

MESA Messenger

MESA's Seventh Exam is Going Strong!

By Cashell Jaquish, PhD, MESA Project Office, NHLBI, NIH

MESA Exam 7 is well underway with lots of new and exciting studies! The previous six exams included blood tests, sleep and breathing tests, measures of blood pressure and lung function, imaging of your heart, lungs, and brain, and many questionnaires and other components. You have contributed so much to learning how heart and lung disease develops and how to maintain good health. We are very grateful for your dedication and the gifts of your time and energy.

You may be asking yourself, "Why another exam? Don't they have enough information already?" It's a fair question! The more measurements we have, the better we're able to detect and understand changes in your health over time, leading to better prediction and prevention of disease. Plus, every year there are many new discoveries about health and disease risk. MESA wants to include this new information in our examinations to ensure we are measuring the most up-to-date health and risk factors.

In Exam 7, for example, you will notice that we are asking many questions about stress, your environment (neighborhood) and your social networks. This is a newer area of research referred to as "Social Determinants of Health." There is increasing evidence that your physical and social environment, and how you react to it, can influence your health.

Exam 7 also provides opportunities to monitor your heart, blood glucose, activity, and blood pressure while you are at home. Changes in these measures during the day or week (as well as over



your lifetime) are important indicators of your heart health. These multiple measures and exams provide valuable information on changes in your health and environment over time.

It's been wonderful to connect with our amazing MESA participants again in Exam 7. If you have not already come in for Exam 7, we look forward to seeing you soon! We encourage you to participate in MESA Exam 7 in a way that works best for you. We will work with you to decide what is right for you. If you can't go to the clinic, MESA staff can come to you to complete some of the exam activities in your home. Another option is a "remote" visit, where materials are mailed to your home, and we call you to complete the exam together over the phone or by video. You can also complete questionnaires online if you would like. If you haven't received a call to schedule your exam, please call us! We may be having difficulties reaching you. The phone number for your Field Center is at the bottom of this page. See page 3 of this newsletter to learn more about the results you can receive from participating in the exam. We look forward to seeing you soon! ❤️

Questions? Contact your MESA Field Center at:

Wake Forest: Katy Melius - (336) 716-7407

Columbia: Vijay Nayudupalli - (212) 305-9932

Hopkins: Imene Benayache - (410) 614-2488

Minnesota: Jackie Muñoz - (612) 625-8560

Northwestern: Grace Ho - (312) 503-3298

UCLA: Sameh Tadros - (626) 979-4920

Special Heart Scans can Teach us About Heart Failure

By Kimberly Keck, Johns Hopkins University

Join us for an exciting new study as part of MESA Exam 7! The MESA Fibrosis-Amyloidosis study will look at how the heart changes due to aging. Specifically, we are interested in looking at protein deposits in the heart called amyloid, and the accumulation of collagen through a process called fibrosis. This study will help us understand what changes happen in the hearts of people with “transthyretin cardiac amyloidosis,” a condition in which abnormal proteins build up in the heart and make it more difficult for the heart to pump blood. This study will help us learn more about how these changes may lead to heart failure.

As part of this study, you will have the opportunity to take part in a special heart scan. Similar to previous visits, all imaging studies will be discussed with you over the phone or in person to determine eligibility for this study. If you are eligible, you may receive a cardiac MRI and SPECT/CT imaging exam that is separate from the regular MESA clinic visits. The

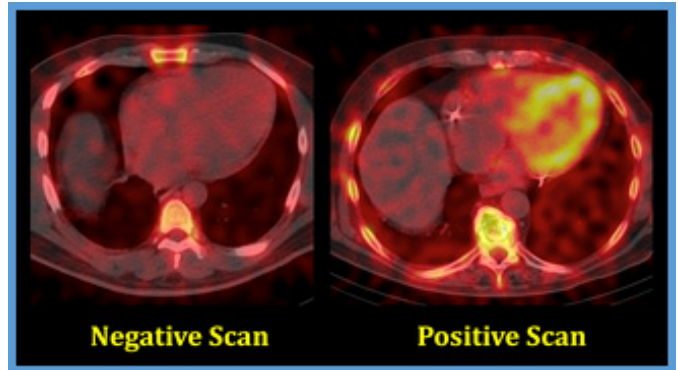


Image: The cardiac imaging done in this visit will look for protein deposits in the heart, which may show up as bright spots.

visit will take about 4 hours. You will receive results from these imaging exams that can be shared with your doctor and may help with your medical care. This study will provide exciting new information on how changes in the heart with age can lead to heart failure. ❤️

How Your Neighborhood Influences Your Physical Activity

By Matthew Allison, MD, University of California San Diego

The way an individual feels about their neighborhood can affect how much activity (such as walking and running) they do each day, especially if the neighborhood seems unsafe to them. We looked at the connection between how MESA study participants viewed their neighborhoods and how much activity they performed. MESA participants completed study questionnaires about how they think about the places they live, including whether it feels safe there and whether they have easy access to community resources like sidewalks and parks. Participants also shared information about how much activity they typically perform on a daily basis.

One of the interesting things researchers learned from this study is that participants who said they had poor sidewalks in their neighborhood that were a “somewhat serious problem” were less likely to increase their physical activity levels over time. Also, participants who did not feel that their neighborhoods

were safe were in general not getting recommended levels of exercise in their daily lives.

These results help us understand the many factors that impact an individual’s physical activity levels. Results like these could be used by communities trying to improve the health of the people living there, and help them decide where to focus their efforts and limited resources to have the best impact. Thank you for your participation in the research! ❤️



Results from your Exam 7 Visit

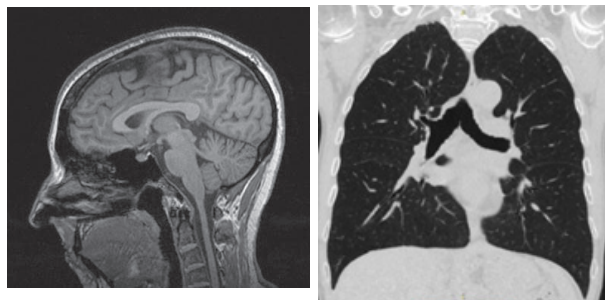
By the MESA Operations Committee

Just like MESA Exams 1-6, we will offer to send you results letters for some of the procedures you complete during the MESA Exam 7 clinic visit. Some of the results will be familiar from previous exams, like your blood tests, cognitive function results, and lung function test results. Other exam procedures are new and will provide results you haven't seen before. Below are some examples of the types of information you can choose to receive in MESA Exam 7. Results letters will be shared with you as soon as they are ready. If you have questions about your results letters, you should contact your MESA Field Center (page 1).

What results can I receive if I participate?

Images of your Brain and Lungs

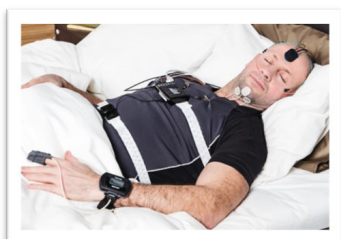
If you have a brain MRI or Lung CT, your results letter will include a picture of your brain or lungs, or a report of any abnormalities observed from your brain or lung images that may need follow-up with your doctor.



Overnight Sleep Study

Results for the overnight sleep study will describe your:

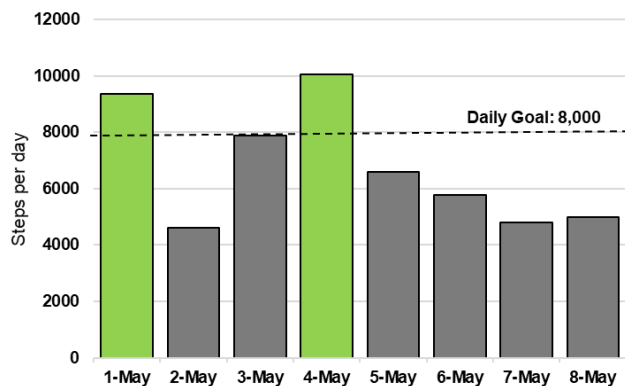
- breathing patterns
- sleep apnea measures
- time spent dreaming or in a deep sleep
- leg movements while sleeping



Hip Activity Monitor

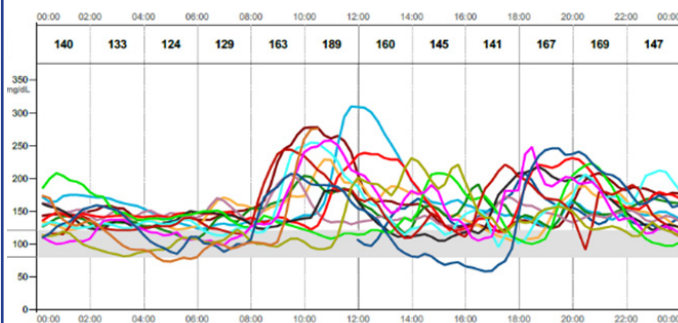
Your report will describe your physical activity habits while you are awake during the day, including:

- The number of steps taken per day
- The amount of time in light, moderate, or heavy intensity activity



Continuous Glucose Monitor

Your report will include a chart showing your blood sugar levels during the entire period that you wear the monitor.



Why are Older Adults More Prone to Heat Stress?

By Centers for Disease Control and Prevention

Older adults do not adjust as well as young people to sudden changes in temperature. They are more likely to have a chronic medical condition that changes normal body responses to heat. They are more likely to take prescription medicines that affect the body's ability to control its temperature or sweat.

Stay cool, stay hydrated

- Wear loose, lightweight, light-colored clothing.
- Take cool showers or baths to cool down.
- Do not engage in very strenuous activities and get plenty of rest.
- Stay in air-conditioned buildings as much as possible. If your home doesn't have air conditioning, contact your local health department or locate an air-conditioned shelter in your area.
- Drink more water than usual and don't wait until you're thirsty to drink. If your doctor limits the amount of fluids you drink or has you on water pills, ask them how much you should drink during hot weather.
- Don't use the stove or oven to cook—it will make you and your house hotter.
- Check on a friend or neighbor and have someone do the same for you.
- **Seek medical care immediately** if you have, or someone you know, has symptoms of heat-related illness like muscle cramps, headaches, nausea or vomiting.



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