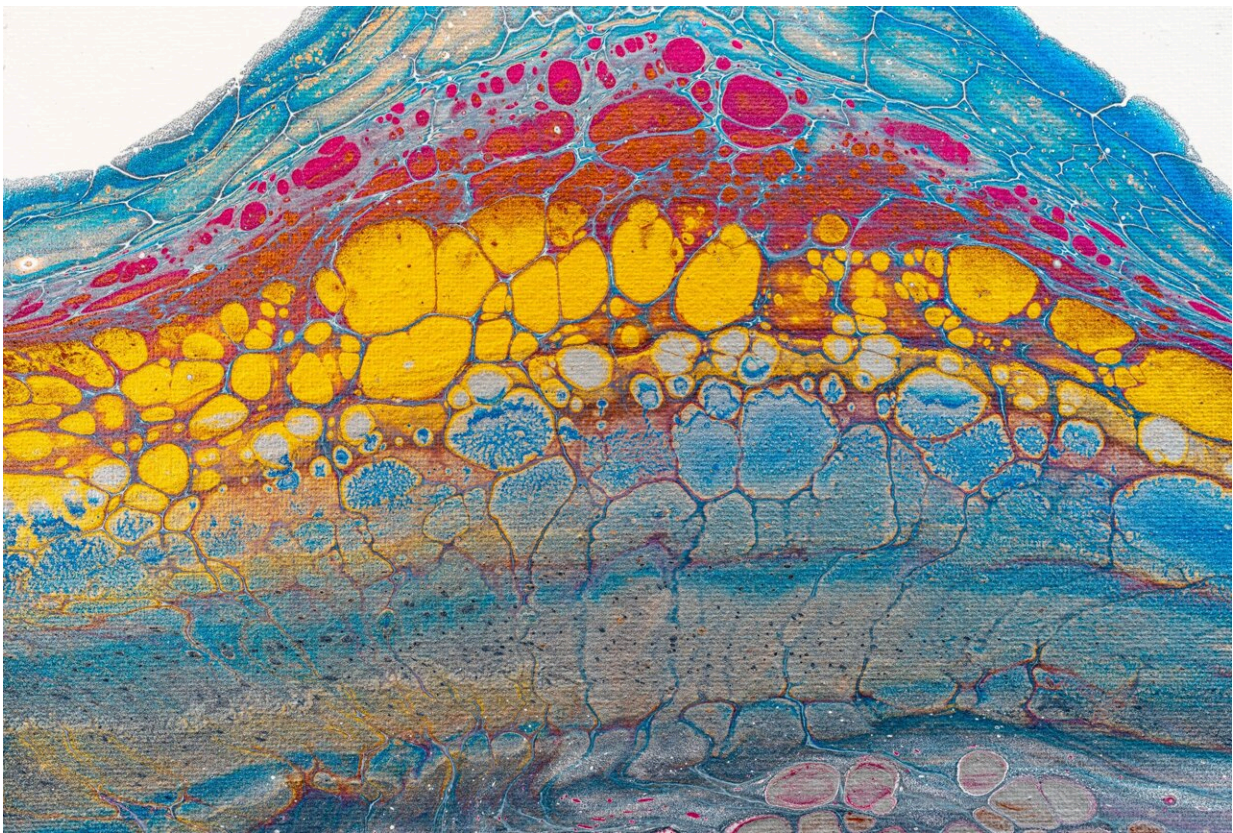


# Chemicals in personal care products cause harmful effects in breast cancer cells from Black women

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Chemicals called parabens, which are found in widely used hair and personal care products, cause harmful effects in breast cancer cells from

Black women, according to a new study being presented Sunday at ENDO 2022, the Endocrine Society's annual meeting in Atlanta, Ga.

One in eight women in the United States will get breast cancer during their lifetime. Black women are at a higher risk of getting breast cancer under the age of 40 than any other racial or ethnic group.

"One reason for the higher risk of breast cancer may be exposure to harmful chemicals called endocrine-disrupting chemicals in hair and [personal care products](#)," said lead researcher [Lindsey S. Treviño](#), Ph.D., of City of Hope, a [cancer research](#) and treatment organization in Los Angeles, Calif. "These chemicals mimic the effects of hormones on the body."

Parabens are endocrine-disrupting chemicals that are commonly used as preservatives in hair and other personal care products. Parabens cause breast cancer cells to grow, invade, spread, and express genes linked to cancer and to hormone action. Importantly, a survey looking for products that do not contain parabens and other harmful chemicals revealed that there are fewer paraben-free options marketed to Black women.

"Black women are more likely to buy and use hair products with these types of chemicals, but we do not have a lot of data about how parabens may increase breast cancer risk in Black women," Treviño said. "This is because Black women have not been picked to take part in most research studies looking at this link. Also, studies to test this link have only used breast cancer cell lines from [white women](#)."

The new study tested the effects of parabens on breast cancer cells from Black women. The researchers found that parabens increased the growth of a Black breast cancer cell line. This effect was not seen in the white breast cancer cell line at the doses tested. Parabens increased expression

of genes linked to hormone action in breast cancer cell lines from both Black and white women. Parabens also promoted the spread of breast cancer cells, with a bigger effect seen in the Black breast cancer cell line.

"These results provide new data that parabens also cause [harmful effects](#) in [breast cancer cells](#) from Black women," Treviño said.

The study is a part of a community-led project called the Bench to Community Initiative (BCI), which brings together scientists and community members (including breast cancer survivors) to create ways to reduce exposures to harmful chemicals in hair and personal care products in Black women with breast cancer.

"While this project focuses on Black women, the knowledge we gain about the link between exposure to [harmful chemicals](#) in personal care products and breast cancer risk can be used to help all women at high risk of getting [breast cancer](#)," Treviño said.

**More information:** Treviño will present at the Society's ENDO 2022 endocrine-disrupting chemicals news conference at noon on Saturday, June 11.

Provided by The Endocrine Society

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