Type of postmenopausal hormone use and risk of breast cancer: 12-year follow-up from the Nurses' Health Study

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Graham A. Colditz, Meir J. Stampfer, Walter C. Willett, David J. Hunter, JoAnn E. Manson, Charles H. Hennekens, Bernard A. Rosner and Frank E. Speizer

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We prospectively examined the use of hormone replacement therapy in relation to breast cancer incidence in a cohort of women 30 to 55 years of age in 1976. During 12 years of follow-up (480,665 person-years) among postmenopausal women, 1,050 incident cases of breast cancer were documented. Overall, past users of replacement estrogen were not at increased risk. After adjustment for established risk factors, type of menopause, age at menopause, and current age, the rate ratio (RR) was 0.91, 95 percent confidence interval (CI) = 0.78–1.07. the risk of breast

cancer was elevated significantly among current users (RR = 1.33, CI = 1.12–1.57); after adjusting for age, we observed no evidence of increasing risk with increasing duration of use among current users (*P* trend = 0.41), or among past users (*P* trend = 0.46). Women currently using unopposed estrogen (RR = 1.42, CI = 1.19–1.70), estrogen and progesterone (RR = 1.54, CI = 0.99–2.39), or progesterone alone (RR = 2.52, CI = 0.66–9.63), were all at increased risk of breast cancer compared with never users. These data suggest that long-term past use of estrogen replacement therapy is not related to risk, that current estrogen use increases risk of breast cancer to a modest degree, and that the addition of progesterone does not remove the increased risk observed with current use of unopposed estrogen.

Key words Breast cancer - cohort study - estrogens - progestins - Nurses' Health Study - USA

The authors are with the Nurses' Health Study, Channing Laboratory, Department of Medicine, Brigham and Women's Hospital, Boston, MA; and Harvard Medical School, Boston, MA, USA. Address correspondence to Dr Colditz, Channing Laboratory, 180 Longwood Ave., Boston, MA 02115-5899, USA. Supported by research grant CA40356 from the National Cancer Institute, NIH, Department of Health and Human Services. Dr Colditz is supported by an American Cancer Society Faculty Research Award FRA-398.

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