Blood Vessel Health in Type 2 Diabetes and the Effect of Exercise Training

Study Name: Mechanisms of Vascular Dysfunction and Effect of Aerobic Exercise Training in Adults with Type 2 Diabetes

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What is the purpose of this study?

The purpose of this study is 1) to compare blood vessel function between adults with and without type 2 diabetes; and 2) to examine the effect of 2 different types of exercise training on blood vessel health in adults with type 2 diabetes.

Who can participate?

Men and women, 30 to 79 years of age, who are healthy or have type 2 diabetes can take part in this study. Participants must not have heart disease, use tobacco products, or exercise more than 90 minutes per week.

What do I have to do as a participant?

You will visit the Integrative Cardiovascular Physiology Laboratory at the University of Florida on 9 occasions. Visits 1-5 will determine if you are eligible to join the study and will also establish your pre-test measures, whereas visits 6-9 will establish your post-test measures. Measures include blood tests, blood pressure and blood vessel tests, dietary analysis, aerobic fitness and exercise stress test.

If you are enrolled in the study, you will be randomly assigned to one of two exercise training groups or a non-exercise control group. The exercise intervention consists of 4 supervised training sessions per week for 8 weeks. The sessions will be about 1 hour long and will include a period of warm up, aerobic training on a stationary bicycle, cool down and stretching.

How long will I be in this research study?

Your total participation will be completed over about 3 months depending on scheduling availability. Visits 1 through 9 will require a total of ~11 hours (0.5 to 2 hours/visit). If you are assigned to the exercise intervention group, you will be asked to visit our laboratory for an additional 32 to 40 exercise training sessions lasting for about 1 hour each. The total number of sessions completed will depend on your initial fitness level and scheduling of the post-testing visits.

What are the potential benefits to me for taking part in the study?

You may or may not benefit from participating in this research study. Possible benefits include receiving information regarding your health at no cost. These include general blood tests, blood pressure, heart health, aerobic fitness, body fat content, bone density, and dietary analysis. If you are assigned to one of the exercise training groups, you may receive direct health benefits, but individual responses may vary. Compensation up to $250 will be provided at the completion of the study.