Nutrition Management and Food Safety
Understanding basic nutrition is not only about knowing the different food groups or that by eating some of each group you might end up with a balanced diet. Nutrition is a delicate balance of getting enough of certain foods of each group and staying hydrated. Specialized nutrition looks at what each unique person needs in conjunction with any health issues they have, their age, lifestyle and goals. This may include such things as supplements, vitamins and exercise. The foods we eat affect how our brains work, how much energy we have and can even help fight off disease. The more you know about nutrition, the more you can help your client make healthy and appropriate choices. By practicing good nutrition in your own life you can be healthy, stronger and more alert for work and your personal life.

Terms To Know

- Nutrients: are a chemical substance in food that helps the body function
- Balanced Diet: is when the body is getting the correct amount of the six nutrients
- Fiber: is the part of food that is left after digestion has taken place and helps carry the digested food through the intestinal tract quickly
- Cholesterol: is a fat-like substance found only in animal foods like eggs and red meat.
- Homeostasis: is the balance between water and minerals

Six Essential Nutrients

**Carbohydrates** are sugars and starches. There are two types of carbohydrates: simple and complex. Simple carbohydrates such as candy, give a short immediate burst of energy that fades quickly. Complex carbohydrates such as whole wheat bread, take longer for our bodies to digest however, give us sustained energy for longer periods of time. Sugars are usually simple carbohydrates while starches can be simple or complex. Carbohydrates can be high-fiber such as broccoli or low-fiber such as rice. All fruits and vegetables are carbohydrates.

**Minerals** are especially important for bones, teeth, soft tissue, muscle, blood and nerve cells. There are 17 minerals that our bodies must have to work properly. Some of the common ones include: calcium, iron, potassium and sodium.
Fats are a condensed source of energy and are digested more slowly than carbohydrates. After a meal, your body will use the energy from the carbohydrates first. If the fat calories do not get used up right away, your body will save them for later. Fats provide us with an extra supply of energy that is stored away until we need it. The first place we store fat is in the liver, but once the liver is full, fat will begin to be stored throughout the rest of the body. Fats can include cholesterol and, although our bodies need a small amount of cholesterol, too much can cause a clog in the arteries. There are good fats such vegetable oil and bad fats such as lard. Plants and fish are the best sources of good fat.

Protein helps us build muscles, blood, skin, hair, nails and internal organs like the heart and the brain. All of our tissues, bones and nerves are made up mostly of protein. Our bodies cannot store protein, so we have to eat protein every day to maintain homeostasis. While we need protein every day, too much protein can cause stress on the kidneys. It can also lead to heart disease and colon cancer. It is always best to choose low-fat proteins such as poultry, fish and dried beans. Soybeans is a protein that is low in fat and contains minerals such as iron and is rich in isoflavones that can help lower cholesterol and protect against some cancers, decrease blood pressure and build bones.

Water is the nutrient we need the most. Our blood is 83% water, our kidneys are 82% water, our muscles are 75% water, our brain is 74% water and our bones are 22% water. Everyone of our body functions use water everyday. Hydration is important and people need six to eight glasses of water (not just any liquid) per day in order to stay hydrated. Adding fruit such as citrus, berries or even vegetables and herbs such as cucumber or mint, can make the water more interesting. It is helpful to use a measurable water bottle or drinking container to keep track of how much is consumed. We also get water from the foods we eat such as fruits and vegetables which can contain more than 90% water. Even dry foods like bread are 35% water. All of us can become dehydrated, but seniors especially need to ensure they drink enough each day. Dehydration is a common cause of hospitalization for people over the age of 65. Signs of dehydration to watch for are thirst, dry mouth and skin, headache, fever, fast breathing and heart rate and dizziness.

Vitamins are very important to our health. While our bodies can make some of the vitamins themselves, we get most of the vitamins we need from the foods we eat or vitamin pills. There are 20 vitamins that are important to our nutritional health but the most common are Vitamin A, Vitamin B Complex, Vitamin C, Vitamin D, Vitamin E and Vitamin K. It is best to get vitamins from foods rather than pills when possible. A balanced diet will help make sure you get most of the vitamins you need in your diet.
Understanding the **NEW Food Pyramid**

The USDA revised the “MY Pyramid” (seen above) in 2011 and released the “My Plate” with nutritional guidelines for healthy eating based on eating the proper amount of each food group. The new “My Plate” guidelines are identical to the program created in 2005, but has been altered to simplify the approach by removing or combining groups.

- **The Orange** section represents **Grains**. The USDA recommends eating 5-8 ounces of grain per day, depending on age, gender and exercise level. Half of the grains consumed should be whole grain foods.
- **The Green** section represents **Vegetables**. Most people should eat 2.5 cups of vegetables each day. A variety of vegetables is recommended including dark leafy greens.
- **The Red** section represents **Fruits**. It is recommended that most people eat 2 cups of fruit each day. Whole fruit contain fewer calories and fewer nutrients per ounce.
- **The Blue** section represents **Dairy**. It is encouraged that people consume 3 cups of low-fat or fat-free milk or milk products per day.
- **The Purple** section represents **Protein**. It is recommended that people eat 2-7 ounces per day from a variety of protein sources like lean meats, poultry, fish, beans, peas, nuts and seeds.

**Tips to help you:**
- Make at least half your grains whole grains
- Vary your veggies
- Focus on fruit
- Get your calcium rich foods
- Go with lean protein
- Find your balance between food and physical activity
Nutritious “Super Foods”

Super foods are foods that contain vitamins, nutrients and/or minerals that are commonly believed to prevent disease and help us live long, healthy lives. The following are super foods:

- Spinach
- Garlic
- Salmon
- Blueberries
- Broccoli
- Sweet Potatoes
- Oats
- Nuts

Caregiver Note: How are you currently making sure your client is getting the super foods they need in order to stay healthy?

Fun Nutritional Facts

- Fats and proteins take longer to digest than carbohydrates. So if your client is hungry soon after breakfast, try adding protein to their morning meal
- If your client is not eating well, make sure their dentures are fitting and they are swallowing properly
- Make sure you report your client’s eating habits in your documentation logs
- If your client is not hydrated, their body will not get the full benefit of healthy food choices
- People who are ill often lose their sense of thirst which can keep them from drinking enough fluids throughout the day. Encourage your client to drink as much water as possible, even while ill
- Many people eat too many calories often with a high consumption of fat, sugar, salt and alcohol
- Try not to serve your client’s the same foods every day. By serving a variety of foods, you are giving your client healthy choices and a balanced diet
- Watch how much salt you are serving your client by reading the nutrition label. Often foods have high levels of hidden sodium
- Watch for high fatty foods as well and stay away from foods that have 3 grams or more of fat for every 100 calories. Avoid foods that list “trans fat” on the nutrition label. It can increase the risk of heart disease
Hydration

Staying hydrated is a challenge for most people, especially seniors and the disabled. Keeping yourself and your client hydrated should be something you think about each and every day. Set an amount of water that you want to have consumed by 8 am, 12 pm and 8 pm and then make sure that you have reached that amount of intake. Far too often we end the day without any thought to the amount of fluids we have had throughout. Here are some interesting facts about hydration:

- Staying hydrated throughout the day is more important to our bodies than food. We can survive weeks without eating but only days without water.
- 50% of our bodies are made up of water. Signs of dehydration can be seen with only a 2% drop in our body’s water supply.
- Every cell in our bodies need water to stay alive and function.
- Water serves as a lubricant throughout the body.
- Regulates body temperature.
- Prevents constipation.
- Maintains the metabolism.
- Many Americans have chronic dehydration.
- A quick way to see if your client is hydrated is to check the color of their urine. Urine should be pale yellow or clear.

Working With Food

Clients depend on their caregiver to prepare, serve and store food safely. Washing and handling foods properly will help stop the spread of the infectious bacteria that can sometimes be found in and on raw food. If you are ever in doubt about how to handle or prepare certain types of food or what allergies or dietary requirements your client has, always call the office for instruction.

NEVER GUESS! It takes just a second to make a phone call and verify that the information you have is correct.
Kitchen Safety

Most fires start in the kitchen. In fact, cooking is the leading cause of home fires and fire injuries. In order to keep yourself and your client safe, follow these guidelines:

- Keep cooking areas clean and uncluttered
- Always have a working fire extinguisher in the kitchen. If the client doesn’t have one, make a suggestion to get one or contact the office
- Never leave the kitchen when food is cooking on the stove
- Turn off the burner before you remove the pot or pan
- Do not wear long, loose sleeves that could catch on anything while cooking
- Never pour water on fat or oil that is burning, use baking soda or salt instead or simply place the lid back on the pan
- If the fire is inside the oven, close the door tightly and turn the oven off
- If the fire is inside the microwave, leave the door closed and unplug the microwave
- If an appliance does not work properly or makes a funny smell when you use it, unplug the appliance, report it to the office and do not use the appliance
- Be careful to not overload electrical outlets and unplug electrical appliances when they are not in use
- Always wipe spills up promptly

Food-Borne Illness

Certain types of bacteria can cause food-borne illness. Any of these can be fatal, especially in the elderly and people with weak immune systems. The five most common culprits are:

- Salmonella
- Staphylococcus aureus
- Clostridium perfringens
- Clostridium botulinium
- E. coli

Bacteria is most likely to grow on sponges and rags, countertops and cutting boards. Be sure to clean each surface with the appropriate cleaner to prevent bacteria and always keep your hands clean. Do not allow food to be cross-contaminated and always cook foods to proper temperature. Refrigerate foods promptly when done eating and do not over pack the refrigerator which can cause poor cold air flow and not keep food at the correct temperature.
Always check the expiration date on any food you prepare in your client’s home. Many people do not want to waste food, but do not realize the risk they are taking by consuming expired food. The label may say “sell by” or “use by” or “best if used by.”

When you grocery shop, always pick out packaged or canned food first and then select fruits, vegetables, meats, dairy and frozen items last. When you arrive back at your client’s home, put the food away in the reverse order.

**Food Allergies**

Always check to make sure you client does not have any food allergies. Foods that cause allergic reactions most often are:

- Eggs
- Cow’s milk
- Peanuts and walnuts
- Soy
- Wheat
- Fish and shellfish

Most allergic reactions develop within minutes of eating but some reactions can take several hours to develop. Food allergies can even be fatal. The symptoms of a food allergy may include:

- Tingling sensations in the mouth
- Swelling of the tongue and throat
- Difficulty breathing
- Hives
- Vomiting
- Abdominal cramps
- Drop in blood pressure
- Loss of consciousness