

Female hormone supplements with estrogen and progestin linked to breast cancer risk

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Micrograph showing a lymph node invaded by ductal breast carcinoma, with extension of the tumour beyond the lymph node. Credit: Nephron/Wikipedia

Postmenopausal African American women who use female hormone supplements containing estrogen and progestin ("combination" therapy) are at an increased risk for estrogen receptor positive breast cancer.

The study, which appears in the *Journal of the National Cancer Institute*, found the overall increase in risk was 50 percent, with greater increases for recent and long-term users.

Prior epidemiologic studies have been based largely in white women. In those studies, use of [combination therapy](#) was associated with an [increased risk](#) of [estrogen receptor](#) positive breast cancer, the most commonly occurring breast cancer subtype, which is known to be sensitive to hormonal factors. Whether postmenopausal female hormone therapy has the same effects in [black women](#) has been unknown up to this point since

the few studies that had researched this population had produced conflicting data.

Researchers from the Slone Epidemiology Center at Boston University led an investigation of this association in data from the four large studies of black women included in the AMBER (African American Breast Cancer Epidemiology and Risk) Consortium. The AMBER consortium is led by investigators at Boston University, Roswell Park Cancer Institute and the University of North Carolina. Two types of postmenopausal [female hormone](#) use, combination therapy and use of estrogen alone were assessed in relation to risk of estrogen receptor positive and estrogen receptor negative breast cancer. Similar to findings in white women, use of combination therapy was associated with increased risk of estrogen receptor positive breast cancer, with risk increasing as the duration increased. The risk declined after cessation of use but was still somewhat elevated up to 10 years later. There was no increase in risk associated with use of estrogen alone, nor was there any increase in risk of estrogen receptor negative breast cancer associated with use of either combination therapy or estrogen alone.

"The present findings establish that combination therapy in black women is associated with increased risk of estrogen receptor positive breast cancer, similar to the pattern in white women," explained corresponding author Lynn Rosenberg, ScD, associate director of the Slone Epidemiology Center and principal investigator of the Black Women's Health Study, one of the studies that contributed to this conclusion. "Our findings highlight the importance of black women limiting their use of combination therapy."

According to Rosenberg, the latter point is particularly important because recent national cancer statistics indicate that [breast cancer](#) incidence has been increasing among African American [women](#) and converging to the rate of

[white women](#), while the death rates continue to diverge between the groups.

More information: Lynn Rosenberg et al. Postmenopausal Female Hormone Use and Estrogen Receptor–Positive and –Negative Breast Cancer in African American Women, *Journal of the National Cancer Institute* (2015). [DOI: 10.1093/jnci/djv361](#)

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