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How you eat plays an important part in managing your diabetes. The key focus for people with diabetes should be the amount of carbohydrate that is eaten.

Carbohydrate is found in most foods (milk, fruit, vegetables, beans, grains, and desserts). There are three types of carbohydrates in food: sugar, starches, and fiber.

- 1) Sugar is found naturally in milk and fruit. Desserts have sugar added to them to make them sweet. Milk and fruit may have sugar added when processed.
- 2) Starch is found in grain products, beans, and some vegetables (potatoes, peas, corn, and winter squash).
- 3) Fiber is another carbohydrate found in grains, beans, fruits, and vegetables. Fiber is not digested or absorbed by the body. For this reason, it does not raise blood sugar.

Both sugar and starch raise blood sugar levels the same. A gram of carbohydrate is a gram of carbohydrate whether it comes from sugar or starch. This is the reason it is important to pay attention to the total amount of carbohydrate eaten and not just the amount of sugar. This is called carbohydrate counting.

To carbohydrate count, you can use the American Diabetes Assoc. exchange lists. There are 3 carbohydrate groups: milk products, starches/grains, and fruit. A serving in each of these groups has approximately 15 grams of carbohydrate.

Milk Products 1 cup milk 3/4 cup yogurt

Starch/Grains 1 slice bread 1/2 bagel (2 ounce), or English muffin 1/3 cup cooked rice, pasta 1/2 cup cooked corn, peas, potatoes, beans Fruit (unsweetened) 1/2 cup fruit juice 1/2 cup canned or fresh fruit one small fresh fruit



It is important to pay attention to serving sizes. Take time to measure food so you know how much you are eating. With practice, you can become good at estimating amounts of food. However, review portion sizes by actually measuring food every three months.

Food labels also provide a way to count carbohydrates: 1) look at the serving size; find the total grams of carbohydrate (ignore sugar grams); 3) multiply total carbohydrates by number of servings eaten.

There are also books available that have the amount of carbohydrate for many different types of food.

Exercise

Exercise plays an important part in a healthy lifestyle, especially if you have diabetes. It is recommended that you exercise at least 3 times a week for 20-30 minutes each time.

Research has shown that any increase in exercise is beneficial. So if you can't exercise for 30 continuous minutes a day, try breaking it up into three 10 minute segments.

Choose activities that you enjoy doing and that can fit

into your schedule. One of the best ways to exercise is to walk, but you don't have to limit yourself to just walking.

Whatever kind of exercise you choose, it is important to check with your doctor, and

then begin slow. Increase time and how hard you exercise slowly.

Check your blood sugar before and after you exercise. If your blood sugar is low, eat a food with 15 grams of carbohydrate to raise it. Wait 15 minutes and check blood sugar

again. Repeat process until blood sugar is within normal ranges.

If you have type I diabetes and your blood sugar is higher than 240, check your urine for ketones. Do not exercise until blood sugar and ketones are within the normal range.

Exercising will lower blood sugar. Stop exercising and check your blood sugar if you feel like your blood sugar is low. Always take food with you with carbohydrate in it or glucose tablets when exercising to treat low blood sugar.

Ideas to Increase Physical Activity

- Walking
- Jogging
- Swimming
- Dancing
- Biking
- Jumping rope
- Cross-country or downhill skiing
- Sports: basketball, tennis, etc.
- · Mowing the lawn
- Raking the leaves
- Taking the stairs

False Beliefs about Eating with Diabetes

*False: If you have diabetes, you have to eat differently than the rest of your family.

True: People with diabetes can and should eat the same foods as anyone else. You just have to know how to manage your food so that your blood sugar stays in control.

Carbohydrate foods are the ones that will raise your blood sugar. While it doesn't matter the source of the carbohydrate (sugar or starch), it

does matter how much you eat. (As with the general population, you should try to keep concentrated sources of carbohydrate, like sweets, pop, etc. to a minimum.)

It is important to eat the about same amount of carbohydrate at about the same times every day if you are on oral medication or only two shots of insulin a day. Also, eating carbohydrate throughout the day instead of all at the same time is a good idea. If you are on a more intensive insulin therapy (multiple shots or a pump), eating about the same amount of carbohydrate throughout the day is still a good idea. This way your body knows what to expect and how to respond.

*False: If you have diabetes, you can eat as much as you want as long as the food does not contain sugar.

carbohydrate is a carbohydrate. It doesn't matter where the carbohydrate comes from your blood sugar will be changed the same. Most people with diabetes can eat sugar as long as it is counted in

their total carbohydrate for the day and compensated for by eating less of other carbohydrates. The key is to eat about the same amount of carbohydrate every day.

*False: If you have diabetes, you should not eat too many starchy foods, because starch raises your blood sugar and makes you gain weight.

True: Like any carbohydrate, starch does raise your blood sugar, but this does not mean you need to avoid them.

Through carbohydrate counting, you can figure out if the amount of carbohydrate you are eating fits into your meal plan.

Starches, alone, do not make you gain weight. In fact, most starches are low in calories. Often what we add to starchy foods are high in calories and fat (like butter, sour cream, mayonnaise, etc.).



Weight gain is caused by eating more calories than we burn regardless of the source of the calories. Eating too much food of any kind will cause weight gain.

*False: If you have diabetes, you have to only eat foods sweetened by sugar substitutes instead of sugar.

True: For most people with diabetes, sugar can be included in your meal plan. Sugar will not raise blood sugar faster or higher than any other carbohydrate. However, sugar does need to be included in carbohydrate counting. If the amount of sugar is more than what is planned for, you can just eat less of other carbohydrate if you are taking oral medication. If you use insulin, doses can be set with a certified diabetes educator to cover that eaten.

For someone who is using healthy eating and exercise for treatment without any oral medications or insulin, sweets do need to be considered. In this case, concentrated sweets (those with added sugar) should be rarely consumed to prevent blood sugar from

raising too high without a way to bring it back down.

Sugar substitutes do provide a safe way to satisfy your sweet tooth without the added carbohydrate. Some products with sugar substitutes are better than others. Do not be afraid to try sugar substitute products to find some that work for you.

*False: If you have diabetes, you should not eat at a restaurant because you don't know the amount of carbohydrates in the food.

True: There is no need to go without eating out because you have diabetes. You can closely estimate the carbohydrate content of the food you eat through the carbohydrate counting. There are many books available with the carbohydrate content of food from most restaurant chains. Many restaurants have the nutritional content (including carbohydrate) of the food they serve. Just ask for it.

*False: If you have diabetes, you have to throw out your favorite family recipes.

True: You don't have to go out and buy a new cookbook made specifically for those with diabetes. Most recipe books today include a nutritional analysis with the carbohydrate content of the food. This

is just as good as a food label if you follow the recipe.

If you have a favorite recipe that does not include a nutritional analysis, you can take it to a dietitian and have it analyzed.



NUTRITION, DIETETICS, & FOOD SCIENCES/EXTENSION

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