



6 findings from the Sister Study you should know

The 20-year breast cancer study can teach us about other health risks, too

Since 2003, the still ongoing [Sister Study](#) has followed more than 50,000 women from all 50 states and Puerto Rico to find causes of breast cancer. The study led to findings about relationships between disease, lifestyle, and environmental factors.

Here are six major findings from the Sister Study that may surprise you:

1. Chemical hair straighteners and risk of uterine cancer

Women in the study who used chemical hair straighteners had a higher risk of uterine cancer. They were more than twice as likely to develop uterine cancer than women who did not use chemical hair straighteners. The risk was highest in women who used these products more than four times in one year.

2. Talc use, douching, and risk of ovarian cancer

Sister Study data has been used to measure cancer risks from using feminine hygiene products. Although seen in other studies, researchers did not find an increased risk of ovarian cancer from talc use in the 12 months prior to enrollment. Talc is a mineral sometimes used in genital powders. It can contain asbestos, which can cause cancer if inhaled. But researchers did see increased risk of ovarian cancer associated with douching (washing or cleaning the vagina with water or other mixtures of fluids).

3. Discrimination and risk of type 2 diabetes for White, Black, and Hispanic/Latina women

Women who reported experiencing major racial or ethnic discrimination had a higher risk of type 2 diabetes. The study defined “major discrimination” as systemic or structural. This could mean experiences such as being denied jobs or promotions or being threatened by a police officer. Black women were more likely than White or Hispanic/Latina participants to report experiencing major discrimination because of their race or ethnicity.

4. Vitamin D levels and risk of breast cancer among Black and Hispanic/Latina women

Women with enough vitamin D in their blood were less likely to get breast cancer than women with [low vitamin D levels](#). This was especially true for Hispanic/Latina women. Both Hispanic/Latina and Black women tended to have lower vitamin D levels than White women.

5. Artificial light during sleep and risk of obesity

People exposed to artificial light while sleeping were more likely to be affected by obesity both before and after they joined the study. [Artificial light](#) can come from inside the bedroom such as from nightlights or televisions, or it can come from outside like streetlights. The strongest link between artificial light and obesity was sleeping with a light or television on in the room.

6. Neighborhood characteristics can affect risk of high blood pressure

Living in neighborhoods without necessary things such as grocery stores or doctors may increase risk for [hypertension](#) (high blood pressure). The Sister Study categorized addresses of its participants using census data on home values, poverty rates, and other factors. Women who lived in under-resourced neighborhoods had higher rates of hypertension. Black women living in these neighborhoods had the highest rates of hypertension.

Women enrolled in the study from 2003 to 2009. Most are still active in the study through regular follow-up activities.

Find the full library of research from the Sister Study [here](#). ■

FAST FACT:

As of September 2023, **more than 300** research papers have been published using Sister Study data.



SOURCE: [NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES](#)