| | |
|---|---|
| **Participant Name**: | **Date:** |
| **Study Title**: Enhanced Protein Intake During Obesity Reduction in Older Male Veterans: Differences in Physical Function and Muscle Quality Responses by Race | |
| **Principal Investigator**: Dr. Connie Bales | **VAMC**: Durham |

Please read this form carefully. It tells you important information about a **voluntary** research study. As your study doctor or study staff discusses this consent form with you, please ask him/her to explain any words or information that you do not clearly understand. It is important that you understand the information on this form. If you would like to check that this study is approved by the Durham VAMC's Institutional Review Board, please call the research office at (919) 286-6926 or (888) 878-6890, extension 6926.

## WHY IS THIS RESEARCH BEING DONE?

The purpose of this research is to study the effects of a weight reduction program that gives an intake of protein that is either normal or higher in amount in black and white obese, older male Veterans with increased diabetes risk. This information will be used to improve our understanding of how different amounts of dietary protein affect muscle quality and blood sugar, and other physical and mental outcomes during weight reduction. Our findings will contribute to improve clinical guidelines for obesity treatment and diabetes prevention in older adults.

You are being asked to participate in this research study because you are a male Veteran ≥ 55 years old, have an obese body weight, have mild to moderate functional limitations, and are at risk of developing diabetes.

We will enroll Veterans until we reach 168 participants who have completed the study at the Durham VA Medical Center.

## WHAT IS THE EXPERIMENTAL PART OF THIS RESEARCH STUDY?

The experimental research part of this study is to provide a weight loss program and, for the individuals in the higher protein group, an increased intake of high-quality protein (protein from animal sources) compared to a normal protein intake in the control group.

## WHAT PROCEDURES, DRUGS, OR TREATMENTS ARE INVOLVED IN THIS RESEARCH STUDY?

If you agree to participate in this research study, you will have tests and procedures to make sure that you are eligible at your first visit. If you are enrolled in the study, you will attend more visits as described below. You will be randomly assigned (like flipping a coin) into one of two intervention groups (Normal Protein or Higher Protein). The intervention will last for 3 months and will begin no more than 4 weeks from the date of randomization.

The majority of the visits take place during regular business hours, 8AM to 5PM.

- **Visit 1:** During this visit, you will have tests to see if you are eligible to join the study. You must FAST (nothing but water after midnight) prior to this visit. Daily medications may be taken. Your height and weight will be checked and you will complete a Short Physical Performance

Battery (SPPB), a function test that involves balance (in three different standing positions), a 4-meter timed walk test, and a chair rise test. To test upper body strength, you will be asked to grip a specially designed device which will assess your hand grip strength. Other tests will include a timed 8 ft walk from a seat and a series of chair rises for 30 seconds. We will perform a blood draw (five vials, about 5 teaspoons) to confirm if you have prediabetes (if your fasting blood sugar falls between 95 to 126 mg/dL). You will also answer questions about medications and health history. If these measures fall within the inclusion range for this study, you will be scheduled to return for subsequent visits. These visits will take place at the Duke Center for Living, the Durham VAMC, and Duke Clinic, and are detailed below. If you are not eligible to participate in our study, we will provide you with resources at the Durham VA for weight loss and/or diabetes management programs.

Following this visit, the study physician will review your medical history and laboratory results; if you meet all of the requirements for participating in the study, you will be scheduled to begin your baseline visits (order of visits may vary based on availability).

- **Visit 2:** You will have your lower body strength tested using a device that measures isokinetic knee extension peak torque. To do this you will complete a leg extension exercise on a machine that will require you to push your lower leg against a pad that provides resistance. You will also have your body composition measured in a BodPod device. You must FAST (nothing but water after midnight) prior to this measurement. Daily medications may be taken. You will wear spandex shorts and be asked to sit still and breathe normally for approximately 2 minutes. You will also be asked to perform a distance walk in 6 minutes. You will also be asked to complete a series of cognitive assessments on paper and on a provided computer. The cognitive assessment portion of the visit will take approximately 90-120 minutes. You will also receive a 3-day food record to complete and return to us. Each day of the 3-day food record will take approximately 10-20 minutes to complete. You will also receive a charged physical activity tracker with instructions to use for 7 days. This visit will take place at the Duke Center for Living and will last approximately 3 hours.

  You will complete some questionnaires about mood, exercise and lifestyle, which take about 30 minutes and can be completed at your convenience.

- **Visit 3:** You will have a Computerized Tomography (CT) Scan of one of your thighs to measure body fat and muscle amounts. Computed Tomography (CT) is a way to make x-ray images of the inside of the body. The CT scanner is a doughnut-shaped machine that uses x-rays to create computer pictures that show structures inside your body more clearly than regular x-ray pictures. For this study, we will be getting images of your right thigh to measure the area, lean mass, and fat mass. During the procedure, a technologist will take you into the CT scan

room where you will lie down on your back on the patient table inside of the CT machine. You should get comfortable because it is very important that you not move during certain parts of the test. The CT scan will be done at the Durham VAMC and will take approximately one hour to complete.

- **Visit 4 & 5:** During these visits, you will meet the study team and receive individual instruction about the weight loss intervention so that you will have all your questions answered and are prepared to safely and successfully lower your body weight. We will send a letter to your primary care physician, informing them of your participation in this study. Each visit will take place at the Duke Center for Living and will last approximately 60 minutes each.

Before starting the group classes, you will be randomly assigned to one of the two study groups, and you will be contacted to schedule visit 5 and 6. Randomization will be done using a procedure like flipping a coin; you will have a 1 in 2 chance of being randomized in the high protein group instead of the normal protein group. Once randomized, you will begin the intervention and you will start nutrition and exercise classes. These classes are held either in person at the Center for Living campus or online via Webex.

At the end of the 3-month intervention, you will repeat all the measurements taken as described in visit 2-3, including a blood sample collection.

After the final visit is completed, you will remain an active participant of the intervention group that you were assigned to until you have completed the endpoint assessments and returned the last 3-day food record and physical activity tracker. At this time the intervention will end and your participation in the study will end.

**Additional Visits:** If your GFR (measure of kidney function) is in the range of 45-59 mL/min at baseline, you will have to have your GFR measured again in 2 months. This represents 1 extra blood draw (2 to 3 more teaspoons of blood) and will be done in both treatment arms of the study. If your GFR drops, we will use the following protocol:

- If the GFR falls more than 10% from the previous reading or it if falls below 45, the test will be repeated.
- If the >10% loss is confirmed OR the GFR is confirmed to be <45, you would then be asked to discontinue participation and a lab report will be sent to your primary care physician.

**Intervention**

You will be randomized (like flipping a coin) into one of two intervention groups. The groups are Normal Protein and Higher Protein. In either group you will do the following:

You will follow a calorie-reduction diet designed to achieve a weight loss of up to 5% of your starting body weight. For a 200-pound person, this would be up to 10 pounds. This will be achieved through participation in a weight loss program for a period of 3 months. This will include counseling with a dietitian and on-going weekly meetings, which will include body weight checks and nutrition lessons in a group setting. You will be prescribed an individualized diet plan to achieve weight loss at a rate of about 1 to 2 pounds per week. Generally, this means eating about 500 to 1000 fewer calories per day. You will also attend a supervised low intensity 30-minute exercise class each week and be expected to exercise on your own for 30 minutes on two other days of each week. You will be provided instructions for safe exercises to guide your exercise on your own. Weekly attendance at the group sessions, which include body weight checks, and the weekly exercise class, is mandatory; if you miss a session, a make-up time will be arranged. We estimate that your participation in the intervention will take about 4 hours per week.

If you are randomized to the **Normal Protein** group, you will receive 7 servings of a high-quality protein food each week, 1 serving per day each week. If you are randomized to the **Higher Protein** group you will receive 21 servings of a high-quality protein food each week, two of the three meals daily, plus 1 snack. The provided foods will be lean meats, whey protein, a milk-based lactose-free beverage, and chicken, and you will be trained on how to create balanced low-calorie meals including these foods.

You may choose to be re-contacted for future follow-up studies to this one and other future research. Volunteers will be contacted via phone for those studies if funding becomes available. Please check the appropriate box regarding being re-contacted.

I agree to be re-contacted: ☐ Yes ☐ No

## CAN I REFUSE TO BE IN THIS RESEARCH STUDY OR WITHDRAW AT A LATER TIME?

Absolutely. You do not have to join this or any other research study. If you do join and later change your mind, you may quit at any time. If you withdraw from the study, no new data about you will be collected for study purposes. If you refuse to join or if you withdraw from the study, there will be no penalty or loss of any benefits to which you are otherwise entitled. This will not affect your relationship with or treatment by the Veterans Health Administration (VHA) or your rights as a VHA patient. You will still receive all the medical care and benefits for which you are otherwise eligible.

## WHAT OTHER OPTIONS DO I HAVE?

Taking part in this study is your choice. You have the option not to participate.

## HOW LONG WILL I BE IN THIS RESEARCH STUDY?

You will be in this research study for approximately **4** months.

## WHAT ARE THE RISKS AND DISCOMFORTS OF PARTICIPATING IN THIS RESEARCH STUDY?

There are certain risks associated with participating in the study. You may discuss these risks with the study doctor or your health care provider if you choose.

- The physical function assessment includes movements such as standing up from a chair, balancing, and walking; these activities could cause some discomfort. If there is any pain with this assessment, the study staff will stop the assessment immediately.
- Venipuncture – Taking blood from a vein in your arm by needle stick or IV. Momentary discomfort and/or bruising, infection, excess bleeding, clotting, or fainting are possible, although unlikely. Blood draws will be done by trained phlebotomists/nurses, and every effort will be made to prevent discomfort.
- A high protein diet could be associated with risks to those with reduced kidney function. However, the protein intake in this study does not exceed safe amounts and kidney function is assessed before the study.
- Weight Loss Intervention - Body changes with weight loss can include small reductions in the amount of muscle and slight changes in bone density. However, the benefits of obesity reduction to health and to the ability to function physically are well known to be substantial. Also, the physical exercise program may offset any loss of muscle or bone. Additionally, the study protocol is designed to safely achieve a modest amount of weight loss with careful monitoring during the intervention to minimize the risk to body composition.
- Radiation:
    a. If you take part in this research, you will have image tests (CT scans) which use radiation. The tests you will have include a single slice thigh CT scan without contrast liquid at baseline and endpoint (3 months after baseline). The radiation dose from this research for each scan done is about 5 millirem. To give you an idea about how much radiation you will get each time a test is done, we will make a comparison with an every-day situation. Everyone receives a small amount of unavoidable radiation each year called the 'natural background'. Some of this radiation comes from space and some from naturally occurring radioactive forms of water and minerals. The chart below shows the tests that may be used in the research, and the amount of time in the natural background that gives an amount of radiation that is about equal to the amount of radiation each time you have the test.

    b. A possible health problem seen with radiation exposure is the development of cancer later in life. This extra cancer risk is higher at younger ages and for girls and women. The extra lifetime risk of dying of a fatal cancer due to the radiation exposure from this

research is also shown in the chart. At such low radiation exposures, scientists disagree about the amount of risk. These estimates are very uncertain, and there may be no extra risk at all.

| Test | 'Natural Background Time' Equivalent for Each Time This Test is Done | Extra Cancer Risk Each Time This Test is Done |
|---|---|---|
| Single Slice Thigh CT Scan | 6 Days | Negligible |

- There is a risk of injury during the low intensity exercise program, but you will be carefully supervised at the weekly session and taught how to make safe movements when exercising at home.
- Loss of Confidentiality - There is the potential risk of loss of confidentiality. Every effort will be made to keep your information confidential; however, this cannot be guaranteed.

If you experience discomfort that you think may be related to the research, you can call the study team. You may stop your participation in this study at any time.

## WILL I BENEFIT FROM TAKING PART IN THIS RESEARCH STUDY?

If you agree to take part in this study, there may be direct medical benefit to you. Potential benefits include participation in a healthy weight loss program at no cost and weight loss that can reduce your chances of developing Type 2 diabetes. We also hope that the information learned from this study will benefit other men with similar conditions in the future.

## DOES PARTICIPATION IN THIS RESEARCH STUDY COST ANYTHING?

There will be no costs to you for any of the research treatment or research testing done as part of this research study. Some Veterans are required to pay co-payments for medical care and services provided by VA. These co-payment requirements will continue to apply to medical care and services provided by VA that are not part of this study.

## WILL I RECEIVE ANY COMPENSATION (MONEY OR OTHER) FOR TAKING PART IN THIS RESEARCH STUDY?

You will be compensated for participation in this study via direct deposit or check. You will receive up to $200 for completion of this study. Money that you receive for participating in research is considered taxable income per Internal Revenue Service (IRS) regulations. The money may be reported to the IRS and you may receive an IRS Form 1099.

You will also be provided high protein foods every week for the duration of the **3**-month intervention.

## HOW WILL I BE COMPENSATED?

The study involves three time points, and after completing all the visits at each of these time points you will receive a direct deposit or a check will be mailed to you for $75 for baseline, and $100 for endpoint. If you do not qualify to be enrolled in the study after completing visit 1, you will still receive $25 for participating.

## ARE THERE REASONS THAT MY RESEARCH PARTICIPATION MAY END EARLY?

Principal Investigator, Connie Bales, may take you out of the study without your consent for one or more of the following reasons: you become seriously ill, you stop coming in for weekly sessions, or you fail to follow instructions of the investigator and/or study staff.

## WHAT WILL HAPPEN IF I AM INJURED WHILE PARTICIPATING IN THE RESEARCH STUDY?

The VA will provide necessary medical treatment should you be injured by being in this study. You will be treated for the injury at no cost to you. This care may be provided by the Durham VAMC or arrangements may be made for contracted care at another facility. Every reasonable safety measure will be taken to protect your well-being. You have not released this institution from liability for negligence. In case of research related injury resulting from this study, you should contact your study team. If you have questions about compensation and medical treatment for any study related injuries, you can call the medical administration service at this VA Medical Center at 919-286-6957.

## WILL MY CLINICAL OR OTHER RESEARCH TEST RESULTS BE SHARED WITH ME?

We will let you know of any important discoveries made during this study which may affect you, your condition, or your willingness to participate in this study.

## WILL THE RESULTS OF THIS RESEARCH STUDY BE SHARED WITH ME?

Results will be available after completion of the study and once data has been analyzed. You can make a request to the PI or study staff to receive a copy of the manuscript by mail.

## DO ANY OF THE RESEARCHERS HAVE A FINANCIAL INTEREST RELATED TO THIS RESEARCH STUDY?

This study is funded by a research grant from the Department of Veterans Affairs. While the PI, Dr. Bales, is not paid directly by this grant, some of the investigative team has their salaries partially paid for by this research grant.

## HOW WILL MY RESEARCH DATA BE PROTECTED AND SECURED?

All hard copy data, including consent form, HIPAA authorization form, survey responses, and audio recordings will be stored in a locked file cabinet in a locked office suite in Dr. Bales' office at the Durham VA Medical Center. All identifying information will only be available to Dr. Bales and her research staff at the Durham VA Medical Center and will stored in a password protected file on a VA secure server. You will be assigned a unique code number. The key to the code will be kept on a VA secure server only available to the research staff. Access to this data will be limited to a small number of study team members who have been trained to protect and maintain participant confidentiality. Your research records will be maintained and destroyed according to VHA records retention requirements.

## WILL ANYONE ELSE HAVE ACCESS TO MY RESEARCH DATA?

If results of this study are reported to others, you will not be identified by name, by recognizable photograph or voice, or by any other means without your specific consent.

Your research records may be reviewed by Durham VA staff who are responsible for the safe conduct of this research. We may also provide your research records to federal agencies such as the Office for Human Research Protections (OHRP), the VA Office of the Inspector General (OIG), and the Office of Research Oversight (ORO). We will not share any information with these groups outside the VHA unless they agree to keep the information confidential and use it only for the purposes related to the study. Any information shared with these outside groups may no longer be protected under federal law. These groups may disclose your information to other groups. If the sponsor receives identified information, it is then the sponsor, and not the VA, who is responsible for the security of the information.

## ARE THERE ANY LIMITS TO THE PRIVACY AND CONFIDENTIALITY OF MY RESEARCH INFORMATION?

If, during the study, any information reveals suicidal intent, depression, or other major clinical findings, your primary physician will be notified. In addition, if you reveal current intent to harm yourself or someone else, we may be required to escort you or have you escorted to this hospital's emergency room to be seen by staff in the Psychiatric Emergency Clinic (PEC). If during the course of the study you discuss or mention anything that gives us cause to suspect abuse or neglect of any

child, elderly adult, or person with a disability, we are required by federal law to report the suspected abuse to your local Department of Social Services.

## WHERE CAN I FIND OTHER INFORMATION ABOUT THIS RESEARCH STUDY?

A description of this clinical trial will be available on *http://www.ClinicalTrials.gov*, as required by U.S. Law. This Web site will not include information that can identify you. At most, the Web site will include a summary of the results. You can search this Web site at any time.

## WHO DO I CONTACT IF I HAVE QUESTIONS OR CONCERNS ABOUT THE RESEARCH STUDY?

If you have questions about the research or need to talk to the study team, you can contact Dr. Connie Bales at 919-660-7519 during the day or at 919-368-1561 at night. If you have questions about the research or your rights as a research participant, would like to obtain information, offer input, or have other concerns or complaints, you may contact the administrative officer of the research service at (919) 286-0411, extension 7632.

## AFFIRMATION FROM PARTICIPANT

**My rights as a research participant have been explained to me, and I voluntarily consent to participate in this study. I have received an explanation of what the study is about and how and why it is being done. I authorize the use and disclosure of my identifiable information as described in this form. I will receive a signed copy of this consent form.**

**Participants Signature** **Date**

**Signature of Person Obtaining Consent** **Date**