

Hormone therapy use may increase or decrease dementia risk depending upon timing

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Compared to women never on hormone therapy, those taking hormone therapy only at midlife had a 26 percent decreased risk of dementia; while women taking HT only in late life had a 48 percent increased risk of dementia, according to Kaiser Permanente researchers.

Women taking HT at both midlife (mean age 48.7 years) and late life had a similar risk of dementia as women not on HT, according to the study which appears in the [Annals of Neurology](#). The study was funded in part by the National Institutes of Health.

Although previous research has shown that initiation of postmenopausal [estrogen](#) hormone therapy in late life increases the risk of dementia, animal studies and some observational studies have suggested that midlife use of HT may be beneficial. This is the first observational, long-term study to directly compare the effect of [hormone therapy](#) status in both midlife and late life on risk of dementia.

"This study is unique because we had a group of women who were on HT in midlife only and could look at their dementia risk over time, and we found a modest, protective association. We also found that if you start HT late in life, you have a 50 percent increased risk of dementia, which is consistent with other studies," said study lead author Rachel Whitmer, PhD, a research scientist with the Kaiser Permanente Division of Research in Oakland, Calif. "Women should speak with their doctor

about what's best for their individual situation, however it appears from this study that women who are on short-term HT in midlife may benefit from a modest protective association, while initiation in late-life can cause harm."

Researchers conducted an observational cohort study of long-term female members of Kaiser Permanente in Northern California who participated in periodic multiphasic health check-ups that were part of routine medical care in San Francisco and Oakland between 1964 and 1973, when they were 40-55 years old.

HT use was determined at midlife (mean age 48.7 years) from a survey in 1964 and in late life (mean age 76) using pharmacy databases from 1994 to 1998. Risk of dementia diagnosis was evaluated with inpatient and outpatient diagnoses made in neurology, neuropsychology and internal medicine from 1999 to 2008. A total of 1,524 women were diagnosed with dementia during the follow-up period.

Adjustment for high cholesterol, hypertension and stroke did not reduce the magnitude of the effect of late life HT on increased risk of dementia, according to the researchers. It's also possible that in the group of women who used HT both in midlife and late life; the potential modest benefit of midlife use was counteracted by a negative effect of late life use, they explained.

This study is part of an ongoing body of research at Kaiser Permanente to better understand the modifiable risk factors for dementia. Dr. Whitmer has led several dementia-related studies that utilize multiphasic health data collected in the 1960s and 1970s by Kaiser Permanente Health Information Technology pioneer Dr. Morris Collen on thousands of Kaiser Permanente Northern California men and women during routine health check-ups. That multiphasic data used for research studies decades later has revealed these key findings: heavy smoking in midlife

is associated with a 157 percent increased risk of developing Alzheimer's disease and a 172 percent increased risk of developing vascular dementia; a larger abdomen in midlife increases risk of late-life dementia; and elevated cholesterol levels in midlife significantly increase the risk of Alzheimer's disease and vascular dementia later in life.

Another study by Dr. Whitmer showed that low blood sugar events in elderly patients with type 2 diabetes increase their risk for dementia. A study led by Valerie Crooks of Kaiser Permanente in Southern California found that having a strong social network of friends and family appears to decrease the risk of [dementia](#).

Limitations of this most recent study include the fact that HT information in midlife was self-reported and therefore researchers do not know the dose or type of HT involved. Also, because the pharmacy database was initiated in 1994, researchers do not have information on the duration of midlife HT.

Provided by GolinHarris International

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