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Session 2

## Healthy Eating and Living

## Session 2: Healthy Eating and Living

### To begin this session you will:

- ▶ Reflect on your journal with your lifestyle educator
- ▶ Discuss last session's goals, your accomplishments, and your challenges

### In this session you will:

- ▶ Learn about carbohydrates and their role in nutrition
- ▶ Explore glycemic load and glycemic index and their role in blood sugar maintenance
- ▶ Create a healthy plate
- ▶ Discuss the ABCs of behavior change
- ▶ Incorporate strength and balance activities
- ▶ Discover the dangers of being sedentary and how to combat them

# HEALTHY EATING

## Nutrition 101: carbohydrates<sup>8</sup>

Carbohydrates or “carbs” are one of three macronutrients whose job is to supply energy. In the body, carbohydrates are converted to glucose that is used to support day-to-day activities and acts as the primary source of fuel for the brain. Carbohydrates can be found, in one form or another, in most food items—and some sources are better for health than others. Therefore, the type of carbs we eat really does matter and deserves a closer look.

### Carbohydrate sources

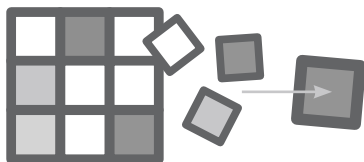


### Complex vs. simple carbs

COMPLEX CARBS = GOOD	SIMPLE CARBS = BAD
<p>Complex carbohydrates have a structure that requires our bodies to work harder to digest them, resulting in:</p> <ul style="list-style-type: none"> <li>• Slow digestion and a feeling of fullness</li> <li>• A more gradual insulin response</li> <li>• Stimulation of metabolism</li> </ul>	<p>Simple carbs are more processed. Because they have a less complex structure, they are digested more rapidly, and sugar is quickly absorbed into the body, resulting in:</p> <ul style="list-style-type: none"> <li>• An immediate spike in blood sugar levels</li> <li>• A more dramatic insulin response</li> <li>• The energy crash associated with carb consumption</li> </ul>
<p><b>Tip:</b> We are not able to digest fiber, but it keeps our gut bacteria happy as a “prebiotic.” Certain types of prebiotic fibers, such as chicory root and inulin, support beneficial bacteria that make important vitamins and keep the bad bacteria in control, keeping our digestive and immune systems healthy. Fiber also helps with keeping cholesterol and blood sugar in check while supporting healthy regular elimination.</p>	

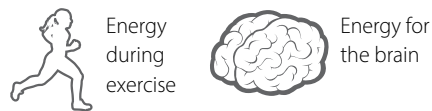
### How carbs are used

#### Carbs are broken down:



Carbohydrates are broken down and turned into glucose, a simple sugar

#### Glucose is used for:



#### GLUCOSE IS STORED FOR:



#### Excess glucose is turned into:



After glucose is used or stored, excess is converted to fat

### Choosing carbs:

- Get most of your carbohydrates from fresh fruits, vegetables, legumes, and stone-ground whole grains.
- Avoid carbohydrates from refined grains, processed foods (things that come in a bag, box, can, or plastic), sweets, sodas, and juice.
- Added sugars can be found in most prepared and packaged foods in large amounts and add up quickly. These are listed on the Nutrition Facts label (discussion in Session 3) and should be minimized.
- Be cautious when choosing packaged items labeled as “low-fat.” These items often have sugar added to make up for the loss of flavor that results from removing fat.
- Look for foods with > 5 g/serving of fiber to meet the current daily recommended intake levels listed below:<sup>9</sup>
  - o 38 g for men and 25 g for women up to age 50
  - o 30 g for men and 21 g for women over age 50

### Carbohydrates by the numbers

## 1 of 3

Carbs are one of the three macronutrients (proteins and fats are the other two)

.....

## 4 calories

Carbs provide energy, 4 calories per gram

.....

## 5 grams

Look for carbohydrate foods with > 5 grams of fiber per serving

.....

## 15 grams

One serving of carbs is equal to 15 g and can vary in calories

.....

### Tips to increase fiber intake

- Select whole fresh or frozen fruits; avoid juice and canned fruits
- Eat the peel on apples, pears, peaches, and sweet potatoes
- Choose 100% whole grain breads and pasta
- Look for whole wheat, whole oat, or whole rye on the ingredient list
- Choose grains in their whole form versus grains ground into a flour
- Substitute legumes for a portion of the meat in recipes
- Increase legumes by adding them to soups and salads
- Try bean dips and spreads like hummus (garbanzo beans and sesame paste)
- Try quinoa or spaghetti squash instead of pasta or potatoes for added fiber and texture
- Choose organic ingredients when possible

For additional fiber tips, ask your provider for the FirstLine Therapy Fiber Factor handout

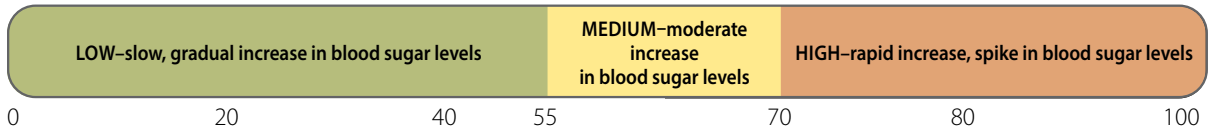


# Understanding blood sugar response and the difference between glycemic index and glycemic load<sup>10</sup>

**Glycemic index (GI)**—a ranking of carbohydrate foods according to how rapidly they are digested and released as glucose (sugar) into the bloodstream.

**Glycemic load (GL)**—a measure that describes both the quality and quantity of carbohydrates in a food serving.

## Glycemic index



## Glycemic load



### Doughnut vs. watermelon!

Comparing watermelon to doughnuts helps to illustrate how GI and GL differ. Both watermelon and doughnuts have the same GI (76) but are very different in quality from each other. Doughnuts are made from highly processed grains and refined sugars, while watermelons are a whole food that contains fiber and water. So despite having the same GI, the differences in the makeup of these foods mean that they have very different GLs. Watermelon has a low GL of 5, while doughnuts are medium-high with a GL of 17.



**What's in it: sugar, fat, refined grains**

**Glycemic load**  
**17**



**What's in it: fiber, water**

**Glycemic load**  
**5**

### What does this mean for me?

Not surprisingly, low GI/GL foods tend to be better for you and further support eating a variety of whole, phytonutrient-rich plant foods. While the majority of foods on the FirstLine Therapy Food Plans are low-glycemic foods, they also include medium-glycemic-load foods (e.g., nonstarchy vegetables). By following your food list, eating foods in sensible portions, and balancing your plate, you can achieve a lower overall glycemic load for your diet without having to worry about the values of an individual food before you eat it.

## Balancing the glycemic load of your diet

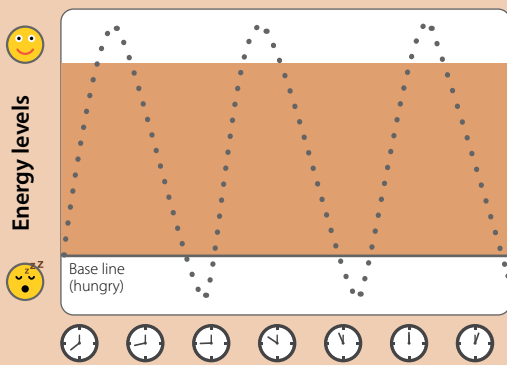
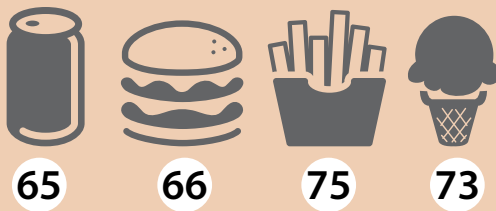
Glycemic-conscious eating means choosing foods that help to balance blood sugar levels or give better “glycemic control.” Managing blood sugar is important because it can help to:

- Aid in weight loss and weight maintenance
- Manage early stages of insulin resistance and curb the development of blood sugar-related conditions, such as type 2 diabetes
- Control food cravings

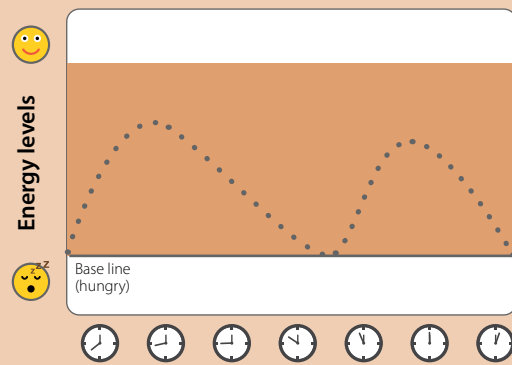
### What is a low-glycemic meal?

High-glycemic foods are typically sugary or highly processed carbohydrates (potato chips, white bread, etc.) and cause a fast rise in blood sugar that result in an energy “spike” followed by a “crash” that leaves you tired and hungry for more high-carbohydrate foods. Being conscious of the glycemic index (GI) and glycemic load (GL) of the foods we eat helps us break this spike/crash cycle, resulting in more consistent energy levels and reduced cravings for sugary foods.

#### High glycemic load



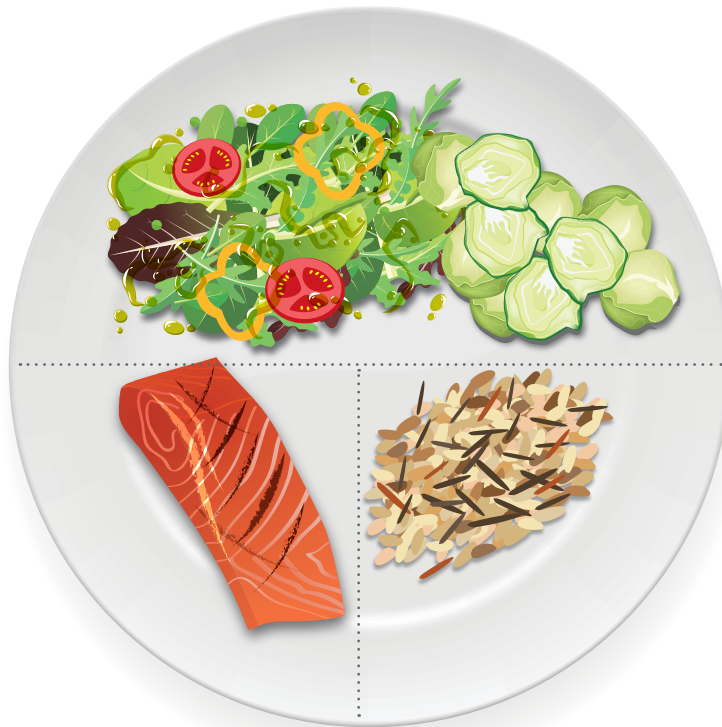
#### Low glycemic load



## Visualizing a healthy meal

Creating a healthy plate is easy if you think of your plate as being divided by two imaginary lines. The first line divides the plate in half; the second divides the remaining section into quarters. Half of the plate should contain nonstarchy vegetables. The remaining quarters of your plate are composed of proteins and carbohydrates. Remember, carbohydrates include grains/starches, starchy vegetables, fruits, legumes, and dairy products. All of these are very low on the GI/L due to their high water and fiber content.

The plate below provides a good example of how dividing your plate is a valuable tool for meal planning and portion control.



## Creating a healthy snack

Building a healthy snack is just as important as creating a balanced plate. Snacks should pair a protein and carbohydrate source together. Carbohydrates help to provide a more immediate sense of fullness, while proteins make you feel fuller for longer. Because snacks are relatively small (compared to meals), this combination will work together to keep you from overeating at snack time and hold you over until your next meal. Healthy snack combos can include:

- 1 medium peach (C)  
with ½ cup cottage cheese (P)
  - 1 slice of whole grain toast (C)  
with 1 egg (P)
  - ½ cup steel-cut oats (C)  
and 4 walnut halves (F)
  - 1 small apple (C)  
and 1 Tbsp. nut butter (F)
  - 4 oz. Greek yogurt (C,PF)  
with ¾ cup blueberries (C)
  - 1 cup sliced carrots (C)  
and 2 Tbsp. hummus (C,P)
  - 1 medium tomato (C)  
with 2 Tbsp. avocado (F)
- In addition to your snack:
- Suggested medical food (C,PF)

For additional information on creating a healthy plate, ask your provider for the FirstLine Therapy Phyto Power Plate handout.





### **Activity: create my healthy plate**

First, on the empty plate below, fill in the blanks with the appropriate food category names. Then using the items on your food list, write, draw, or cut and paste pictures that depict a well-balanced, healthy meal that you would eat.

**Food category name:**

**Food category name:**      **Food category name:**

## The ABCs of behavior change

Many people recognize behaviors that are beneficial to our health and wellbeing, such as eating a balanced breakfast, going for a walk, and getting adequate sleep each night. However, over time, we tend to develop habits that no longer support a healthy way of living. In this session, you will learn about the ABCs of behavior change by understanding how negative habits are formed, discussing ways to create positive habits, and discovering what drives negative behavioral patterns that derail our efforts to achieve our goals.

<b>A ANTECEDENT</b> <sup>11</sup>	<b>B BEHAVIOR</b> <sup>11</sup>	<b>C CONSEQUENCE</b> <sup>11</sup>
<p>The event or emotion that is happening prior to the negative behavior—feelings such as anger, boredom, or sadness can make us sensitive to unwanted behaviors</p> <p><b>Example:</b> A stressful day at work triggers you to snack on junk food when you get home</p>	<p>The negative behavior you want to change</p> <p><b>Example:</b> Snacking on junk food when you get home</p>	<p>The action or emotions that follow the negative behavior</p> <p><b>Example:</b> Higher blood sugar, weight gain, negative thoughts</p>

### Suggestions to help with behavior change:

- Keep healthier food choices in sight (fruit bowl on the table, precut vegetables in the refrigerator)
- Limit eating to kitchen and dining spaces only
- Limit other activities while eating (watching TV, reading, video games)
- Make a grocery shopping list and don't go to the supermarket when you are hungry
- Avoid ice cream, candy, chip, and snack aisles while shopping

<b>Below is a sample of a potential action plan for changing behavior:</b>	
<b>Obstacle</b>	A stressful day at work triggers you to snack on junk food when you get home.
<b>What behavior do I want to have?</b>	Choose a healthy snack or engage in physical activity after work.
<b>What are some possible solutions to help me overcome this obstacle?</b>	<ul style="list-style-type: none"> <li>• Leave a bowl of fruit on the counter</li> <li>• Listen to calming music on the way home</li> <li>• Go for a walk after work</li> <li>• Call a friend to discuss the day's events</li> </ul>



## **Activity: identifying the ABCs of unhealthy eating**

### **Antecedent**

As you review the ABCs of behavior change, can you identify a situation that has caused you to eat unhealthy foods or be inactive? Was there a specific time of day? Or a specific feeling that you experienced? Was there a specific activity in which you were participating? Are there certain foods that trigger unwanted eating behaviors?

### **Behavior**

What was the negative behavior in response to this situation?

### **Consequence**

Describe the consequences of that negative behavior. Now that you have identified the antecedent and the responding negative behavior, what is a new way you can handle this situation?

# PHYSICAL ACTIVITY

## Importance of strength

### Strength/resistance training

In healthy adults, muscle mass typically starts to decline around age 30 at a rate of 1-2% per year. A physically inactive adult can expect to lose 3-5% of muscle mass and strength per decade after the age of 40 years.<sup>12</sup> However, resistance training can help to offset this deficit by maintaining lean muscle mass.

Research during the past several decades has confirmed many additional benefits of strength training, including:<sup>13</sup>

- Reduced insulin resistance
- Decreased abdominal fat
- Increased resting metabolic rate
- Reduced risk factors for falls
- Improved function in patients with osteoarthritis
- Increased bone mineral density
- Increased endurance performance
- Normalized blood pressure in pre-hypertensive patients

Resistance training is described as an activity where the muscles work against a force or gravity, causing the muscle to contract. This contraction helps to build strength. Whether you use resistance tubing, hand weights, exercise machines, or your own body weight as resistance, the result is that the muscle becomes progressively stronger with greater resistance.

### Current guidelines for resistance training include:<sup>5</sup>



**Frequency:** 2-3 times per week on nonconsecutive days



**Intensity:** Moderate to vigorous



**Duration:** 5-10 exercises per training session, 2-3 sets of 8-15 repetitions per exercise beginning with high repetitions (10-15) and low resistance and progressing to low repetitions (8-10) and high resistance

Review the physical activity plans in Appendix I to get started or consider working with a certified personal trainer to develop a strength training program that is specific to your level of fitness or intended goal.

## Dangers of prolonged sitting

Americans spend about 55% (7.7 hours) of waking time taking part in sedentary behaviors such as sitting.<sup>14</sup> Although we may not realize it, many “activities” that we engage in on a daily basis, such as commuting, working at a desk, watching television, and surfing the Internet, all contribute to our sitting time. It should come as no surprise that extended sitting time is associated with an increased risk for obesity, cardiovascular disease, and diabetes. To make matters worse, recent research indicates that it even has a negative impact on the health of individuals who engage in the recommended amount of physical activity.

The good news is that getting up and moving for at least two minutes of every hour can help lower the risks associated with long-term sitting. Break up the time that you spend sitting by taking a short walk around the office or use the “deskercise” routine below. Remember this is not a substitute for your daily activity and instead should be used to complement your daily exercise regimen.

1



Lift one leg off the seat, extend it out straight and hold for two seconds; then lower your foot (stop short of the floor) and hold for several seconds.

2



Place both hands on your chair arms and slowly lift your bottom off the chair. Lower yourself back down but stop short of the seat; hold for a few seconds.

3



Sitting tall in your chair, stretch both arms over your head and reach for the sky. After 10 seconds, extend the right hand higher, then the left hand.

4



Place your hands on the desk and hang on. Slowly push your chair back until your head is between your arms and you're looking at the floor. Then slowly pull yourself back in.

5



Stand up and perform a football foot drill. Rapidly tap your feet in place, simulating a run. Do the same thing while seated for 30 seconds at a time.

6



Use a full water bottle as weight to increase the difficulty of your workout. You can do front raises, overhead presses, and bicep curls with a water bottle.

7



Sit on the edge of your chair and stretch your arms out in front of you. While keeping your back straight, contract your abdominal muscles. Relax and repeat.

8



Let your head roll over so that your right ear nearly touches your right shoulder. Using your right hand, gently pull your head a little lower. Hold for 10 seconds. Relax, and repeat on the other side.

# MOVING FORWARD

## To-do list:

- ▶ Follow your personalized food and physical activity plan
- ▶ Log your food and activity daily
- ▶ Work toward achieving the biweekly goal you set for yourself

**Next appt: date** \_\_\_\_\_ **time** \_\_\_\_\_

Before your next session take a few minutes to:

- ▶ Review your food, activity, and lifestyle goals

## What have you done well?

- 1.
- 2.

## Where do you think you can improve?

- 1.
- 2.

## What actions did you take toward meeting your goals (one for each goal set)?

- 1.
- 2.
- 3.

## What challenges did you face?

- 1.
- 2.
- 3.



**Notes:**