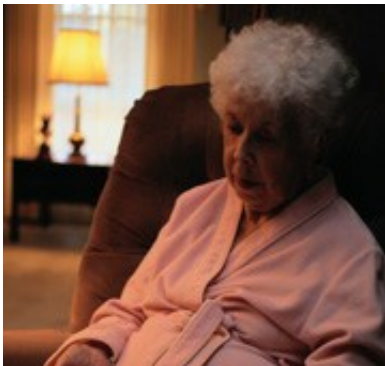


High estrogen levels plus diabetes may boost dementia risk

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Study of older women found having more of hormone from fat tissue after age 65 unwise.

(HealthDay)—Older women with high levels of the hormone estrogen may be at a greater risk for dementia, especially if they also have diabetes, new research suggests.

Using data from a large study that included more than 5,600 postmenopausal [women](#) aged 65 or older, French researchers measured estrogen levels in those without dementia who were not on hormone replacement therapy, medication that boosts estrogen levels.

Four years later, the scientists followed up by comparing the baseline estrogen levels they'd taken of 543 women from the study who did not have dementia with 132 women who had been diagnosed with dementia.

The investigators also looked at risk factors for dementia, including diabetes, high blood pressure and other heart health issues.

The researchers said the risk of dementia more than doubled for women who had high estrogen levels, even after accounting for other known risk factors for the memory-robbing disease. The findings are published in the Jan. 29 online edition of *Neurology*.

The risk increased even more in women with high estrogen levels and diabetes combined. Estrogen levels were about 70 percent higher in women with diabetes who also had dementia compared to those without dementia.

"Women with high E2 [estrogen] levels and diabetes may represent a group at very high risk of dementia," the study authors concluded.

The results were a surprise, said lead investigator Dr. Pierre-Yves Scarabin, director of research at the French National Institute of Health and Medical Research (INSERM) in Villejuif, France. "We found an association between high levels of endogenous estrogen and the risk of dementia in older women not using hormone therapy," he said.

Endogenous estrogen is a hormone that the body makes naturally, explained Dr. David Carr, a professor of medicine and neurology in the division of geriatrics and nutritional science at Washington University School of Medicine in St. Louis. Estrogen levels go down after menopause, yet some women may have higher levels due to the amount of body fat they have, he noted.

"While it was long believed that estrogens—either endogenous or therapeutic—were good for women's health, especially for the heart and brain, our study together with other current data challenge this dogma," said Scarabin.

While the study found an association between estrogen levels and dementia risk, it did not prove a cause-and-effect link.

Dr. Sam Gandy, director of the Center for Cognitive Health at the Mount Sinai Hospital in New York City, said, "It's a very interesting study. The most surprising thing is the fact that estrogen is so potent as a risk factor for dementia."

Gandy said there has been a fair amount of research conducted over the past five years showing that higher estrogen levels prior to the age of dementia risk—before age 65—reduces the risk for dementia. "But once they enter the age of risk for Alzheimer's, higher estrogen seems to make things worse and that seems to be borne out by this study," said Gandy, also the associate director of the Mount Sinai Alzheimer's Disease Research Center.

It's referred to as the "critical window of [estrogen therapy](#)," said Carr.

But this study suggests that once that "critical window" closes, a woman with elevated hormone levels may be at a higher risk for dementia, said Carr. "And it also suggests that the combination of diabetes and high estrogen has an even greater effect on [dementia](#) risk."

Does the research suggest that older women who take [hormone replacement therapy](#) stop— especially those with diabetes?

Scarabin said the study is not a hormone study—the women involved in the research were not taking estrogen—and the results do not suggest women who take estrogen go off of their medication.

Gandy said, "Before we make recommendations, we need to do clinical trials. We'd need to see if women on estrogen at age 'X' versus a same-age placebo group who did not get estrogen had the same effect."

Scarabin added that women with both diabetes and elevated [estrogen levels](#) would be a good "target for future prevention studies."

More information: Visit the Alzheimer's Association to learn more about [dementia and Alzheimer's disease](#).

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