



Lesson 4: Mealtime: Time to Get a Plan!

This lesson is intended for those participants with diabetes.

This general information is to be adapted to a participant's meal plan as recommended by their health care provider.

Getting Ready

1. Review lesson plan before each session.
2. Copy handouts and follow-up questions.
3. Gather supplies needed for lesson and activities.

Supplies Needed

1. Food models for carbohydrates such as peas, rice, pasta, pancakes, tortilla, muffin, pizza, French fries, baked potato, and/or commonly eaten carbohydrates appropriate for your audience. Ordering information for food models is on page 6 of this lesson. Food models are three-dimensional visual aides that show the proper serving size for commonly eaten foods.
2. Handouts- "Take Charge of Your Meal Plan" and "What You Should Remember at Mealtime"

Beginning the Lesson

1. Introduce yourself by name and the organization you represent.
2. Summarize the lesson by giving the objectives. Let the group know the lesson will be informal and they can ask questions anytime.

Objectives

Participants will:

1. Understand the importance meal timing.
2. Verbalize what foods/food groups contain carbohydrates.
3. Understand the importance of a food diary.
4. Practice using a food diary.

Activities

- "Keeping on Track"- Each client will practice keeping a food diary by writing down everything they had to eat that morning.

Script: It's All in the Timing

When you have diabetes, meal planning is especially important for you. What you eat is important, but so is WHEN YOU EAT. *Ask your participants: How many of you eat breakfast about the same time each day? Lunch? Dinner? Any mid-morning and mid-afternoon snacks? Or do your meal and snack times vary from day to day? Gather and discuss responses.* You're off to a great start if you



eat at about the same time each day. If you eat the same portions of food at about the same times each day, your blood sugar could be in the proper range. The only way to know for sure is to test your blood sugar two hours after you eat. Those of you who eat a big supper one day, and then a small supper the next day, and so on, may have trouble keeping your blood sugars in the proper range. Here is a reminder of the proper blood sugar ranges:

Two hours after meals: 100-180 mg, ***Before meals:*** 80-120 mg.

When you eat at the same times each day, your blood sugar will form its own daily pattern of highs and lows. Eating the same food portions at the same daily times can make it easier for you to improve blood sugar control, and you can work with your doctor to adjust your diabetes medicine and activity plan so you can get the best control.

Ask your participants: Why do you want good blood sugar control? Gather and discuss responses. Good blood sugar control can help protect you from the serious health problems common with diabetes. If you skip meals or do not take your medicine as directed, you may end up with low blood sugar and feel sick. On the other hand, your blood sugar may run high if you eat too much at meals, are less active, or don't take your medicine correctly. When your blood sugars run high day after day, it may cause real harm to your body. *What are some of the health problems of diabetes?* Gather and discuss responses. You can hurt your kidneys and may need dialysis or a transplant; you can hurt your eyes and become blind; you can develop poor circulation and nerve damage (loss of feeling) in your legs and arms and need to have your legs or feet amputated; and poor circulation can lead to impotence. You are also more likely to have a heart attack or stroke if you do not manage your diabetes well.

What are You Eating?

You may have a variety of foods on your plate: meat, bread, fruit, or salad when you sit down to a meal. The nutrient that has the biggest impact on your blood sugar is carbohydrates. Carbohydrates are starchy and sugary foods. *Ask your group: What foods contain carbohydrates?* Carbohydrates are natural to certain foods like fruit, corn, bread, pasta, potatoes, and rice to name a few. Some carbohydrates contain added sugars like cakes and soft drinks (such as colas or other carbonated



drinks). Adding one tablespoon of table sugar added to tea or cereal counts as one serving of carbohydrate. Name the foods that your group does not mention. *Your group can follow along with the handout "Take Charge of Your Meal Plan."*

Answers:

1. Breads, rolls, biscuits, and muffins
2. Hot and cold cereals
3. Pasta, rice and noodles
4. Beans (except green beans), peas and lentils
5. Corn
6. Potatoes (including French fries, sweet potatoes, potato chips, and mashed potatoes)
7. Fruit and fruit juice
8. Milk and soy milk
9. Pastries, doughnuts, jellies, jams, candy, cakes, pies, and chocolate, soft drinks or any beverage sweetened with sugar (limit these foods to special occasions).

Vegetables that are green or red usually have small amounts of carbohydrate and are good foods to have as a small second helping of if you are still hungry. Example are broccoli, green beans, tomatoes, zucchini (and zucchini squash), and any leafy green vegetable. Throughout this lesson and in lesson 5, we will try to refer to carbohydrates as "starchy or sugary foods"

When any person eats starchy or sugary foods, the starches are broken down quickly into blood sugar that can be used or stored by the body. But when people with diabetes eat these foods, the sugar can stay in the blood. Many of you take medications and/or insulin that help take care of this excess blood sugar. However, medications and insulin will not take care of what you over-eat, so you still need to control how many starchy and sugary foods you eat. The more you know what is in food, the better you will know how it affects your blood sugar.

People with diabetes should have no more than three to four servings of starchy and sugary foods at each meal. We discussed serving sizes in a previous lesson, but for a review: *Hold up food models and discuss with group.* Let's say that at breakfast you enjoy having two pieces of toast with a pat of butter or margarine. Each piece of toast counts as a bread serving, so the two pieces of bread are two servings of a starchy food (or two carbohydrate servings). Maybe on a Saturday you want to eat four pancakes with lots of syrup. *Ask your group: Do pancakes have starch or sugar? Does the*



syrup have starch or sugar? The answer is both foods contain starch and sugar. If you ate this breakfast, it could overload your system and your blood sugar could run too high. If you “overloaded your system” by eating such a high sugar, high starch breakfast often, the damage would really add up. This irregular eating contributes to uncontrolled blood sugars, which leads to diabetes problems. This is not to scare you into never eating pancakes! Just watch your portion sizes so these foods can fit into your proper meal plan. Having one to two small pancakes with two tablespoons light syrup is okay on occasion.

Don't feel singled out just because you have diabetes! The meal plan for diabetes is the healthful way for everyone to eat. Let's re-cap what we have just discussed:

1. When you eat

- i. Eat your meals and snacks at about the same time each day
- ii. Do not skip meals or snacks. You will be less likely to overeat and more likely to keep your blood sugar in the proper range.

2. What you eat

- i. Eat about the same amount of food at meals each day.
- ii. Rule of thumb: A good rule of thumb is not to eat more than three to four servings of carbohydrates (starchy or sugary foods) at each meal. Eat no more than two servings of carbohydrates at snack time or in between meals.

3. How much you eat

- i. Watch those portion sizes! (Hold up food models again).

You will also need to take your diabetes medicine as your doctor has instructed- the right amount at the right time of the day.

Now that we have discussed how important timing is with diabetes we are going to end by talking about food diaries. You and your health care providers need to know what you are eating so you can see what changes may help you. People are often not aware of all they eat during the day. *Does anyone know what a food diary is?* It is a record that shows what, how much you have to eat, and what time you ate each food. *How can a food diary help you?* Gather and discuss responses.



Once you are aware of what you are eating, a food diary can help you better plan your meals because it helps you keep up with exactly the kinds and amounts of foods you eat. First, decide on which days you will keep the diary. It's a good idea to choose a day during the week as well as one weekend day. Make sure you write down 1) what time you eat; 2) what you eat and drink; 3) the amount of these foods and drinks you consumed using tablespoons, cups, and number of slices or other measures. Many people have success writing down what they eat and drink immediately after they are finished eating. Some people even like to use the food diary right before they eat since it can make them more aware of how much they are eating. If you wait until the end of the day, you may forget some foods. Keep the diary where you can see it, such as on the refrigerator or on the kitchen table. Make sure you write down everything for example: 1 sandwich, 2 slices of regular bread, 2 slices of roast beef, 1 tablespoon mayonnaise, lettuce, tomato. Today, I will give you two blank copies to fill in your very own food diary.

The Diabetes Alphabet

Today we talked about ways to eat well by eating the same amounts of food at the similar times each day. It is also important to manage your portion sizes (especially of starchy foods) on a daily basis.

Let's go over the diabetes alphabet, which "spells" the important ways to manage your diabetes.

Let's say the alphabet now.

A for A1c Test- Check twice a year

B for Blood Pressure- Check at each doctor's visit

C for Cholesterol- Check once a year

D for Daily Exercise- Be physically active every day

E for Eating Well- Take down portion sizes, stay on your meal schedule

F for Foot Care- Check your feet for sores, blisters, or injuries every day

S for Sugar Testing- Check your blood sugar daily or as recommended by your doctor

Activity

Pass out the food diary handouts to your participants. Ask them if they have any questions.



References

Franz, Marion. "Evidence-Based Nutrition Principles and Recommendations for the Treatment and Prevention of Diabetes and Related Complications." *Diabetes Care*. 25: 148-198, (2002).

Type 2 Diabetes: A Curriculum for Patients and Health Professionals. Michigan Diabetes Research and Training Center. 2001. American Diabetes Association.

What I Need to Know about Eating and Diabetes. National Institute for Diabetes & Digestive & Kidney Diseases. 13 May 2003 <<http://www.niddk.nih.gov/health/diabetes/pubs/eating/nutri.htm>>.

To order food models:

Nasco products

1-800-558-9595

www.nascofa.com- Click on (1) Educational materials, (2) Family and Consumer Sciences, (3) Teaching Aids, then (4) Food Replicas

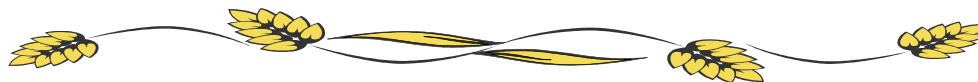
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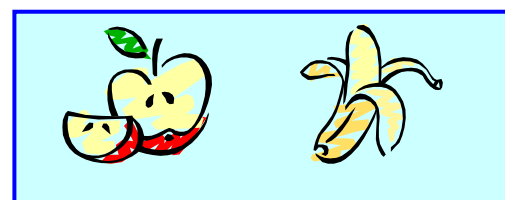


Take Charge of Your Meal Plan



These foods have carbohydrate (sugar and starch).
Eat only 3 or 4 servings of these foods at each meal and
Eat no more than 2 servings of these foods in between meals:

1. Breads, rolls, biscuits and muffins
2. Hot and cold cereals
3. Pasta, rice and noodles
4. Potatoes (baked potatoes, sweet potatoes, French fries, potato chips)
5. Fruit and fruit juice
6. Milk and soy milk
7. Beans (except green beans), peas and lentils
8. Pastries, doughnuts, jellies, jams, candy, cakes, syrups, pies and chocolate *(limit these foods to special occasions)*





What You Should Remember at Mealtime

1. When you eat

- Eat your meals and snacks at about the same time each day.
- Do not skip meals or snacks. You will be less likely to over-eat and more likely to keep your blood sugar in the proper range.

2. What you eat

- Eat no more than 3 to 4 servings of carbohydrate (starchy and sugary foods) at each meal. Eat no more than 2 servings of carbohydrates at snack time or in between meals.

3. How much you eat

- Watch those portion sizes!

