

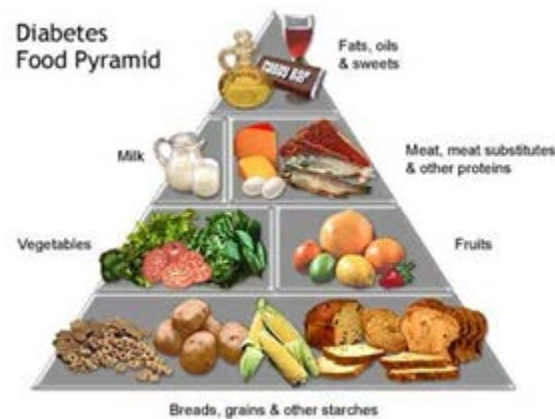
# Module 2: Dealing with Diabetes

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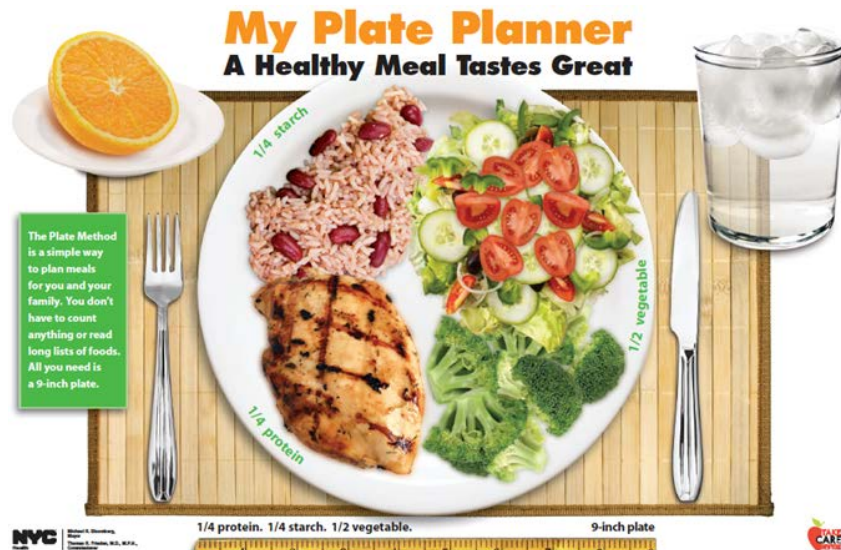
## Eating Healthy if You Have Type 2 Diabetes Without Insulin

When you have Type 2 diabetes, you may or may not need to take insulin. If you are someone who does NOT need to take insulin, it's possible that you may not ever need to take any if you watch what you eat. You just need to be careful with what you eat and keep your blood sugar within the guidelines your doctor has given you. It is best to avoid foods that are sweet or have a lot of sugar in them because they will cause your blood sugar to get very high. Some kinds of food turn into a lot of sugar when you eat them. Those kinds of foods are called “carbohydrates”, or “carbs”, for short.



## Using Your Plate for Type 2 Diabetes Without Insulin

If you have Type 2 Diabetes and do NOT need to take insulin, then the best thing you can do is eat healthy! The Plate Method is a really easy way to make sure you are choosing the right foods. The idea is to separate your plate into different types of foods. Make sure you eat every meal with the right varieties. You can read more about how to plan a healthy meal in the other sections.



## Eating Healthy if You Have Type 1 Diabetes and Type 2 Diabetes with Insulin

When you have Type 1 diabetes, your body does not make the insulin you need to allow the sugar in your blood to enter the cells in your body. For people with Type 1 and some with Type 2, you have to provide your body with insulin, either by a shot (injecting insulin with a syringe) or an insulin pump. This can be very tricky because you need to adjust the amount of insulin you take based on what you eat and how much energy you use. (see the Managing Your Diabetes: Medication module) This is something that your body does automatically if you don't have diabetes.

Some kinds of foods make a lot of sugar when you eat them. Foods that are sweet to begin with, really add a lot of sugar to your body. If you have to take insulin, you need to adjust your medicine to match that extra amount of sugar. Your doctor will explain the exact way to do this. It is important that you do not eat a lot of sweet foods or foods that turn into sugar very quickly when you eat them. We'll talk about those kinds of food later on.



## What are Carbohydrates?

Carbohydrates are found in foods that are made with flour like bread, muffins, or spaghetti. Carbohydrates are also in foods that have sugar – even if the sugar is natural as in fruits and some vegetables. When you eat carbs, your body turns them into sugar. That extra sugar can cause a problem if you have diabetes. Foods that are low in carbs include meat, cheese, lettuce, and greens like collard, spinach, and mustard.

### Key Points You Need to Know:

1. Your body turns carbs into glucose.
2. Your body uses insulin to move glucose into the body's cells where it is used for energy. When you have type 1 diabetes, your body doesn't make insulin.
3. Balancing insulin with carbs at each meal and snack can help keep your blood glucose closer to what they are supposed to be.

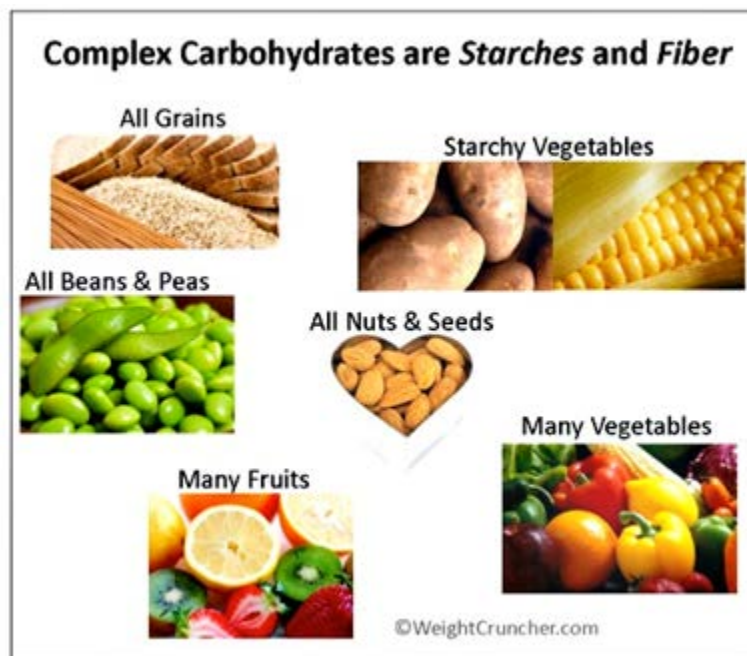


## Are There Different Types of Carbohydrates?

Yes, there are different types of carbohydrates and some are better for you than others. There are two major types of carbohydrates (or carbs) in foods: simple and complex.

Complex carbohydrates are usually those that haven't been changed from how they are in nature. For example, rice is brown but when it is processed, the healthy parts of the rice that make the brown color are removed. The white rice that remains is less healthy for you. Companies process foods to make them more like what they think people want. White rice cooks faster and is fluffier than brown rice. Unfortunately, it is just not as healthy for you.

The healthy parts that are removed when carbohydrates are processed usually have something called “fiber” in them. Fiber is something that our bodies cannot digest, but it helps move the food we eat through our bodies. It also slows down the process of changing food into sugar in our bodies. That is very important for someone who has diabetes. You do not want a big burst of sugar in your body because your body can't handle it.



## Simple Carbohydrates

When the healthy parts of carbohydrates and the fiber are removed, what is left is called a simple carbohydrate. Simple carbohydrates are found in processed foods that are made with white flour, and in foods that have a lot sugar and no fiber. Foods that are made with white flour and sugar are really bad for people with diabetes to eat because they add a lot of sugar to your blood very fast. White bread is an example of a simple carbohydrate. Cookies, donuts, cake, and other desserts made with white flour and lots of sugars are especially bad for people with diabetes.

Bread that is made from wheat that still has the healthy part of the wheat grain are a little darker in color, but are much healthier for you. That kind of bread will say “whole grain” on the package. It will have the good parts of the wheat, which helps slow down the way the bread is digested in your body. If you have diabetes you don’t have to give up bread. Just be careful to eat bread that is made from whole grain.

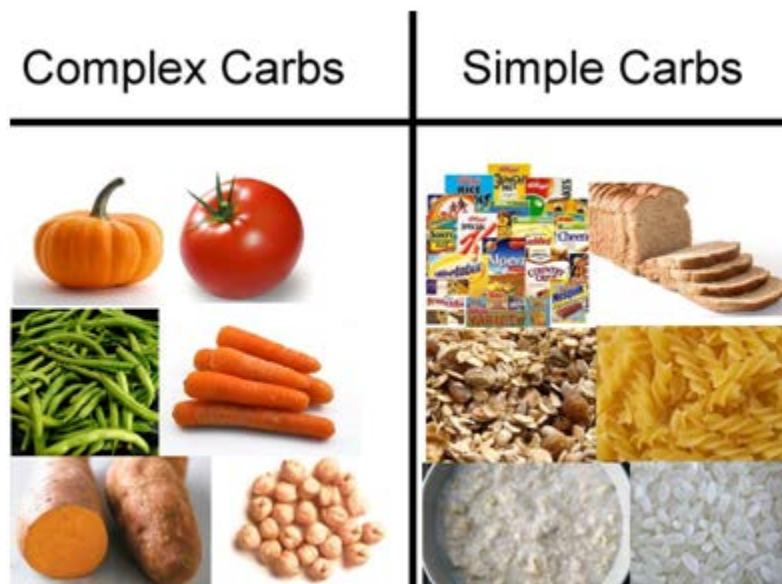




## How Does the Body Use Carbohydrates?

Carbohydrates are broken down into sugar in your body. If you eat simple carbohydrates, they are changed into sugar very fast and the amount of sugar in your blood jumps up, or “spikes”. When you have diabetes, this spike of blood sugar is very bad for you.







When you eat complex carbohydrates, the fiber slows down the way your body changes the food to sugar so that you don’t have the same kind of spike. You need carbohydrates in your diet for energy. Just be sure to eat complex carbohydrates. For example, an orange is much better for you to eat than orange juice. An orange has all the natural fiber that will help slow down the way your body produces sugar when you eat one. When you drink orange juice, it turns to sugar very quickly and causes a big jump in your blood sugar. Many foods are better for you when you eat them in their natural state – an apple is better than apple juice, a tomato is better than ketchup, and a baked sweet potato is better for you than sweet potato pie.





## Understanding Which Food Have Carbs

It's a good idea to understand what types of foods have carbs and which ones don't so you can make sure to have a balanced meal. A good meal includes a balance of carbs, proteins, and good fats.

FOODS WITH LITTLE OR NO CARBS			FOODS WITH CARBS		
<b>Vegetables (Non-starchy)</b> Serving Size: ½ cup cooked, 1 cup raw 25 Calories	<b>Meat</b> Serving Size: 2-3 oz (palm of hand) 150 Calories	<b>Fat</b> Serving Size: 1 teaspoon 45 Calories	<b>Grains, Beans, Starchy Vegetables</b> Serving Size: ½ cup 15 Carb grams 80 Calories	<b>Fruit</b> Serving Size: ½ cup juice, 1 cup cut 15 Carb grams 60 Calories	<b>Milk</b> Serving Size: 1 cup 12 Carb grams 80 Calories
					
Celery, zucchini, carrots, cauliflower, greens, peppers, and tomatoes	Lean meat, fish, chicken, or eggs, cheese, and peanut butter (2 tablespoons)	Cooking oils, mayonnaise, margarine, or low-fat salad dressing	Pasta, rice, corn, peas, potato, hot and cold cereal, 1 slice of bread	One small apple, orange, banana or pear, ½ small grapefruit, 15 grapes	Fat-free or 1% milk, yogurt, buttermilk, soymilk

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## How Food Labels Can Help

For foods that come in packages, the best place to find the carb count is on the Nutrition Facts label. The grams of total carbohydrate on the label are the key to carb counting. Don't worry about counting the sugar and fiber grams. They are included in the total carb number. Check out this food label as an example:

Check serving size. Information on the label is based on the serving size

See how many grams of carb are in each serving

Decide whether the food fits into your meal plan

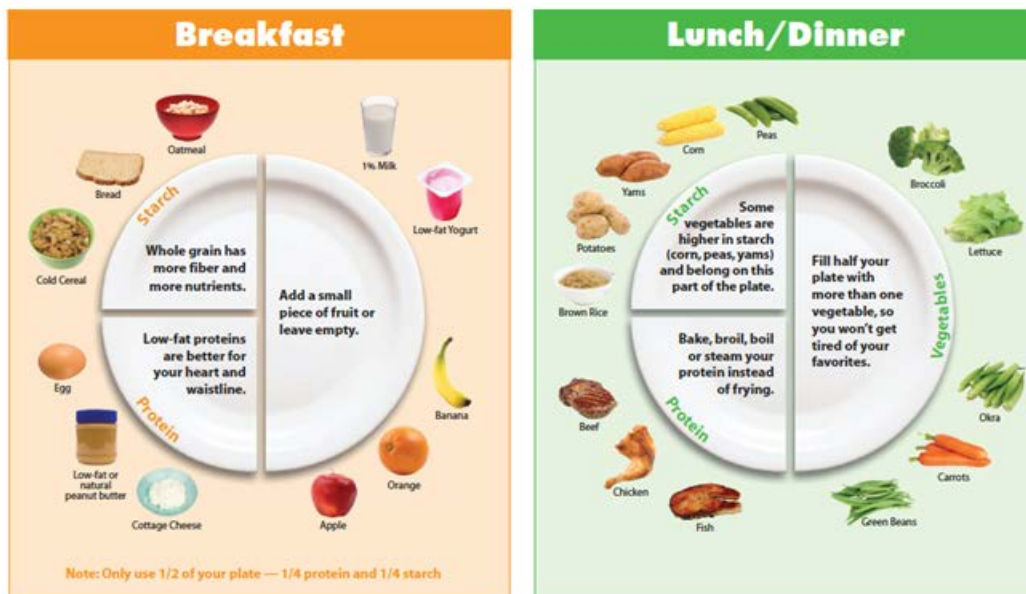
Nutrition Facts	
Serving Size 1 cup (40g)	
Servings Per Container 2.5	
Amount Per Serving	
<b>Calories</b> 150	<b>Calories from Fat</b> 10
% Daily Value*	
<b>Total Fat</b> 3g	4%
Saturated Fat 0.5g	2%
Trans Fat 0g	0%
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 10mg	1%
<b>Total Carbohydrate</b> 24g	9%
Dietary Fiber 4g	15%
Sugars 1g	
<b>Protein</b> 5g	
Vitamin A	4%
Vitamin C	2%
Calcium	20%
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.	

## What is a Meal Plan and Why Do You Need One?

A meal plan is when you plan out what you are going to eat for the day in order to keep your blood sugar under control. If you have a plan, it makes it easier to keep track of what you are eating and to make sure you are eating the right amount of the right foods. It can help you build a schedule of what and when to eat.

Your doctor or another member of the medical staff will help you figure out a meal plan that's right for you. Here's the best example of balancing your food:

### Let's Plan Your Meal



## Types of Meal Plans

There are different types of meals that you can plan.

Some plans try to space the carbohydrates you eat evenly over the day so that you don't get big jumps in your blood sugar. This is called the constant carbohydrate meal plan. With this plan, you:

1. Eat a certain amount of carbohydrates, or carbs, in each meal and snack
2. Then you would take insulin or other diabetes medicines at the same times and in similar doses each day.
3. You could stay on track by using food labels to see how many grams of carbs you are eating.

Other plans have you count the carbohydrates you eat with each meal by checking food labels to see how much is in each food item you eat. This is called the carbohydrate counting meal plan. With this plan, you :

1. First, count carbs so you can match your insulin doses with the amount of carbohydrates you eat. Counting carbs means that you keep track of the number of grams you eat per meal. The best way to find out how many carbs are in something is to look at the food label.
2. After seeing how many carbs you are eating, you then match your insulin dose to the amount of carbs.
3. This plan works best for people who take a dose of insulin (as a shot or with an insulin pump) with each meal.

Another type of plan tells you how much of certain kinds of foods you can eat. How much you can eat is called a "serving size". For example, a serving size may be one apple or half a cup of corn or a whole cup of cooked oatmeal. With this meal plan, foods are divided into six groups: starch, fruit, milk, fat, vegetable, and meat. You will need to make sure you get the right amount of food for each group.

Whatever plan your doctor suggests, once you get used to it, it should be easier to control your blood sugar and to figure out how much insulin you may need to take.

## Eating Out with Diabetes

While you are learning to adjust what you eat to keep your diabetes under control, it may seem hard to do. The basic rule is to make sure that you eat healthy foods that are not likely to cause spikes in your blood sugar and to watch how much of any food that you eat. Get to know what serving sizes are right for the foods that you eat.

Your doctor's office will have information to help with this. Some restaurants serve very large amounts of food – more than you should have for one serving of any one thing. Jumbo size servings may seem like a bargain, but they are not bargains if they cause health problems for you.



## Quick Tips for Eating Out with Diabetes

Try these tips when you're eating out:

1. If you are not sure what is in something that you are ordering, don't be afraid to ask. Some dishes may have sugar added, even if they are not sweet. Ask the person who takes your order if you have any questions about what is in a meal or how it is prepared. Some restaurants and fast food places provide information on the amount of sugar, salt, fat, calories, and carbohydrates on their menu or have it available to look at.
2. If something that you should not eat is offered as part of a meal, see if you can substitute that item for something healthier. For example, you might ask to have a baked potato instead of fried potatoes or to have salad dressing served separately so that you can control how much you put on your salad. Don't be shy about asking for what changes you need. People do this all time, whether for health reasons, allergies, or just taste preferences.
3. Watch out for sauces and gravies – they usually have a lot of fat and can add a lot of calories to a meal. Ask that they be served in a separate dish so that you can control the amount you add to your plate.
4. If you are served a large amount of food, ask for a “to-go” carton before you start eating and put a part of your meal in there right away. That way you won't be tempted to eat the whole thing – and you will have another meal for later!
5. Stay on your meal plan! No matter whether you are eating at home, school, or a restaurant you must be on guard to protect your health. You can get information and diet advice from your doctor and other health professionals, but only you can control what you put in your mouth.



## Staying True to You

Sometimes when you are out with friends, they may be eating things that you know aren't good for you. This can be hard. Here are a couple ideas that might be helpful:

1. Balance your wants with you shoulds

Wants = things you want that feel good

Shoulds = you know you need to take care of yourself so you don't get sick.

Try to keep a balance of wants and should. It is ok to ask others for help or say "no" when you need to.

For example:

"I really want to have some of your birthday cake, but I know I can't. I'm really happy it is your birthday though." "It is hard for me to be the only one eating healthy sometimes, can you be a good friend and help me remember ?

2. Build your self-respect

It can feel good to stand-up for yourself and feel good about your ability to stick to your goals.

These are two ways to build what we call your Interpersonal Effectiveness. [CLICK HERE](#) if you want to learn more!



## Learn More Information

If you want to read more about any of the topics in this module, here are the websites where information is from so you can read more:

To learn more information about Diabetes in general, KidsHealth offers a lot of information that is easy to understand. [Click here](#) to visit their website.



To learn more about how to make healthy food choices, visit [Choose My Plate](#). It's a website by the government that has different activities and games that helps you make better decisions about what to eat.

The International Diabetes Federation offers a guide for families to learn more about how to count carbs. [Click here](#) to get the guide.

Great job! You're another step closer to finishing the CHECK Diabetes Online Program. Hopefully you now know more about food and how it affects your diabetes.

Now you can move on to the next topic, which talks about the different types of diabetes medicines.

