

Menopause transition may cause trouble learning

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The largest study of its kind to date shows that women may not be able to learn as well shortly before menopause compared to other stages in life. The research is published in the May 26, 2009, print issue of *Neurology*, the medical journal of the American Academy of Neurology.

For a four-year period, researchers studied 2,362 women, who were between the ages of 42 and 52 had at least one menstrual period in the three months before the study started.

The women were given three tests: verbal memory, working memory and a test that measured the speed at which they processed information. Scientists tested the women throughout four stages of the menopause transition: premenopausal (no change in menstrual periods), early perimenopausal (menstrual irregularity but no "gaps" of 3 months), late perimenopausal (having no period for three to 11 months) and postmenopausal (no period for 12 months).

The study found that processing speed improved with repeated testing during premenopause, early perimenopause and postmenopause, but that scores during late perimenopause did not show the same degree of improvement. Improvements in processing speed during late perimenopause were only 28 percent as large as improvements observed in premenopause. For verbal [memory performance](#), compared to premenopause, improvement was not as strong during early and late perimenopause. Improvements in verbal memory during early perimenopause were 29 percent as large as improvements observed in

premenopause. During late perimenopause, verbal memory improvement was seven percent as large as in premenopause. Combined, these findings suggest that during the early and late perimenopause women do not learn as well as they do during other menopause transition stages.

"These perimenopausal test results concur with prior self-reported memory difficulties--60 percent of women state that they have [memory problems](#) during the menopause transition," said Gail Greendale, MD, with the David Geffen School of Medicine at the University of California, Los Angeles. "The good news is that the effect of perimenopause on learning seems to be temporary. Our study found that the amount of learning improved back to premenopausal levels during the postmenopausal stage."

The study also found that taking estrogen or progesterone hormones before menopause helped verbal memory and processing speed. In contrast, taking these hormones after the final menstrual period had a negative effect: postmenopausal women using hormones showed no improvement in either processing speed scores or verbal memory scores, unlike postmenopausal [women](#) not taking hormones. "Our results suggest that the 'critical period' for estrogen or progesterone's benefits on the brain may be prior to menopause, but the findings should be interpreted with caution," said Greendale.

Source: American Academy of Neurology ([news](#) : [web](#))

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