

# Women Who Do Not Breastfeed At Increased Risk For ER/PR-Negative Breast Cancer

Breast-feeding reduces the risk for estrogen receptor-negative and progesterone receptor-negative breast cancer, according to a study conducted at Columbia University's Mailman School of Public Health. Researchers examined the association between reproductive risk factors - such as the number of children a woman delivers, breast-feeding and oral contraceptive use - and found an increased risk for estrogen receptor- and progesterone receptor- (ER/PR) negative breast cancer in women who do not breast-feed. The results also indicated that having three or more children without breast-feeding was associated with an increased risk for ER/PR-negative breast cancer. ER/PR-negative breast cancer often affects younger women and has a poor prognosis.

The paper was presented at the 11th Annual AACR International Conference on Frontiers in Cancer Prevention Research.

The researchers used data from three sites of the Breast Cancer Family Registry, which includes women with and without breast cancer from the U.S., Canada and Australia. The study included 4,011 women with breast cancer and 2,997 population-based controls.

"Women who had children but did not breast-feed had about 1.5 times the risk for ER/PR-negative breast cancer," said Meghan Work, MPH, doctoral student in the Department of Epidemiology and first author. "If women breast-fed their children, there was no increased risk for ER/PR-negative cancer. This is particularly important as breast-feeding is a modifiable factor that can be promoted and supported through health policy," Work said.

The investigators also found that oral contraceptive use was not associated with ER/PR-negative cancer risk, with the exception of those formulations available before 1975. "These earlier formulations contained higher doses of estrogen and progestin than more recent versions," Work said.

These results are in line with previous findings that have demonstrated a breast-feeding benefit in triple-negative breast cancer, which includes estrogen and progesterone receptor negative cancers. "The consistency of the association with breast-feeding and estrogen receptor negative tumors across a number of studies is particularly noteworthy as there have been few modifiable risk factors identified for this tumor subtype," said Mary Beth Terry, PhD, associate professor of Epidemiology and senior author of the paper.