Do You Know Your A1c?

Keeping track of your A1c is as easy as learning your ABCs. Since the results of your hemoglobin A1c tests have a major effect on your health, it’s very important that you know your number.

The hemoglobin A1c test (also known as glycohemoglobin) is a blood test that measures your blood glucose control over the past three months. The glucose (sugar) in your blood adheres to your hemoglobin (red blood cells). The more glucose you have in your blood, the more glucose will be attached to the hemoglobin for the entire life of the cell (about 120 days). When your hemoglobin A1c is measured, it “remembers” how much glucose has been “hanging around” in your bloodstream over the past few months. This tells you and your health care team what your long-term blood glucose control has been. This is why your doctor won’t do this test more often than every 3 months.

The American Diabetes Association says that most people with diabetes should try to keep their A1c less than 7%. That means that your average blood glucose over the 3-month period will be less than 146 mg/dl. Your target A1c may vary from this, so discuss your goal with your doctor and health care team.

Why is the test so important? The major reason for keeping blood glucose in good control is to try to avoid the devastating complications of diabetes.

![Diabetes Complications](image)
Numerous studies have shown that keeping your hemoglobin A1c below 7% can lower your risk of several of these complications. One study published in *Diabetes Care* showed that if your A1c is 10% and you lower it to 7.2%, your risk of blindness decreases by 72%, your risk of kidney failure is 87% less, painful neuropathy (damage to the nerve endings) is decreased by 68%, and your risk of a leg or foot amputation can be reduced by 67%. These are amazing statistics - and certainly well worth making the effort to lower your A1c.

It’s also very important to monitor your blood glucose with a blood glucose meter on a regular schedule to see how food, activity and your medications affect your blood glucose. But, even if you’re monitoring your blood glucose several times a day, you won’t know how long your blood glucose stays high after meals or when you’re sleeping. Your hemoglobin A1c will give you and your doctor a better overall picture. You need both types of tests to get a complete picture of your blood glucose control.

Be sure to ask for the results of your hemoglobin A1c from your doctor. Since it usually takes several days after your visit to get the test results, you can ask for your results to be sent to you or you can call to get them. The most important thing is that you know your number. If you’re not happy with the number, think about what you can do to improve it. The amount of food you eat, your physical activity, and diabetes medications all affect your blood glucose levels. Make an appointment with a diabetes educator or registered dietitian to review ways to get your hemoglobin A1c closer to 7%. Remember that you are the one who makes the day-to-day decisions that affect your diabetes. So, get to know your A1c and take action today!

**Step Your Way to Health**

If you’re the ultimate couch potato, sitting in your recliner dreaming up new excuses to avoid exercising, stop your dreaming. A new step program using an electronic device to count your steps might just be the thing to give you the motivation you’ve been lacking.

Recent studies have shown that you don’t have to attend aerobic exercise classes to improve your physical fitness and get the benefits of physical activity. You can do small amounts of activities during the day that add up to 30 minutes of moderate activity for the day. Increasing your daily physical activity or lifestyle activity can be effective in reducing
Increasing Daily Activity

Walk 10 minutes at coffee breaks
Walk during lunch
Take stairs several times a day
Park further away in parking lot
Take your dog for a walk

People who completed the 10,000 steps program stated the main benefits were “feeling better” and “having more energy” and continued to wear the pedometer even after the program was completed. The pedometer may be the extra motivation you need to increase your daily physical activity. The pedometer used in the program can be purchased for $20 (including shipping) which measures steps only, or $24 for the model that measures steps, miles, and calories. Call toll-free 888-339-2067 or go to optimalhealthproducts.com to order your pedometer. Another web source for pedometers is www.walk4life.com.

Remember that any activity is better than sitting there and thinking about it. And the amount of activity is more important than what you do. So, off the couch and go get started.

blood pressure, improving heart fitness, improving blood glucose and helping to reduce weight.

A program called 10,000 Steps has proven successful for members of a large managed care organization in Minnesota. It was designed to increase lifestyle activity in adults. Each person wears a small device on his or her waistband called a pedometer to measure the number of steps taken in a day. An inactive person takes between 2,000-4,000 steps per day; a moderately active person takes 5,000-7,000 steps each day; and an active person takes at least 10,000 steps each day. The goal of the program is to progress to a goal of 10,000 steps in a day, or about 5 miles. This meets the current guidelines of at least 30 minutes of moderate activity most days of the week.

The pedometer acts as a motivator, letting you know throughout the day how active or inactive you’ve been. People were given suggestions on how to increase their daily activity (steps) by parking further away in the parking lot, using stairs instead of elevators, taking Fido for a walk around the block instead of letting him do his duty in the back yard, avoiding drive-throughs (walk inside and clock an extra 200 steps) and walking the malls (you can get 1,000 steps per level in some malls).
Type 2 Diabetes Can Be Prevented

Are you at high risk for developing type 2 diabetes? If so, there’s good news. Results of a large study show that you can greatly reduce your chance of getting type 2 diabetes by making some modest changes to your diet and becoming more physically active.

The study, known as the Diabetes Prevention Program, was done in 27 centers nationwide with more than 3,000 people. The results showed that people at high risk of developing type 2 diabetes who increased physical activity and changed eating habits were the most successful at delaying or preventing type 2 diabetes. This group increased their physical activity by walking or riding a bike an average of 30 minutes a day. They were also counseled to make healthier food choices to help them lose weight, such as eating less fat. This group lost between 5-7 percent of their body weight, an average of about 15 lbs. These people had the best results and were able to reduce their risk of diabetes by 58 percent.

A second group was given the diabetes medication Glucophage (metformin). This was also effective in reducing their risk of type 2 diabetes, but to a lesser extent - 31% compared to a control group on no drug treatment.

People included in the study who have a greater risk of developing diabetes include certain minority groups like African Americans, Hispanic Americans, Asian Americans, Pacific Islanders, and American Indians. The trial also included people over the age of 60, women with a history of gestational diabetes, and people with a first-degree relative with type 2 diabetes. Interestingly, the over-60 group had the greatest reduction in risk of diabetes with diet and exercise - 71 percent.

This news is very important as the risk of obesity and type 2 diabetes continues to increase in Georgia and the rest of the U.S. We now have evidence to show that we can delay or prevent a disease that we once thought was inevitable. Obviously, age and other risk factors do not dictate the development of diabetes. The results of this study represent a major step toward reducing the epidemic of type 2 diabetes in this country.
Recipe Corner

Caramelized Garlic Chicken

- Non-stick cooking spray
- 4 teaspoons brown sugar
- 2 teaspoons olive oil
- 4 boneless skinless chicken breast halves
- 4 garlic cloves, minced

1. Preheat oven to 500°F. Line shallow roasting pan with foil; spray foil with nonstick cooking spray.
2. Heat oil in small nonstick skillet over medium-low heat until hot. Add garlic; cook 1 to 2 minutes or until garlic begins to soften, stirring frequently. Remove from heat; stir in brown sugar until well mixed.
3. Place 4 chicken breast halves in sprayed foil-lined pan; spread garlic mixture evenly over chicken.
4. Bake at 500° for 10 to 15 minutes or until chicken is fork-tender and juices run clear.

Makes 4 servings Exchanges: 4 very lean meats

Nutrients per serving: Calories 170  Fat 5 grams  Carbohydrate 5 grams  Cholesterol 75 milligrams  Sodium 65 milligrams  Fiber 0 grams

Source: Pillsbury Fast and Healthy Cooking, Nov/Dec 1999

Suggested Menu

<table>
<thead>
<tr>
<th>Menu Item</th>
<th>Exchanges</th>
<th>Carbohydrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 ounces <em>Caramelized Garlic Chicken</em></td>
<td>4 very lean meat</td>
<td>5 grams</td>
</tr>
<tr>
<td>2/3 cup wild and long-grain rice</td>
<td>2 starch</td>
<td>30 grams</td>
</tr>
<tr>
<td>½ cup asparagus</td>
<td>1 vegetable</td>
<td>5 grams</td>
</tr>
<tr>
<td>Tossed spinach &amp; tomato salad</td>
<td>free</td>
<td>†</td>
</tr>
<tr>
<td>1 Tbs. fat-free raspberry vinaigrette</td>
<td>free</td>
<td>†</td>
</tr>
<tr>
<td>1 cup lite, fat-free yogurt</td>
<td>1 1/2 carbohydrate</td>
<td>22 grams</td>
</tr>
</tbody>
</table>

* This month’s featured recipe  † Insignificant

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

Contributors  Janine Freeman, RD, LD, CDE - Extension Nutrition Specialist, Principal Writer and Editor
Heather Bowen, UGA Dietetic Intern

Editorial Board
Jenny Grimm, RN, MSN, CDE, Medical College of Georgia  Ian C. Herskowitz, MD, CDE, FACE
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
Janet Rodekohr, Editor
Diabetes Life Lines: Your current issue enclosed