

PHYSICAL EDUCATION = STRONG BODIES, STRONG BRAINS

Once upon a time, exercise was a normal part of every child's life—long walks to and from school, daily physical education classes (or recess), and neighborhood games of tag and dodgeball kept young bodies healthy and strong. Those days can seem like a distant memory as computers and video games have replaced outdoor activities, and there are fewer safe places to play.

And unfortunately, physical education is now viewed as an expendable part of the educational curriculum. Yet there is no question that children need to be physically active to not only stay healthy and reduce their chances of becoming an overweight teen or adult, but to perform optimally in school as well.

Where Have All the P.E. Classes Gone?

With increasing pressures to improve standardized test scores while also reducing budgets, schools across the country have virtually eliminated physical education programs. In fact, as of 2006, only 3.8 percent of elementary schools and 2.1 percent of high schools still offered daily physical education classes. This is particularly discouraging given the growing body of scientific evidence linking regular participation in physical activity with improved academic performance. Here are some recent findings:

- Nearly 250 elementary students given a daily 10-minute activity break increased on-task behavior by an average of 8 percent.
- A U.S. study of nearly 12,000 adolescents revealed that, when compared to their sedentary peers, students who participated in P.E., team sports or played sports with their parents were 20 percent more likely to earn "A's" in math or English.
- The fitness levels of more than 300 middle school students were evaluated and those who were the most fit performed better academically as well.
- An analysis of the standardized fitness and academic test results for nearly 900,000 5th, 7th, and 9th graders revealed a strong positive correlation between physical fitness and academic achievement.

Additional research suggests that, compared to control groups, students who spend more time in school-based physical activity or P.E. (and therefore less time in the classroom), actually maintain or improve their grades and standard achievement test scores.



Like "Miracle-Gro" for the Brain

Dr. John Ratey, a Harvard clinical associate professor of psychiatry, argues that not only is more physical activity essential for reducing the incidence of obesity, but it helps improve kids' academic performance as well.

"I cannot understate how important regular exercise is in improving the function and performance of the brain . . . [It] stimulates our gray matter to produce Miracle-Gro for the brain," Ratey writes in his book, *Spark: The Revolutionary New Science of Exercise and the Brain* (2008, Little, Brown). Exercise, Ratey explains, prompts the release of proteins into the bloodstream that increase the production of brain chemicals that improve the connections between existing neurons and helps trigger the formation of new ones. Levels of other neurotransmitters, including dopamine, serotonin and norepinephrine, also are elevated after strenuous exercise, helping to increase focus and induce feelings of calmness. "It's like taking a little bit of Prozac and a little bit of Ritalin," says Ratey.

Encouraging Physical Activity is Everyone's Responsibility

There are some positive signs that support for school-based physical education programs is increasing. Newly introduced legislation seeks

to increase the amount of required time allotted for physical activity and recess, and several on-school fitness centers are helping students improve both their grades and overall health.

After all, the benefits of physical activity extend well beyond academic performance. In addition to being less likely to be overweight, physically active children also have fewer chronic health problems than kids who are sedentary. They also are better able to meet the demands of daily physical activity and have a stronger self-image and more self-confidence.

When you consider the facts, it makes good sense to encourage physical activity among kids—both in school and at home. Parents, teachers and coaches all have a role to play. Each of us can help kids think positively about exercise and motivate them to make regular physical activity a lifetime pursuit.

Additional Resources

ACE Fit Facts: *10 Fun Summer Fitness Activities for Kids* www.acefitness.org/fitfacts/fitfacts_display.aspx?itemid=2684

ACE Fit Facts: *Teens, Fitness and You* www.acefitness.org/fitfacts/fitfacts_display.aspx?itemid=2683

Active Living Research: *Physical Education, Physical Activity and Academic Performance* www.activelivingresearch.org/files/Active_Ed.pdf

If you are interested in information on other health and fitness topics, contact: American Council on Exercise, 4851 Paramount Drive, San Diego, CA 92123, 800-825-3636; or, go online at www.acefitness.org/GetFit and access the complete list of ACE Fit Facts.™



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