



Lesson # 4

Carbohydrates and Grains

Time Table

Total Time: 30 minutes

- 2** Minutes: Introduction to Lesson
- 10** Minutes: *Grains and Carbs* PowerPoint Presentation
- 5** Minutes: Bad and Good Carbs Board Activity
- 10** Minutes: Activity: *Which Carbohydrate is Healthier?*
- 3** Minutes: Explain Take Home: *Parent Tips and Kidz Pantry*

Goal: Introduce young children to the importance of grains as the base of a healthy, balanced diet and help them distinguish between the different types of carbohydrates.

Objectives:

Students will:

1. Understand the importance of carbohydrates.
2. Learn the difference between simple and complex carbohydrates.
3. Learn the difference between refined and whole grain products.
4. Be able to list carbohydrates that are healthy for them.

Materials:

- Blackboard or poster paper
- Chalk or marker
- PowerPoint: *Carbohydrate and Grains* Presentation
- Activity: *Which Carbohydrate is Healthier?*
 - a. Pencils or crayons
 - b. Instructor's answer key
- Take Home: *Parent Tips and Kidz Pantry*

Instructions:

1. Begin the lesson with a quick review of the previous lesson on how to track your food intake and ask the students to give some examples of foods they commonly eat according to the FFQ they took last time.
2. Tell students that today's lesson focuses on carbohydrates and grains. They will be able to distinguish the good carbs from the bad carbs and be able to pick healthy foods with complex carbs in them.
3. Ask students if they have ever heard of the word, "carbs" or "carbohydrates" and if anyone knows what they are.
4. Explain the following topics for students to get a better understanding of what carbs are and what they can do for them.

The 6 nutrients in foods

- Carbohydrate
- Protein
- Fat

- Water
- Vitamins
- Minerals

Food provides us 6 nutrients that keep us alive and healthy. We will talk about carbohydrates today and will cover all the other nutrients later. Carbohydrates (sugar) are in **almost** everything we eat, but some foods are sweeter and have more carbs in them than others.

What is a carbohydrate?

Carbohydrates (carbs) are the main energy source for your body. The body breaks down the carbohydrates to make sugar. Sugar is food for the brain and your whole body.

Why should we eat carbs?

- Carbs give us **ENERGY!**
- Energy is needed to do things like: walk, swim, play, breathe and think.
- Carbs are broken down into sugar in the body and provide us with energy.

Explain that there are two types of carbohydrates: simple and complex carbohydrates. The simple carbs such as soda and candy break down (digest) quickly in the body, while complex carbohydrates such as whole grain bread, fruits, and vegetables take a long time to break down (digest).

Split the black board or poster into two columns; one for "complex carbohydrates" and the other for "simple carbohydrates". Explain that **complex carbohydrates** are considered "good" carbs because they take longer for your body to break them down (digest) and are usually packed with fiber, vitamins and minerals. Under the Complex Carbohydrate side, write "good carbs". Next list a few complex carbs in the column. Ask students if they can add any others to the list. Some examples include:

Complex Carbohydrates: ("Good Carbs")

- Fruits and vegetables
- Whole grain bread or cereal
- Whole wheat and corn tortillas
- Brown rice
- Lentils and beans

We like carbohydrates that take **a longer time** to break down or digest because this slowly releases energy throughout the day so we don't feel hungry all the time. Think of it this way, when there isn't enough carbohydrates (sugar) in the blood we feel hungry because the body wants more sugar in the blood to keep everything normal. If we eat complex carbohydrates, sugar is released into the blood in little portions over a longer period of time so we will stay full for a longer time.

Once you have the complex carbohydrate side finished move onto the simple carbohydrate side. Explain that **simple carbohydrates** are known as "bad carbs" because they are broken down quickly and contain a few vitamins and minerals. Under the simple carbohydrate side of the chart write "bad carbs". Also write "limit" in this category to show the students that they should limit the amount of simple carbohydrates they eat. Start a list of foods that are simple carbs; once you have written a few examples ask the students to help finish the list. Some examples are:

Simple Carbohydrates: ("Bad Carbs and limit")

- Concentrated fruit juices and sodas
- White rice/ pasta
- White bread or tortillas
- Bagels, donuts, muffins, cake, etc.

- Cookies, chips, and candy
- French fries or hash browns

A high-sugar diet may lead to weight gain and can also lead to tooth decay.

What are grains and how do they give us complex carbohydrates?

Grains make up at least 1/4 of your daily plate requirements. This is the foundation of our diet and we should have the most amount of this food in our diet.

Sources of Grains: Bread, crackers, pasta, rice and cereal.

Example: Choosing white bread or white pasta vs. whole grain bread or brown pasta? These foods are part of the grains group in the food guide pyramid and I will show you how to tell if they are a complex or simple carbohydrate.

- Refined grain (usually white in color) products are mostly simple carbohydrates and will not make you feel full for a long time.
- Whole grain (usually brown or tan in color) products are mostly complex carbohydrates and keep you feeling full for a long time. They also have other nutrients in them such as fiber, vitamins and minerals.
- Which one do you think is better for you?
 - The whole wheat grains (brown or tan colored).

The best thing for your body is to eat a variety of grains to give your body long lasting energy. You will feel full and get the best energy this way.

Student's Goal:

Eat more whole-grain products! Try going shopping with your parents and help them pick whole grains and complex carbohydrates.

Activity: *Which Carbohydrate is Healthier?*

- Print the "Which Carbohydrate is Healthier?" worksheet for each student.
- Provide students with a pencil or crayon and a worksheet.
- Students need to circle the food that is healthier for them. They should be able to do this based on the information taught in class or the PowerPoint.
- After the students have completed the activity, share the answers with them. The instructor's answer key is provided on the website.
- Collect the activity sheets and put them into each student's personal *Fit4kidz* binders or folders.

Take Home: *Parent Tips and Kidz Pantry*

- Print a "Parent Tips and Kidz Pantry" worksheet for each student.
- This activity will be sent home with the students to be completed and viewed by the parents.