

Dealing With “D’OH”

By Gary Scheiner MS, CDE

Have you ever finished a workout with a terrific blood sugar only to go low, out-of-the-blue, hours later? *Delayed-Onset Hypoglycemia* (or D’OH, as Homer Simpson likes to say) is a blood sugar drop that occurs several hours after an exercise session.

When D’OH Happens

Delayed blood sugar drops usually follows high-intensity, long-duration or exhaustive workouts. Examples include long-distance running, competitive soccer, or maximal weight lifting. It typically occurs 6-12 hours after a workout, but can take place up to 24-48 hours later. The timing of the drop varies from person-to-person and sport-to-sport. In my own case, playing full-court basketball in the evening usually results in a blood sugar drop the next morning before lunch, while a morning kickboxing class produces a drop in the afternoon.

Why D’OH Happens

There are two reasons why delayed blood sugar drops take place. Physical activity tends to make muscle cells more sensitive to insulin. Every unit of insulin will “cover” a greater amount of carbohydrate and

have a greater blood sugar-lowering effect following physical activity. The longer and more intense the activity, the longer and more intense the effect will be. Exhaustive exercise can also deplete the glycogen (sugar energy stores) in the muscles and liver. As muscle and liver cells replenish their glycogen stores, blood sugar levels tend to drop.

D’OH Prevention

The first step in dealing with D’OH is to determine when it happens and under what circumstances. Keeping detailed written records of the type/duration/intensity of your workouts, along with blood sugars, insulin doses and carb intake, should allow you to determine the types of activities that induce a delayed drop, as well as the timing. If you use an insulin pump, you may be able to keep these types of records in a downloadable/computerized format, but you will need to enter the workouts into the program manually. Using a continuous glucose monitor, and analyzing the data, is another excellent way to detect patterns of delayed hypoglycemia.

Once you have the ability to predict the delayed drops,

prevention becomes relatively easy. Options include:

- ✓ Reducing your basal insulin leading up to the time of the expected drop
- ✓ Lowering the bolus at the meal preceding the expected drop
- ✓ Reducing the long-acting insulin that will be active at the time of the expected drop
- ✓ Having an extra snack prior to the time of the expected drop. Ideally, the snack should be slow-digesting / low glycemic-index, such as yogurt, milk, nuts, or chocolate (Finally, a therapeutic application for chocolate!!!)

Fine-tuning the adjustment for preventing D’OH will take some trial and error, so keep good records and analyze them with the assistance of your healthcare team. As with any sport, practice makes perfect!

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