. The Thaw Law	I. Cooking food to a safe internal temperature.
9. Sanitation	J. Sickness caused by eating contaminated food, sometimes called food poisoning.
10. Thorough cooking	K. The range of temperatures at which most bacteria multiply rapidly—between 40° and 140° F.

Movement and Exercise cont.

Regular physical activity helps to maintain physical and emotional health. Physical exercise promotes total body fitness and strength, aids digestion and elimination, improves blood circulation throughout the body, stretches muscles and joints to help bones to stay strong, and increases mental alertness. Stretching increases joint flexibility. Physical activity should be a part of each individual's daily routine and fitness goals should be included in the IPP. As a DSP, you may be able to support individuals to achieve goals to increase activity.

"The Dietary Guidelines" for Americans recommend that all adults be more active throughout the day and get at least 30 minutes of moderate physical activity on most days of the week, or preferably every day. Adults who are trying to maintain a healthy weight after weight loss are advised to get even more physical activity. The guidelines recommend that children get at least 60 minutes of physical activity daily and limit inactive forms of play such as watching television and computer games.

Following are potential benefits from regular exercise:

- Relieves tension and stress
- Provides enjoyment and fun
- Stimulates the mind
- Helps maintain stable weight
- Controls appetite
- Boosts self-image
- Improves muscle tone and strength
- Improves flexibility
- Lowers blood pressure
- Relieves insomnia
- Increases "good" cholesterol (HDL)
- Prevents diabetes
- Helps prevent constipation

Many physical fitness activities contribute to good health. But sometimes finding ways to make activity fun and fit into a daily routine can present the DSP with challenges. Here are a few suggestions to get started.

To increase daily activity throughout the day, encourage and assist individuals to:

- Take the stairs and park further away from buildings.
- Do stretches while TV shows are on commercial breaks.
- Start walking short distances (five minutes) two or three times a day and increase this gradually.
- Swim or do water aerobics, which is great exercise that does not place stress on knees and other joints.

Join an organized exercise or sports program such as those provided by the YMCA, local parks department, or Special Olympics. This is a fun way to get exercise and meet new people. Be sure the program can meet the individual's needs.

Exercise at least three days a week. An instructor or physical therapist may be able to recommend areas of concentration such as strength training, cardiovascular exercise, or aerobic fitness.

Develop plans for activities that are not sedentary such as bike riding, dancing to music, an exercise video, or mild hiking on days when there is no formal exercise.

Remember: Consult with the individual's doctor before beginning any exercise program.

Movement and Exercise (cont.)

Motivation will be a challenge if an individual has been sedentary. Find ways to keep fitness fun:

- Change routines often enough to avoid boredom.
- Take before and after pictures.
- Work together with a group of friends who can motivate each other.
- Develop motivators that add to the fitness program such as a trip to a park for a walk or go to the beach for a swim.

For individuals who use a wheelchair, encourage participation in activities that use their upper body strength as much as possible. Exercise such as weight lifting and swimming may be appropriate for those individuals.

Studies have shown that even mild exercise can improve fitness level. The gains from increased activity will result in a safer and healthier life.

S U M M A R Y

In summary, DSPs have a unique opportunity to contribute to individuals' health by promoting healthy eating and exercise habits.

P R A C T I C E A N D S H A R E

Identify an individual you support who is interested in changing their eating and/or exercise habits. Assist that individual in making healthier food choices and/or increasing daily activities (for example, walk to the store instead of drive). Be prepared to talk about what you did and how it worked at the beginning of the next session.

Nutrition and Exercise

- 1. Which of these are necessary nutrients in food?**
 - A) High fructose corn syrup
 - B) Sweeteners and food coloring
 - C) Proteins and minerals
 - D) Preservatives
- 2. Which is one of the food groups on MyPlate?**
 - A) Snacks
 - B) Nuts
 - C) Eggs
 - D) Fruits
- 3. "Nutrition Facts" labels give information about:**
 - A) How to cook the product
 - B) What other foods you can serve with the product
 - C) The number of calories in a serving and the calories from fat
 - D) The price of the product
- 4. When an individual has a special diet prescribed by a doctor because of a health condition, they are following a:**
 - A) Regular diet
 - B) Modified diet
 - C) Therapeutic diet
 - D) High calorie diet
- 5. How can the DSP assist individuals with weight loss?**
 - A) Provide the individual with sweet snacks several times a day
 - B) Reward good behavior with food
 - C) Prepare low calorie snacks between meals
 - D) Encourage TV watching
- 6. How can you save money while shopping for food?**
 - A) Look for sale items
 - B) Buy everything the individual wants
 - C) Buy smaller size items
 - D) Buy "convenience" foods
- 7. When preparing and storing foods, the DSP should:**
 - A) Use one wooden cutting board when preparing all foods
 - B) Defrost foods at room temperature
 - C) Separate raw meat, poultry, and seafood from other foods in the refrigerator
 - D) Over-cook meats, poultry, and casseroles to kill bacteria
- 8. What happens when food is cross-contaminated?**
 - A) Harmful bacteria is killed by high heat
 - B) Harmful bacteria is spread from one food to another
 - C) Fat from meat is used to cook other foods
 - D) The food lacks flavor
- 9. Food allergies are dangerous for some individuals because:**
 - A) Allergic reactions are very rare
 - B) Allergic reactions can be life-threatening
 - C) Most individuals are sensitive to new foods
 - D) Individuals have too many allergies
- 10. Individuals need to drink more than 8-12, 8-ounce glasses of water per day if they:**
 - A) Experience heavy sweating/perspiration
 - B) Live in a warm climate
 - C) Use tranquilizers or anti-convulsants
 - D) All of the above

Appendices



The image shows a vertical grey bar containing five white circular icons. From top to bottom, the icons are: 1. Two stylized human figures facing each other. 2. A scale of justice. 3. A person in a dynamic pose holding a ball. 4. A person in a dynamic pose holding a sword. 5. A compass rose with the letters N, E, S, and W.

10 tips

Nutrition Education Series

build a healthy meal

10 tips for healthy meals



A healthy meal starts with more vegetables and fruits and smaller portions of protein and grains. Think about how you can adjust the portions on your plate to get more of what you need without too many calories. And don't forget dairy—make it the beverage with your meal or add fat-free or low-fat dairy products to your plate.

1 make half your plate veggies and fruits
Vegetables and fruits are full of nutrients and may help to promote good health. Choose red, orange, and dark-green vegetables such as tomatoes, sweet potatoes, and broccoli.

2 add lean protein
Choose protein foods, such as lean beef and pork, or chicken, turkey, beans, or tofu. Twice a week, make seafood the protein on your plate.



3 include whole grains
Aim to make at least half your grains whole grains. Look for the words "100% whole grain" or "100% whole wheat" on the food label. Whole grains provide more nutrients, like fiber, than refined grains.

4 don't forget the dairy
Pair your meal with a cup of fat-free or low-fat milk. They provide the same amount of calcium and other essential nutrients as whole milk, but less fat and calories. Don't drink milk? Try soy milk (soy beverage) as your beverage or include fat-free or low-fat yogurt in your meal.



5 avoid extra fat
Using heavy gravies or sauces will add fat and calories to otherwise healthy choices. For example, steamed broccoli is great, but avoid topping it with cheese sauce. Try other options, like a sprinkling of low-fat parmesan cheese or a squeeze of lemon.

6 take your time
Savor your food. Eat slowly, enjoy the taste and textures, and pay attention to how you feel. Be mindful. Eating very quickly may cause you to eat too much.

7 use a smaller plate
Use a smaller plate at meals to help with portion control. That way you can finish your entire plate and feel satisfied without overeating.

8 take control of your food
Eat at home more often so you know exactly what you are eating. If you eat out, check and compare the nutrition information. Choose healthier options such as baked instead of fried.

9 try new foods
Keep it interesting by picking out new foods you've never tried before, like mango, lentils, or kale. You may find a new favorite! Trade fun and tasty recipes with friends or find them online.



10 satisfy your sweet tooth in a healthy way
Indulge in a naturally sweet dessert dish—fruit! Serve a fresh fruit cocktail or a fruit parfait made with yogurt. For a hot dessert, bake apples and top with cinnamon.

Appendix 5-B Top 10 Safe Handling and Storage Tips

1. Be sure food and water are from safe sources.
2. Ask the store clerk to put frozen items together in a bag. This will help maintain temperature.
3. Take items directly home, unpack them, and put them away in the refrigerator, the freezer, or on shelves. Don't leave food items in the car. Some items such as milk, poultry, and meat can spoil quickly.
4. Always wash your hands before touching food and throughout the preparation process.
5. Refrigerators need to be at the correct temperature at or below 40°F, but above freezing. Keep the freezing compartment at 0°F.
6. Keep meat and poultry refrigerated or frozen. Thaw meat and poultry in the refrigerator.
7. Keep raw meat and poultry separate from other foods. Do not put cooked meat or poultry on surfaces that came in contact with raw meat or poultry. (Note: This is often a problem when barbecuing.)
8. Cook poultry and ground meat thoroughly and keep hot foods hot (above 140°F).
9. Wash working surfaces including cutting boards, utensils, and dishes in hot soapy water.
10. Avoid outdated and spoiled food! When in doubt, throw it out! Many food items, both at the store and in the refrigerator, have expiration dates. Such items should not be purchased beyond the expiration date, and should either be thrown away or checked carefully before use. Products vary greatly in how long they remain edible, even in the refrigerator; often it is only a day or two. Dating the emergency supply containers is very important. Canned goods remain wholesome much longer than fresh produce, dairy products, non-frozen meat and such; however, the "shelf life" of canned goods is not endless. Every six months or so, canned food should be used up or thrown out and replaced.

Note: If individuals in the home have open access to food in the refrigerator, it is important to exercise enough supervision to ensure that no one eats food that has spoiled.

Appendix 5-C Ways to Reduce Salt in the Diet

- Do not use salt or use less salt when preparing foods.
- Use spices and herbs to flavor food.
- Leave the salt shaker in the cupboard, not on the table.
- Go easy on condiments such as soy sauce, ketchup, mustard, pickles, and olives.
- Choose fresh, plain frozen, or canned vegetables without added salt.
- Choose fresh or frozen fish, poultry, and meat. Most often these are lower in salt than canned and processed forms.
- Read the Nutrition Facts label to compare the amount of sodium in processed foods. The amount in different types and brands varies widely.
- Look for labels that say "low sodium."

Appendix 5-D Food Labels

*Brand X Pure
Premium OJ*

32 FL OZ (1 QT) 946mL

Nutrition Facts	
Serving Size 8 fl oz (240 ml)	
Servings Per Container 4	
Amount Per Serving	
Calories 110 Calories from Fat 0	
% Daily Value*	
Total Fat 0g	0%
Sodium 0mg	0%
Potassium 450mg	13%
Total Carbohydrate 26 g	9%
Sugars 22g	
Protein 2g	
Vitamin C 60% • Calcium 2%	
Thiamin 10% • Niacin 4%	
Vitamin B6 6% • Folate 15%	
Not a significant source of saturated fat, cholesterol, dietary fiber, vitamin A and iron	
*Percent of Daily Values are based on a 2,000 calorie diet.	

Other container labeling:

Meets American Heart Association food criteria for saturated fat and cholesterol for healthy people over age 2.

Naturally **sodium** free.
No **water** or **preservatives** Added.

Keep Refrigerated

Best if used within 7 to 10 days after opening.

Pasteurized

*Deli Macaroni
Salad*

Net Wt. 16 OZ. (1LB) 454g

Nutrition Facts	
Serv. Size 3/4 cup (145g)	
Servings: 3	
Amount Per Serving	
Calories 330 Fat Cal. 210	
Amount per Serving % Daily Value*	
Total Fat 23g	36%
Saturated Fat 3.5g 17%	
Cholesterol 15mg	5%
Sodium 770mg	32%
Total Carb. 27 g	9%
Fiber 2g 7%	
Sugars 22g	
Protein 5g	
Vitamin A 0% • Calcium 2%	
Thiamin 10% • Niacin 4%	
Vitamin C 0% • Iron 10%	
Not a significant source of saturated fat, cholesterol, dietary fiber, vitamin A and iron	
*Percent of Daily Values are based on a 2,000 calorie diet.	

INGREDIENTS: Cooked Enriched Macaroni (semolina, niacin, iron, thiamin mononitrate, riboflavin, folic acid), Mayonnaise (soybean or canola oil, egg yolks, water, vinegar, corn syrup, salt, spice, calcium disodium EDTA), Sweet Pickles (pickles, high fructose corn syrup, water, vinegar, salt, modified food starch, sodium benzoate, natural flavorings, calcium chloride), Corn Syrup, Celery, Water, Onions, Red Bell Peppers, Salt, Vinegar, Mustard (water, vinegar, mustard seed, salt, sugar, soybean oil, spices, tumeric, zanthan gum, annato, calcium disodium EDTA), Potassium Sorbate, to protect flavor, Sugar Zanthan Gum, Annato Coloring

*Brand X Beef &
Green Chili Burritos*

10-4 OZ BURRITOS,
NETWT 40 OZ (2.5 LBS) 1,134g

Nutrition Facts	
Serving Size 1 Burrito (113g)	
Servings Per Container 10	
Amount Per Serving	
Calories 290 Calories from Fat 120	
% Daily Value*	
Total Fat 14g	21%
Saturated Fat 5g 24%	
Cholesterol 15mg	5%
Sodium 270mg	10%
Total Carbohydrate 34 g	11%
Dietary Fiber 3g 13%	
Sugars 1g	
Protein 8g	
Vitamin A 0% • Vitamin C 6%	
Calcium 2% • Iron 15%	
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs	
Calories: 2,000 2,500	
Total Fat	Less than 65g 80g
Sat. Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

INGREDIENTS: Flour Tortilla (bleached wheat four enriched (niacin, reduced iron, thiamin mononitrate, riboflavin, folic acid), water, soybean oil