

# Study Identifies Potential ‘Safe Period’ for Hormone Replacement Use

Atlanta 2009/02/02 -A new study makes important new findings on the role of hormone use on the risk of breast cancer, confirming that the use of estrogen plus progesterone increases the risk of both ductal and lobular breast cancer far more than estrogen-only; suggesting a two-year “safe” period for the use of estrogen and progesterone; and finding that the increased risk for ductal cancers observed in long-term past users of hormone replacement therapy drops off substantially two years after hormone use is stopped. The study appears in *CANCER*, a peer-reviewed journal of the American Cancer Society.

Previous studies have shown that hormone replacement therapy after menopause increases the risk of breast cancer and that use of a regimen that includes both estrogen and progesterone is more detrimental for the breast than the use of estrogen alone. But more data from large prospective studies are needed to fully characterize the impact of exogenous hormones on breast cancer incidence by type of hormone preparation and histology of the cancer.

To investigate the association in more detail, American Cancer Society epidemiologists led by Eugenia E. Calle, PhD, did a prospective study of 68,369 postmenopausal women who were cancer-free at baseline in 1992. They examined the use of estrogen-only and estrogen and progesterone in current and former users of varying duration, and the subsequent risk of developing invasive ductal and lobular carcinoma of the breast. They also looked at whether the risk for each type of breast cancer and each type of hormone regimen varied by body mass index (BMI), stage of disease at diagnosis, and estrogen receptor (ER) and progesterone receptor (PR) status. For the present study, the follow-up period ended on June 30, 2005.

They confirmed the findings from previous work that estrogen and progesterone increases the risk of both ductal and lobular breast cancer far more than estrogen alone. They also found the risk associated with use of estrogen and progesterone increases significantly and substantially within three years of beginning hormone use. The data showed no increased risk for women who used estrogen and progesterone for less than two years, potentially identifying a “safe” period for estrogen and progesterone use.

The study also found no increased risk of breast cancer in women who had stopped using estrogen and progesterone two or more years ago, suggesting a window of two to three years for the risks of estrogen and progesterone both to become apparent after initial use and to diminish after cessation. Few estimates of risk within two to three years of initiation and cessation are available, so these findings need replication in other large studies. The study found the use of estrogen and progesterone was associated with a doubling of risk of lobular cancer after three years of use, and a doubling of risk of ductal cancer with 10 years of use. Estrogen-only use was not associated with increased risk of ductal cancer, even after 20 years of use, but was associated with a 50 percent increase in risk of lobular cancer after 10 years of use.

Article: “Postmenopausal hormone use and breast cancer associations differ by hormone regimen and histologic subtype.” Eugenia E. Calle, PhD, Heather Spencer Feigelson, PhD, Janet S. Hildebrand, MPH, Lauren R. Teras, MPH, Michael J. Thun, MD, Carmen Rodriguez, MD, MPH *CANCER*; Published Online: January 20, 2008 (DOI: 10.1002/cncr.24101); Print Issue Date: March 1, 2009

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