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## Get Smart About Exercise and Hypoglycaemia

**Physical activity is an excellent tool for people with diabetes, but it must be done with a little planning and extra care.**

People with diabetes understand that physical activity is essential to leading a healthy life. It is an excellent tool for achieving weight loss, better glucose control, and cardiovascular health. Before you start any new program, however, you must visit your doctor so that he or she can review your plan.

Once your health care team approves your new exercise routine, it is important to follow a few guidelines:

### **Snack first**

Physical activity can lower blood glucose, so if you plan to exercise and take insulin, you must test your blood sugar before working out, and possibly also eat a light snack as well. Some good pre-workout snacks include a banana and a serving of peanut butter, an apple and a serving of cheese, or a small juice box. It is recommended that you see an exercise physiologist, however, to see what the right plan is for you.

### **Avoid alcohol**

Alcohol without food intake can lead to hypoglycaemia and adding exercise further increases the risk of low blood glucose. In addition, if you have alcohol with your meal after

physical activity, keep in mind that it will lower your blood glucose along with medication and any physical activity in which you have engaged.

### **Test glucose often.**

The best way to figure out how your body reacts to a new exercise plan is to test your blood glucose (sugar) before and after you engage in physical activity. Record all of the results, and make sure to bring them with you to the doctor if you have any problems trying to balance diabetes and physical activity.

### **Get into a routine**

Since physical activity significantly influences your blood sugar, establishing a regular time for exercise is crucial to keeping your blood glucose in your target range. If you plan to exercise in the evening, be aware that physical activity in the evening could mean low sugar overnight. To ward off a hypoglycemic reaction in the night, be sure to have a snack before going to sleep.

### **Skip hot tubs, saunas, and steam rooms after exercise.**

These activities all cause increased heart rate, and could lower blood glucose even after you stop exercising.

## Quick guidelines for physical activity

### People who have type 1 diabetes

If fasting glucose is 250 mg/dl or higher, check for ketones. If positive for ketones, do not exercise.

If blood glucose is between 251 and 300 mg/dl, and negative for ketones, you may exercise.

If blood glucose is over 300 mg/dl, and negative for ketones, exercise with extreme caution. Check blood glucose levels 10 to 15 minutes into exercise to make sure it is dropping. Make sure you drink plenty of water to stay hydrated.

### Children who have type 1 diabetes

Follow the guidelines above -- except that it is fine to exercise with blood glucose levels up to 400 mg/dl without ketones.

### People who have type 2 diabetes

Can exercise with blood glucose levels of up to 400 mg/dl (regardless of whether or not using insulin)

SOURCE: Joslin Diabetes Center <http://www.joslin.org/>

