Nutrition and Safe Food Handling

Nutrition- the act or process of nourishing or being nourished; specifically: the sum of the processes by which an animal or plant takes in and utilizes food substances; foods that are necessary for human nutrition (Merriam Webster dictionary)

Food provides the energy and nutrients you need to be healthy. Nutrients include proteins, carbohydrates, fats, vitamins, minerals, and water.

Today, about half of all American adults have one or more chronic diseases, often related to poor diet. The 2015-2020 Dietary Guidelines for Americans emphasizes the importance of creating a healthy eating pattern to maintain health and reduce the risk of disease. Everything we eat and drink — the food and beverage choices we make day to day and over our lifetime — matters. Up to 10% of all older Americans are malnourished, which can worsen chronic conditions and make it difficult for them to stay independent.

A history of poor eating and physical activity patterns have a cumulative effect and have contributed to significant nutrition- and physical activity-related health challenges that now face the U.S. population.

Nutritious food is critical for people at every stage of life, but it can be particularly important as we age. Studies show that seniors facing hunger have an increased risk of chronic health conditions. They’re 60% more likely to experience depression, 53% more likely to report a heart attack, and 40% more likely to report congestive heart failure than seniors of the same age who do not struggle with hunger. Nutritious food can often help manage or prevent these conditions and promote better health in the long-term.

Nutritional status is based on the client’s body composition, functional status, and the presence of illness or disease. Everyone is different. Each client is different and cannot be compared to other clients of the same age or condition. The goal is to receive a daily supply of 6 basic nutrients (see page 3).

Many clients receiving Home Care services are at risk of malnutrition due to inability to prepare their own meals, disabilities related to feeding themselves, or illnesses such as cancer and other diseases. Healthy eating is important for everyone. But it can be even more critical as people age, especially if they are living with a chronic condition. The In-Home aide plays a vital role in assisting clients with nutritional needs through meal preparation and assistance with eating.

Nutritional Needs of the Older Adult- You need fewer calories every decade, says Connie Bales, PhD, RD, associate director of the Geriatric Research, Education, and Clinical Center at Durham VA Medical Center. "We move around less, we have less muscle, and our metabolic rate goes down." The challenge while eating less overall is to eat more nutrient-rich foods, such as fruits, vegetables, whole grains, nuts, beans, fish, low-fat dairy products, and lean cuts of meat. As you age, your body needs the same amount of protein, vitamins, and minerals and, in some instances, even more nutrients.
Healthy Eating Patterns

A healthy eating pattern includes:

- A variety of vegetables from all of the subgroups—dark green, red and orange, legumes (beans and peas), starchy, etc.
- Fruits, especially whole fruits
- Grains, at least half of which are whole grains
- Fat-free or low-fat dairy, including milk, yogurt, cheese, and/or fortified soy beverages
- A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products
- Oils

A healthy eating pattern limits:

- Saturated fats and trans fats, added sugars, and sodium

Healthy eating tips from choose my plate.gov:

- Fruits- Focus on whole fruits and select 100% fruit juice when choosing juices. Buy fruits that are dried, frozen, canned, or fresh, so that you can always have a supply on hand.
- Vegetables- Eat a variety of vegetables and add them to mixed dishes like casseroles, sandwiches, and wraps. Fresh, frozen, and canned count, too. Look for “reduced sodium” or “no-salt-added” on the label.
- Grains- Choose whole-grain versions of common foods such as bread, pasta, and tortillas. Not sure if it’s whole grain? Check the ingredients list for the words “whole” or “whole grain.”
- Dairy- Choose low-fat (1%) or fat-free (skim) dairy. Get the same amount of calcium and other nutrients as whole milk, but with less saturated fat and calories. Lactose intolerant? Try lactose-free milk or a fortified soy beverage.
- Protein- Eat a variety of protein foods such as beans, soy, seafood, lean meats, poultry, and unsalted nuts and seeds. Select seafood twice a week. Choose lean cuts of meat and ground beef that is at least 93% lean.

SAFE FOOD HANDLING

- Separate raw, cooked and ready-to-eat foods.
- Do not wash or rinse meat or poultry.
- Wash cutting boards, knives, utensils and counter tops in hot soapy water after preparing each food item and before going on to the next one.
- Store raw meat, poultry and seafood on the bottom shelf of the refrigerator so juices don’t drip onto other foods.
- Cook foods to a safe temperature to kill microorganisms. Use a meat thermometer, which measures the internal temperature of cooked meat and poultry, to make sure that the meat is cooked all the way through.
- Chill (refrigerate) perishable food promptly and defrost foods properly. Refrigerate or freeze perishables, prepared food and leftovers within two hours.
- Plan ahead to defrost foods. Never defrost food on the kitchen counter at room temperature. Thaw food by placing it in the refrigerator, submerging air-tight packaged food in cold tap water (change water every 30 minutes), or defrosting on a plate in the microwave.
- Avoid raw or partially cooked eggs or foods containing raw eggs and raw or undercooked meat and poultry.
- Women who may become pregnant, pregnant women, nursing mothers, and young children should avoid some types of fish and eat types lower in mercury.
- Rinse fruits and vegetables before preparing or eating them. Under clean, running water, rub fruits and vegetables briskly with your hands to remove dirt and surface microorganisms. Dry with a clean cloth towel or paper towel after rinsing.
- Keep fruits and vegetables separate from raw meat, poultry and seafood while shopping, preparing, or storing.
- Foods from animals, raw foods, and unwashed vegetables all can contain germs that cause food poisoning. The most likely source is food from animals, like meat, poultry (such as chicken), eggs, milk, and shellfish (such as shrimp). Proper food handling and preparation is an important aspect of assisting with meals and nutrition to keep your client’s safe.

The In-home aide’s role in assisting with nutritional needs:

- Nutritional therapy is an important part of the plan of care; prepare meals and assist the client to eat according to the plan of care based on the client’s individual needs.
- Many factors influence food selection- likes and dislikes, culture, religion, physical condition, and income.
- Many clients have problems eating because of missing teeth. Illness can result in poor appetite or trouble swallowing. Some clients are tired and do not have energy to eat. You may need to adjust the menu or method of food preparation in these situations so the client is more likely to eat.
- The act of swallowing is a complex process that requires coordination of the nerves and muscles of the throat. Saliva helps lubricate food so that swallowing takes place without effort. When clients do not produce enough saliva or have illnesses that affect nerves and muscles of the throat, swallowing becomes difficult. Notify your supervisor if your client has trouble chewing or swallowing for further instructions on assisting your client to eat.

The United States continues to evolve as a nation of individuals and families who emigrate from other countries therefore cultural diversity is an important aspect of nutrition and food preparation. Prepare meals according to the diet plan and any special instructions for a therapeutic diet such as low salt, low cholesterol, low calorie, etc.
### Six Basic Nutrients

<table>
<thead>
<tr>
<th>Protein</th>
<th>Proteins are a basic building block of the body. We need protein to keep our bodies in good working order, to repair body cells as they wear out, and for protecting us from bacteria and viruses. This essential nutrient can also make you feel full, so include protein with each meal. Choose lean meats and include seafood for variety. We also get protein in our diet from dairy products, nuts, and certain grains and beans. Proteins from meat and other animal products are complete proteins. This means they supply all of the amino acids the body can’t make on its own. Most plant proteins are incomplete. You should eat different types of plant proteins every day to get all of the amino acids your body needs.</th>
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<tr>
<td>Carbohydrates</td>
<td>Carbohydrates are one of the main types of nutrients. They are the most important source of energy for your body. Your digestive system changes carbohydrates into glucose (blood sugar). Your body uses this sugar for energy for your cells, tissues and organs. It stores any extra sugar in your liver and muscles for when it is needed. Carbohydrates are called simple or complex, depending on their chemical structure. Simple carbohydrates include sugars found naturally in foods such as fruits, vegetables, milk, and milk products. They also include sugars added during food processing and refining. Complex carbohydrates include whole grain breads and cereals, starchy vegetables and legumes. Many of the complex carbohydrates are good sources of fiber. For a healthy diet, limit the amount of added sugar that you eat and choose whole grains over refined grains.</td>
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<td>Fats</td>
<td>Fat is a type of nutrient. You need some fat in your diet but not too much. Fats give you energy and help your body absorb vitamins. Dietary fat also plays a major role in your cholesterol levels. But not all fats are the same. You should try to avoid:</td>
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<td>- Saturated fats such as butter, solid shortening, and lard</td>
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<td>- Trans fats. These are found in vegetable shortenings, some margarines, crackers, cookies, snack foods, and other foods made with or fried in partially hydrogenated oils (PHOs). By 2018, most U.S. companies will not be allowed to add PHOs to food.</td>
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<td>- Try to replace them with oils such as canola, olive, safflower, sesame, or sunflower. Of course, eating too much fat will put on the pounds. Fat has twice as many calories as proteins or carbohydrates.</td>
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<td>Vitamins</td>
<td>Vitamins are substances that your body needs to grow and develop normally. There are 13 vitamins your body needs. They are - Vitamin A, B vitamins (thiamine, riboflavin, niacin, pantothenic acid, biotin, vitamin B-6, vitamin B-12 and folate), Vitamin C, Vitamin D, Vitamin E and Vitamin K. Each vitamin has specific jobs. If you have low levels of certain vitamins, you may get health problems. For example, if you don't get enough vitamin C, you could become anemic. Some vitamins may help prevent medical problems. Vitamin A prevents night blindness. The best way to get enough vitamins is to eat a balanced diet with a variety of foods. Your body can also make vitamins D (after exposure to sunlight) and K (bacteria in your intestines also produce small amounts of another type of vitamin K). In some cases, you may need to take vitamin supplements. It's a good idea to ask your health care provider first. High doses of some vitamins can cause problems.</td>
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<td>Minerals</td>
<td>Minerals are important for your body to stay healthy. Your body uses minerals for many different jobs, including keeping your bones, muscles, heart, and brain working properly. Minerals are also important for making enzymes and hormones. There are two kinds of minerals: macrominerals and trace minerals. You need larger amounts of macrominerals. They include calcium, phosphorus, magnesium, sodium, potassium, chloride and sulfur. You only need small amounts of trace minerals. They include iron, manganese, copper, iodine, zinc, cobalt, fluoride and selenium. Most people get the amount of minerals they need by eating a wide variety of foods. In some cases, your doctor may recommend a mineral supplement. People who have certain health problems or take some medicines may need to get less of one of the minerals. For example, people with chronic kidney disease need to limit foods that are high in potassium.</td>
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<td>Water</td>
<td>Water is your body's principal chemical component and makes up about 60 percent of your body weight. Every system in your body depends on water. For example, water flushes toxins out of vital organs, carries nutrients to your cells, and provides a moist environment for ear, nose and throat tissues. Lack of water can lead to dehydration, a condition that occurs when you don't have enough water in your body to carry out normal functions. Even mild dehydration can drain your energy and make you tired. Every day you lose water through your breath, perspiration, urine and bowel movements. For your body to function properly, you must replenish its water supply by consuming beverages and foods that contain water. We all need to drink water. How much you need depends on your size, activity level, and the weather where you live.</td>
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