

Visions Training Series  
State of Hawai'i Developmental Disabilities Division

# Nutrition

## COURSE WORKBOOK



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## Course Overview

In this course, you will learn about the general recommendations from *United States Dietary Guidelines for Americans* and *MyPlate*. These resources provide guidance on supporting a healthy lifestyle and reducing the risk of major chronic disease. In addition to these sweeping recommendations, this course discusses balancing choice and safety for participants when it comes to nutrition. A person's food and beverage choices are impacted by their culture and values, environment, and personal preferences. Additionally, a person may require a specific diet for a therapeutic purpose. For example, a participant may need a modified carbohydrate diet for diabetes or a low potassium diet for kidney disease. A participant may also need a modification diet, which includes adapted food and liquid textures and consistencies for the person to safely eat.

## Course Objectives:

At the end of the course, you will:

### Lesson 1: Nutrition Basics

- Identify the general recommendations of the *US Dietary Guidelines for Americans* and *MyPlate*.
- Distinguish between portion and serving.
- Identify the five essential nutrients and describe the main function of each.
- Classify food items as either carbohydrates; protein; saturated fat; polyunsaturated and monounsaturated fat; and vitamins and minerals.
- Identify the main function of cholesterol, sodium, and dietary fiber.
- Identify and describe the recommendations for clean, separate, cook, and chill.

### Lesson 2: Balancing Important To (Choice) and Important For

- Describe the importance of offering choice for participants with their food and beverage choices.
- Identify factors that may impact a person's food and beverage choices and physical activity levels.

### Lesson 3: Food Safety and Types of Diets

- Understand why a person's diet needs to be safe, adequate, individualized, and healthy.
- Describe a therapeutic diet and identify examples of typical therapeutic diets.
- Understand how a modification diet increases food safety for those who have difficulty swallowing.
- Recognize ways in which a person might describe how they experience an allergic reaction.

### Lesson 4: Enteral and Parenteral Nutrition

- Distinguish between enteral nutrition and parenteral nutrition.
- Identify the different types of feeding tubes.
- Distinguish between the two types of feeding methods.

## Lesson 1: Nutrition Basics

### Topic 1: Dietary Guidelines and MyPlate

#### Dietary Guidelines

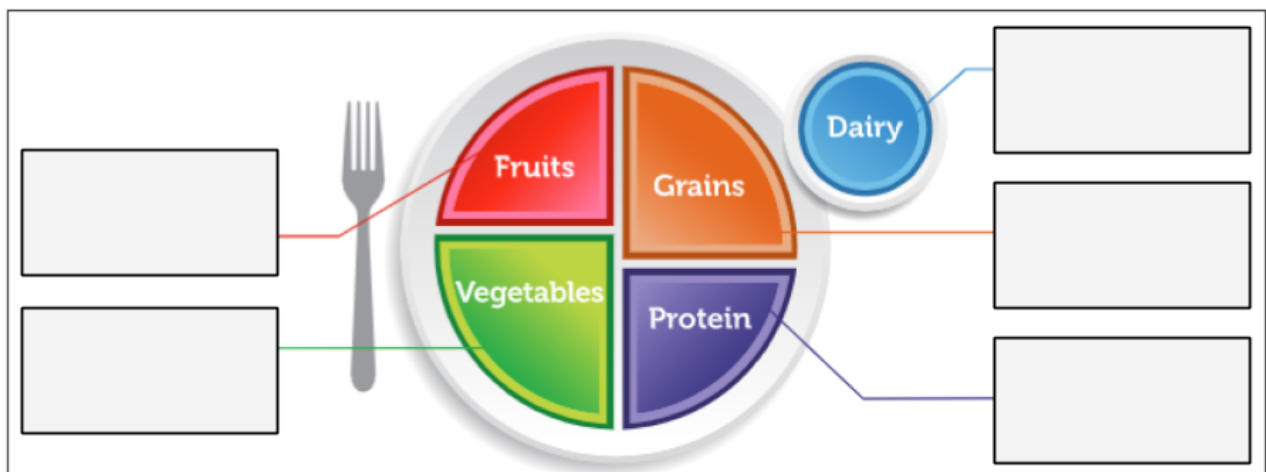
Every five years, the United States Department of Agriculture (USDA) and the Department of Health and Human Services (HHS) develop dietary guidelines for Americans. The guidelines include nutrition and physical activity recommendations to support a healthy lifestyle and reduce the risk of major chronic diseases.

The guidelines recommend:

1. Focusing on \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_;
2. Choosing foods and beverages with less saturated fat, \_\_\_\_\_, and added \_\_\_\_\_;
3. Starting with \_\_\_\_\_ changes to build healthier eating styles; and
4. Supporting healthy eating for \_\_\_\_\_.

#### MyPlate

In addition to the dietary guidelines, *MyPlate* is a simple reminder that everything you eat and drink matters. *MyPlate* is an update to the \_\_\_\_\_.



## Daily Food Group Targets – Based on a 2,000 Calorie Plan

1. **Fruits:** Focus on \_\_\_\_\_ fruits and select \_\_\_\_\_ fruit juice when choosing juices. Buy fruits that are dried, frozen, canned, or fresh, so that you can always have a supply on hand.
2. **Vegetables:** Eat a \_\_\_\_\_ of vegetables and add them to mixed dishes like casseroles, sandwiches, and wraps. Fresh, frozen, and canned count, too. Look for “reduced \_\_\_\_\_” or “no-salt-added” on the label.
3. **Grains:** Choose \_\_\_\_\_ - \_\_\_\_\_ versions of common foods such as bread, pasta, and tortillas. If you are not sure if it’s whole grain, check the ingredients list for the words “whole” or “whole grain.”
4. **Dairy:** Choose low-fat (\_\_\_\_) or fat-free (\_\_\_\_) dairy. Get the same amount of \_\_\_\_\_ and other nutrients as whole milk, but with less saturated fat and calories. Lactose intolerant? Try lactose-free milk or fortified soy milk.
5. **Protein:** Eat a variety of protein foods such as beans, soy, seafood, lean meats, poultry, and unsalted nuts and seeds. Select seafood \_\_\_\_\_ a week. Choose \_\_\_\_\_ cuts of meat and ground beef that is at least \_\_\_\_\_ lean.

### Additional MyPlate Recommendations:

1. **Drink \_\_\_\_\_ instead of sugary drinks.** Regular soda, energy or sports drinks, and other sweet drinks usually contain a lot of \_\_\_\_\_ sugar, which provides more \_\_\_\_\_ than needed.
2. Don’t forget physical activity! Being active can help prevent \_\_\_\_\_ and manage \_\_\_\_\_. Adults should exercise at least \_\_\_\_\_ minutes per week.

## Activity: *MyPlate*

**Let's practice now.** Fill in the blanks.

Everything you eat and drink over time matters and can help you be healthier now and in the future.

The following are some of the recommendations from *MyPlate*.

Focus on \_\_\_\_\_ fruits.

Vary your veggies and vary your \_\_\_\_\_ routine.

Make \_\_\_\_\_ of your grains whole grains.

For dairy, move to low-fat or fat-free milk or yogurt.

Drink \_\_\_\_\_ instead of sugary drinks.

Don't forget about physical activity. It is recommended to exercise at least \_\_\_\_\_ minutes per week.

Daily food group targets are based on a \_\_\_\_\_ calorie diet.

## Topic 2: Nutrition Facts

### Nutrition Facts Label



\_\_\_\_\_ is based on the **amount of food that is customarily eaten** at one time. All of the nutrition information listed on the Nutrition Facts Label is based on **one serving** of the food.

The serving size is shown as a common household measure that is appropriate to the food (such as cup, tablespoon, piece, slice, or jar), followed by the metric amount in \_\_\_\_\_ (g). When comparing calories and nutrients in different foods, check the serving size in order to make an accurate comparison.



\_\_\_\_\_ shows the **total number of servings** in the entire food package or container. It is common for one package of food to contain more than one serving.

The information listed on the Nutrition Facts Label is based on **one serving**. So, if a package contains two servings and you eat the entire package, you have consumed twice the amount of \_\_\_\_\_ and \_\_\_\_\_ listed on the label.



\_\_\_\_\_ refers to the **total number of calories**, or “energy,” supplied from all sources (fat, carbohydrate, protein, and alcohol) in one serving of the food.

To achieve or maintain a healthy body weight, balance the number of calories you \_\_\_\_\_ and \_\_\_\_\_ with the number of calories you \_\_\_\_\_ during physical activity and through your body’s metabolic processes.

As a **general rule**: 100 calories per serving is \_\_\_\_\_. 400 calories per serving is \_\_\_\_\_.







\_\_\_\_\_ are *not* additional calories, but are **fat's contribution to the total number of calories in one serving of the food.**

The Nutrition Facts Label lists the calories from fat because fat has more than twice the number of calories per gram than carbohydrate or protein. For example, if the Nutrition Facts Label says one serving of food contains 150 calories and 100 calories from fat, the remaining 50 calories comes from carbohydrate, protein, and/or alcohol.



\_\_\_\_\_ (%DV) shows how much of a nutrient is in one serving of the food.

The %DVs are based on the Daily Values for key nutrients, which are the amounts of nutrients recommended per day for Americans 4 years of age and older. The %DV column doesn't add up vertically to 100%. Instead, the %DV is the percentage of the Daily Value for each nutrient in one serving of the food.

For example, the Daily Value for saturated fat is 20 grams (g), which equals 100% DV. If the Nutrition Facts Label says one serving of a food contains 1.5 g of saturated fat, then the %DV for saturated fat for this specific food is 8%. That means the food contains 8% of the maximum amount of saturated fat that an average person should eat in an entire day.



The \_\_\_\_\_ shows each ingredient in a food by its common or usual name in descending order by weight.

The ingredient with the greatest contribution to the product weight is listed first, and the ingredient contributing the least by weight is listed last. The ingredient list is usually located below the Nutrition Facts Label.

## Serving Size and Portion Size

A \_\_\_\_\_ is the amount of food that you choose to eat. The amount can be large or small. A \_\_\_\_\_ is a measured amount of food or drink. This could be one slice of bread or eight ounces of milk.

Portion sizes have **increased** over time and has resulted in \_\_\_\_\_. This occurs when a person thinks a “normal” portion is much larger than the recommended portion for a particular item.

To overcome portion distortion, it is recommended to:

1.

2.

## Topic 3: Five Essential Nutrients & Other Food Components

### Five Essential Nutrients

All foods are comprised of \_\_\_\_\_ essential nutrients, in addition to water.

1. **Carbohydrates:** \_\_\_\_\_  
\_\_\_\_\_
2. **Protein:** \_\_\_\_\_  
\_\_\_\_\_
3. **Fat:** \_\_\_\_\_  
\_\_\_\_\_
  - Saturated Fat: \_\_\_\_\_
  - Polyunsaturated Fat: \_\_\_\_\_
  - Monounsaturated Fat: \_\_\_\_\_
4. **Vitamins:** \_\_\_\_\_  
\_\_\_\_\_
5. **Minerals:** \_\_\_\_\_  
\_\_\_\_\_

### Other Food Components

Food also contains cholesterol, sodium, and dietary fiber.

1. **Cholesterol** is found in all food from \_\_\_\_\_ sources. Our liver produces all of the cholesterol our bodies need, so we do not need it from food.
2. **Sodium** is a mineral essential to the body in \_\_\_\_\_ amounts, but too much sodium can cause \_\_\_\_\_ blood pressure and can make many medical problems worse.
3. **Dietary fiber** helps prevent \_\_\_\_\_. It also helps lower blood \_\_\_\_\_ thereby reducing the risk of heart disease.

## Topic 4: Preventing Cross Contamination: Food Safety

1. **Clean** includes washing hands with \_\_\_\_\_ and \_\_\_\_\_, cleaning \_\_\_\_\_, and rinsing \_\_\_\_\_.
2. **Separate** includes separating foods that are ready-to-eat from \_\_\_\_\_ foods or foods that might contain harmful microbes that can cause \_\_\_\_\_ in order to prevent \_\_\_\_\_ - \_\_\_\_\_.
3. **Cook** includes cooking foods to the recommended safe \_\_\_\_\_.
4. **Chill** includes keeping home refrigerators at \_\_\_\_\_°F or below, refrigerating foods within \_\_\_\_\_ hours, and \_\_\_\_\_ foods properly.

## Lesson 2: Balancing Important To and Important For

### The Importance of Choice

Having opportunities to exercise your \_\_\_\_\_ - \_\_\_\_\_ and make \_\_\_\_\_ that are meaningful to you is a critical component of living your good life. As you learned in Course 3: Person-Centered Supports and Planning, a good life includes things that are important to you as well as important for you. Remember, we often do what is important \_\_\_\_\_ us (e.g. what we need to be healthy and safe) when we are motivated by what is important \_\_\_\_\_ us (i.e. the people, interests, etc. that really matter to us). Being able to choose what we do, where we go, and when we do things are just some of the choices we make every day which we often take for granted.

### Offering Choice

Many factors may impact a person's food and beverage choices as well as their physical activity levels. A person's \_\_\_\_\_ and \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ are various aspects of what is important to them and affect the choices they make. The choices a person makes based on what is important to them has a direct impact on their health outcomes and what is important for them to be healthy and safe.

1. **Culture and Values:** A person will often make food choices based on their \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
2. **Environment:** A person's environment includes the home, school, workplace, restaurants, recreational facilities, and other community places. A person's \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ in various settings can influence a person's food and drink choices based on what is \_\_\_\_\_ and \_\_\_\_\_.
3. **Individual Preference:** All people have their own unique food and drink preferences. The food choices we make are usually based on our specific \_\_\_\_\_ and \_\_\_\_\_.

## Lesson 3: Types of Diets

A person's diet should be \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

1. **Safe:** Food choices align with \_\_\_\_\_ and the food is \_\_\_\_\_ and \_\_\_\_\_ safely.
2. **Adequate:** Foods are adequate in \_\_\_\_\_ and \_\_\_\_\_.
3. **Individualized:** Encourages \_\_\_\_\_ and specific \_\_\_\_\_ and manages medical conditions and other needs.
4. **Healthy:** Includes a variety of \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

A therapeutic diet is a \_\_\_\_\_ - \_\_\_\_\_ diet that contains certain nutrients and eliminates other nutrients that are problematic to the participant because of a health condition. A therapeutic diet is similar to taking medications - both are prescribed by the doctor and can result in severe \_\_\_\_\_ if not followed as recommended.

### Therapeutic Diets

The following are examples of therapeutic diets and conditions they are recommended for:

1. Modified \_\_\_\_\_ diet - Diabetes
2. Low fat and low \_\_\_\_\_ diet - Heart problems
3. Low \_\_\_\_\_ - Kidney Disease
4. High \_\_\_\_\_ - Bowel Health
5. \_\_\_\_\_ and \_\_\_\_\_ modification - Food Intolerance
6. Elimination of peanuts, soy, and fish - \_\_\_\_\_
7. High \_\_\_\_\_ - Epilepsy and Neurological Conditions

## Modification Diets

A modified diet may include changes to food and liquid \_\_\_\_\_ for individuals who have difficulty swallowing (\_\_\_\_\_). Modifications are vital to ensure that these individuals:

- 1.
- 2.

### Types of Textured Diets:

1. **Soft Chopped Diet:** food cut by hand into even “ \_\_\_\_\_ ” pieces or as prescribed by a Primary Care Physician. Food must be \_\_\_\_\_ throughout and cannot include any food that is \_\_\_\_\_, \_\_\_\_\_, or \_\_\_\_\_.
2. **Ground Diet:** food that is moist, \_\_\_\_\_ - \_\_\_\_\_, and easily formed into a rounded \_\_\_\_\_ in the mouth. Meats are ground or minced into pieces no larger than a quarter inch; all pieces are moist, and stick together slightly. A small amount of starch such as \_\_\_\_\_ or \_\_\_\_\_ added to ground foods will help to make the food stick together slightly. Ground food is moist throughout but is not \_\_\_\_\_.
3. **Pureed Diet:** Food with a very \_\_\_\_\_ consistency or foods that have been well-processed in a \_\_\_\_\_ or \_\_\_\_\_ to a very smooth consistency or texture. No solid pieces or parts can be noticed in the food. Pureed food has no lumps and feels very soft and smooth in the mouth.

## Liquid Consistencies

When modified liquid food texture is prescribed, the food texture should not be thinner than the prescribed liquid consistency.

There are four types of consistencies:

1. **Thin:** Liquids and beverages served \_\_\_\_\_.
2. **Nectar:** Apricot or tomato juice consistency; most liquids will require a thickening agent to reach this consistency. Food runs freely off the spoon but leaves a \_\_\_\_\_ on the spoon.
3. **Honey:** Liquids can be \_\_\_\_\_ but are very slow. Liquids will require a thickening agent to reach this consistency. Food slowly \_\_\_\_\_ in dollops (or blobs) off of the end of the spoon.
4. **Pudding:** Liquids are spoonable but when a spoon is placed upright, it will not stay upright. Liquids will require a thickening agent to reach this consistency. Food sits on the spoon and does not \_\_\_\_\_ off of it.

## Food Allergies

A participant may have dietary restrictions based on a \_\_\_\_\_. An allergy is \_\_\_\_\_ to a certain substance that can cause mild to moderate or severe to life-threatening \_\_\_\_\_. Mild to moderate reactions can include stomach ache, diarrhea, hives, itchy and watery eyes, or a runny nose. A severe to life-threatening reaction can be \_\_\_\_\_, a life-threatening event that can cause an individual's breathing to stop if emergency medical treatment is not immediately available.

Almost any food can cause an allergic reaction, but only \_\_\_\_\_ foods account for \_\_\_\_\_% of all food-related allergic reactions in the U.S. and include: peanuts, tree nuts, milk, eggs, wheat, soy, fish, and shellfish. Sesame allergies are also a growing concern.



## Lesson 4: Enteral and Parenteral Nutrition

Some people are unable to receive nutrition through their mouth due to difficulties with \_\_\_\_\_, \_\_\_\_\_ disorders, or other conditions.



\_\_\_\_\_ generally refers to the use of the gastrointestinal (GI) tract via tube, catheter, or surgically made hole to deliver part or all of a person's caloric requirements.



\_\_\_\_\_ refers to the delivery of calories and nutrients into a vein.

\_\_\_\_\_ nutrition is preferred whenever possible. However, \_\_\_\_\_ nutrition may be needed when the person's caloric and nutrient needs cannot be met by the current level of functioning of their GI tract or use of the GI tract is difficult or unsafe.

Participants who receive enteral or parenteral nutrition must be under the care of a licensed physician and must have specific, individualized orders for their nutritional care.

## Type of Feeding Tubes

The following are the different types of feeding tubes:

1. **Nasal Tubes:** Nasal tubes are non-surgical and \_\_\_\_\_ tubes placed through the \_\_\_\_\_ (nasal) and into the \_\_\_\_\_ or \_\_\_\_\_ (abdominal). Types of nasal tubes include: Nasogastric (NG) Tubes, Nasoduodenal (ND) Tubes, Nasojejunal (NJ) Tubes
2. **Gastric or Gastrostomy (G) Tubes:** A gastrostomy tube (\_\_\_\_-\_\_\_\_\_) is a tube inserted through the abdomen that delivers nutrition directly to the \_\_\_\_\_.
3. **Gastrojejunostomy (GJ) or Transjejunal Tubes:** Gastrojejunostomy tubes (\_\_\_\_-\_\_\_\_\_) are placed in the stomach just like G-tubes, but a thin, long tube is threaded into the jejunal (J) portion of the small intestine. The GJ-tube is a single tube that passes through the abdominal surface, into the stomach, and down into the second part of the small intestine (the jejunum).
4. **Jejunostomy (J) Tubes:** A jejunostomy tube (\_\_\_\_-\_\_\_\_\_) is a soft, plastic tube placed through the skin of the abdomen into the midsection of the small intestine. A J tube is placed when the stomach must be bypassed entirely.

## Feeding Methods

Two types of feeding methods include:

1. Bolus (feeding all at once), gravity, intermittent feeding: Nutrition is delivered several times throughout the day over short periods of time. This may be done by gravity (formula drips in) or via pump.
2. Continuous feeding: Nutrition is delivered slowly over the course of the day via a feeding pump. This method may be used when the stomach empties slowly.

## Lesson 5: Summary

The guidelines and recommendations on nutrition and food safety are essential to ensuring people have what is important for their health and safety. The main take away for the Nutrition course is to emphasize the need to find a balance between what is important to and important for a person. People usually do not do what is important for them unless it is also important to them. No one should have to choose between health or happiness. Instead, people should be supported to be both happy and healthy. Ideally, the more a person knows and understands about what is important for their health, the more they will make healthier choices and find a balance between what is important to and important for them.



**Main Takeaway:** Support participants to balance what is important to and important for the person with their food and drink choices.