

INFORMATION ABOUT THE GRAPH BLOOD SUGAR RESPONSES OF FOOD GROUPS

Our handout *Blood Sugar Responses of Food Groups*, not to be confused with the "glycemic index" of food, is a tool we use to explain the digestion and absorption of food and the immediate or delayed impact on the blood sugar of a specific food group.

Here is a brief explanation of how it is used:

- 1) Liquid "sugar" will make the blood sugar peak as shown by the orange steep curve. It is found in fruit juices (fructose), fruit drinks (fructose and sucrose), regular soft drinks, Slurpees® (fructose and sucrose) and any other drinks (coffees/teas) containing sugar. We discourage the use of any of these "liquid sugar" drinks. Juice is recommended only as a treatment for low blood sugars.
- 2) Eating fruit is better for 2 reasons: it takes longer to eat a piece of fruit than to drink juice, and fruit provides fibre which will slow down the digestion and absorption of the sugar into the blood stream. Yet it is still a "simple" sugar and rapidly absorbed.
- 3) Simple sugars, "natural or added", are fast-acting sources of energy. They are used quickly and do not last long in the body, ~ 30 minutes. So they are not the best source of energy in the long run.
- 4) Starch is a "complex" carbohydrate and takes longer to be broken down by the body. It also last longer, ~ 2 hours. It is our best source of fuel. It helps to slow the peaking of simple sugars when eaten together. For this reason, when treating a low blood sugar, it is important to use the "simple sugar" first and when blood sugar is back to the normal range, follow with some starchy food to maintain the blood sugar in the normal range until the next meal or snack time.
- 5) Milk contains a simple sugar: lactose. Lactose has an impact on the blood sugar. Because it also contains protein and some fat, they slow down the absorption of the lactose. Milk will have a slowing down effect on fruit and starches due to its protein and fat content.
- 6) Protein is only a small source of carbohydrates as it gets broken down in the body. Its impact is to slow down the digestion and absorption of the carbohydrate-containing food. It is necessary for normal growth and development of children and helps with satiety.
- 7) Fats are not a source of carbohydrates. They primarily slow down the digestion and absorption of food. Some fat is necessary for normal growth and development.

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