



Diabetes Self-Management Education and Support



Module 5
Healthy Eating



In This Module You Will:

- Identify key elements of healthy eating.
- Describe how to use the Plate Method to create balanced meals and portions.
- Identify carbohydrate sources and how they affect blood glucose.
- Explain how reading the Nutrition Facts on a food label can help manage blood glucose.
- Recognize the Mediterranean and DASH styles of eating as healthy options.
- Explain the importance of managing weight.





Healthy Eating

You don't have to stop eating the foods you like to manage your diabetes. The more you know about food, the better you'll understand how it affects your blood glucose levels. Then, you can make smart choices about what, when, and how much to eat.

Making healthy choices will help keep your glucose in a safe range.

What does healthy eating mean to you?

5 Key Elements to Healthy Eating:

1. Portion control (how much to eat)
2. Meal planning (what and when to eat)
3. Food quality (how healthy the food is for your body)
4. Carbohydrate counting
5. Mediterranean style dietary approach

Portion Control

Be aware of portion distortion. This is when you eat more if you are served more food. It is important to be mindful of the amount of food you are eating.

A portion is the amount of food you choose to eat for a meal or snack. Many packaged foods contain multiple servings. Therefore, you may be eating more than you realize.

Did you know that portion sizes have increased over time?



Some foods may increase your blood glucose more than others.

Too much food, especially snacks or treats, like candy and chips, at one time raises your blood glucose levels.

Too much food provides excess calories, which can increase your weight.

Estimating Portions



A serving size is a fixed amount of food that provides a certain number of nutrients. Learning about serving sizes

will help you decide how much to eat at a meal or snack. Measuring or weighing food is the most accurate way to estimate portions. Using the size of familiar objects can be helpful too!

Use serving sizes to help manage your glucose levels and maintain your weight.

Food Group	Portion Sizes
Grains	1 cup cereal flakes = 1 adult fist ½ cup cooked rice, pasta, or potato = 1 tennis ball 1 oz. slice of bread = 1 cassette tape 1 oz. chips = 1 cupped hand
Fruits and Vegetables	1 cup salad greens = 1 softball 1 medium baked potato = 1 computer mouse 1 medium piece of fruit = 1 tennis ball ½ cup fresh fruit = 1 tennis ball ¼ cup raisins = 1 egg
Dairy and Cheese	1 ½ ounce cheese = 4 stacked dices ½ cup ice cream = 1 tennis ball
Meat and Protein Alternatives	3 oz. meat, fish, or poultry = 1 deck of cards 3 oz. fish fillet = 1 checkbook 2 Tablespoons peanut butter = 1 ping pong ball
Fats	1 teaspoon = 1 dice or tip of a finger 1 Tablespoon = 1 poker chip



What are Carbohydrates or “Carbs”?

There are 3 main nutrients in food: carbohydrates, proteins, and fats. Carbohydrates turn to glucose after they are digested and provide your body with energy or fuel. Sugar, starches, and fiber are all sources of carbohydrates.

Carbohydrate is the main nutrient that raises blood glucose.

Starches such as bread, cereals, pasta, starchy vegetables, dried beans and peas have complex carbohydrates.

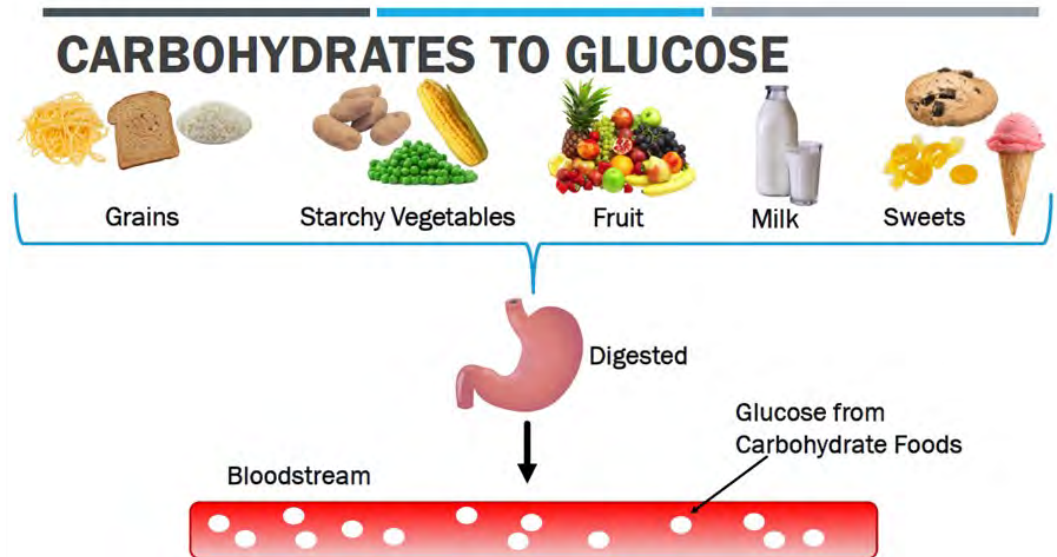
Fiber is also a complex carbohydrate. It occurs naturally in fruits, vegetables, whole grains and cooked dried beans and peas.

Carbohydrates should be eaten in moderation. Paying attention to portion sizes is key! Carbohydrates do not need to be avoided. Healthy eating is balancing non-starchy vegetables, protein, and healthy fats.

Estimating Carbs

Reading the Nutrition Facts on a food label for the Total Carbohydrates is the most accurate way to know how many carbs you are eating. However, you can also estimate your carbs if a label is unavailable.

For most carbohydrate foods, ½ cup or 1 serving = 15 grams of carb. Refer to the chart on the next page for examples of carb servings.



Starches	Fruit	Milk	Sweets	Non-Starchy Vegetables	Protein	Fats
1 serving = 15 grams of carb	1 serving = 15 grams of carb	1 serving = 12 grams of carb	1 serving = 15 grams of carb	1 serving = < 5 grams of carb		
<p>Healthy Choices 1/3 cup brown rice ¼ lg. sweet potato ½ cup mashed potato 1 small baked potato ½ cup beans/peas (cooked) ½ cup corn 3 cups popped popcorn ½ cup cooked oatmeal ¾ cup dry cereal ½ cup bran cereal 1 slice whole grain bread</p> <p>Less Healthy 1/3 cup rice or pasta ¼ large bagel ½ hamburger bun ½ English muffin ½ large biscuit 6 crackers 4" pancake or waffle 10 french fries 12=15 chips</p> <p>Combo Foods 1 cup soup 1 slice thin pizza ½ cup casserole 2"square lasagna 2-3 chicken strips</p>	<p>1 small piece</p> <ul style="list-style-type: none"> • apple • pear • peach • orange <p>1 cup melon cubes</p> <ul style="list-style-type: none"> • cantaloupe • honeydew • watermelon <p>1 cup berries</p> <ul style="list-style-type: none"> • strawberries • blueberries • raspberries <p>1/2 banana 15 grapes or cherries ½ cup canned fruit (light syrup or juice) 2 Tbsp. raisins 3-4 prunes ¼ - ½ cup fruit juice</p>	<p>1 cup whole milk 1 cup 2% milk 1 cup skim milk</p> <p>6-8 oz. yogurt (varies by brand, check the label)</p> <p>Milk Alternatives 1 cup oat milk 1 -1 ½ cup soy milk 1 cup almond 1 cup coconut</p>	<p>½ cup ice cream ½ ice cream bar ¼ cup sherbet ½ doughnut 6 vanilla waters 2 Oreo cookies 2" unfrosted brownie 3 graham cracker squares 3 peppermint candies 5 chocolate kisses ½ cup gelatin 1 small granola bar 1 popsicle 9 jelly beans</p>	<p>1 cup raw or 1 cup cooked</p> <p>asparagus green beans beets broccoli brussel sprouts cabbage carrots cauliflower celery cucumbers greens lettuce mushrooms okra onions peppers radishes squash spinach tomatoes turnips zucchini</p>	<p>chicken turkey beef pork fish shellfish bison venison cheese eggs tofu</p>	<p>Monounsaturated canola oil olive oil peanut oil nuts avocado olives</p> <p>Polyunsaturated soybean oil corn oil sunflower oil margarine mayonnaise salad dressing pumpkin seeds sunflower seeds</p> <p>Saturated butter shortening cream cheese sour cream lard</p>

Meal Planning

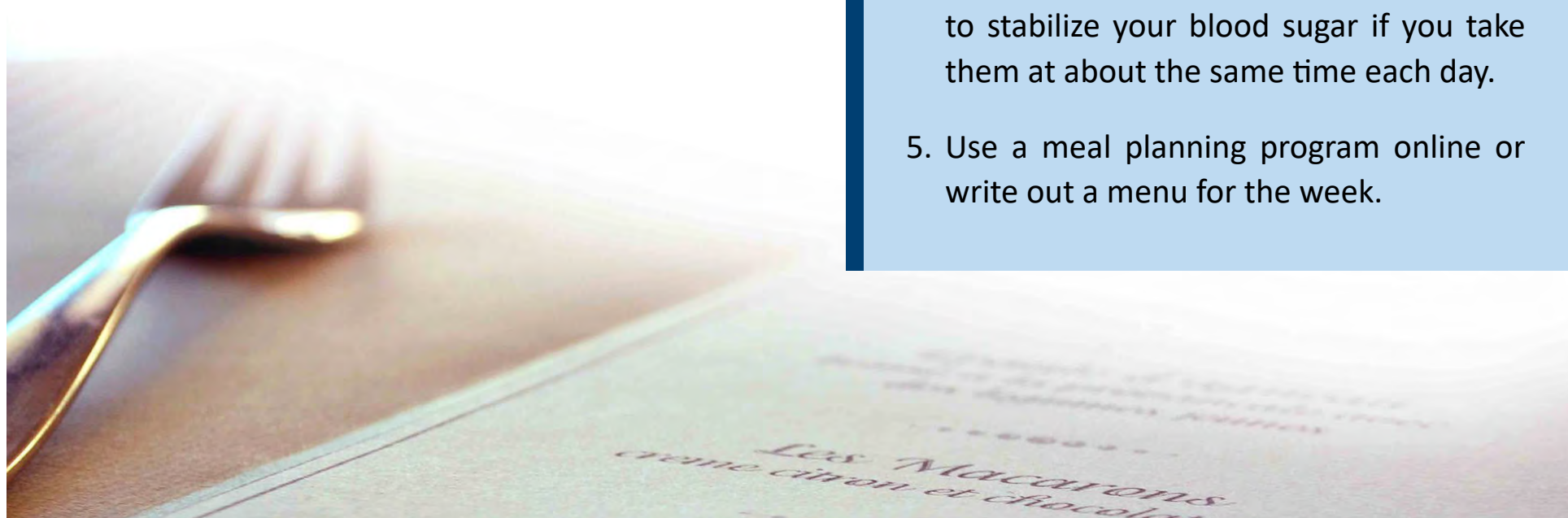
Planning meals in advance helps you manage blood glucose and assists with better food choices.

One of the easiest ways to plan meals is to prepare it yourself. When you cook at home, you have more control over the meals you eat, the portions, and what is added to your foods.

Ask your healthcare provider to refer you to a dietitian to help develop a meal plan that works best for you.

Where to Start – Meal Planning

1. Talk to a Dietitian about the foods you like and how to make them fit into your plan.
2. Start each day with breakfast.
3. Try to eat meals and snacks at the same time each day.
4. Learn to balance the time you take your diabetes medicine with the time of your meals. Medicine and insulin work better to stabilize your blood sugar if you take them at about the same time each day.
5. Use a meal planning program online or write out a menu for the week.



Dining Out Tips

Plan Ahead

Ask for:

- Grilled instead of fried
- Condiments/dressings on the side
- A change in “sides” from fries to salad or non-starchy vegetables

Choosing a meal:

- Pass on the bread
- Do not “super-size”
- Ask your provider if you can include alcohol
- Be careful of high calorie, sugary beverages

If the serving sizes are too large:

- Share your portion with a partner
- Take leftovers home for another meal



Holidays and Special Occasions

Parties and holidays often involve special traditions which include food and drink that can impact your glucose levels. Working with your healthcare team, you can adjust medications and meal plans to accommodate and enjoy those traditions.

Shopping and Cooking Tips

Shopping:

- Look for in season fruits and vegetables
- Buy lean meats, such as chicken, turkey, and fish
- Avoid high-sugar, high-fat snack food aisles
- Look for whole-grain foods and low-fat dairy products
- Include small amounts of unsalted nuts and seeds

Cooking at Home:

- Identify and adjust carbohydrate portions
- Consider trimming visible fat off meats before cooking
- Broil, steam, bake or grill meats and vegetables instead of frying
- Use olive, canola, or peanut oil instead of butter or lard for cooking
- Minimize cooking meat and vegetables in cream or butter-based sauces



Food Quality

Eating healthy includes a variety of foods. When your body doesn't get what it needs, you feel hungry. Healthier food choices give your body the vitamins and minerals it needs.

Where to Start

Food in its natural state is better for you. Read food labels. Be aware of the ingredients. Buy unprocessed foods and cook them yourself.

- Eat more whole grains.
 - Aim for 3 grams of fiber per serving. The Dietary Guidelines for Americans recommends 48 grams of whole grains a day and at least **25 grams of fiber daily**.
 - Purchase whole grain high fiber cereal, bread, rolls, buns, tortillas, and pizza crust.
 - Add whole grains to your recipes.
- Vegetables can add extra texture, flavors and colors to your day's meals and snacks.
- Eat a few berries when you crave something sweet.
- Select a salad for lunch or when you eat out.
- Watch the salt in processed foods.
- Choose foods that are lower in calories, saturated fat, sugar, and salt.
- Drink water instead of regular soda.



You need to eat healthy fats. Here are some tips for using the right fats:

- Eat fatty fish (salmon, tuna, and sardines) twice a week
- Snack on lightly salted or unsalted nuts at night instead of potato chips
- Switch your cooking oil to olive oil, canola oil or peanut oil
- Try an avocado on top of your salads or sandwiches
- Avoid food with trans-fat

Reading a Food Label

Servings per Container

- Servings per container shows how many recommended servings are in the entire package.
- This container has 4 servings of food.
- If you eat more than one serving of a product, multiply the nutritional facts by the number of servings you eat.

NUTRITION FACTS			
Serving Size 1/2 cup (114g)			
Servings Per Container: 4			
Amount Per Serving			
Calories	90	Calories From Fat	30
		% Daily Value*	
Total Fat	3g		5%
Saturated Fat	0g		0%
Trans Fat	0g		**
Cholesterol	0mg		0%
Sodium	300mg		13%
Total Carbohydrate	13g		4%
Dietary Fiber	3g		12%
Sugars	3g		
Sugar alcohols	2g		
Protein	3g		
Vitamin A	80%	Vitamin C	2%
Calcium	4%	Iron	4%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.			
	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2400mg	2400mg
Total Carbohydrate		300g	375g
Fiber		25g	30g
Calories per gram:			
Fat	9	Carbohydrate	4
		Protein	4
**Intake of trans fat should be as low as possible.			

Serving Size

- The serving size is the portion size used for all the values on the label.
- Different foods have different serving sizes.
- The serving size on this label is 1/2 cup.

Total Carbohydrates

- Indicates the **total amount of carbohydrate** (starch and sugar) in one serving of this product.
- One carb choice or serving of a carbohydrate rich food has about 15 grams of carbohydrate.
- This food has 13 grams of carbohydrate per 1/2 cup serving.

Sugar-Free Foods

Foods labeled sugar-free do not mean they are carbohydrate free. While these foods can be part of your diabetes meal plan, it is important to look at the total carbohydrates on the nutrition facts label.

If the item has fewer carbohydrates than the standard product, it might be the better choice. However, if there is little to no difference in the carbs, either choice is acceptable.

Many sugar-free foods contain sugar alcohols like mannitol, sorbitol, and xylitol. Sugar alcohols aren't always low in calories and carbs. Be aware foods containing sugar alcohols can cause stomach upset and diarrhea.



Nutrition Facts	
about 16 servings per container	
Serving size	2 pieces (31g)
Amount per serving	
Calories	130
% Daily Value*	
Total Fat 9g	12%
Saturated Fat 5g	25%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 25mg	1%
Total Carbohydrate 18g	7%
Dietary Fiber 1g	4%
Total Sugars 0g	
Includes 0g Added Sugars	0%
Sugar Alcohol 15g	
Protein 2g	
Vit. D 0mcg	0%
Calcium 6mg	0%
Iron 1mg	6%
Potas. 66mg	2%

* The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2000 calories a day is used for general nutrition advice.

No Sugar Added Foods

Along with sugar-free foods, you might see “no sugar added” foods. No sugar added foods may still have carbs.

The no sugar added label means that the food doesn't contain high-sugar ingredients or that sugar was not added to the food during processing.

Always check the nutrition facts label on the package for the total carbohydrates.

100% JUICE	
Nutrition Facts	
12 servings per container	
Serving size	8 FL OZ (240mL)
Amount per serving	
Calories	140
% Daily Value	
Total Fat 0g	0%
Sodium 10mg	0%
Total Carbohydrate 37g	13%
Total Sugars 35g	
Includes 0g Added Sugars	0%
Protein <1g	
Calcium 30mg	2%
Potassium 140mg	2%
Vitamin C 90mg	100%

Not a significant source of saturated fat, trans fat, cholesterol, dietary fiber, vitamin D and iron.

No Artificial Flavors, Colors or Preservatives

INGREDIENTS: GRAPE JUICE FROM CONCENTRATE (FILTERED WATER, GRAPE JUICE CONCENTRATE), GRAPE JUICE, ASCORBIC ACID (VITAMIN C), CITRIC ACID (FOR TARTNESS)

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† Not a low calorie food. See Nutrition Facts for sugar and calorie content.
‡ Not made with genetically modified ingredients.
2 servings of fruit in every 8 oz. glass equals 1 cup of fruit.

Comments or Questions?
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Weekdays 9 am - 4 pm ET WLA32942

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Mediterranean-Style Eating

The Mediterranean style of eating is healthy.

For those with Type 2 diabetes, the Mediterranean Diet has been shown to have numerous health benefits. Benefits include weight loss, decreased risk of cardiovascular disease, better insulin sensitivity and improved anti-inflammatory effect.

Guidelines

1. Take time to enjoy food in the company of others.
2. Eat at consistent times.
3. Drink water with meals.
4. Use olive oil as your main dietary fat.
5. Include tree nuts often, 2-3 servings each week.
6. In-season vegetables should be included at least twice a day.
7. Choose foods daily with more than 3 grams of fiber per serving like beans and whole grains.
8. Eat fish and seafood often, 2-3 times per week or more.
9. Enjoy a small serving of fruit for dessert and limit sweets.
10. Change the way you think about meat. Have smaller portions of red meats and eat less often.
11. Avoid sugary drinks.



Olive oil is high in monounsaturated fats. Emerging research indicates that monounsaturated fats may lead to improved blood glucose.



Fish	Oils	Nuts, Beans, Seeds, and Legumes	Vegetables	Fruits	Grains	Herbs and Spices
Make fish a choice at least twice a week.	Choose unsaturated fat sources.	Try to eat 3-6 servings per week.	Choose 4+ servings per day. Make 1 serving raw.	Choose 3 or more servings per day.	Choose whole grains 2-3 servings per day.	Use in place of salt to season foods.
Salmon Sardines Cod Mackerel Herring Lake trout Tuna	Olive oil Walnut oil Canola oil Flaxseed oil Avocado oil	Flax seed/Chia seed Beans: black, black eye, kidney, chickpeas, lima, pinto Lentils Walnuts/Pecans Pistachios/Cashews Sunflower seeds	Eggplant, Squash broccoli, cauliflower Peppers, Onions Lettuce, All Greens Celery, Tomato Leeks, Kohlrabi	Apples Oranges Peaches Pears Pineapple Grapes Mango Pomegranates	Oats Whole wheat bread Rye Barley Couscous Whole wheat pasta Quinoa Brown rice Farro	Cloves Mustard seed Marjoram Tarragon Cumin Garlic Mint

Poultry: Choose daily or weekly in place of red meat.

Dairy: Choose lower fat options, use with moderation.

Alcohol: If you choose to drink, consider one 5oz. glass of red wine per day.

Sample Menu

Nutrition Information:

2200 Calories (8% saturated fat, 11% polyunsaturated fat, 19% Monounsaturated fat), 43 grams fiber.

Breakfast

1 cup Greek yogurt with $\frac{3}{4}$ cup fresh fruit & $\frac{1}{4}$ cup walnuts
1 slice whole wheat toast with $\frac{1}{4}$ cup mashed avocado
Coffee or tea

Lunch

1 cup lentil soup
1 whole wheat pita with 2 Tbsp. hummus
1 cup tomato and cucumber with 2 Tbsp. olive oil, balsamic vinegar,
and basil
1 apple, peach, or orange

Snack

1 oz. low-fat mozzarella cheese and 15 grapes

Dinner

3-4 oz. baked Salmon brushed with olive oil, seasoned with lemon
and dill
1 cup brown rice, cooked with 1 cup steamed carrots
1-2 cups baby spinach and arugula salad with 2 Tbsp. olive oil
Decaf green tea or 5-ounce wine

Snack

1 oz. dark chocolate

Dietary Approaches to Stop Hypertension (DASH)



The DASH eating plan does not require any special foods. It is a flexible, healthy eating plan for blood pressure and kidney health. This is especially important for African Americans and Hispanics. The plan recommends:

- Eating vegetables, fruits, and whole grains
- Including fat-free or low-fat dairy products, fish, poultry, beans, nuts, and vegetable oils
- Limiting foods that are high in saturated fat, such as fatty meats, full-dairy products and tropical oils like coconut, palm kernel and palm oils
- Limiting sugar-sweetened beverages and sweets
- Limit sodium to 1500-2300 mg/day. Discuss with your provider or a dietitian.



DASH Eating Plan

The Benefits: Lowers blood pressure & LDL “bad” cholesterol.

 **Eat This**

 **Limit This**

 Vegetables	 Fatty meats
 Fruits	
 Whole grains	 Full-fat dairy
 Fat-free or low-fat dairy	
 Fish	 Sugar sweetened beverages
 Poultry	
 Beans	 Sweets
 Nuts & seeds	
 Vegetable oils	 Sodium intake

www.nhlbi.nih.gov/DASH



NIH National Heart, Lung, and Blood Institute



Aim for a Healthy Body Weight

A 7% weight loss can improve your diabetes. There are several key strategies to obtaining a healthy body weight:

- Make lifestyle changes that you can maintain. Quick fixes resulting in rapid weight loss are not sustainable.
- Make healthy choices. Choose a wide variety of nutrient dense foods. Avoid processed foods that are high in calories.
- Be active! You do not need to join a gym or buy expensive workout equipment. Try to sit less and move more.
- Set goals that you can reach. Your goals should be SMART – specific, measurable, achievable, relevant, and tracked.
- Discuss your desire to achieve or maintain a healthy weight with your provider or healthcare team. Make an appointment with a Registered Dietitian.
- Ask your family, friends, or healthcare team for support. Consider joining the VA MOVE! Program.
- Celebrate your success! Take time to reward yourself.

What are your current eating habits?

What is one eating habit you would like to change?

Do you have a plan or a SMART goal?

Summary

This session explained the key elements of eating healthy and how to use the Plate Method to create balanced meals. Module 5 also reviewed carbohydrate sources, their affect on blood glucose, and how to read a Nutrition Facts label to find the serving size and total carbohydrate grams. Finally, in this session, you learned that the Mediterranean and the DASH diet are healthy eating options and maintaining a healthy weight is important.

Key Points

- Create balanced meals using the Plate Method.
- Carbohydrates raise blood glucose but should not be avoided.
- Carbohydrate intake should be individualized.
- Starches, sweets, milk, and fruit have carbohydrates.
- Nutrition Facts labels provide important information on serving sizes, carbohydrate grams, and sodium content.
- A Mediterranean style diet may help to improve blood glucose, body weight, and blood pressure.
- Dietary sodium impacts blood pressure, especially those with diabetes. Following the DASH diet might help to lower blood pressure and protect the kidneys.

Before Next Class

- Review **Module 6: Being Active**
- Write down your questions
- Work on your healthcare goal or changing a habit/behavior





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