

Lactation linked to reduced estrogen receptor-negative, triple-negative breast cancer risk

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Women who have had children (parous women) appear to have an increased risk of developing estrogen receptor-negative breast cancer, the subtype that carries a higher mortality rate and is more common in women of African ancestry. A similar relationship was found for triple-negative breast cancer. However, the association between childbearing and increased risk of estrogen receptor-negative and triple-negative breast cancer was largely confined to the women who had never breastfed. These findings, published in the *Journal of the National Cancer Institute*, suggest that low rates of breastfeeding in African American women may contribute to their higher incidence of the more aggressive and difficult-to-treat subtypes of breast cancer.

Researchers from Boston University's Slone Epidemiology Center (SEC) collaborated with the Roswell Park Cancer Institute of Buffalo, NY and the University of North Carolina Lineberger Cancer Center to form a consortium to study the determinants of breast cancer subtypes in African American [women](#). They combined data on breast cancer cases and controls from four large studies, including the Boston University Black Women's Health Study. The combined analyses included 3,698 African American women with breast cancer, including 1,252 with the [estrogen](#) receptor-negative subtype.

They found that parous women had a 33 percent higher chance of developing estrogen receptor negative breast cancer than women who had never given birth. Women who had four or more births and had never breastfed any of their babies had a 68 percent higher chance of

developing this type of cancer compared with women who had only one birth and had breastfed that baby. By contrast, parous women who had four or more births had a slightly decreased risk of estrogen receptor-positive breast cancer, regardless of whether or not they had breastfed.

Although previous studies have shown that overall risk of breast cancer may be elevated during the first 5 or 10 years after giving birth with a subsequent reduction in risk, this study suggests that the adverse impact on estrogen receptor negative breast cancer persists over time. The biologic mechanisms behind the association, however, are unclear. One hypothesis is that the immune system/inflammatory processes that occur during postpartum involution may play a role.

"Breast cancer mortality is disproportionately high in African American women of all ages, in part due to the higher incidence of estrogen receptor-negative breast cancer, with fewer targets for treatment," says Julie Palmer, ScD, professor of epidemiology at SEC and lead author of the study. "Breastfeeding represents a modifiable factor that could prevent some cases of this [breast cancer](#) subtype and reduce the number of African American women dying from this disease."

Provided by Boston University Medical Center

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