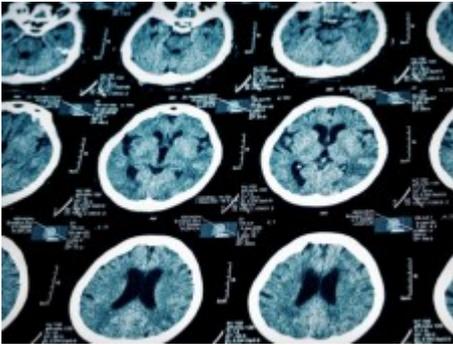


Just Exercise: Strength Training May Help Preserve Brain Function In Seniors

By Gil Ross — November 1, 2015



[1]A [new study published](#) [2] in *The Journal of the American*

Geriatrics Society lends support to the belief that there are benefits for brain health by engaging in resistance (weight) training and not just cardiovascular exercise, at least in older women.

The same research group had previously stated that aerobic, or cardiovascular, activity was more beneficial for some types of mild cognitive impairment, in terms of retaining mental function. Women in exercise groups improved almost equally on tests of spatial memory, but the women who walked briskly showed greater gains in verbal memory than the women who had lifted weights. From that, they hypothesized that endurance training and weight training may have different physiological effects within the brain and cause improvements in different types of memory.

The current study assessed a group of women aged 65-75 who were enrolled in the "Brain Power Study." Among 155 women living independently, there were 54 who had abnormalities in their brain's white matter (WMLs, white matter lesions) on MRI scans. WMLs are significantly associated with falls and with mild cognitive impairment, a risk factor for progression to Alzheimer's Disease.

The subjects were randomly assigned to one of three groups: 1) once-weekly resistance training (RT); 2) twice-weekly RT; 3) balance and tone exercises (BAT). At the completion of the trial, at one year, the 2 RT groups had significantly lower WML volume than the BAT group. And, this decline in lesion volume was also associated with a maintenance of gait speed a surrogate measure for independence in activities of daily living but not in higher cerebral function ("executive function").

The reasons why RT may help slow WML progression are unknown, nor is it known if the same results will be seen in older men. But as senior author Dr. Teresa Liu-Ambrose told Gretchen Reynolds of [the NYTimes](#) [3], "Whatever the reason, exercise, including weight training, clearly has benefit for the brain. However we are just really now gaining an appreciation for how impactful

exercise can be.

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[2] <http://www.ncbi.nlm.nih.gov/pubmed/26456233?source=acsh.org>

[3] <http://well.blogs.nytimes.com/2015/10/21/lifting-weights-twice-a-week-may-aid-the-brain/?source=acsh.org>