



African-American Sisters Play a Key Role in the Sister Study!

"As African-American women whose sister had a very scary type of breast cancer, we are committed to continuing our participation in the Sister Study. We want researchers to learn about our community's breast cancer risks so future generations don't have to face this horrible disease. We ask you to stay with us in the Sister Study!"

Sally-Ann and Dorothy Roberts, long-time Sister Study participants and sisters of Robin Roberts, anchor of ABC's "Good Morning America"



Your participation in the Sister Study has already helped researchers learn new information about African-American women and breast cancer. See the other side of this flyer for more about what you've helped us learn!

Compared to other U.S. women, African-American women:

- are often diagnosed with breast cancer at younger ages;
- often have more aggressive tumors;
- have a higher breast cancer death rate.

These concerns matter for women in the Sister Study. Although breast cancer is less common in African-American women (5.6% of participants) compared to non-Hispanic White women (6.8% of participants) in the Sister Study, ***African-American women were more likely to be diagnosed at stage 2 or higher*** (30% versus 25%) and more likely to have estrogen receptor negative tumors, i.e., breast cancer that is less responsive to hormone treatments (22% versus 15%).

Ongoing and new research specific to African-American Sisters:

- How poor sleep, traumatic events, and perceived racism may be related to breast cancer and other chronic diseases in African-American women.
- Whether measures of social inequality are associated with breast cancer risk.
- Whether certain biomarkers of increased risk for diabetes are more common in African-American women.



How can you continue to help the Sister Study answer questions that are important for African-American women?

- Complete your yearly questionnaires.
- Keep us updated on any major life changes: Did you move? Have you experienced any major changes in your health?
- Allow us to obtain important medical records, if we ask for them.
- Remember that every woman has a unique health story. We want to hear all of them!

The Sister Study

877-4SISTER (877-474-7837)
sisterstudy.niehs.nih.gov

U.S. Department of Health and Human Services
National Institutes of Health
National Institute of Environmental Health Sciences

You have already helped the Sister Study team learn a lot about African-American women's health.

- In general, African-American women have lower levels of vitamin D in their blood than White women. We recently showed that lower levels of vitamin D were associated with increased breast cancer risk. **In a proposed new project, we hope to examine this association specifically in African-American Sisters.**
- We are finding that healthy diet patterns may be associated with *lower breast cancer risk*. **The beneficial effects of diets such as the "Healthy Eating Index", the "Mediterranean Diet", and the "Dietary Approaches to Stopping Hypertension (DASH)" diet were more evident for estrogen negative breast cancer**, which is more common in African-American women. All of these diets are higher in fruits, vegetables, and healthy grains.
- In the Sister Study, African-American women are more likely to report douching or applying talc to their underwear, pads, diaphragm or vaginal area. We found that douching, but not talc use, was associated with increased risk for developing ovarian cancer. Though we know of no other studies that have collected data on douching, **we are joining up with other large cohort studies to do a bigger study of the relationship between talc use and ovarian cancer risk.**
- **We are also interested in studying the association between douching, talc use and other reproductive cancers.** In a new Sister Study report, we did not see an association between douching and uterine cancer, but did observe a small, possible association between genital talc use and increased risk of uterine cancer.
- We recently reported that women whose biologic age (defined by specific markers of changes to gene function) is older than their calendar age have increased risk of breast cancer. **A new study will look at biological age and breast cancer in African-American women in the Sister Study.**
- **We have joined forces with other cohorts to identify novel gene variants that are associated with estrogen receptor negative breast cancer (more common in African-American women).** This information is being used to develop risk prediction scores that can be helpful in determining who can benefit from more rigorous breast cancer screening.
- **African-American women in the Sister Study are more likely to report not getting enough sleep, not sleeping well, and having light from nightlights, TVs and other sources on in the room while they are sleeping.** We have found associations between short or disturbed sleep and increased obesity or metabolic syndrome (defined by abdominal obesity, and high blood pressure, cholesterol, and blood sugar), both of which are also more common in African-American women in our study. We also found that women who reported having lights on at night were more likely to develop obesity.
- African-American and White women use different types of hair products. **In an ongoing Sister Study research project, we are studying whether frequent use of chemical hair straighteners and relaxers, both of which are more commonly used by African-American women, may affect breast cancer risk.** We are particularly concerned about hair straighteners, as some contain formaldehyde, a chemical known to cause cancer.

Together there is much more we can learn.