New Study Introduction

The SPARX Study

The SPARX study is a study of Parkinson’s disease and exercise. The purpose of this study is to determine whether or not individuals who have been diagnosed with Parkinson’s disease (PD), but have not yet started drug treatment, can successfully take part in an aerobic exercise program.

Earlier studies suggest that patients with PD might benefit from physical activity in a number of ways, from general health improvements to disease-specific effects. These studies indicated that heart rate may be an important factor for changes in the PD symptoms and may protect against neurological changes, but the necessary level of exercise intensity is not known.

In SPARX, individuals with PD are randomized to a control group that maintains normal activity, or to a group that exercises at a moderate level (60 – 65% max heart-rate) or high level (80 – 85% max heart-rate) of intensity. Participants will exercise 4 times per week, for thirty minutes, for 6 months. They will be monitored during the study to maintain the prescribed level of exercise intensity for the group.

The high intensity exercise intervention was modeled after a study conducted by Dr. Wendy Kohrt, the IMAGE group’s director, who showed in 1991 that individuals aged 60-71 benefitted from an exercise program in which the intensity averaged 80±5% HRmax. Findings from the SPARX study will establish if there are any differences in symptom between the groups, and whether one or both of these exercise levels should be investigated further as a beneficial treatment for Parkinson’s disease symptoms. This study is the important first step in understanding the dose-response effects of endurance exercise. Once the dose and the beneficial effects of exercise are confirmed, the mechanism by which these beneficial effects occur can be investigated.

If you or someone you know has been recently diagnosed with Parkinson’s disease and is interested in participating in this clinical research, please contact Lindsey Pederson at 720.848.6481.

On the 1st Saturday of every month, the University of Colorado’s Center on Aging presents a monthly educational discussion aimed at helping seniors better understand aging. The presentations are free and open to the public. The upcoming schedule is

- **July 7th** Dr. Villalon’s talk is Facts about Falling.
- **August 4th** Dr. Wallace will speak about Addressing Depression in the Elderly.

We hope you can attend one or more of the 1st Saturday discussions this year:

- 10:30am-Noon
- University of Colorado, Anschutz Medical Campus
- Building 500 (former Fitzsimons Army Hospital)
- Bushnell Auditorium, 8th floor
- Free parking in the Ignacio Lot

For more information visit the IMAGE website: medschool.ucdenver.edu/image and click on “Geriatrics” and then on “1st Saturday”

**Effects of Temperature on Total Daily Heat Flux**

We are testing a new device to measure energy expenditure. The device is worn on the arm and is used to predict how many calories you burn based on how much heat your body produces. You will be asked to schedule a screening visit (~1 hr), and two 5hr study visits. During the 5hr study visits you will be ask to sit quietly or walk on a treadmill. All study visits will occur at the Anschutz Medical Campus.

To be eligible, volunteers should be adult men and women (18-45 years old), who do not smoke and have a body mass index (BMI) between 19 and 25 kg/m². To determine your BMI, go to: www.nhbisupport.com/bmi

If you are interested, please complete the prescreening survey by clicking on the following link:

https://redcap.ucdenver.edu/surveys/?s=kxNIBf

**Loss of Bone Strength in Response to Exercise-induced Weight Loss**

We are pleased to report our findings from the QCT study. Fourteen postmenopausal women participated in a 4-month, supervised, exercise-induced weight loss program resulting in an average weight loss of about 7 lbs. Another 10 women did not take part in formal exercise and remained weight stable over the 4 months. Bone mineral density testing was done at the beginning of the study and at 4 months. Bone strength measures (i.e. ability of bone to resist bending and compression) were obtained for the hip using QCT. The main finding of this study was that bone strength did decrease at the hip in response to weight loss due to exercise. Hip and spine bone mineral density did not decline significantly over this time period. The weight stable women did not have decreases in bone mineral density or bone strength. This suggests that changes in bone strength may occur earlier than changes in bone mineral density during weight loss. Further studies are needed to investigate why this loss of bone strength occurs and determine whether such decreases lead to an increased risk for osteoporotic fracture.
STUDIES FOR WOMEN & MEN:

- **WIN (What Is Next)** is a series of five medical visits for cancer survivors who have recently completed treatment to help with transition. WIN is led by healthcare professionals with clinical expertise in cancer survivorship, primary care, physical therapy, nutrition, exercise, and behavioral health. The WIN visits are held in a group setting and are paid for by most insurance plans. To learn more, please call 720-848-0349 or email: UCH-Survivorship@uch. (COMIRB #10-1587)

- The **Community-Based Exercise Program for Peripheral Artery Disease** study is looking at the benefit of exercise training for treating people who experience leg pain when they walk. Eligible participants are men and women 40 years of age and older who feel cramps, aching or pain in their leg muscles when walking. Qualified participants will receive blood test results, diabetes screening, exercise testing, a peripheral artery disease screening test and financial compensation. Participants may also receive a detailed home exercise training program and portable chair to improve walking ability. To learn more, please call 303-724-2085 or email: Ryan.Mays@ucdenver.edu. (COMIRB #10-0395)

- The **Rehabilitation for Total Knee Replacement study** is exploring 2 rehabilitation programs designed to restore muscle strength and function more effectively after knee replacement. Eligible adults are 50 to 85 years of age and are candidates for knee replacement surgery. To learn more, please call 303-724-9590 or email: Michelle.Reynolds@ucdenver.edu. (COMIRB #10-1188)

- The **SPARX study** is a study to determine whether or not individuals who have been recently diagnosed with Parkinson’s disease (PD), and have not yet started drug treatment, can successfully take part in an aerobic exercise program. Individuals with PD are randomized to a control group that does not exercise, or to a group that exercises on a treadmill at a moderate or high intensity. Participants will exercise 4 x per week, for thirty minutes, for 6 months. If you or someone you know has been diagnosed with Parkinson’s disease and is interested in participating in this clinical research, please contact Lindsey Pederson at 720.848.6481. (COMIRB #11-1237)

STUDIES FOR WOMEN:

- The **TEMPUS study** will examine whether one week of estrogen has different effects on insulin metabolism in women who are only a few years past menopause compared to women who are many years past menopause. Eligible participants are healthy women between the ages of 45-70 who are not using hormone therapy and who are either within 6 years of menopause or more than 10 years past menopause. Volunteers will be asked to wear estrogen patches for one week prior to one of two study visits designed to measure insulin metabolism. Up to $400 in monetary compensation will be provided for completion of the study. To learn more, please call 720-848-6418 or email: Tracy.Swibas@ucdenver.edu. (COMIRB #11-0788)

- The **POWER study** is studying the roles that exercise training and the female sex hormone estrogen play in preventing excess fat gain in women. Eligible participants are healthy women between the ages of 18-49, who have regular menstrual cycles, and are not currently using hormonal contraceptives. Monetary compensation will be provided for your time (up to $850). To learn more, please call 720-848-6399 or email: Anne.Stavros@ucdenver.edu. (COMIRB #06-0512)

- The **Effects of Temperature on Total Daily Heat Flux** is studying the roles that exercise training and the female sex hormone estrogen play in preventing excess fat gain in women. Eligible participants are healthy women between the ages of 18-49, who have regular menstrual cycles, and are not currently using hormonal contraceptives. Monetary compensation will be provided for your time (up to $850). To learn more, please call 720-848-6418 or email: Tracy.Swibas@ucdenver.edu. (COMIRB #11-0788)

To learn more about a study, offer comments, suggest an article, request this newsletter electronically or be removed from our mailing list contact:

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