

# Six-Session Diabetes Self Management Curriculum

## Session 1: Overview and Monitoring

- Feelings surrounding diagnosis
- Explanation of diabetes
- Blood glucose and laboratory monitoring
- Overview of how to live with diabetes
- Self-management

## Teaching Objectives:

1. Participants will verbalize their feelings about the diagnosis of diabetes.

### *Teaching points:*

- Discuss feelings and recognize the impact they might have on control of diabetes. Dispel myths that surround the reasons for contracting diabetes; i.e., the participants did something bad, or they ate too much sugar.
- Ask participants what they feel is the hardest part of their diagnosis to manage and what life style changes are most difficult to incorporate into their lives.

This discussion should lead into teaching objective #2.

2. Participants will be able to define diabetes and its pathophysiology.

### *Teaching points* for the questions, ‘what causes diabetes?’ and “what is diabetes?”

- Describe normal glucose metabolism in simple terms. Explain that most foods contain sugar (glucose) and that the body needs this sugar or glucose for energy. Explain that the brain, muscles and internal organs all use sugar (glucose) for fuel.
- Emphasize that eating too much sugar did not cause participant’s diabetes. Genetics, weight, family history and ethnicity all contribute to diabetes.
- In diabetics, the body can’t use the insulin that is produced or the pancreas doesn’t produce enough insulin. Familiarize participants with the term, “insulin resistance.”
- Without insulin, glucose can’t move from the bloodstream into body cells.
- Without insulin, sugar or glucose builds up in the bloodstream.
- The body can also *make* glucose from storage supplies in places like the liver. Therefore, many participants with diabetes have a high glucose level in the morning even though they haven’t eaten since dinner. Their bodies have been “making” sugar while they were asleep.
- Because some people don’t produce enough insulin and other people can’t use what is produced, different people take different types of medication.

***Key Teaching Point: diabetes is the inability of the body to take sugar out of the bloodstream and put it where it needs to go.***

3. Participants will understand normal glucose ranges, the importance of blood glucose self-monitoring and the significance of A1c laboratory monitoring.

*Teaching points:*

- Blood glucose levels reflect the amount of glucose in the blood at that moment. Because most foods have sugar, blood glucose levels increase after eating.
- Target blood sugar levels are 80-120. Two hours after eating, a blood sugar level of 180 or less is ok.
- Identify test times. Stress the need to check blood sugars at different times of the day.
- Stress the importance of recording the results and time of day that the reading was taken even if the meter has memory.
- Describe A1C as a three month report card that shows how much sugar has built up on the cells in a three month period. Stress that this is the most accurate way of determining how well controlled diabetes is.
- Define an A1C of below 7.0 as a goal.
- Discuss complications of diabetes. Explain why a lower A1C is important.
  - Readings above 8 mean higher risk for problems.
  - Participants with an A1C of 7.0 or less have much less risk for heart disease, stroke, kidney disease, eye problems, foot problems and nerve damage.

***Key Teaching Point: it is essential to check blood glucose levels daily and to strive for levels of 80-120 (and no more than 180 after eating)***

4. Participants will understand that diabetes is a lifelong disease. Participants will also understand that they can self-manage their diabetes with proper nutrition, exercise and sometimes medication. This is an overview: specific points will be discussed in more detail in later sessions.

*Teaching points:*

- Diet is crucial to diabetes management
- Maintaining a healthy body weight is one of the keys to managing diabetes. Being overweight makes insulin less able to do its job (keeping glucose levels normal in the blood). *Losing even a small amount of weight helps lower the blood glucose levels.*
- Physical activity helps to decrease blood glucose levels and other aspects of health. Stress need for MD approval before beginning any exercise regimen.
- Discuss the role of taking medications, oral or injected, as prescribed.
- Discuss that diabetes is a progressive disease and they should not blame themselves if they need to go on insulin.

***Key Teaching Point: diabetes is a lifelong disease in which self-management is crucial.***

5. Hand out self-management goal sheets. Discuss the concept of self-management and have participants develop one self management goal related to today's session. Let participants know that these will be reviewed in future sessions and with their PCP's. Ask participants to work on their goals in the next week and to bring the sheets back to the next session
6. Questions and answers.

## **Session 2: Hypo/Hyperglycemia and Introduction to Nutrition**

- Review of last session's information
- Review/discussion of self management goal set last session
- Discussion of Hyper/hypoglycemia
- Introduction to Nutrition
- Self management goal

### **Teaching Objectives:**

1. Participants will be able to discuss the importance of SBGM (review).

#### *Teaching Points:*

- Explain SBGM reflects the current amount of glucose in the blood.
- Blood glucose levels depend on the type and amount of food eaten. It is normal for blood glucose to increase after eating.
- Infections and stress can also increase blood glucose levels
- Emphasize the importance of checking blood sugar as instructed by their provider.
- Emphasize the importance of checking BS at different times of the day and why this is important.
- Review target BS from session 1.
- Review the difference between this reading (which is a snapshot of BS control) and A1C (which is a three month report card).

***Key Teaching Point: performing SBGM provides information to you and your provider to help manage your diabetes better. It is not a tool to say you're doing something wrong.***

2. Participants will be able to distinguish between hypoglycemia and hyperglycemia.

#### *Teaching Points:*

- Define the signs and symptoms of hypo and hyperglycemia. Discuss the 15/15 rule.
- Define the appropriate action(s) to take if experiencing hypoglycemia.
- Define appropriate action to take if experiencing hyperglycemia.

***Key teaching point: it is important to not over-treat hypoglycemia. The participant should recognize that both situations are potentially dangerous.***

3. Participants will be able to define the role of nutrition in the therapy of diabetes.

#### *Teaching Points:*

- Good and healthy nutrition is the first step in managing your diabetes. This helps to better control blood glucose levels, decreases your risk of complications and helps us to achieve or maintain a healthy body weight.
- Medication alone isn't enough to control diabetes.
- Stress the positives of good nutrition and help participants realize that favorite foods do not have to be omitted from their intake.

- Help participants realize there are no good foods or bad foods; rather there are “sometimes” foods. Ask participants to share what foods they think can’t be included in their diet because of diabetes. Discuss how the food may be included or try to offer a similar healthier alternative for a favorite food, i.e. Canadian bacon instead of regular bacon. Both are high in sodium but the Canadian bacon is much leaner.

***Key Teaching Point: foods are to be enjoyed and most foods can fit into a healthy diabetic menu. The key is moderation.***

4. Participants will be able to define the major sources of carbohydrate, protein and fat.

*Teaching Points:*

- Beginning with carbohydrates have participants define which foods are major contributors of each of the macronutrients, i.e. carbohydrate, protein, fat.
- Stress the importance of including each of these nutrients at a meal.
- Emphasize that variety is key to enjoying food, and that meals each day should include vegetables, fruits, whole grains, dairy and lean sources of protein.
- Discuss portion size and emphasize that healthy blood glucose is achieved by moderate portion sizes. Use food models to help participants understand the concept portion size.

***Key Teaching Point: the diabetic menu is the way everyone should eat. There is no need to prepare special foods for the person with diabetes.***

5. Participants will be able to plan a basic menu which incorporates the inclusion of each of the macronutrients.

*Teaching Points:*

- Explain the concept that woman will usually have three and men four choices of carbohydrate at a meal. Using food models, discuss that participants may choose three to four different choices of a carbohydrate at a meal, or more of just one choice. Illustrate using pasta as an example.
- Explain the concept that a portion of protein must be included at lunch and supper. Generally for woman, this may be 2-3 ounces of cooked protein and for men, 3-6 ounces of cooked protein.
- Using food models have participants attempt to assemble a sample meal.

***Key Teaching Point: have each participant share his/her sample meal with the class and help them to identify the source of each of the macronutrients. Use this as an opportunity to illustrate how favorite foods can be included each day.***

6. Have each person develop a self-management goal related to eating. Ask that the self management goal sheet be brought back next session.
7. Questions and answers

### **Session 3: Nutrition**

- Review self management goals from Sessions 1 and 2
- Review nutrition information from Session 2
- Discuss impact of carbohydrates, protein and fat on BG
- Healthy/Unhealthy fats
- Critique meals
- Fast Foods with a self management goal
- Make a Meal

### **Teaching Objectives:**

1. Participants will be able to discuss the impact of carbohydrate on blood glucose levels.

*Teaching Points:*

- Review sources of carbohydrate from session 2.
- Carbohydrates are necessary for important body functions. Participants don't have to avoid carbohydrates; rather they should moderate their intake.
- Carbohydrate foods have the greatest effect and quickest effect on blood glucose levels.
- Carbohydrate foods raise blood glucose regardless of the source. Participants need to realize that milk, fruit and bread raise blood glucose just as a cookie does.

***Key Teaching Point: it is the amount of carbohydrate consumed that matters rather than the source of carbohydrate. Carbohydrate intake should be consistent from meal to meal and day to day.***

2. Participants will be able to discuss the impact of protein on blood glucose levels and identify healthier proteins to include in their intake.

*Teaching Points:*

- Review sources of protein from session 2.
- Proteins are also necessary for important body functions. We need proteins but we don't need an excessive amount. Using food models show participants examples of 3 ounce portions of cooked protein.
- Proteins affect blood glucose levels but to a much lesser extent than carbohydrates.
- A source of protein should be included at each meal.
- Try to choose very lean and lean protein choices if possible. Examples include: white meat chicken or turkey (no skin), fish such as cod, salmon or trout, shellfish like lobster, crabs, clams and low fat cottage cheese.
- Some red meats are also lean. These include flank steak, roasts such as a pot roast, pork tenderloin. Make sure that you trim the fat!

***Key teaching point: include a protein source at each meal, especially lunch and supper. Try not to use excessive amounts of protein.***

3. Participants will be able to discuss the impact of fat on blood glucose levels and identify healthier fats to include in their intake and why less healthy fats should be avoided.

*Teaching Points:*

- Review sources of fat from session 2.
- Fats have very little direct effect on blood glucose levels. Fats make us fatter! Because excess weight makes it harder for our body to use the insulin we are making, we should avoid an excessive fat intake.
- A high fat diet, especially a diet high in unhealthy fats can clog our arteries and this may lead to a heart attack or stroke.
- Try to avoid fried foods or foods with extras sauces or gravies on them. When in restaurants, order gravies/sauces on the side. At fast food restaurants, order items plain, no cheese, no sauce. Lettuce, tomato and small amounts of ketchup are fine.
- When using fat, choose healthy alternatives such as olive and canola oils. Nuts in small amounts may also be included.
- Use margarines that are trans fat free. Provide examples of these margarines.
- Try to use high fat foods less frequently or substitute lower fat alternatives. Provide examples such as low fat milk or skim milk for whole milk, reduced fat cheeses.

***Key Teaching Point: fats have little direct effect on blood glucoses but fats make us fatter. Being overweight makes it harder for our body to use insulin so indirectly fats affect diabetes. Fats can contribute to risk of stroke and heart attack. Choose leaner alternatives and heart healthy fats.***

4. Participants will understand the impact of delaying or omitting meals, and the importance of appropriate portion size will be reviewed.

*Teaching Points:*

- Emphasize the fact that the body needs food to provide fuel for the activities we perform each day.
- Food/fuel is also needed for the medicine or insulin we take each day. If we do not provide enough food, than our blood glucose levels may fall too low. Review hypoglycemia.
- If a meal is going to be delayed for more than ½ to one hour, then a snack should be eaten at the usual mean time.
- An adequate amount of food should be eaten at each meal. Food cannot be saved from one meal to the next meal. For example, if you do not eat any carbohydrate at lunch, you cannot have double your usual intake of carbohydrate at supper. Remember, balance is important!

***Key Teaching Point: our body needs fuel for the activities we perform and for the medicine we take each day.***

5. Participants will understand how to make healthier choices at fast food restaurants.

*Teaching Points:*

- Encourage participants to ask for foods without extra sauces and to omit cheeses
- Discourage the practice of “supersizing” selections. Illustrate the difference in calories, fats and carbohydrates between a regular portion and a “supersized” portion.
- Encourage participants to choose items that are grilled, baked or roasted rather than fried.
- Remind participants of the principles of good meal planning; i.e., a carbohydrate, a protein and a fat at each meal. Only a side salad or a frozen yogurt is not enough.

6. Review self-management sheets and ask participants to make a self-management goal related to visits to fast food restaurants.

7. Review basic meal planning.

*Teaching focus:*

- As done in session 2, have participants plan sample meals using food models.

## **Session 4: Medication and Complications of Diabetes**

- Disease Progression
- Types of Medication
- Side Effects
- Self Management: review progress on goal from Session 1 related to medication as well as goals from Sessions 2 and 3
- Complications

### **Teaching Objectives:**

1. Participants will be able to describe the various treatments for diabetes.

#### *Teaching Points:*

- Participants will understand that diabetes therapy may be managed by various treatment modalities.
  - i. Food and activity plan
  - ii. Food, activity plan, and diabetes pill (s), 1 or more
  - iii. Food and activity plan and diabetes pill plus insulin
  - iv. Food and activity plan plus insulin
- The management of diabetes may change over time: sometimes medications must be taken to manage the disease and sometimes these medications must be adjusted.

***Key teaching point: it is generally the normal progression of diabetes to eventually need medication and/or change the amounts/types of medications to effectively manage diabetes.***

2. The basic definition of diabetes and what may cause blood glucoses to increase will be reviewed.

#### *Teaching Points:*

- All food eaten is digested and changed into sugar.
- The pancreas makes insulin to allow the sugar to be utilized by the body.
- The liver may also produce sugar: sometimes it produces too much sugar. This can make blood sugars increase.
- Sometimes insulin cannot be utilized by the body or sometimes not enough insulin is produced. This can also cause blood sugars to rise.

***Key teaching point: blood glucose levels may be affected by a variety of factors. This is why different medications may be prescribed for individuals or why medication may need to be changed over time.***

3. Participants will describe the basic action of the medications that may be utilized to control diabetes.



*Teaching Points:*

- Some oral diabetes pills cause the pancreas to produce more insulin. Think of these as electricians-they stimulate or prod the pancreas.
  - Examples include the Sulfonylureas: glyburide, glipizide (Glucotrol), glimeperide (Amaryl).
  - Other pills also stimulate the pancreas to produce more insulin. They act quicker than the sulfonylureas. These are Starlix and Prandin.
- A second type of diabetes pill acts by decreasing the amount of glucose made (released) by the liver. Think of these as plumbers-they fix a leaky liver.
  - Examples include the Biguanides: metformin (Glucophage and Glucophage XL).
- A third type of diabetes medication is one that allows the insulin to be better utilized by the cells. They are like locksmiths. They open the cells so the glucose can get into the cell to produce energy.
  - Examples are the glitazones (TZDs): Actos and Avandia.
- Combination medications may also be used. Examples of these are :
  - Avandamet (Avandia and Metformin)
  - Glucovance (Glyburide and Metformin)
  - Metaglip (Glipizide and Metformin)
- One other group of medications may be used. These slow the absorption of carbohydrate by the body.
  - Examples are Precose and Glycset.

***Key teaching points: each medication works in its own unique way. Medication must be taken daily, unless your provider tells you otherwise. Missing doses of medication will cause your blood sugar to increase. Medicine does not cure diabetes, it helps to control diabetes.***

4. Participants will understand that their medication may cause side effects.

*Teaching Points:* potential side effects include:

- Rash: any medication may cause a rash. If you ever get a rash after starting a new medication, stop it and immediately call your provider.
- Glucophage may cause nausea, vomiting, bloating, gas or diarrhea. This usually resolves in less than two weeks.
- Precose and Glyset may also cause bloating and gas.

- Some medications may cause hypoglycemia. These include Amaryl, Glucotrol, and Glyburide. (Might use this as an opportunity to review hypoglycemia and its treatment).
- Actos and Avandia may cause weight gain. Very rarely, these medications can cause inflammation of the liver.

***Key teaching point: if you think your medicine is causing any side effects, contact your provider. Remember, it is generally important to eat after taking your medicine. Not eating might cause you to experience hypoglycemia.***

5. Participants will understand the function of insulin and why it might be used to manage diabetes.

*Teaching Points:*

- Diabetes is a disease that may get “stronger” over time. This may occur even if the person with diabetes manages their diabetes well. If the participant is on several medications and blood glucoses remain elevated, it may be necessary to begin insulin.
- Insulin may be used alone or it may be used with an oral medication. This is referred to as combination therapy.

***Review the self management goal connected to medication made in Session 1. As goal sheets are examined, take the opportunity to review other two goals as well.***

### **Complications of Diabetes:**

6. Participants will describe the potential complications of diabetes.

*Teaching Points:* Diabetes complications include

- Cardiovascular disease-this is the most common complication of diabetes. This includes coronary artery disease, cerebral vascular accidents and peripheral vascular disease. Heart attacks are the most common cause of death in participants with diabetes.
- Depression
- Erectile dysfunction in men
- Increase in general aches and pains, and malaise if blood glucose is elevated
- Eye damage-diabetes is the most common cause of blindness. Permanent damage can be prevented if treated early enough. This is why all persons with diabetes should have an eye exam by an ophthalmologist once per year.
- Kidneys damage-diabetes is the most common cause of kidney failure which can lead to dialysis. Dialysis is a procedure which uses a machine to “cleanse” the blood. This task is normally done by the kidneys. This is why your doctor will check your urine and draw blood during the year. These tests are done to see how well your kidney is functioning. If you have any signs of kidney damage, a medication called an ACE inhibitor may be prescribed for you. These can help prevent renal disease.

- Nerve damage-sometimes you may feel numbness and /or pain in your feet. This may be a sign of nerve damage. At every doctor's visit, you should remove your shoes and socks and make sure your doctor checks your feet.
  - If the problem progresses, the foot may become entirely numb. If this occurs, you may not realize that you have an injury to your foot. Socks and shoes should be worn at all times so that injuries may be prevented. We should examine at our feet each day to be sure there are not areas of irritation or injury.
  - Remember to carefully cut toe nails or have a podiatrist do this. When putting cream on our feet, do not put cream in between the toes.
  - If you notice any injury to your foot, have your provider examine it. Injuries may heal more slowly so special care must be taken.
  - A wound can become infected and this could cause gangrene. This is very serious and it may result in amputation.

***Key teaching points: there are many potential serious complications of diabetes. Participants can reduce the risk of developing these complications by good blood sugar control. Remember your ABCs-good A1C, blood pressure and cholesterol!***

#### 7. Questions and answers.

## **Session 5: Everyday Tips for Staying Healthy**

- Foot Care
- Dental Care
- Vitamins/Minerals
- Exercise
- Self Management

### **Teaching Objectives**

1. Participants will be able to discuss foot problems caused by diabetes (review nerve damage from Session 4)

*Teaching Points:*

Describe foot problems caused by nerve damage and poor circulation.

- Tingling or burning feet
- Changes in color or temperature of feet
- Blisters, sores or ulcers
- Thick, yellow toenails
- Fungus infections between toes
- Loss of feeling

2. Participants will be able to discuss how to protect their feet

*Teaching Points:*

- Always wear shoes and socks, even indoors. Choose cotton or wool socks.
- Trim nails carefully along the toe's natural curve
- Don't cut corns and calluses. Let a podiatrist do this.
- Rub lotion on tops of feet but not between toes
- Check your feet everyday. Look for cracks, cuts and sores. Call your doctor right away if you have a sore.
- Ask your health care provider to exam your feet at least 4 times a year. Remove shoes and socks as a reminder when you go for your exam
- Keep physically active. This improves circulation in the feet.

***Key Teaching Point: Participants must protect their feet with shoes or slippers and report any sore to their provider.***

3. Participants will understand that people with diabetes are more likely to have problems with their teeth and gums and that, like all infections, dental infections can make blood glucose go up.

4. Participants will be able to describe signs of dental disease

*Teaching Points:*

- Sore, swollen and red gums that bleed when brushing
- Gums that shrink or pull away from teeth

5. Participants will be able to describe ways to prevent dental problems

*Teaching Points:*

- Brush teeth at least twice a day
- Use a soft toothbrush and use toothpaste with fluoride
- Get a new toothbrush every 3 months
- Floss everyday
- Visit a dentist twice a year

***Key Teaching Point: Participant must brush and floss everyday and visit a dentist at least once a year.***

6. Participants will know the importance of taking a multi-vitamin everyday. For diabetics and people over the age of 65, a daily supplement of vitamins and minerals, reduces the risk of infection.

***Key Teaching Point: Participant will know the importance of taking a multi-vitamin everyday.***

7. Participants will be able to discuss the importance of physical activity and its impact on blood glucose levels.

*Teaching Points:*

- Never begin an exercise program without checking with your primary care provider.
- Emphasize the many positive aspects of physical activity. Include:
  - Lowers blood glucose levels
  - Helps maintain and achieve a healthy body weight
  - Helps to keep heart and lungs healthy
  - May improve blood pressure
- Discuss reasonable goals for beginning an exercise program. Ideally, strive for 30-45 minutes per day. May accumulate minutes of exercise; i.e., exercise 10 minutes three times per day.
- Begin slowly and gradually increase activity level.
- Any amount of exercise is better than none.
- Always carry identification and a quick acting carbohydrate. Provide examples of quick acting carbohydrate.
- Stress the importance of comfortable shoes, and visually checking the inside of the shoe before it is worn.
- Discuss comfortable socks; cotton socks without seams are ideal.

***Key Teaching Point: Exercise is essential to controlling diabetes. .***

8. Self Management Goal: establish a self management goal related to one of the topics of Session 5 (foot care, dental care, vitamins or exercise)

9. Questions and answers.

## **Session 6: Grocery Store/Supermarket Tour**

*This class will provide the opportunity to show the participant that favorite foods may be included in a healthful meal plan. Participants will be shown healthy food alternatives that are tasty and that may be included as meal options for the entire family.*

***Key Teaching Point: Favorite foods can be included in meal planning for the participant with diabetes. Encourage participants to share their favorite foods with the class. Food is meant to be enjoyed by everyone including persons with diabetes!***

### **Teaching Objectives:**

1. Participants will be able to verbalize healthy foods choices from the delicatessen area.  
*Teaching points:*
  - Turkey breast, roast beef, lean ham (if not watching sodium intake) are good options.
  - Any formed meat, i.e. bologna, pressed ham, salami are very high in unhealthy fat and in sodium.
  - Avoid pre-made salads, such as tuna, chicken, macaroni, etc. These are often very high in fats, may be high in sodium. If you can, it is best to make your own.
  - Avoid processed cheese, such as American cheese. Better options are reduced fat cheeses, such as Alpine Lace or Swiss Lorraine cheese.
  
2. Participants will be able to verbalize healthy protein choices; meat and seafood areas.  
*Teaching points:*
  - Encourage the use of chicken, turkey, and fish. Explain that shellfish, such as clams, lobster, and shrimp are very lean and may be included even on a low cholesterol diet.
  - Discuss benefits of salmon and tuna for omega 3 fatty acids.
  - Discuss lower fat red meat alternatives, such as flank steak, eye round roasts, London broil, pork tenderloin.
  - Remind participants that leaner cuts of meat may require marinating and slow cooking with a small amount of liquid (braising).
  - Contrast the difference between beef vs. chicken hot dogs. Help the participant to realize that not all poultry alternatives are healthy.
  
3. The participant will be able to verbalize healthy dairy choices.  
*Teaching points:*
  - Encourage the use of 1% low fat milk or skim milk. Show participants alternatives such as Simply Smart milk.
  - Discuss use of yogurt, encouraging the use of low fat, sugar free yogurts.
  - Remind participants that milk and yogurts act as carbohydrate in the body.
  - Encourage the use of low fat and fat free cheeses.

- Show participants fat free ½ and ½ as an option for coffee or tea.

***Key teaching point: all milk and yogurt are used in the body as carbohydrate. Drinking milk to quench our thirst will have a quick effect on our blood sugar. Milk and yogurt are not free foods.***

4. Participants will be able to verbalize healthy fat choices.

*Teaching points:*

- Discuss and show the participants healthy margarine choices, i.e. trans fat free margarines.
- Visit the oil aisle and show participants the canola and olive oils stressing that these fats are the most heart healthy.
- Discuss the use of nuts and peanut butter, illustrating how small amounts of these items can fit into a diabetic and heart healthy meal plan.

***Key Teaching Points: Canola and olive oils are the best fat choices. However, fats are always fattening, regardless of the source. Fats make us fat; therefore we need to use them in moderation.***

5. Participants will be able to verbalize the distinction between a free food and a sugar free food.

*Teaching points:*

- Use sugar free gelatin and sugar free pudding as examples. Have participants look at each label and help participants to see the difference.
- Discuss sugar free cookies versus plain regular cookies. Have participants examine the food labels to see that sugar free products may be a significant source of carbohydrate, and can impact on blood sugars.
- Show participants how plain cookies such as ginger snaps, vanilla wafers, and animal crackers may be used in moderation in the diabetic meal plan.

***Key teaching point: sugar free does not mean calorie or carbohydrate free. Look for foods that provide 5 grams of carbohydrate or 20 calories or less per serving to be considered a free food.***

6. Participants will recognize the importance of including fruits and vegetables in their daily food intake.

*Teaching points:*

- Discuss the use of fresh vs. frozen vs. canned vegetables and fruit. Remind participants that frozen fruits and vegetables are often just as nutritious as fresh varieties.
- Remind participants that frozen vegetables, those without sauces, are usually frozen without salt. Canned vegetables are generally higher in sodium.
- Review the vegetables that are counted as carbohydrate for the person with diabetes.

- Remind participants that many vegetables may be eaten as desired. Review these with the participant.
- Remind participants that all fruits may be included but that we must limit the quantity eaten at one time.
- Discuss the difference between fruit juice vs. fruit drinks vs. sports drinks. Remind participants that each impacts their blood glucose.

***Key teaching point: all fruit and fruit juice will impact our blood sugars. Use them with care and in moderation.***

7. Participants will be able to understand the importance of including fiber in the diabetic meal plan and will be able to identify good sources of fiber.

*Teaching points:*

- Review the difference between wheat bread and whole wheat bread. Examine labels of various breads pointing out those breads that are a good source of fiber.
- Discuss cereals and review good sources of fiber provided by cereal.
- Consider discussing the difference between soluble vs. insoluble fiber, or simplifying these to say that bran cereal is different than oatmeal but that both play a beneficial role in our body.

***After visiting the supermarket, participants should feel that favorite foods may be included in a diabetic meal plan. This should be a positive experience and care must be taken to stress the inclusive nature of the diabetic meal plan. Acknowledge that this may be different than they were used to eating. Encourage small changes; emphasize that no one expects perfection.***