The Women's Health Study From Adolescence to Adulthood

ANNUAL NEWSLETTER - 2025

Thank you for your continued participation in The Women's Health Study: From Adolescence to Adulthood (A2A). We are excited to share our annual study newsletter with you, where we highlight some recent research findings, what we are working on now, and what is still to come.

Please keep your eye out for an email from us with a link to your annual health questionnaire. It will arrive in your email inbox in the next 6 weeks. We hope you will take the opportunity to participate this year, even if you have taken a break from answering questionnaires in the past few years. Your contributions are unique and truly invaluable - we can't do it without you!

Chronic Pain Research

We are proud to announce our team received new funding from the National Institutes of Health (NIH) to study chronic pain. Led by Dr. Naoko Sasamoto (pictured), we will use A2A questionnaire data paired with blood samples to learn more about the development of chronic pain over time, and to try and identify a blood biomarker related to chronic pain development.



What does this mean for you? Over the next 1-2 years, you will see new questions on your annual questionnaire. You will also be invited to come into our research center in Boston to provide a blood sample. More information will be sent with your annual questionnaire, but please reach out to the study team with any questions. You can find our contact information in the newsletter.





We asked "What's the best part of working on the A2A study?" "Definitely the people I've met. Our fantastic participants of course, plus our wonderful team members, both past and present. I've been privileged to work with these folks over the last 12 years." *Cam, Project Manager, Ob/Gyn Epidemiology, Brigham and Women's Hospital*



"A great thing about working on A2A has been learning about different types of birth control and why people choose them."

Shruthi, Program Coordinator, Ob/Gyn Epidemiology, Brigham and Women's Hospital



"I appreciate learning about changes in symptoms, medications and lifestyles among participants with and without endometriosis/women's health related conditions over the course of time." *Esther, Clinical Research Specialist, Adolescent and Young Adult Medicine, Boston Children's Hospital*



"My favorite part of working on A2A has been hearing about people's experiences and symptoms with women's health issues like endometriosis and polycystic ovary syndrome." Amanda, Research Assistant, Adolescent and Young Adult Medicine, Boston Children's Hospital







In Memoriam

It is with deep sadness that we share the news of the unexpected death of our colleague Dr. Ray Anchan on October 9th, 2024. Dr Anchan co-led the basic science research of the Boston Center for Endometriosis. His contributions to endometriosis research were many and he made a lasting impact on the field, both clinically and scientifically. He will be missed both professionally and personally.



Anticipated Research Discoveries in 2025

Here is what we are working on this year:

- Using A2A questionnaire data and a statistical method called group-based trajectory modeling, we are studying what characteristics of participants predict the best patterns of improving pelvic pain and quality of life over several years. The goal is to identify characteristics that doctors can use to tailor treatment plans to individual patients.
- Using A2A blood samples, we are studying markers of inflammation to see if participants who reported various pelvic pain symptoms have higher inflammation levels than participants without pain.
- We measured antibodies to COVID-19 in the Orasure saliva samples A2A participants collected in 2023. We are now studying how the antibodies differ between those who reported long COVID symptoms and those who did not, and among participants with endometriosis and those without endometriosis.
- Recent research has shown that the oral microbiome (small organisms like bacteria and viruses in the mouth) may hold clues to health. Using A2A saliva samples, we are studying whether oral microbiome profiles differ between participants with a history of endometriosis and those without.



Nutrition Studies - Using the Food Frequency Questionnaire

Every few years, we ask participants to complete the Food Frequency Questionnaire, a Scantron form that asks about the foods that you typically eat. We work with partners at the Harvard T. H. Chan School of Public Health to analyze the forms and give us information on macronutrients (carbohydrates, protein, and fat) and micronutrients (vitamins and minerals that the body needs in small amounts to support health). We took a peek at the data to learn more about what participants are eating right now.

- Among our 1,000+ participants, the most frequently reported fruits and vegetables eaten are: broccoli, spinach, carrots, apples, and bananas
- 56% of participants drink at least 8 ounces of water per day
- 59% of participants drink at least one cup of coffee every day
- 57% participants eat at least one apple every week
- Overall, A2A participants meet the recommendations for many common vitamins and minerals, including vitamin C, iron, calcium, and vitamin B12

Learn more about your favorite foods and other foods on Harvard's website The Nutrition Source.

Contact the A2A Study Team

A2A team at Boston Children's Hospital: email: womenshealthstudy@childrens.harvard.edu phone: 617-355-3309 www.Facebook.com/WHSA2A A2A team at Brigham and Women's Hospital: email: womenshealthstudy@bwh.harvard.edu phone: 617-732-4242 www.whsboston.org



Women's Health Research Goes Viral

You may have seen posts on social media about the results of women's health research, or the historical lack of women's health research. Social media is a great way to raise awareness about study results and the need for more women's health research, but it is not always the best place to get a full understanding of these studies.

To help make sure you have access to A2A study results, we are increasing our efforts to share study results directly with research participants. In addition to this annual e-newsletter, we are continuing to create new visual abstracts, posting on our <u>Facebook page</u> and <u>website</u>, and mailing printed updates.

If you're curious about how you can support women's health research...you are already doing it! As a participant in the A2A study, every time you complete a questionnaire or provide samples, you are providing your unique, individual level data into a large study of women's health across the lifespan.

The NOTE Study

The Novel Treatments for Endometriosis (NOTE) study is recruiting new research participants in several study locations: Massachusetts, Pennsylvania, California and Colorado. We are looking for participants 15-40 years old who have endometriosis-associated pain despite using hormonal medication. We are investigating whether adding a twice weekly non-hormonal medication is effective for controlling pain and symptoms of endometriosis.

For more information, please visit <u>our website</u>, view our study listing on <u>Clinicaltrials.gov</u>, or email bce@childrens.harvard.edu.

Recent Publications from our Researchers

Brady P, Yousif A, **Sasamoto N**, **Vitonis AF**, Fendler W, Stawiski K, **Hornstein MD**, **Terry KL**, Elias KM, **Missmer SA**, **Shafrir AL**. Plasma microRNA expression in adolescents and young adults with endometriosis: the importance of hormone use. Front Reprod Health. 2024 Apr 11;6:1360417. doi: 10.3389/frph.2024.1360417. PMID: 38665804; PMCID: PMC11043576. https://pubmed.ncbi.nlm.nih.gov/38665804/

Ghiasi M, Chang C, Shafrir AL, Vitonis AF, Sasamoto N, Vazquez AI, DiVasta AD, Upson K, Sieberg CB, Terry KL, Holzman CB, Missmer SA. Subgroups of pelvic pain are differentially associated with endometriosis and inflammatory comorbidities: a latent 10.1097/j.pain.000000000003218. class analysis. Pain. 2024 Apr 2. doi: Epub ahead of print. PMID: 38563996.https://pubmed.ncbi.nlm.nih.gov/38563996/

Shafrir AL, Wallace B, Laliberte A, Vitonis AF, Sieberg CB, Terry KL, Missmer SA. Pelvic pain symptoms and endometriosis characteristics in relation to oxidative stress among adolescents and adults with and without surgically-confirmed endometriosis. F1000Res. 2024 Jan 8;13:34. doi: 10.12688/f1000research.141793.1. PMID: 38495219; PMCID: PMC10940847. https://pubmed.ncbi.nlm.nih.gov/38495219/

Tyson N, Shim J, Lee T, King CR, Einarsson J, **Hornstein MD, Laufer MR**. Surgical Considerations in the Management of Adolescent Endometriosis-An Expert Commentary. J Minim Invasive Gynecol. 2024 Feb 6:S1553-4650(24)00045-1. doi: 10.1016/j.jmig.2024.01.021. Epub ahead of print. PMID: 38325581. https://pubmed.ncbi.nlm.nih.gov/38325581.

Mongiovi JM, Wallace B, Goodwin M, Vitonis AF, Karevicius S, Shafrir AL, Sasamoto N, DiVasta AD, Sieberg CB, Terry KL, Missmer SA. Differences in characteristics and use of complementary and alternative methods for coping with endometriosis-associated acyclic pelvic pain across adolescence and adulthood. Front Reprod Health. 2024 Jan 8;5:1306380. doi: 10.3389/frph.2023.1306380. PMID: 38260050; PMCID: PMC10801248. https://pubmed.ncbi.nlm.nih.gov/38260050/







