THE FRAMINGHAM HEARTBEAT



Offspring & Omni 1 — Have you completed Exam 10/5 yet?

There are a few months left to complete this historic exam. It is the first, and hopefully last, FHS exam conducted during a pandemic! We THANK each and every one of you who worked with us to complete some or all of this exam during this public health crisis. You are truly a dedicated and hardy group of individuals and researchers (and your fellow citizens) owe you a debt of gratitude for continuing to share your health-related data giving them the opportunity to better understand and improve human health.

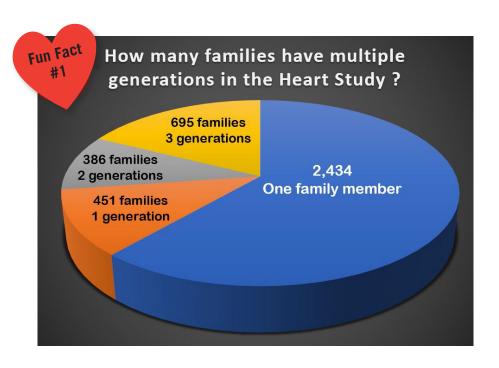
For those of you who have not come in for Exam 10/5, it's not too late.

There is still time to do this exam and we have new options in the way we conduct the exam. Please contact the Heart Study to hear about how you can participate.

Maureen Valentino 508-935-3417 call/text email maureenv@bu.edu

If you prefer to speak with someone in Spanish, please contact:

Patricia Olea-Fichtel 508-935-3485 call/text email polea@bu.edu



CALLBACK STUDIES TO EXAM 10/5

Some of the studies that were intended to be part of the current exam for Offspring and Omni 1 were not funded until after the start of the exam. As a result, these studies (described below) will be carried out as a callback. Recruiters will be reaching out to participants who are eligible to complete the callback study visit.

BONE STUDY: This study has been part of the Framingham Heart Study for many years, making several important discoveries about risk factors for fractures and bone loss. This is the first time, however, that the Bone Study is investigating the role of vascular health on the skeleton. The team is studying how declines in vascular function that occur with aging may impact bone **health.** In other words, what is good for your heart may also be good for your bones! Researchers are using an HR-pOCT (high resolution peripheral quantitative computed tomography) scanner to measure changes that occur in the bones of the lower legs and arms. Discovering that poor vascular function decreases bone strength may lead to new strategies to prevent both vascular diseases and osteoporosis.

BRAIN HEALTH: We are interested in finding a way to define brain health beyond the evaluation of cognitive testing. The Brain Health Station involves an innovative combination of sensory tests, including eye examinations, hearing examinations and a gait walk test. Each of these tests measures a participant's sensory-motor function, which is known to change as a person ages and may be an early indicator of overall brain health. Our eye exams will take a series of pictures of the retina, optic nerve, and vessels within the eye, along with measurements of the eye. Hearing exams will test your hearing acuity at different frequencies to assess overall hearing. Finally, our gait test will require you to walk on a mat with pressure sensors to measure how your gait changes while you are multitasking.

SENSORY SENSITIVITY STATION: Many people experience pain at various times in their life. Pain is one of the leading causes of disability worldwide, yet the causes of chronic pain are poorly understood, and how it impacts the lives of older adults has not been well-studied. Now, for the first time at the Framingham Heart Study, we are going to ask you about pain you may be experiencing in your daily life to better understand why some people have more pain than others. We also will assess your body's response to pressure on your skin.



eFHS: Calling all smartphone and computer users! If you are an Offspring or Omni 1 participant, and you haven't previously signed up to participate in eFHS, the Framingham Heart Study has an opportunity for you! When you enroll in the eFHS study, you can use the MyDataHelps app or website to complete surveys on your phone to keep track of your health. Participants with an iPhone can choose to wear an Apple Watch. This allows the Heart Study to monitor your health and physical activity, and it provides us with a great way to stay connected with you in between exams. You can enroll at the time of your exam or if you already had your exam, please contact Heather at (508) 935-3415 or hpump14@bu.edu and we will be happy to get you set up and started with the eFHS study!

REMEMBER:

Framingham Heart Study evaluations are designed for research. They do not replace your regular check-ups with your own doctor(s)!

Other studies Offspring and Omni 1 may be invited to participate in

NEW BRAIN AGING PROGRAM: NIH awarded a grant for the FHS Brain Aging Program (FHS-BAP) that has multiple components. For example, the Clinical Core continues dementia surveillance, cognitive testing, brain MRI scans and the brain donation program for all participants who wish to participate; many of you have done so in the past. Cognitive testing will include digital capture of writing and voice. We have identified features of writing and speech associ-ated with future dementia diagnosis as possible early indicators of risk and risk profiles that provide insights into how to reduce a person's risk for dementia.

NEW MUSCLE STUDY IS ABOUT TO BEGIN: The new Framingham Muscle Study will use a state-of-the-art assessment of the amount of muscle in your body by having you take a pill containing creatine, which is a building block of muscle. Three days later a urine test will be collected to quantify the amount of muscle in your body. This will allow us to study genes. risk factors and outcomes (like falls and injuries) related to muscle mass. We will use monthly calendar diaries to keep track of injuries. Using this easy and accurate way of measuring the amount of muscle, we hope to find ways of preserving this valuable tissue as we age.





COVID-19 RESEARCH UPDATE: The Framingham Heart Study (FHS) would like to thank all those who participated in the C4R study of COVID-19! The 6-month follow-up (Part 2) is still ongoing. Please call us at 1-866-466-

2040 to complete this over the phone. It should take approximately 5 minutes. FHS is part of a larger data-gathering group that helps to identify factors that predict the severity and long-term health impacts of COVID-19. Whether you did the questionnaire online, over the phone, or in a booklet, your anonymous information continues to make a huge impact on those whose lives have been affected by COVID-19. The C4R Study is funded by the National Institutes of Health (NIH). Although the C4R follow-up survey is coming to a close, the data that you contributed will be used among researchers throughout the world. There is so much to discover about COVID-19. You have played a huge part in helping the world investigate and understand the COVID-19 pandemic. Thank you to our fabulous participants for seeing the value in this study and sharing knowledge to benefit health research!

AROUND TOWN

The Framingham Heart Study and Friends of the Framingham Heart Study are both proud to be giving back to the community by sponsoring a public art project established by the Framingham Centre Common Cultural District (FCCCD.) It's purely a coincidence that the name of the project is...



"Many Cultures One Heart"







Designed to celebrate the many artistic and ethnic voices of Framingham, this project involves uniquely painted heart sculptures that will be placed around the Cultural District and the City of Framingham. Each sculpture will represent the artistic, cultural, historical, and recreational offerings of Framingham's arts and cultural organizations, as well as the diversity of the city. Please follow the links below for more infomation.

> To learn more about the FCCCD and this specific project, you can go to their website at https://www.framinghamcentrecommon.org or scan the QR code to the right.

What we've learned because of YOU!

Papers published in 2021

JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY

Ultra-Processed Foods and Incident Cardiovascular Disease in the Framingham Offspring Study

Background: Ultra-processed foods provide 58% of total energy in the U.S. diet, yet their association with cardiovascular diseaase (CVD) remains understudied.

Conclusion

The current findings support that higher consumption of ultra- processed foods is associated with increased risk of CVD incidence and mortality. Although additional research in ethnically diverse populations is warranted, these findings suggest cardiovascular benefits of limiting ultra-processed foods.

THE JOURNAL OF THE PREVENTION OF ALZHEIMER'S DISEASE

Sugar in Beverage and the Risk of Incident Dementia, Alzheimer's Disease and Stroke: A Prospective Cohort Study

Background: This study aimed to investigate the association between sugar in beverage and dementia, Alzheimer Disease (AD dementia) and stroke.

Conclusion

Higher consumption of sugar in beverage was associated with an increased risk of all dementia, AD dementia and stroke.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

Incidence of Transient Ischemic Attack and Association with Long-term Risk of Stroke

Question What is the incidence of first transient ischemic attack (TIA) associated with subsequent stroke risk?

Meaning

Among participants in the Framingham Heart Study from 1948-2017, TIA was associated with greater risk of subsequent stroke compared with matched control participants without TIA, and the risk of stroke after a TIA was lower in more recent periods.

Importance

Accurate estimation of the association between transient ischemic attack (TIA) and risk of subsequent stroke can help improve preventive efforts and limit the burden of stroke in the population

THE IMPORTANCE OF A MEDICAL HISTORY UPDATE (MHU):

AND WHY DO WE ASK YOU TO FILL THEM OUT?

The Framingham Heart Study (FHS) is exceptionally unique due to its large number of dedicated participants. By doing a Medical History Update (MHU) each year, we are able to update the health information we keep on file for our participants. Upon completion of the questionnaire, medical records are collected and validated, and all participant information is made anonymous before it is submitted to our data archive.

The MHU bridges the gap between exams, allowing us to obtain more information about your medical history. This includes heart, neurological, circulatory, and other problems that you may have experienced since the last time you shared your health information with us. The annual update process ensures researchers have a comprehensive and accurate medical history and can use the data to report and understand health trends. Data such as this is particularly useful for identifying health conditions that develop slowly and can negatively impact an individual, such as heart disease and memory-related issues.

When researchers identify a trend or disease, they can use data collected years earlier to determine the cause and/or risk factors. As a result, researchers from all over the world can use data from the FHS archive with permission. In 2021, more than 170 scientific papers were written, demonstrating great interest in utilizing the data.

Your participation in our annual health update plays a vital role in improving the health of everyone, including your own.

Thank you for your ongoing support and involvement in the MHU process!



HELP US KEEP YOUR HEALTH INFORMATION UP TO DATE!

Your important information contributes to the ongoing research at FHS

Call, Text or Email Us 508-935-3428 | 1-866-466-2040 fhsmhu@bu.edu

You can complete your Medical History Update by phone with FHS staff, on your own with an emailed link, or on a paper form mailed to you









PROGRESS REPORT FROM DR. VASAN RAMACHANDRAN

I sincerely hope that you and your families are in good health. We are very grateful at the Heart Study for your continued contributions, notwithstanding the COVID-19 pandemic. Through the surges of the delta and omicron variants, you have continued to remain engaged with the Heart Study via in-person examinations, televisits and health history updates. At this time we have completed approximately 70% of the examination cycle for Offspring (Exam 10) and OMNI 1 (Exam 5). We hope to pick up the pace and complete the remaining examinations over the next quarter as COVID-19 cases continue to de-escalate in Massachusetts. Throughout the pandemic period, visits at the Heart Study are conducted with the highest level of precautions to safeguard each one of you. Our research center staff have been vaccinated and boosted, and they continue to undergo weekly PCR-based tests to detect the virus that causes COVID-19. We are meticulously following CDC and our state guidelines. The upgrades to our ventilation system in the Perini building continue to be maintained. For those Gen 2 and Omni-1 participants awaiting their inperson examinations, we look forward to seeing you soon—we will be in touch!

The fourth examination of Gen 3/Omni-2/NOS cohorts is scheduled to begin in the fall season this year. Our preparations for this examination continue. The examination content is beginning to take shape as the federal grants defining the examination content continue to get funded. We will have a definitive idea of the complete examination components over the next few months. We will keep in touch and provide you with details as our plans mature. The current indications are that we will have an exciting examination for you, with some newer tests that will provide great scientific information. We cannot wait to see you at our FHS Research Center in the Perini building starting in the fall. I also want to thank all FHS cohorts for their participation in and support for the NIH-supported national COVID-19 study (termed C4R), where FHS is partnering with thirteen other cohorts. Your detailed responses to our COVID questionnaires and to our request for sending dried blood spots are providing invaluable scientific data, which will help our country respond better to the ongoing and future pandemics.

We look forward to serving each of you this year, whether it is by speaking with you over the phone or seeing you in person at our Research Center. We remain very grateful to you for your continued participation in our scientific mission!

With my highest regards and heartfelt wishes,

Vasan S. Ramachandran, M.D., DM, FACC

The Framingham Heart Study, Boston University School of Medicine Principal Investigator and BU Director, The Framingham Heart Study



HIGH SCHOOL SENIORS: ENTER THE 2022 \$1500 DAWBER ESSAY CONTEST

John Galvani, president, and the board members of the Friends of FHS, announced two scholarships for 2022 based on an essay contest: a \$1,500 Award and a \$750 Award.

Eligibility: Open to children, stepchildren, and grandchildren of FHS participants. Applicants must be graduating from high school this year and planning to attend college in the fall of 2022.

To apply: Only two items are needed (1) an email with the applicant's name, address, telephone number and college and career plans (roughly a two-sentence description), and (2) a 1.000-word essay titled What it means to be a participant in medical research in the Framingham Heart Study. Applicants tell a story, conduct an interview, or pursue any angle of interest. Please fact-check and proofread before submitting. Email the essay as an attachment to fhsinbox@bu.edu by Monday, April 18, 2022. We will confirm receipt of all essays within one business day. If you don't receive a confirmation, please call (508) 935-3443. The Friends will review the essays and notify recipients by May 17, 2022, Recipients will be invited to accept their awards at the FHS Research Center.



2021 SCHOLARSHIP WINNER Faith Wardwell



2021 RUNNER-UP **Grace Doloher**



A Message From the Friends of the Framingham Heart Study

Greetings, fellow participants. We are participant volunteers from the Offspring (Second Generation), Third Generation, and Omni cohorts who meet periodically throughout the year as members of the Board of Trustees for the Friends of the

Framingham Heart Study. With funds donated to the Friends, we provide support for items and activities at FHS, such as occasional travel grants to FHS investigators attending scientific conferences, audio-visual equipment for long-distance conferencing with collaborators, annual scholarships to high-school graduates going to college and the ECG cards sent to participants after clinic visits. With your help, we will be able to do more to support FHS in its groundbreaking research for improving public health related to heart disease, diabetes, cancer, sleep disorders, aging and Alzheimer's disease.

The Friends of the FHS is a 501(c) (3) nonprofit organization supported solely by *donations.* We invite you to contribute a personal donation or one in the memory of, or in honor of, a family member or friend. No donation is too small or too large and all are tax deductible.

To make a donation:

please mail a check made out to: "Friends of the FHS." Address it to:

> Rebecca Bennett ATTN: Friends of the FHS 73 Mt. Wayte Ave., Suite 2 Framingham, MA 01702

Trustees of Boston University National Heart, Lung, and Blood Institute Framingham Heart Study

73 Mt. Wayte Avenue Framingham, MA 01702

RETURN SERVICE REQUESTED

www.framinghamheartstudy.org





CONTACT US

FHS Main Number (508) 872-6562 or (800) 854-7582

2nd Generation (Offspring), 3rd Generation and **Omni Participants** Maureen Valentino (508) 935-3417, (800) 536-4143 or maureenv@bu.edu or text to (508) 935-3417

Spanish Speaking Participants, please call Patricia Olea-Fichtel (508) 935-3485 or polea@bu.edu

Brain Donation Brain Aging Program Answering Service/Pager 1-(877) 993-6667

Brain Aging Program Participant Coordinator Sophie Donohue (508) 663-4078

Cognitive Testing, Stroke Coordinator Katherine O'Malley (508) 663-4059 or keomall@bu.edu

MRI/PET Study Coordinator Vicki Peterson (508) 935-3468 or vpeters@bu.edu

If you're part of the 3rd Generation, OMNI 2 or New Offspring Spouse cohort and feeling left out, don't...

Exam 4 is Coming Soon!

Stay tuned for more details in our Fall 2022 Newsletter