



Learning to Control After-Meal High Blood Sugars

How can I manage my blood sugar?

If you are disappointed in your recent A1c reading, you may need to take a look at your post-meal blood sugar readings. Research suggests that 3 hour post-meal readings may predict the HbA1c reading more than the pre-meal readings.

Blood sugars are highest one hour after eating a meal or snack. Ideally, readings one hour after a meal should be less than 80 points higher than before the meal. This means if you are 150mg/dl before a meal, you want to be 230mg/dl or less 1 hour later.

Goals based on age ranges

Teens (12-18)

School age (6-11)

Preschool (<5 years)

One hour post-meal (postprandial goal)

less than 200mg/dl

less than 225mg/dl

less than 250mg/dl

What are strategies for reaching my goals?

To help come close to these goals, there are 3 strategies to consider:

1. exercise after eating
2. eat lower glycemic foods
3. take meal bolus earlier

Exercise

- Mild exercise for 10-15 minutes after eating can help moderate the spike in post-meal blood sugars.
- Blood flow is increased to the exercising muscles, which slows the blood flow to the GI tract and slows the absorption of glucose.

- Try to avoid sitting for long periods after eating – like going out for dinner and then to a movie.
- Ideas for activities after eating: a short walk, walking the dog, shooting hoops, ping-pong, clean-up the kitchen.

Glycemic Index (GI)

- This scale ranks food on how quickly it raises blood sugar levels. The scale is most useful when carbohydrate foods are eaten alone without other fats or proteins to affect digestion & absorption. In general, foods with fiber & fat have a low glycemic index. Solid foods have a lower glycemic affect than similar foods in a liquid form.(e.g. whole fruit is lower than juice.)
- For more information on individual foods, check out the Glucose Revolution books by Dr. Jennie Brand-Miller available in bookstores.

High GI Foods >70

bagel
white bread
most cereals
potatoes
rice
pretzels

Medium GI Foods 45-70

whole wheat bread
cookies
ice cream
bananas
orange juice
raisins

Low GI Foods <45

oatmeal
pasta
milk
chicken nuggets
apples, pears
dried beans/legumes

The GI scale has pros & cons but try being aware of it and note the effect of the foods on blood sugar readings. Ideally, foods that have a low GI should help lower the spike in after-meal blood sugar readings.

Taking Earlier Meal Bolus

- Consider your pre-meal blood sugar reading and the glycemic index of the foods you will be eating

- Even if blood sugars are within target range, it will be better to bolus about 15 minutes before eating for foods with a high glycemic index.

Timing of Bolus in Relation to Pre-Meal Blood Sugar and Glycemic Index (GI) of Food

Blood sugar reading	High GI Food	Medium GI Food	Low GI Food
Above target	30 minutes before eating	15 minutes before eating	0-5 minutes before eating
Within target	15 minutes before eating	0-5 minutes before eating	10-15 after eating
Below target	0-5 minutes before eating	15 minutes after eating	30 minutes after eating

A condensed report from the article “Strike the Spike” by Gary Scheiner, M.S., C.D.E. in **Diabetes Self-Management**, May/June 2005.

Disclaimer: This document is for informational purposes only and is not intended to take the place of the care and attention of your personal physician or other professional medical services. Talk with your doctor if you have questions about individual health concerns or specific treatment options.

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