



## Diabetes Nutrition 101

When people hear the word "Diabetes," they often associate it with a lifestyle in which "no sugar is allowed." Despite research that suggests otherwise, this misconception is still extremely commonplace. Contrary to this belief, eating with diabetes does NOT mean you are required to purchase "sugar-free" or "diabetic" foods. It means eating a wholesome diet that includes a balance of carbohydrate, protein, and fat. A healthy, balanced diet (which includes sugar!) is an essential component for keeping blood sugar in good control and for ensuring the long-term health of a person with diabetes.

Carbohydrate is the main nutrient that affects blood sugar levels. Foods that contain carbohydrates provide a good energy source for the body because carbohydrates are broken down into sugar and then absorbed into the blood stream. Children with diabetes **need** carbohydrates for proper growth and development, but they must be eaten in balance with insulin. Protein is used by the body to help build and repair muscles and is also used to help stabilize blood sugar. For example, if a student eats an apple on its own, his/her blood sugar will rise more quickly than if they eat the apple with a piece of cheese because the cheese will slow down how fast the carbohydrates from the apple are absorbed by the body. Fat has a similar effect on blood sugar control.

Individuals with diabetes are generally placed on meal plans that are based on carbohydrate counting. Carbohydrate counting is based on two ideas: The first component of carbohydrate counting is the idea that carbohydrate is the main nutrient that affects blood sugar. Protein and fat have much less effect on blood sugar. The second component of carbohydrate counting is the idea that eating equal amounts of carbohydrates from simple sugar (such as sweets) or from complex sugar (such as whole grains) will raise blood

sugar about the same amount. The total amount of carbohydrate has more of an effect on blood sugar than the type of carbohydrate.

Children with diabetes are encouraged to choose a well-balanced diet, with the majority of carbohydrate choices coming from healthy foods such as fresh fruit, low fat milk and whole grains. Sweets can be worked into a meal plan as long as the carbohydrates they contain are accounted for, and keeping in mind that sweets, for all children, should be eaten in moderation.

Generally, most children eat 3 meals and 2-3 snacks per day. A typical meal will contain between 30 and 60 grams of carbohydrates and a typical snack will contain between 15 and 30 grams of carbohydrates.

Below are some samples of snacks and meal choices that a child with diabetes might typically be eating for lunch or a snack while at school. These meals all contain a combination of carbohydrate, protein and fat.

### Sample Lunches With Approximately 30 Grams Of Carbohydrates

- 1) Turkey, ham, roast beef and/or cheese sandwich on 2 slices of whole grain bread, 1 Pita bread, 1 English Muffin or 1 - 8 inch wrap with mustard or mayo and assorted vegetables.
- 2) 2 oz baked tortilla chips, chili or salsa, shredded cheddar cheese.
- 3) 3-4 chicken fingers, 2 Tbsp dipping sauce and cut up vegetables.
- 4) 4 pita triangles,  $\frac{1}{4}$  cup hummus, and baby carrots.
- 5) Chopped slices of turkey, ham and cheese with  $\frac{1}{2}$  cup bowtie pasta salad and 5 crackers.

### Sample Snacks With 10-15 Grams Of Carbohydrates:

Small bag of popcorn	1-ounce chex mix
15 mini-pretzels	1 ounce baked tortilla chips
8 ounces light yogurt	1 ounce baked potato chips
8 mini rice cakes	8 animal crackers
3/4 cup dry cereal	3 graham crackers
4 oz unsweetened applesauce	8 mini rice cakes

### Snacks without carbohydrates:

1 skim mozzarella cheese stick	pickles/olives
baby carrots & celery sticks	peanut butter (natural)
sunflower seeds/other nuts	