Exercise: To Snack or Not to Snack

Congratulations! You’ve finally given in to the pressure to get off the couch and move a little more. You’ve joined a walking club and are hoping to lose a little weight. But, you find your weight going up instead of down. Could it be the extra snacks you’re eating to prevent your blood glucose from going too low?

Although hypoglycemia, or low blood glucose, can occur with exercise, it is not a risk for everyone with diabetes. If you have type 2 diabetes and do not take insulin or certain types of oral medication, or pills, you do not have any more risk of hypoglycemia than someone who does not have diabetes. Physical activity should result in a gradual lowering of your blood glucose over time to help you reach your blood glucose goals. So, if you do not take insulin or the oral medications listed in the table on page 2, you do not need extra food when you do physical activity. In fact, the extra food will work against the exercise in lowering your blood glucose and possibly helping with weight loss.

Are you at risk of hypoglycemia?

You are at risk of hypoglycemia if:

- You take medications that increase the release of insulin from your pancreas (see Table)
- You take insulin
  
The medications listed in the table can increase your risk of hypoglycemia when you’re physically active, although not to the extent of someone taking insulin. If you plan your exercise in advance, you may not need to eat extra snacks unless you are exercising at a time when your medication is most effective or it has been a long time since you have eaten. For example, if you exercise mid-morning on a regular basis and have low blood glucose before lunch, you can either eat a snack before you exercise or you can talk to your health care team about lowering the dose of the...
medication that is effective at that time. You can also choose to exercise when your blood glucose levels are typically higher, such as after a meal, and omit the snack.

If you take insulin, you may be able to learn how to adjust your insulin if you plan your exercise in advance. This is particularly effective if you take insulin before each meal. That way, you may not need to eat extra snacks before exercising if your blood glucose is in control unless you do vigorous activity or activity lasting longer than about 45 minutes. You can take less of the type of insulin that is effective while you’re exercising. Talk with your diabetes care team to develop a plan for how to adjust your insulin and food intake with exercise.

In general, additional snacks are needed for unplanned exercise or physical activity for those at risk of hypoglycemia. Be aware that once you’ve already taken your insulin or medication, you will most likely need to eat a snack if you unexpectedly increase your usual activity. For example, let’s say you normally take insulin in the morning and sit at your desk all day. Today, after you’ve already taken your morning dose, you find out your boss wants you to run errands all day which requires a lot of walking. The extra activity will probably mean you’ll need an extra snack. But, check your blood glucose frequently to be sure.

If you are at risk of hypoglycemia:
- Check your blood glucose before and after exercise
- Be sure to carry a carbohydrate source with you (glucose tablets, gel, hard candy, raisins)
- Be aware of the signs and symptoms of hypoglycemia (sweating, tingling, shaking, pounding heart, blood glucose below 70 on your meter)
- Adjustments in insulin or oral medication doses may be made for planned/routine exercise
- Extra snacks will usually be needed for unplanned exercise

If you are NOT at risk of hypoglycemia: No snacks are necessary.

The benefits of physical activity - improved blood glucose control, blood pressure, cholesterol, and help with weight control - far outweigh the risks. If you’re at risk of hypoglycemia, a little extra planning will help you stay safe and avoid extra calories. If you’re not at risk of hypoglycemia, forget the snacks and enjoy the benefits!

Oral Diabetes Medications That Increase Risk of Hypoglycemia
- Glyburide (Diabeta, Micronase, Glynase)
- Glipizide (Glucotrol)
- Glimepiride (Amaryl)
- Repaglinide (Prandin)
- Nateglinide (Starlix)
- Glucovance, Metaglip
Free Screenings for Early Detection of Kidney Disease

Diabetes is the leading cause of kidney disease in the United States. In its early stages, kidney disease has no symptoms. In later stages, it has a devastating impact. If you have diabetes, you are considered at high risk for kidney disease. However, you can prevent or delay kidney damage by getting treatment early.

To help identify kidney disease in the early stages, the National Kidney Foundation offers a free health screening program called Kidney Early Evaluation Program (KEEP) for individuals at increased risk of developing kidney disease. This includes anyone with diabetes or high blood pressure, or who have first-degree relatives with diabetes or high blood pressure (parent, grandparent, brother or sister). The screening includes:

- blood and urine tests to evaluate kidney function
- blood glucose check
- blood pressure check
- a health risk appraisal
- an interview with a physician

You will receive your test results within a few weeks after the screening. If you have abnormal test results, you will be advised to seek further evaluation from a doctor. If you don’t have a doctor, they will refer you to a doctor or public health facility. You will then be contacted a few months later to ensure that you receive proper medical care.

One of the goals of the KEEP program is to help people with diabetes to prevent or delay kidney disease through education and management of diabetes and blood pressure. Uncontrolled blood pressure, poor blood glucose control, high cholesterol level, and smoking all increase the risk for developing kidney disease. Several types of blood pressure medications are effective in helping to delay or prevent kidney disease.

Steps you can take to help reduce your risk for kidney disease include:

- Keep your blood glucose in good control (A1c less than 6.5-7%)
- Keep your blood pressure less than 130/80
- Keep your total cholesterol less than 200 and your LDL (bad) cholesterol less than 100
- Stop smoking
- Get tested for early kidney disease
- Take blood pressure medications than can help
delay kidney disease or slow the progression if recommended by your doctor.

The National Kidney Foundation of Georgia is very active in the KEEP program, offering early kidney disease screenings. Screenings are scheduled in Columbus and Albany in September. For information on screenings in your area, call 770-452-1539 (extension 16) in the metro Atlanta area, or 1-800-633-2339 outside metro Atlanta.

New Sweetener Combinations for Baking

Although sweets or desserts can fit into a diabetes meal plan, some desserts can pose a challenge to blood glucose control. Using only sugar in the recipe can result in carbohydrate so high that only a smidgeon of the delicious delicacy will fit into your meal plan - only enough to whet your appetite. Replace the sugar entirely with a low-calorie sweetener and the quality suffers.

Two new products, Splenda® Sugar Blend for Baking and Equal® Sugar Lite™ are both making their way into supermarkets this fall. They both combine sugar with a low calorie sweetener so you end up with 1/2 the carbohydrate of sugar alone.

Many of you have experienced the frustration of replacing all the sugar in a recipe for a baked dessert with a low calorie sweetener. The result was likely something you wouldn’t serve to your family, let alone guests. Unfortunately, sugar has certain properties that are needed for browning, texture, volume, and moistness that are characteristic of many baked desserts.

Using part sugar and part low calorie sweetener in your recipes can still give you the properties of sugar with less carbohydrate. You can replace part of the sugar with a low-calorie sweetener or you can try one of the new products. One-half cup of Splenda® Sugar Blend for Baking replaces one cup of sugar in a recipe. Equal® Sugar Lite™ measures the same as sugar, so one cup replaces one cup of sugar.

A serving of dessert using one of these new products will have less effect on your blood glucose than if you use only sugar, but the carbohydrate content and portion size still need to be considered. Any food that contains carbohydrate will raise your blood glucose. Check your blood glucose 2 hours after a meal to know how your blood glucose responds.
Recipe Corner

Chocolate Chip Cookies

- 2 ¼ cups all-purpose flour
- ½ cup firmly packed light brown sugar
- 1 teaspoon baking soda
- 1 teaspoon vanilla extract
- 1 teaspoon salt
- 2 large eggs
- 1 cup butter or margarine
- 1 (12-oz) package semi-sweet chocolate morsels
- ½ cup SPLENDA® Sugar Blend

1. Preheat oven to 375° F. Combine flour, baking soda, and salt in a small bowl. Set aside.
2. Beat butter, SPLENDA® Sugar Blend, brown sugar, and vanilla at medium speed with an electric mixer until blended. Add eggs, one at a time, mixing well after each addition. Scrape sides of bowl. Gradually add flour mixture, beating until blended. Stir in chocolate morsels.
3. Spoon rounded tablespoons of cookie dough onto ungreased baking sheets.
4. Bake cookies 9 to 11 minutes or until lightly browned. Remove from oven and cool on a wire rack.

Makes 3 dozen cookies
Serving size: 1 cookie
Carbohydrate choices: 1
Exchanges: 1 starch, 2 fat

Calories: 150  Carbohydrate: 18 grams  Fat: 8 grams  Sodium: 160 milligrams
Fiber: 0 grams  Cholesterol: 25 milligrams

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Suggested Menu

<table>
<thead>
<tr>
<th>Menu Item</th>
<th>Exchanges</th>
<th>Carbohydrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ounces grilled grouper</td>
<td>3 lean meat</td>
<td>-</td>
</tr>
<tr>
<td>1/3 cup brown rice pilaf</td>
<td>1 starch</td>
<td>15 grams</td>
</tr>
<tr>
<td>3/4 cup broccoli spears</td>
<td>1 1/2 vegetable</td>
<td>8 grams</td>
</tr>
<tr>
<td>Tossed green salad</td>
<td>free</td>
<td>†</td>
</tr>
<tr>
<td>1 tablespoon fat-free Italian dressing</td>
<td>free</td>
<td>†</td>
</tr>
<tr>
<td>3/4 cup fresh pineapple</td>
<td>1 fruit</td>
<td>15 grams</td>
</tr>
<tr>
<td>1 Chocolate Chip Cookie*</td>
<td>1 starch, 2 fat</td>
<td>15 grams</td>
</tr>
</tbody>
</table>

* This issue’s featured recipe  † insignificant

Note: Portions may need to be adjusted for your meal plan

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Dear Friend,

_Diabetes Life Lines_ is a bi-monthly publication sent to you by your local county Extension agent.

It is written by Food and Nutrition Specialists at the University of Georgia, College of Family and Consumer Sciences. This newsletter brings you the latest information on diabetes, nutrition, the diabetic exchange system, recipes, and important events.

If you would like more information, please contact your local county Extension office.

Yours truly,

County Extension Agent

Janine Freeman, Principal Writer

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Gale A. Buchanan, Dean and Director

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