

Spring 2005



# BARI 2Day & 2Morrow

## Message from the University of Pittsburgh Center for Minority Health, Director, Stephen B. Thomas, PhD

Dear BARI 2D Participant:

Congratulations! Because of you, the BARI 2D study can celebrate a major milestone: completing the enrollment phase of the study! The final number of patients in BARI 2D is 2,368. Not only have we exceeded our goal of 2,300 participants, but we have been able to reach our goal of enrolling a diverse group of people into the study.

Why is it so important to enroll different kinds of people into a clinical study such as BARI 2D? Most people who have participated in medical research in the past described themselves as male, white and middle class. As a result, some studies found that their results didn't apply to other kinds of people. For example, results from research on men may not apply to women, or results on white men might not apply to Asian men.

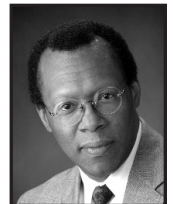
When it comes to medical research, race/ethnicity and gender are important, as we must make sure that the results can be applied to different kinds of people, no matter who they are. Despite the fact that the U.S. federal government started two new policies in 1987 requiring that more women and minorities be included in medical research, progress has been slow. That is why it is so important that the BARI 2D study has focused on increasing the participation of racial and ethnic minorities.

What do we mean when we use the terms "racial and ethnic minorities?" According to the U.S. Census, racial and ethnic minority populations include people who

identify themselves as African American, American Indian, Alaska Native, Asian and/or Hispanic. These are historical terms and some people may identify with more than one group. We know that some people prefer not to use these terms because in the final analysis, we are all members of one race: the human race. However, in medical research, it is important to understand all about the people enrolled in a study.

Today, you are part of a fundamental change in who participates in research, and we thank you. We can celebrate the diversity of the BARI 2D patient population. What researchers learn in BARI 2D can help improve the health of everyone. ■

Sincerely,



### Did you know...

*The age at diagnosis of Type 2 diabetes has decreased with time - from 52 to 46 years. Racial and ethnic differences in age at diagnosis found in 1988-1994 are no longer found in 1999-2000.*

# CUBAN BLACK BEANS & RICE

Makes 4 servings

- 1 tsp canola oil
- 3 cloves garlic, minced
- 2 Spanish onions, chopped
- 1 green sweet pepper, seeded and chopped
- 1 tomato, peeled, seeded and chopped
- 1 stalk celery, chopped
- 1 tbs vinegar
- 1/4 tsp crushed red chili pepper
- 1 cup low-sodium beef or vegetable broth
- 2 cups cooked black beans (canned beans should be rinsed)
- Salt and freshly ground pepper
- 2 cups hot cooked brown rice

Garnish:

- Chopped green onion
- Thin lemon wedges

1. In a large, nonstick saucepan, heat oil over medium heat. Cook garlic, onions, green pepper, tomato and celery, stirring often, for 7 minutes or until onion is translucent. Stir in vinegar and red chili pepper. Pour in broth.
2. Add beans; bring to a boil. Reduce heat and simmer, stirring occasionally, for about 20 minutes or until liquid is reduced. Season to taste with salt and pepper.
3. Spoon rice onto serving plate or bowl. Spoon bean mixture over the rice. Garnish with green onion and lemon wedges.

Each serving contains:

- 270 calories
- 0 mg cholesterol
- 11 g protein
- 51 g carbohydrate
- 575 mg sodium
- 563 mg potassium ■

# MOVING RIGHT ALONG: Improving Your Health with Physical Activity and Exercise

Research has found that supervised exercise programs, like aerobic and resistance exercises, improve blood sugar control in patients with Type 2 diabetes. With help from your BARI 2D team, you can better manage your diabetes by staying or becoming more active.

## Benefits of physical activity and exercise include:

- ✓ Increased stamina and energy level
- ✓ Improved blood sugar control and cholesterol levels
- ✓ Decreased insulin resistance
- ✓ Maintained weight loss
- ✓ Improved mood and sense of well being

Aerobic exercises involve repeated or continuous rhythmic movements of the large muscle groups for at least 10 minutes at a time. The intensity of the exercise may vary from light to vigorous. Resistance exercises involve the use of muscular strength to move a weight or work against a resistance such as weight lifting.

Remember: All exercise should be guided by your physician or cardiac rehabilitation program. Initial instruction and periodic supervision are recommended.

In addition to regular exercise, find ways to be more active in your daily activities. Walk to the corner store, take a flight or two of stairs, make several trips with the grocery bags or lift light weights while watching TV.

Staying active through the seasons does require motivation and imagination.

## Motivational tips:

- ◆ Ask a friend or family member to walk or exercise with you.
- ◆ Don't worry if your buddy quits or is absent; go yourself or find another buddy.
- ◆ Treat yourself to walking or running shoes or an outfit that will inspire you to get active.
- ◆ Discuss your progress or setbacks with a supportive friend, family member or health care provider.
- ◆ Talk to your BARI 2D coordinator about using a pedometer to count your steps.

## Imaginative solutions:

- Walk indoors in malls or other public buildings during cold and hot/humid weather.
- Participate in a cardiac rehabilitation program at a nearby hospital or join a local gymnasium.
- Use home exercise videos or simply move around to your favorite music.
- Exercise in an apartment building by alternating walking one floor and climbing one flight of stairs.
- Wear comfortable, weather conforming clothing.
- Set easy-to-achieve exercise goals; gradually increase the time and intensity level to your own comfort level.



Your BARI 2D team wants to help you develop and maintain your exercise program so that you can achieve your own physical activity goals. ■

*Adapted from the Canadian Diabetes Association 2003 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. pp s24-s25*

## PATIENT SUCCESS STORIES: B.A.'s Story

In June 2004, B.A. underwent cardiac catheterization and was found to have blockage sufficient to enroll in the study. At the time of entry, her BMI (body mass index) was 58.9 g/m<sup>2</sup>. The goal for BARI 2D is to have the BMI at 25 or lower. Her blood glucose was within target range, but her blood pressure and lipids (blood fats) needed to improve. At the time of entry to the study, she was not exercising, nor was she monitoring her blood glucose values.

She was randomized to receive insulin sensitizing medicines for her diabetes and to medical therapy for her heart disease. She has been focusing on diet and exercise and working with the dietitian to develop a meal plan which would work for her and her husband. She takes metformin for her diabetes and several medicines for her blood pressure and high cholesterol.

When she started walking, she would go to a store where she could hold on to a shopping cart for support, and distances could be limited. She has continued to have some shortness of breath when she exercises, but on her doctor's approval, she continues walking. In the first 9 months of the study, she lost 28 <sup>3</sup>/<sub>4</sub> pounds, bringing her BMI down to 55.4 g/m<sup>2</sup>. Her blood pressure is down, and her lipids have dropped significantly.

B.A. suffered a setback in February when she had a stroke and was left with some weakness in her right side. As her strength is beginning to return, she has resumed walking. B.A. recently began using a pedometer supplied by the study. She reported that she was surprised at how much the pedometer motivated her to walk, because it gave her a measure of what she had accomplished. She states she is currently walking 2000 "little" steps at a time, but she continues to strive toward walking further!

B.A. reports that she is very glad she decided to take part in the BARI 2D study. She is finally getting things in control and knows where she is with her health. She states, "It makes taking the pills worthwhile!" With the support and encouragement of her husband, she is pushing forward toward the goal of improved health. ■

*Please note: Each participant will have different experiences while in the trial, some of which may be less positive for various reasons.*

## FOOD FOR THOUGHT: Whose Diabetes Is It?

If you have Type 2 diabetes, it could be said that your spouse, other family members, and even close friends have Type 3 diabetes! While this is not an "official" designation, there is no denying that family and friends are affected by your diagnosis. Living with diabetes can strain or strengthen your relationships.

Diabetes is part of your life. It is with you every day, and you must take care of it. You know that uncontrolled diabetes can lead to some serious health complications. You also know that, for the rest of your life, you'll be checking your blood sugars, watching what you eat, and taking medicines and/or insulin.

But diabetes care can be a drag sometimes. If your diabetes care is less than what it could be, your family and friends may feel concerned or afraid. Your wife may worry that your health will suffer and that she may end up having to take care of you or having to be the sole breadwinner. Your husband probably feels frustrated at being so helpless to "fix" your problems. Or your children may feel that your less-than-perfect self care is done on purpose for attention or to hurt them. Such fears may result in harsh feelings and arguments.

Your family and friends can only do so much; they cannot read your mind! Ask for the support you desire. As with other problems in life, isolating yourself and dwelling on your diabetes-related difficulties can make things worse. There's no reason to go it alone.

Talk with family members about what you need from them. Do you want "tough love" in the form of frequent reminders to exercise? Or do you want positive reinforcement on the good choices you make? Would it help to have your spouse as a walking partner? Together you can schedule activity and meal times. Discuss how much of your diabetes care you, alone, are responsible for and how much can be shared.

Some people find it easier to talk to others who are not family. Talk to a friend, a member of your health care team, or someone else with diabetes. Discuss your struggles; be honest about what is bothering you and review your options. Many hospitals and communities have support groups where those in similar situations share their stories.



Diabetes in one person will affect both people in a couple's relationship, as well as other family members and friends. Coping with this challenge with support from others can help strengthen the bonds of friendship. ■

## BEAT OF BARI 2D: Do You Know Your ABCs?

At your next BARI 2D clinic visit, ask about your ABCs. These letters represent the tests we check at most of your clinic visits and determine what medication changes or lifestyle changes need to be made.

### A is for A1c.

An A1c – short for hemoglobin A1c - is the test that tells us your average blood glucose (sugar) over the last 3 months. So even if you are not fasting or you just had a Twinkie (which we're sure you didn't), we can tell your average by one simple blood test. This gives us a very accurate picture of what your diabetes control has been over the past 3 months. A single blood glucose reading is good to know for day-to-day medication adjustments, but an A1c gives us the whole picture and allows us to make well-informed decisions about your diabetes care.

The A1c goal for the study is less than 7%. A high A1c puts you at higher risk for decreased wound healing, blindness, kidney damage, dental problems, nerve damage, serious problems with your heart and blood vessels, heart attack and stroke.

### B is for Blood Pressure.

Blood pressure is always recorded as two numbers: the systolic pressure (as the heart beats) over the diastolic pressure (as the heart relaxes between beats). For example, a blood pressure reading of 120/80 is expressed verbally as "120 over 80" and written as "120/80." The first or top number (120) is the systolic blood pressure and the second or bottom number (80) is the diastolic blood pressure.

The blood pressure goal for BARI 2D is less than 130/80. High blood pressure makes your heart work too hard and puts you at risk for vision problems, kidney damage, serious problems with your heart and blood vessels, heart attack and stroke.

### C is for Cholesterol.

A cholesterol test measures the amount of cholesterol and triglycerides in your blood and helps to evaluate the risks for heart disease. In BARI 2D, the cholesterol test includes LDL (bad cholesterol), triglycerides, HDL (good cholesterol) and total cholesterol. The study focuses on an LDL goal of less than 100 and a triglycerides goal of less than 200. Your HDL and total cholesterol goals may differ based on your individual medical history.

Elevated triglycerides and LDL cholesterol put you at risk for serious problems with your heart and blood vessels, which could lead to worsening blockage in your arteries. This blockage could lead to a heart attack.

Test	BARI 2D Target
A1c	Below 7%
Blood Pressure	Below 130/80
LDL Cholesterol	Below 100
Triglycerides	Below 200

Now that you have learned your ABCs, you are ready to add the all-important D and E!

### D is for Discuss with your Doctor.

Discuss your individual goals with your BARI 2D study team. Tell them your particular preferences for food, exercise style and daily schedule. This will help them develop a program just for you.

### E is for Exercise.

The one "non-pill" thing you can do is EXERCISE. Just moving can help raise your HDL cholesterol and lower your A1c, blood pressure, LDL cholesterol and weight. It's the new miracle cure! ■

## BEATING DIABETES: Hypoglycemia Common Myths and Misconceptions

Hypoglycemia, the medical word for low blood sugar, is defined by most as a blood sugar below 70 mg/dl. There are many myths and misconceptions about hypoglycemia that cause confusion and create barriers to proper treatment. Highlighted below are two common myths.

### Myth #1 – I can always tell when my blood sugar is low.

Symptoms of hypoglycemia vary from person to person. Most commonly, people complain that they feel weak and dizzy. Some tremble or develop a "cold sweat." They may also have difficulty concentrating, feel agitated or drowsy. In more severe cases, a person becomes confused, has seizures or "passes out."

Yet, for many, the onset of low blood sugar is subtle and little or no symptoms occur. Symptoms may change over time or from episode to episode. Medications prescribed for heart disease and other health problems may decrease the warning symptoms that you felt previously.

If you think you are experiencing hypoglycemia, check your blood sugar immediately. Many other health problems can cause similar symptoms. This will confirm that your blood sugar is low and prevent you from inappropriate treatment. If you feel symptoms and testing is not possible, always assume that your blood sugar is low and follow appropriate treatment guidelines.

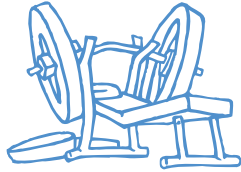
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# BARI 2D Frequently Asked Questions

By now you have probably learned all about the benefits of regular exercise from your doctor or BARI 2D team. Even though many people know the health benefits of being active, problems can make it hard to exercise every day.

## What do I have to do to prepare for safe physical activity?

**Exercise Prescription:** Your BARI 2D cardiologist or another healthcare provider will help you develop an exercise prescription to fit your abilities. It's important to consider your own situation and speak with your doctor about any special precautions that may apply to you. You may already be experiencing health problems from your diabetes which must be addressed before you begin an exercise program.



**Blood Pressure:** Make sure your blood pressure is under control. Physical activity can raise blood pressure. Always breathe normally while exercising and never hold your breath. While strength training, remember to exhale with exertion and inhale as you return to your starting position.

**Blood sugar:** Pay attention to blood sugar control while exercising. If you don't know how to keep it in target range while exercising, ask your BARI 2D team.

**Proper attire:** Wear comfortable, well-fitting shoes and socks to protect your feet and absorb perspiration.

## I have some numbness in my feet. Can I still walk for my physical activity?

If your numbness (neuropathy) does not interfere with your ability to stand or walk in a usual manner, then walking for physical activity may be okay for you.

## What exercises should I avoid if I have retinopathy?

In general, exercises or stretches that place your head below the level of your heart should be avoided.

## What are some reasons people give for not participating in any physical activity?

Since increasing physical activity is hard work, many individuals will find reasons not to: they're too tired, they can't find the time, the weather isn't good, or they have no one to exercise with.

While these are common excuses, very real barriers may make exercise more challenging, such as diabetes complications or unstable congestive heart failure.

## What physical activities can I do if I have compromised abilities?

It is important for individuals whose activity is limited due to health problems to have an exercise routine that allows them to perform the exercises successfully.

A seated exercise routine can be made for individuals who are not able to do aerobic exercises. This activity may lead to low-level aerobics or more active exercise later on with your doctor's approval.

*Adapted from Diabetes in Control, February 15, 2005.*

**Remember:** Always follow your BARI 2D exercise prescription and guidelines given to you by the BARI 2D medical team. ■

**Coming Soon...** A weight control program will soon be available at no cost for BARI 2D participants.

## Myth #2 – Chocolate candy is the best treatment for low blood sugar.

If your blood sugar is low, choose foods that will raise your blood sugar as quickly as possible! Carbohydrates are the preferred food choice since they raise your blood sugar faster than proteins and fats.

Although chocolate candy will certainly raise your blood sugar, the fat content of this food will cause the rise to occur slower than a food that contains only carbohydrates. For this reason, people with diabetes should carry a source of carbohydrate at all times. Examples of the most recommended include 4 ounces of fruit juice, 1/2 can of regular soda (not diet), 1 small box (2 tablespoons) of raisins, 3-4 glucose tablets or 8-10 jelly

beans. Hard candy is a frequent choice, but several pieces are needed and must be chewed in order to work quickly.

Recheck your blood sugar after 15 minutes to be sure it is back in the acceptable range. If not, additional food may be needed. Depending on the time of your next meal, an extra snack, such as peanut butter crackers or part of a sandwich, may be needed to prevent hypoglycemia from recurring.

Remember, the more you know about hypoglycemia, the better! Ask your study coordinator to discuss this important subject with you again at your next BARI 2D visit. ■

A Clinical Study  
BARI 2D



# BARI 2Day & 2Morrow

*Spring 2005*

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