

More evidence menopause 'brain fog' is real

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(HealthDay)—Those memory lapses many women notice around menopause are real, and they can begin at a relatively young age, researchers report.

It's common for [women](#) going through menopause to complain of what researchers sometimes call "brain fog"—forgetfulness, and difficulty concentrating and thinking clearly.

And while those complaints are subjective, a number of studies have also shown they can be objectively detected.

Researchers from Brigham and Women's Hospital, Massachusetts General Hospital and Harvard Medical School in Boston said the new study builds on that objective evidence.

It found that, yes, a woman's performance on certain [memory](#) tasks tends to dip as her estrogen levels drop—and it happens during the average age range of menopause: 45 to 55. Menopause is defined as when a woman's menstrual period stops, confirmed when she has missed her period for 12 consecutive months.

What's more, those hormone levels are related to activity in the hippocampus, a brain region key in memory processing.

Based on past studies, up to 60 percent of women report memory issues as they go through menopause, said Julie Dumas, an associate professor of psychiatry at the University of Vermont.

The new findings shed more light on what is happening in the brain during those hormonal shifts, according to Dumas, who was not involved in the study.

"There really is something going on in the brain," she said. "You're not crazy."

The study findings were based on 200 women and men aged 45 to 55. Researchers used standard tests to gauge people's memory skills, along

with functional MRI scans to track their brain activity as they performed one of the memory tasks.

On average, the study found, women with lower levels of estradiol did worse on memory tests. Estradiol is a form of estrogen produced by the ovaries.

And overall, [postmenopausal women](#) showed a different pattern of activity in the brain's hippocampus, compared to women who were premenopausal or going through the transition.

Again, estradiol levels seemed key: Lower levels meant "more pronounced" changes in brain activity.

There was another especially interesting finding in the report, Dumas pointed out.

The one-third of postmenopausal women who scored highest on the memory tests actually had brain activity that looked like that of premenopausal women—despite their low estradiol levels.

Why is that?

"That's the million-dollar question," said lead researcher Emily Jacobs, who conducted the research while at Harvard and is now an assistant professor at the University of California, Santa Barbara.

"We'd like to understand why some women see [memory] changes around the time of menopause, and others do not," Jacobs said.

It's possible, she explained, that some women's brains are somehow resistant to the effects of waning estradiol. Their brains might, for example, recruit estrogen from sources other than the ovaries—such as

body fat or by converting testosterone.

"Or," Jacobs said, "maybe it's not estrogen at all. Maybe some women are resistant because of their exercise levels, or mental exercise levels, over a lifetime."

That's not to say that women who do go through brain fog have something to fear, Jacobs stressed. "We're not trying to imply that menopause is pathological," she said.

Pauline Maki, a professor of psychiatry and psychology at the University of Illinois at Chicago, agreed.

"This study is important for women because it helps to normalize their experiences," said Maki, who was not involved in the research.

"Many women fear that the memory changes they are experiencing at this time might be a sign of Alzheimer's disease or another cognitive disorder," Maki explained. "These findings should give women reassurance that these changes are normal."

Some other research, she added, suggests that memory performance typically "bounces back" after menopause.

While brain fog may not be pathological, some women might want relief from it.

Don't turn to hormone replacement, Dumas advised. "There's no good evidence that it benefits the brain," she said.

Instead, she recommended regular physical activity.

It's not clear whether exercise specifically clears the fog of [menopause](#),

Dumas noted. But, she said, studies of older adults have found that regular exercise can have positive effects on [brain activity](#) and mental abilities.

"You don't have to run a marathon," Dumas said. Moderate exercise, like brisk walking, is enough, she added.

The study was published recently in the *Journal of Neuroscience*.

More information: The North American Menopause Society has an overview on [menopause symptoms](#).

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