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Hormone Therapy and Memory: What This Study Found

WHAT YOU NEED TO KNOW

Researchers looked at 1,178 women across ten European countries to understand why studies of hormone therapy and memory have disagreed for decades. They separated women by a common gene variant called APOE4, the strongest common genetic risk factor for Alzheimer's disease. Among APOE4 carriers, hormone therapy users scored about 10% higher on delayed memory tests and had larger volumes in two memory-related brain regions. Among women without the variant, no such difference appeared.

KEY FINDINGS

- ✓ Memory scores were about 10% higher in APOE4 women using hormone therapy
- ✓ Brain scans showed 6–10% larger memory-related regions in that same group
- ✓ Women without APOE4 showed no equivalent memory difference
- ✓ Starting hormone therapy earlier was linked to larger hippocampal volume in APOE4 carriers
- ✓ This study shows an association — it does not prove cause and effect

WHAT THIS MEANS FOR YOU

If you've seen headlines saying hormone therapy either causes or prevents dementia, this study helps explain why the coverage has been so contradictory: the effect may exist in some women and not others. It does not mean hormone therapy prevents Alzheimer's, and it wasn't designed to test that. What it does support is a more specific conversation about your own situation — your symptoms, your family history, and your goals — rather than a single rule that applies to everyone.

TALK TO YOUR PROVIDER IF...

- ✓ Memory or concentration changes are affecting your daily life
- ✓ You have a family history of Alzheimer's disease or dementia
- ✓ You've read about hormone therapy and brain health and want context
- ✓ You're considering genetic testing and want to think it through first

QUESTIONS TO ASK YOUR DOCTOR

- ☐ Are the memory changes I'm noticing typical for this stage?
- ☐ Does my family history change anything about my options?
- ☐ Would genetic testing be useful for me, and what would it mean?
- ☐ What can I do for brain health regardless of hormone therapy?

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RESEARCH SOURCE CITATION

TITLE	Hormone replacement therapy is associated with improved cognition and larger brain volumes in at-risk APOE4 women: results from the European Prevention of Alzheimer's Disease (EPAD) cohort
AUTHORS	Saleh RNM, Hornberger M, Ritchie CW, Minihane AM
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