

PharmaNavigator

PharmPix Clinical Department

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The Effects of Hormone Therapy on Cognitive Health

Dementia unequally affects women, increasing interest in the possible role of declining estrogen exposure during menopause. Estrogen supports a variety of neurologic processes, including synaptic integrity, glucose utilization, cerebrovascular function, blood-brain barrier maintenance, and regulation of neuroinflammation. However, evidence regarding hormone replacement therapy (HRT) and dementia has become conflicting.

The Studies

Two studies published in 2026 bring new evidence suggesting an association between hormone therapy and favorable dementia-related outcomes. But these observational findings don't say that hormone therapy prevents Alzheimer Disease (AD) and these findings may depend on the patient's health factors and the timing of treatment.

A 2026 *Neurology* cohort study evaluated estrogen-only HRT and AD-related outcomes using certain databases. HRT use was associated with 35% lower odds of increased AD pathology at autopsy and lower amyloid pathology measured through plasma and cerebrospinal fluid biomarkers. HRT users also had 39% lower odds of a dementia.

A second 2026 study evaluated 183,450 postmenopausal women over a mean 13.3-year follow-up. Across more than 2.43 million person years, 3,948 dementia cases were identified. HRT use was associated with a 10% lower risk of all-cause dementia. Stronger associations were observed in women with surgical menopause, APOE ε4 carriers and women with shorter lifetime endogenous estrogen exposure. HRT initiation between ages 46 and 56 years showed the higher benefit, suggesting that treatment timing may influence dementia risk.

What are the Implications?

Both studies show that the relationship between HRT and dementia may vary according to timing of initiation, type of menopause, genetic risk, and lifetime estrogen exposure. The findings are promising but observational and do not establish causality or support initiating hormone therapy solely for dementia prevention.

REFERENCES:

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2. Squires S, Saleh RNM, Pilling LC, (2026, August 26). Hormone replacement therapy and dementia risk among postmenopausal women: Identifying responsive subgroups in the UK Biobank. Alzheimer's and Dementia . 2026; Volume 22 Issue 8 :e71679. <https://doi.org/10.1002/alz.71679>

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