Why Do Blood Glucose Levels Sometimes Go Up after Physical Activity?

When you exercise your muscles need more glucose to supply energy. In response, your liver increases the amount of glucose it releases into your bloodstream. Remember, however, that the glucose needs insulin in order to be used by your muscles. So if you do not have enough insulin available, your blood glucose levels can actually increase right after exercise. Basically, stimulated by the demand from your exercising muscles, your body is pouring glucose into your bloodstream. If you do not have enough insulin available to "unlock the door" to your muscles, the glucose cannot get into your muscles to provide needed energy. The end result is that glucose backs-up in your bloodstream, causing higher blood glucose readings.

Here are some tips to safely exercise:

- Consult your doctor before starting an exercise program.
- If you are over the age of 35 you may need a stress test.
- Pick an exercise that you enjoy.
- Check your blood sugar before and after exercise.
- Do not exercise if your blood sugar is over 250 mg/dl and you have ketones.
- If your blood sugar is over 250 but *no ketones* are present, follow these guidelines:
  - Type 1: If blood sugars are 300 or more, test within 5-10 minutes of begining exercise. If your blood sugar is dropping, you may continue. If it is not dropping, stop exercising.
  - Type 2: Do Not exercise if blood sugars are 400 or more
- Plan exercise to prevent low blood sugar reactions.
  - Exercise 1 to 1 ½ hours after eating.
  - Always carry a carbohydrate snack (juice, glucose tablets, etc.) with you.
  - Drink plenty of fluids.
  - Wear shoes and equipment that fit well.

Find more information about physical activity and diabetes in *Staying Healthy with Diabetes – Physical Activity & Fitness* available from the Joslin Online Store.