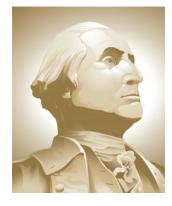


- The age-related loss of muscle mass and strength can affect the functional independence of older adults
- ✓ Age-related declines in strength typically occur between the 40s and 50s, and may exceed 1.5% per year in people over 65
- ✓ Strength may decline by 20% to 40% in men and women by the time that they reach their 70s

Who is involved in this study?

The investigators on this project are:

- Dr. Catheeja Ismail (Sonography)
- Dr. Michael Harris-Love (Rehabilitation)
- Dr. Loretta DiPietro (Exercise Science)
- Dr. Marc Blackman (Geriatrics)
- Dr. Brian Garra (Radiology)
- Dr. Haniel Hernandez (Rehabilitation)
- Ms. Johannah Zabal (Exercise Science)



WHO CAN PARTICIPATE? Individuals aged **18-29** years or **55-75** years.

Contact Dr. Catheeja Ismail at <u>cismail@gwu.edu</u> to determine if you qualify for the study, and to schedule your appointment.

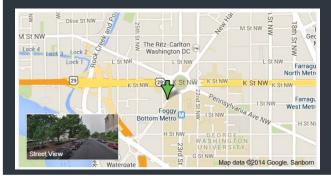
CONTACT LIST:

Appointments/cancellations: cismail@gwu.edu GW Office of Human Research: (202) 994-2715

An ultrasound assessment study for both younger and older adults

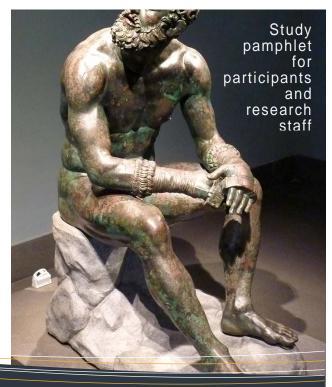


GW Exercise Physiology Lab Milken Institute School of Public Health 950 New Hampshire Avenue NW Washington DC 20037



The Sarcopenia Project:

New approaches to measuring the effects of aging on muscle mass



The Sarcopenia Project:

New approaches to measuring the effects of aging on muscle mass

THE GOALS OF THIS RESEARCH PROJECT ARE TO:

 develop a portable, rapid, low cost, method of assessing muscle mass and quality using ultrasound

• examine if the new ultrasound method distinguishes the muscle of younger participants from older participants.



What is "sarcopenia?"

Sarcopenia is an age-related loss of muscle mass that contributes to diminished muscle power, independent mobility, and exercise tolerance. Everyone experiences a loss of muscle mass as they age, but the impact of muscle wasting will be greater in people with excessively low or high body weight, nutritional challenges, or other complicating medical conditions.

WHAT WILL I BE ASKED TO DO?

- Interview with GW staff and complete questionnaires about your health status
- Have a brief assessment of thigh muscle stiffness
- Undergo an ultrasound assessment of your muscle mass
- Have an X-ray assessment of your muscle mass (DXA)
- Complete a timed sit-to-stand test (30 seconds)



HOW LONG WILL IT TAKE?

The testing entire session will take between 60 to 90 minutes.

- Interviews/questionnaires: 15 to 20 min
- DXA test: 10 to 15 min
- Muscle strength test: 5 to 10 min
- Ultrasound assessment: 30 to 40 min
- Sit-to-stand test: 5 min

You should have a tank top and shorts to wear for the lab session.



WHO IS ALLOWED TO

Men and women age **18 to 29** years old or **55 to 75** years old are being sought for this study. People with uncontrolled cardiovascular disease, edema, pregnancy, or the amputation of a limb are unable to participate. Other factors may affect your ability to participate and will be reviewed during the initial telephone contact with research staff. A modest payment will be provided to the participants in this study.

DO I NEED CLEARANCE FROM MY PHYSICAN?

This is a low risk, non-intervention project. Physician clearance or referrals are not required to participate in this study.

WHAT ARE THE RISKS?

DXA has very low X-ray exposure, but should still be avoided during pregnancy. Also, the research staff will provide close assistance of each participant to diminish the fall risk during the sitto-stand test.

An example of an examination room set up for DXA assessments that will be used to estimate muscle mass in this study.



The Sarcopenia Project:

A *PROACTIVE* APPROACH TO MUSCULOSKELETAL HEALTH IN WASHINGTON DC

Contact Dr. Catheeja Ismail at cismail@gwu.edu for more information.