

MESA Messenger

News from the MESA Project Office

By Wendy Post, MD, MS, MESA Steering Committee Chair

Thank you for your continued participation in MESA. It is hard to believe that it has been 25 years since the first study visit, which began in 2000! MESA has made tremendous contributions to knowledge about risks for heart disease due to the dedication of participants like you, and the hard-working MESA staff and investigators across the country. Through MESA ancillary studies we have also contributed knowledge about lung disease, sleep disorders, air pollution, neighborhoods, genetics, and brain health, among others. Over 2,500 papers describing these results have been published so far and more are in the works. Use the QR code below to read about MESA research discoveries on our website.

We are thrilled to announce that MESA has received approval to continue for another 10 years! It is due to our extraordinary, continued successes that we continue to receive this funding. The MESA Mind C ancillary study visit is ongoing now and includes a cognitive assessment and an optional continuous glucose monitor. The MESA Amyloid study visit is also ongoing and includes an MRI study of the heart and an imaging study to look for amyloid deposits (an abnormal protein that can accumulate in the heart).

We anticipate that we will have additional in-person visits over the next 10 years, including a MESA MIND D visit starting in May 2026. Please remember to notify the people you have listed as your "contact" representatives about your participation in MESA. If we cannot reach you, we will contact them to see if



you have a new phone number or address. We don't want to lose touch with you.

We are planning 25th anniversary celebrations and will be in touch soon. I hope you enjoy reading the updates provided in the MESA Messenger. Stay healthy and well. ❤️



The image above is called a "QR code". If you have a phone with a camera, open the camera and point it at the QR code. A button should display on the screen, asking if you want to open a webpage. This is a shortcut to visit the MESA website, instead of typing the address.

Questions? Contact your MESA Field Center at:

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Understanding Heart Health in Aging: The MESA Fibrosis-Amyloidosis Study

By Elnaz Ebrahimihoor, MD, Johns Hopkins University

Advancing Cardiovascular Research

As we age, our hearts undergo changes that can increase the risk of heart failure and other cardiovascular conditions. MESA has been at the forefront of heart health research for over two decades, helping to uncover key risk factors that contribute to cardiovascular disease (CVD). The MESA Fibrosis-Amyloidosis ancillary study is a recent effort, to better understand how the aging heart remodels over time and what role two specific conditions—myocardial fibrosis and transthyretin cardiac amyloidosis (ATTR-CA) play in heart disease.

What Is This Study About?

The MESA Fibrosis-Amyloidosis study is focused on detecting and understanding myocardial fibrosis and ATTR-CA, both of which are linked to heart disease as people grow older. Myocardial fibrosis refers to the thickening and stiffening of the heart muscle due to excess scar tissue, making it harder for the heart to function properly. ATTR-CA, on the other hand, is a condition caused by the buildup of misfolded transthyretin proteins, which form deposits in the heart and weaken its function.

These two conditions can lead to heart failure with preserved ejection fraction (HFpEF), a form of heart failure that affects millions but is often difficult to diagnose. This study aims to clarify how fibrosis and amyloidosis contribute to heart health over time and identify early warning signs to help prevent severe outcomes.

How Is the Study Conducted?

Researchers will be looking at data from 800 MESA participants that were collected over a 12–14-year period using advanced imaging techniques like MRI scan and SPECT imaging that will help distinguish between fibrosis and amyloidosis, improving diagnosis and treatment.

Why Is This Research Important?

Heart failure and atrial fibrillation (AF) are major concerns for older adults. This study seeks to:

1. Detect Heart Changes Early: Identifying heart remodeling at an earlier stage may allow for intervention before symptoms worsen.
2. Improve Diagnosis: Many cases of ATTR-CA and fibrosis go undiagnosed. This study will refine detection methods.
3. Enhance Treatment Strategies: Understanding these conditions can lead to better-targeted treatments and improved patient outcomes.

The Role of MESA Participants

If you are a MESA participant, your involvement is helping shape the future of heart disease prevention. By contributing to imaging and clinical assessments, you are assisting researchers in improving diagnostic tools and treatments.

This research will not only enhance individual care but also inform public health initiatives to reduce heart disease risks in aging populations.

Looking Ahead

Heart disease remains a leading cause of death worldwide. The MESA Fibrosis-Amyloidosis study is a crucial step toward identifying early signs of heart failure and refining diagnostic tools. Your participation is making a lasting impact on cardiovascular research. Thank you for being part of this vital work! ❤️



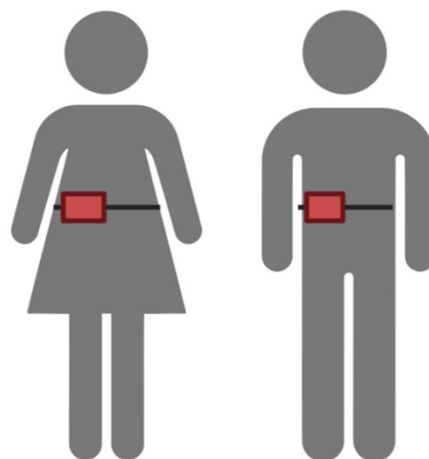
Movement and Brain Health

By Kelley Gabriel, PhD, University of Alabama, Priya Palta, PhD, University of North Carolina, and Keith Diaz, PhD, Columbia University

The **MESA 24-Hour Activity Cycles Study** was done at Exam 7 to see how moving around during the day and getting enough sleep helps your memory and brain health. To learn more about daily movement, we asked MESA participants to wear a small red monitor on their right hip for seven days, whenever they were awake. Some participants also answered questions about the types of physical activity they did.

Over 1,300 MESA participants wore the red monitor throughout the day! During a typical day, MESA participants spent about 20 minutes doing moderate-intensity activities (like a brisk walk) and more than 4 hours doing light-intensity activities, like walking slowly or doing light housework. This was about 9,000 steps per day! The rest of the day was spent sleeping or not moving around. We also learned that walking, household chores, and stretching and strengthening exercises were the top three activities done by MESA participants at Exam 7.

The **MESA 24-Hour Activity Cycles Team** is now working on combining the movement and sleep data. We will use this information to answer questions about brain health. This information will also be used to answer other questions about why moving is important at any age. ❤️



Want to Learn More About MESA Research Findings?

Visit the “Discoveries” section of the MESA Participant website. New results are posted every month!

Use the QR Code on page 1 or go to <https://mesa-nhlbi.org/participants/research-discoveries2>

A screenshot of the MESA Participant website. The header is dark blue with the MESA logo (a red heart with 'mesa' in white) on the left. Navigation links include 'About MESA', 'For Researchers', 'For Study Participants', 'Search', and a blue 'Login' button. Below the header, the breadcrumb 'Home / Study Participants' is shown. The main heading is 'Research Discoveries'. The first article is titled 'Heart Health Biomarkers May Also Predict Cancer Risk' with a blue link. It features a teal icon of a heart with a DNA helix. The text states: '(September 8, 2025) Researchers found that two substances in the blood, usually used to check heart health, were also linked to a higher risk of developing cancer over time. This suggests that simple blood tests may provide clues about both heart and overall health.' The second article is titled 'What Your Heart Can Tell Us About Your Brain Health' with a blue link. It features a red icon of a human torso showing the heart. The text states: '(May 20, 2025) This study found that signs of heart dysfunction, known as left ventricular injury (LVI), seen on MRI scans were linked to a higher risk of future'.

Older adults' unique nutrition needs

By The National Institute on Aging

Simple adjustments can go a long way toward building a healthier eating pattern. Follow these tips to get the most out of foods and beverages while meeting your nutrient needs and reducing the risk of disease:

- Enjoy a variety of foods from each food group to help reduce the risk of developing diseases such as high blood pressure, diabetes, and heart disease. Choose foods with little to no added sugar, saturated fats, and sodium.
- To get enough protein throughout the day and maintain muscle, try adding seafood, dairy, or fortified soy products along with beans, peas, and lentils to your meals.
- Add sliced or chopped fruits and vegetables to meals and snacks. Look for pre-cut varieties if slicing and chopping are a challenge for you.
- Try foods fortified with vitamin B12, such as some cereals, or talk to your doctor about taking a B12 supplement.
- Reduce sodium intake by seasoning foods with herbs and citrus such as lemon juice.
- Drink plenty of water throughout the day to help stay hydrated and aid in the digestion of food and absorption of nutrients. Avoid sugary drinks.



You can read the full article at <https://www.nia.nih.gov/health/healthy-eating-nutrition-and-diet> (or use the QR code):



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