

Hormone Therapy May Reduce Death, Cancer Risk in Older Women

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Researchers published the [study covered in this summary](#) on medRxiv.org as a preprint that has not yet been peer reviewed.

Key Takeaways

- [Estrogen therapy](#) either by itself or in combination with progesterone among women aged 65 and older is beneficial and does not necessarily raise mortality or cancer risk.

Why This Matters

- In 2002, negative news about the Women's Health Initiative (WHI) estrogen+progestin therapy (EPT) results created lasting fears about hormone therapy (HT), despite later statistical corrections to the negative outcomes and another, less-publicized, WHI study in 2004 identifying several benefits for estrogen monotherapy.

Study Design

- The researchers analyzed data from 2007-2019 records of more than 7 million women with Medicare coverage aged 65 and older, of whom 15% used some type of HT at least once during the study period.
- The researchers classified HT into [estradiol](#) alone; conjugated estrogen alone; progestin alone; [estradiol](#) and progestin combined; conjugated estrogen and progestin combined; and ethinyl estradiol progestin combined. The study reviewed three dose strengths as well as routes including oral, transdermal, vaginal, and injectable.
- They used Cox regression analysis to study the effect of each HT drug on the 13 outcomes included in the study analysis.

Key Results

- Rates of death occurred less often in women using hormone therapy, 6.08/1000 patient years, compared with a rate of 12.93/1000 patient years among those not using hormone therapy. After adjustment for potential confounders the hazard ratio (HR) for mortality on hormone therapy was 0.80 compared with women not on hormone therapy.
- Mortality risk reductions were significant compared with no hormone therapy for both estradiol (hazard ratio [HR], 0.78) and conjugated estrogen (HR, 0.86).
- In an analysis by route of administration, significant mortality reductions occurred with vaginal (HR, 0.69), oral (HR, 0.89), and transdermal (HR, 0.78) formulations.
- Treatment with estrogen without progestin linked with significant reductions in the incidence of all cancers studied compared with no hormone therapy, including breast (HR, 0.82), lung (HR,

0.87), endometrial (HR, 0.65), colorectal (HR, 0.86) and ovarian (HR, 0.83).

- High-dose, but not low-dose, estrogen was associated with a slightly but significantly increased risk for [ischemic heart disease](#) (HR, 1.03 and 0.98, respectively).
- Both estrogen+progestin therapy and progestin monotherapy each significantly associated with an increased [breast cancer](#) risk (HR, 1.11 and 1.09, respectively).

Limitations

- Data availability started with women over 65 years.
- The researchers depended on claim data that couldn't be validated with chart review.
- This observational study couldn't account for potential confounding factors such as health behavior.

Disclosures

- The study received no commercial funding.
- The authors had no disclosures.

This is a summary of a [preprint research study](#), "Effects of Hormone Therapy on survival, cancer, cardiovascular and dementia risks in 7 million menopausal women over age 65: a retrospective observational study," written by researchers at the National Library of Medicine, National Institutes of Health, Bethesda, Maryland, on [medRxiv](#), provided to you by Medscape. This study has not yet been peer reviewed. The full text of the study can be found on [medRxiv.org](#).

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