



## Gratz Insider, January 2017 - Story Continuation

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### Exercise and the Brain

Several studies cited by the [National Institute on Aging](#) indicate that exercise may help reduce cognitive decline. In other words, it may just help you find those keys or remember the name of that woman you met at the grocery store. Even more impactful, studies are also linking physical activity to a reduction in the risk for Alzheimer's disease because exercise may increase the number of blood vessels and nerve connections within the brain. Aerobic activity also increases the production of nerve growth in the hippocampus, the brain's center for memory. Thus, exercise may help our brains defy the day-to-day effects of the years, while also serving as a weapon against the tragedy of Alzheimer's.

Of great interest to an educator like myself and to an educational institution like Gratz College is the belief that exercise doesn't only keep the brain from aging, but it enables brains of any age to learn better. According to [John Ratey, associate clinical professor of psychiatry at Harvard Medical School](#), exercise does for the brain what fertilizer does for plants: it not only protects the brain; it grows the brain.

Putting this theory to the test, Illinois' [Naperville Community Unit School District 203](#) teamed up with Dr. Ratey to substantiate the power of exercise. Bucking the recent trend in education, Naperville has increased, rather than decreased, the amount of time students spend in physical education classes. During these classes, all students are required to participate in activities that will get their hearts pumping. No one is allowed to sit on the sidelines; everyone is up sweating.

The academic success of Naperville's students strongly supports the view that exercise is no longer just about the body. As [explained](#) in the book [Spark: The Revolutionary New Science of Exercise and the Brain](#), which Ratey co-authored with Eric Hagerman, Naperville is academically one of the top ranked districts in Illinois, despite spending less per student than the other top districts in the state. Particularly impressive, the book continues, was the 1999 performance by Naperville eighth-graders on the Trends in International Mathematics and Science Study, in which they finished first in the world in science and sixth in the world in math.

Keeping the abovementioned studies and the success of Naperville in mind, on behalf of Gratz College, I encourage all of you to get up and move this year. Whether it is through a gym membership, a brisk walk with a friend, or a solitary ride on a stationary bike, let's strap on some sneakers and not only grow some new brain cells, but protect the ones we have!

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*Jessica Whittemore is the interim director of the Gratz College Master of Arts in Education program (M.A.Ed.). A seasoned educator with 22 years of experience in the field, she has taught at varying*

*levels, from secondary school to college and graduate school. As an educational consultant, she has also worked with school districts and universities to train teachers in effective instructional techniques.*

*Whittemore is very interested in the connection between exercise and learning, and she teaches a class on this topic in the M.A.Ed. program at Gratz called “Teaching Through Movement.”*