A Response to the Question:

"How Can I Help my Client Follow Dr.'s Orders About Eating?"

Usually when we make decisions, the more we know about the subject the better our choices can be. Sometimes we choose to ignore information and just do what we feel like doing, but once we really understand what is involved and the results, it is much easier to make healthy choices. Hopefully the following information may help you understand and lead your client to healthier choices as you use it when your client wants your help in preparing meals or buying groceries. This information is about nutrition in general. Future continuing education information will be about low sodium and diabetic diets.

Food and water are basic physical needs for life and health. The amount and type of foods and fluids are very important since they affect a person's current and future physical health, and mental well-being too. A poor diet and poor eating habits increase the risk of infection and disease. It seems strange, but many diseases are related to the kinds of foods a person eats! And then poor physical and mental health can result in more accidents and injuries.

There are many things that affect what a person chooses to eat. The kinds of foods eaten as a child, money available, personal tastes, and religious practices as well as strength, chewing ability, and interest in preparing and serving the food , all make a difference in what a person eats.

Good nutrition is needed for healing and keeping body functions going in a healthy manner. It starts with making choices about foods and fluids. Foods and fluids contain nutrients, which are grouped into fats, proteins, carbohydrates, vitamins, and minerals. Fats, proteins and carbohydrates give the body fuel for energy. The amount of energy a food provides is measured in calories. A calorie is the amount of energy produced from the digesting and using a food/fluid by the body. Briefly,

- 1 gram of fat supplies the body with 9 calories
- 1 gram of protein provides 4 calories
- 1 gram of carbohydrate supplies 4 calories

Energy (calories) are needed for everything a body does. Even sitting in a chair takes some energy. Taking in too many calories, more than what is needed for energy for a person's activity level, results in weight gain and obesity. Weight loss happens when not enough calories are taken in for the person's activity level. The number of calories a person needs depends on activity as well as age, the climate, a person's health, how much of the time is spent in sleep, and whether the person is male or female. (Men usually need more calories than women.) It may help to picture a measuring cup of "calories" that a person's body needs in order to function well, and then to picture the measuring cup either not full enough, or spilling over at each meal or snack whenever too many calories are eaten. Those "over-flow" calories cause weight gain. The cup that doesn't have enough calories in it causes weight loss and reduced energy.

The Food Pyramid the U.S. Department of Agriculture designed can help a person make wise food choices. See the enclosed copy of the Food Guide Pyramid and the chart of the best serving sizes. Foods from the base of the pyramid are needed in greater amounts than the foods at the top of the pyramid. (Please note that the information presented here is not for children under 2 years of age.)

The Bread Group forms the pyramid's base. All the foods in this group come from grain – wheat, oats, rice, etc. Grains provide carbohydrates, protein, iron, thiamin, niacin, and riboflavin. Six to eleven servings are recommended from this food group a day. That may sound like a lot! But a sandwich with 2 slices of bread makes 2 servings. A serving of pasta or rice is ½ cup. Very few of us eat only ½ cup of pasta - if someone eats 2 cups of pasta, that equals 4 servings right there!

Pie, cake, cookies, doughnuts and muffins are made from grains, but they are made with added fats and sugars. So they are high-fat food choices depending on the amount of fat and sugar added, and are to be used sparingly. (Aw, shucks!)

The Vegetable Group is next up the pyramid. Three to five servings of a variety of vegetables are recommended each day – dark green and yellow vegetables, tomatoes, potatoes and vegetable juices make a more balanced diet. Again, the serving sizes are ½ cup to 1 cup, so getting this amount into the diet each day isn't that hard. Vegetables provide fiber, vitamins A and C, carbohydrates, and minerals. They are low in fat.

The Fruit Group includes all fruits and fruit juices. Fresh fruits and juices are best since frozen and canned fruits usually have sugar or corn syrup added and therefore are higher in calories. If one chooses fruits as they are available in season locally, they are less expensive. It is also possible to find frozen and canned fruits that are in their natural juice and don't have added sweetener. Fruits provide carbohydrates, vitamins A and C, potassium and other minerals. Two to four servings are recommended each day. A serving size varies from 1 apple or banana to ½ cup chopped, canned or cooked fruit and ¾ cup juice.

Milk, Yogurt and Cheese form the next food group up the pyramid. They are high in protein, carbohydrates, fat, calcium and riboflavin. Two to three servings a day are needed. Examples of serving sizes include one cup of milk or yogurt. A cup of skim milk has only a trace of fat and 86 calories. One cup of whole milk has 8 grams of fat and 150 calories. (72 of the 150 calories come from fat!)

The next step up the pyramid is the Meat, Poultry, Fish, Dry Beans, Eggs and Nuts group. These foods have higher fat content than the milk, fruit, vegetable and grain groups. Peas and cooked dry beans are very low in fat, and should be eaten often. Protein, fat, iron and thiamin are the main nutrients in these foods. Serving size is very important in choosing how much of any food to eat, but it is especially true in this food group. Meat, poultry and fish contain many calories. Two to three servings a day are recommended. One serving in this group is 2 to 3 ounces of meat, fish or poultry , which is about the size of a deck of cards. (A quarter pound hamburger equals 2 servings from this food group!) Trimming the fat from meat and poultry and skinning the poultry helps reduce the fat content. And roasting, broiling and baking adds less fat than frying, or adding gravies and sauces. Peanut butter is higher in fat – 2 tablespoons (or about the size of your thumb) equals 1 serving of meat.

Fats, Oils and Sweets are at the very tip of the pyramid. They should be eaten as little as possible for good health. There are no recommended servings! These items have very little nutrition in them and have lots of calories. (Yes, it's OK to give a disappointing sigh!) Items in this group include: cooking oils, butter, margarine, salad dressings, soft drinks, candy, sour cream, cream cheese, frosting, chocolate, cookies, cake, pie, ice cream, most desserts, jelly and jam, syrups, and alcohol.

TABLE 17-1

MAJOR FUNCTIONS AND SOURCES OF COMMON VITAMINS

	Major Functions	Sources
Vitamin A	Growth; vision; healthy hair, skin, and mucous membranes; resistance to infection	Liver, spinach, green leafy and yellow vegetables, yellow fruits, fish liver oils, egg yolk, butter, cream whole milk
Vitamin B_1 (thiamin)	Muscle tone; nerve function; digestion; appetite; normal elimination; utilization of carbohydrates	Pork, fish, poultry, eggs, liver, breads, pastas, cereals, oatmeal, potatoes, peas, beans, soybeans, peanuts
Vitamin B_2 (riboflavin)	Growth; healthy eyes; protein and carbohydrate metabolism; healthy skin and mucous membranes	Milk and milk products, liver, green leafy vegetables, eggs, breads, cereals
Vitamin B_3 (niacin)	Protein, fat, and carbohydrate metabolism; nervous system function; appetite; digestive system function	Meat, pork, liver, fish, peanuts, breads and cereals green vegetables, dairy products
Vitamin B_{12}	Formation of red blood cells; protein metabolism; nervous system functioning	Liver, meats, poultry, fish, eggs, milk, cheese
Folic acid	Formation of red blood cells; functioning of the intestines; protein metabolism	Liver, meats, fish, poultry, green leafy vegetables, whole grains
Vitamin C (ascorbic acid)	Formation of substances that hold tissues together; healthy blood vessels, skin, gums, bones, and teeth; wound healing; prevention of bleeding; resistance to infection	Citrus fruits, tomatoes, potatoes, cabbage, strawberries, green vegetables, melons
Vitamin D	Absorption and metabolism of calcium and phosphorus; healthy bones	Fish liver oils, milk, butter, liver, exposure to sunlight
Vitamin E	Normal reproduction; formation of red blood cells; muscle function	Vegetable oils, milk, eggs, meats, cereals, green leafy vegetables
Vitamin K	Blood clotting	Liver, green leafy vegetables, egg yolk, cheese

TABLE 17-2

MAJOR FUNCTIONS AND SOURCES OF COMMON MINERALS

	Major Functions	Sources
Calcium	Formation of teeth and bones, blood clotting, muscle contraction, heart function, nerve function	Milk and milk products, green leafy vegetables, whole grains, egg yolks, dried peas and beans, nuts
Phosphorus	Formation of bones and teeth; utilization of proteins, fats, and carbohydrates; nerve and muscle function	Meat, fish, poultry, milk and milk products, nuts, egg yolks, dried peas and beans
Iron	Allows red blood cells to carry oxygen	Liver, meat, eggs, green leafy vegetables, breads and cereals, dried peas and beans, nuts
Iodine	Thyroid gland function, growth, and metabolism	Iodized salt, seafood, and shellfish
Sodium	Fluid balance; nerve and muscle function	Almost all foods
Potassium	Nerve function, muscle contraction, heart function	Fruits, vegetables, cereals, meats, dried peas and beans

Quiz for "How Can I Help my Client Follow Dr's Orders about Eating?"

1. It seems amazing, but the foods a person eats make a difference in whether a person (circle all that are true):
   a. Gets infections
   b. Is "tops" mentally
   c. Gets physical diseases
   d. Gets injured in accidents like falling

2. The amount of _____ a food provides is measured in calories.

3. The number of calories a person needs is affected by
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____
   f. _____

4. Think of one of your clients that you help or have helped with meals. Or, if you don't help a client with meals think of your own eating patterns. Look at the pictured Food Pyramid. Which of the food groups are most of the food choices from?_____

5. Usually, as we learn more about something, we make better choices. What are some ideas about how can you help your client make healthier food choices?
   a._____
   b._____
   c._____

Your Name_____Date _____

Would you please rate this material so we can better know the kind of information you want and need for your work with our clients? (Circle one):

Very helpful Somewhat helpful Not helpful I already knew this

I need in-service information about _____