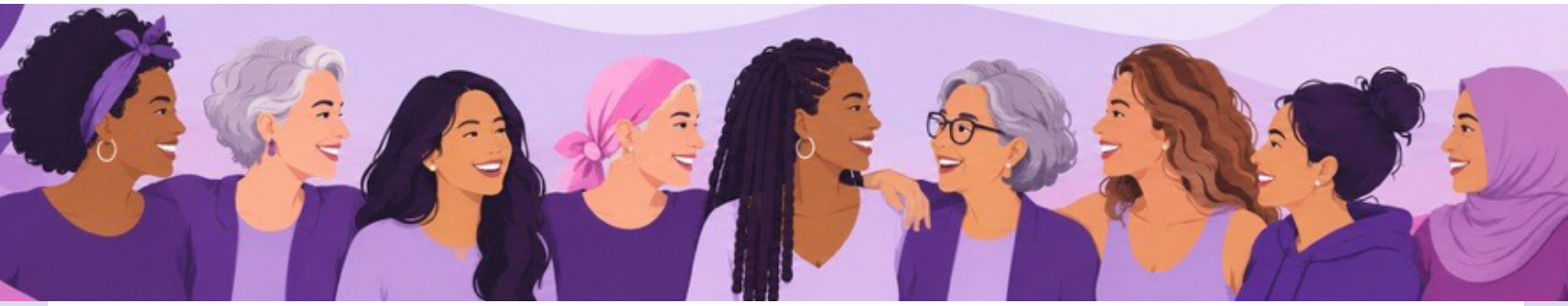
October 2026

THE SISTER STUDY

Breast Cancer Research

Woman by woman, sister by sister, we can make a difference!



Dear Sister Study participants —

As we look ahead to the coming year, I want to personally reassure you that our dedication to the Sister Study's original goals and excellent science is as strong as ever. While these sometimes feel like challenging times for scientific research, we are deeply grateful for the continued support from NIEHS leadership, which allows us to keep pushing our important work forward.

Our main goals remain the same: to find out how our environment and daily habits affect breast cancer risk, so we can find ways to prevent the disease for everyone, especially those with a sister who has had it. We also have a unique chance to learn how our surroundings affect healthy aging and other health issues, like autoimmune diseases, gallbladder disease, cardiovascular diseases, and neurological health. We are actively looking into the health impacts of extreme heat, wildfire smoke, tattoo ink, and ultra-processed foods. We are also exploring how early life experiences affect long-term health, and we are using new technologies to understand exactly how our living environments impact us.



To keep this momentum going, your continued involvement is more important than ever as our community grows older. When we started, participants were between 35 and 74 years old. Today, our average age is around 70, and we are thrilled to have dedicated sisters in their 80s and 90s still completing their updates and joining special projects like the ABC study! If you receive an invitation to join the ABC study, please consider participating: your help is key to unlocking these new discoveries about health and aging.

We are also proud to share that our program recently received an outstanding rating from our science advisory board, the Board of Scientific Counselors. During their review, they specifically praised our past successes and the exciting chances for future discovery within the Sister Study. Ultimately, none of this lasting impact would be possible without you. We simply could not do this without such wonderful, dedicated participants.

Dale Sandler, Ph.D., lead researcher for the Sister Study

October 2026

The Sister Study Breast Cancer Research

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Stay Connected with the Sister Study!

sisterstudy.niehs.nih.gov

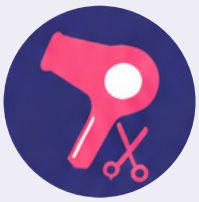
update@sisterstudy.org

Join our Facebook Group!

Interested in exploring more Sister Study research? Search for "**NIEHS Sister Study**" on Facebook, click "Groups," and ask to join our private group.

facebook.com/groups/niehssisterstudy

Latest Research Highlights



HAIRDRESSING WORK

linked to hormone-related conditions

Understanding Exposures and Health Risks Among Hairdressers

Hairdressers regularly work with products containing potentially harmful chemicals, including dyes, bleaches, straighteners, and disinfectants. Sister Study researchers found that women who worked as hairdressers for at least two years were more likely than non-hairdressers to report hysterectomy or endometriosis, while Black hairdressers were more likely to report uterine fibroids. Among long-term hairdressers, frequent use of perms, chemical straighteners, or permanent hair dyes on clients was also associated with hysterectomy. No associations were found with breast, ovarian, or uterine cancer.

tinyurl.com/SS-Hairdressers



AIR POLLUTION

timing may matter for breast cancer risk

Air Pollution and Breast Cancer: When Exposure May Matter Most

Growing evidence suggests that air pollution may be linked to a higher risk of breast cancer, but some periods of life may be more sensitive to its effects. Using participants' residential histories, Sister Study researchers estimated exposure to nitrogen dioxide (NO_2) and fine particulate matter (PM2.5). Higher exposure around a woman's first or most recent birth and during perimenopause was associated with increased breast cancer risk. Researchers also found some potential differences in periods of susceptibility for breast cancer risk depending on estrogen receptor status.

tinyurl.com/SS-AirPollution



HAIR STRAIGHTENERS

linked to additional cancer types

Chemical Hair Relaxers/Straighteners and Non-Reproductive Cancers

Previous research has linked chemical hair straighteners and relaxers to some reproductive cancers, but less is known about other types of cancer. Among more than 46,000 Sister Study participants, researchers found that use of these products was associated with higher rates of thyroid cancer, non-Hodgkin lymphoma, and pancreatic cancer. Little to no evidence of an association was found for melanoma, lung cancer, leukemia, colorectal cancer, or kidney cancer.

tinyurl.com/SS-HairStraighteners

We're here to help!

As always, please contact us at the Sister Study helpdesk:

877-4SISTER (877-474-7837)

update@sisterstudy.org