

New Perspective...New Growth

Movement is a Central Mission of the Brain

Ed Redalen, Iowa Parent Resource Information Center, www.iowaparents.org

In order for man to succeed in life, God provided him with two means, education and physical activity. Not separately, one for the soul and the other for the body, but for the two together.

With these two means, man can attain perfection.

~ Plato

This article includes some important findings and implications for what school staff and families should consider when getting and keeping children and youth active and fit. Dr. John Ratey, Harvard clinical psychiatry professor and author of A User's Guide to the Brain, says: "Our physical movements can directly influence our ability to learn, think, and remember."

It has been shown that certain physical activities that have a strong mental component, such as soccer or tennis, enhance social, behavioral, and academic abilities. Evidence is mounting that each person's capacity to master new and remember old information is improved by biological changes in the brain brought on by physical activity. Our physical movements call upon some of the same neurons used for reading, writing, and math. Physically active people report an increase in academic abilities, memory, retrieval, and cognitive abilities.

What makes us move is also what makes us think. Certain kinds of exercise can produce chemical alterations that give us stronger, healthier, and happier brains. A better brain is better equipped to think, remember, and learn."

- Movement facilitates cognition. The only reason we have a brain is because we move. (Sylwester)
- Bodily kinesthetic is one of eight multiple intelligences. (Gardner)
- Raising the heart rate oxygenates the brain and feeds it glucose (brain fuel) at a greater rate.
- Repetitive gross motor movement balances brain chemicals that calm behavior, elevates selfesteem and self worth and accommodates ADD/ADHD. (Jensen)
- Memory is retrieved better when learned through movement. (Jensen)
- Cross lateralization strengthens neural connections, increases dendritic branching, and anchors learning. (Dennison)

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- Exercise reduces stress by lowering cortisol levels that kill brain cells.
- Exercise has the same effect and benefit as anti-depressant medications. (Ratey)
- Exercise may boost brain function, improve mood and increase learning. (Ratey)
- Vigorous exercise has been shown to improve behavior, mental focus and memory retention of ADHD students. (Wendt)
- Movement counteracts learned helplessness and causes positive learning states particularly for students with learning differences. (Jensen)
- Lifetime physical activity grows new brain cells (Gage)
- People who are most aerobically fit have the fastest cognitive responses. (Van Praag)
- Healthy, active children learn more. (Jean Blaydes Madigan Action Based Learning)

"If the Body don't move...the Brain won't groove!"

Dave Meier, Director of the Center for Accelerated Learning

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