

Could certain hair dyes, relaxers raise breast cancer risk?

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(HealthDay)—The safety of hair products has been debated for years.

Now, new research suggests that black women who use dark hair dyes face a higher risk of breast cancer, while chemical relaxers and straighteners boost the odds in white women.

The findings stem from a study of more than 4,000 [women](#). Use of dark brown or black hair dyes by [black women](#) was tied to a 51 percent greater risk of breast [cancer](#). And whites who used hair relaxers had 74 percent higher odds.

But while the study found a possible link between the hair products and breast cancer risk, it did not prove a connection.

"Our findings do not suggest that simply using hair dyes, relaxers or both will cause a woman to get breast cancer," cautioned study lead author Adana Llanos.

"The reality is that we regularly encounter a variety of harmful exposures, which we have no control over," said Llanos, an assistant professor of epidemiology with the Rutgers School of Public Health and Rutgers Cancer Institute of New Jersey.

However, she added, "we should limit or reduce the possibility of harmful exposures when we are able to do so."

But another expert said the study findings are inconclusive and don't warrant a change in hair care.

Scientists have studied the potential risks of hair dye for decades, focusing on bladder cancer, leukemia and breast cancer. There haven't been any definitive findings yet. The American Cancer Society says most studies looking into hair dye and breast cancer have found no link between the two.

However, studies generally haven't included black women, Llanos said.

For the new study, researchers asked 4,285 white and black women in New York City and New Jersey about their past use of hair care products. Their ages ranged from 20 to 75. Nearly 2,280 were [breast cancer survivors](#).

The idea was to compare hair product use among women who developed breast cancer and women who didn't get the disease.

The products included dyes, chemical relaxers and deep conditioning creams containing cholesterol or placenta. Cholesterol is marketed as a moisture restorer, and placenta is sold as a hair repairer, Llanos said.

While the study found that black women who used dark dyes had a 51 percent greater risk of developing breast cancer overall, the risk for developing estrogen receptor positive breast cancer—the most common type—was 72 percent higher.

Llanos said it's not clear why the chemicals in hair products may boost cancer risk. But she said research has suggested it could have something to do with DNA damage or the body's absorption of harmful chemicals.

It's also not clear why the risks might differ by race or why darker dyes might be especially dangerous.

"One hypothesis is that the chemical composition of hair products marketed for and used among whites may differ from the products marketed for use by African-Americans," Llanos said. "More research is needed to determine specifically which compounds and chemicals are dangerous and even which specific consumer products and brands contain those chemicals."

The researchers adjusted their findings so they wouldn't be thrown off by factors like age, education or use of birth control pills. And Llanos said it's possible that something related to lifestyle other than use of hair products could affect [breast cancer risk](#).

A toxicologist for the Personal Care Products Council, a trade group, countered that no studies have shown that hair dyes or relaxers cause cancer.

"Those who use cosmetics and personal care products can feel confident that they are protected by a combination of strong federal safety regulations enacted by the U.S. Food and Drug Administration [FDA] and the science-based safety assessments from the companies that manufacture these products," Linda Loretz, chief toxicologist for the council, said in a statement.

According to the U.S. National Cancer Institute, about 12 percent of American women will develop [breast](#) cancer at some point in their lives.

Although the study didn't include men, Llanos said her advice is the same for both sexes: "Be mindful of hair products, cosmetics and other [personal care products](#) that you use."

However, Dana Rollison, of the Moffitt Cancer Center in Tampa, Fla., said women shouldn't panic based on these results.

"Until more results are available, women should not be concerned with using [hair dyes](#)," said Rollison, who is vice president and chief data officer. "Exposures should not be avoided on the basis of a single study."

While the study tackles an important research question, Rollison said, it also has a number of limitations. She believes more research is needed to fully understand if there's a link between [hair](#) dye and [breast cancer](#).

The study appears in the June online issue of the journal *Carcinogenesis*.

More information: Adana Llanos, Ph.D., MPH, assistant professor, epidemiology, Rutgers School of Public Health and Rutgers Cancer Institute of New Jersey, New Brunswick; Dana Rollison, Ph.D., vice president and chief data officer, department of cancer epidemiology, Moffitt Cancer Center, Tampa, Fla.; Linda Loretz, Ph.D., chief toxicologist, Personal Care Products Council; June 2017, *Carcinogenesis*

For more about hair dye and cancer, visit the [American Cancer Society](#).

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