

HRT-breast cancer risk stays same, regardless of family history

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The risk of developing breast cancer due to taking hormone replacement therapy appears to be the same for women with a family history of the disease and without a family history, a University of Rochester Medical Center study concluded.

The study, published online this week in the journal *Epidemiology*, adds to the evolving picture of what factors, either alone or in combination, boost breast [cancer risk](#) among postmenopausal women. It also refutes the notion, held by many in the medical community, that a familial predisposition to breast cancer enhances the carcinogenic effects of estrogen.

"Although we know that [family history](#) is a risk factor, we don't know yet what it is about family history that conveys the risk," said Robert E. Gramling, M.D., D.Sc., assistant professor of Family Medicine and of Community and Preventive Medicine at URM. "Some have proposed that it might be an increased sensitivity to estrogen, but our data did not support that notion. In fact, this study suggests the causal pathway based on family history is probably not estrogen sensitivity."

Researchers analyzed data from the Women's Health Initiative randomized trial, which followed 16,608 postmenopausal women, ages 50 to 79, who took hormone replacement therapy (HRT) or a placebo pill between 1993 and 2002. Among the participants, 349 cases of invasive breast cancer occurred during a mean follow-up period of 5.6 years.

Gramling divided the data into subgroups and studied the direct interaction between the contributions that the two risk factors (HRT and family history) had on breast cancer risk among postmenopausal women. The results showed only a negligible degree of interaction, suggesting that HRT conveys no greater breast cancer risk to women with, versus without, a first-degree family history of breast cancer (i.e. breast cancer in a mother, sister or daughter).

The study does have limitations, the authors noted. First, the women had a short period of exposure to hormone treatment and a short follow-up period. It is possible that longer exposure to HRT would have generated different results, the study said. Also, researchers asked women about family history of breast cancer only at the start of the WHI study. Finally, the majority of women who enrolled in the WHI trial represented a more educated and somewhat healthier population, and it is unknown how this might have influenced any interaction between hormone therapy and family history.

The WHI study gained notoriety when it was stopped abruptly in 2002, after data safety monitoring experts found hormonal therapy did not provide many of the benefits doctors and patients expected, and also carried some unforeseen risks.

Since then, many postmenopausal women have been wary of using HRT. Scientists have continued to study the data for nuances that will lead to a more complete picture.

Gramling believes his research adds a new dimension to the large body of information now available on HRT and [breast cancer](#).

"The decision to use hormonal therapy, even for a short period of time, is very difficult for many women," Gramling said. "We hope our data will provide [postmenopausal women](#) and their physicians more evidence to consider when weighing the risks versus benefits."

Source: University of Rochester Medical Center ([news](#) : [web](#))

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