



Physical Education in Schools - Both Quality and Quantity are Important

A Statement on Physical Education from the American Cancer Society Cancer Action Network (ACS CAN), the American Diabetes Association (ADA), and the American Heart Association (AHA) – 09/2012

Position:

The quality and quantity of physical education in the nation's schools is an important part of a student's comprehensive, well-rounded education program and a means of positively affecting life-long health and well-being. The optimal physical education program will foster a long-term commitment to physical activity as part of a healthy lifestyle that will help children prevent chronic disease and numerous other conditions, including abnormal cholesterol, high blood pressure, obesity, and heart disease. AHA, ACS CAN, and the ADA advocate for more frequent, quality physical education in all schools. Quality physical education will engage students in health-promoting physical activity for at least half of class time and teach them the knowledge and skills necessary for lifelong physical activity. Quality physical education also should be supplemented, but not replaced, by additional school-based physical activity.

The Importance of Physical Education

Physical education is the cornerstone of increasing the overall quantity of physical activity in schools. Furthermore, it teaches students the basics of physical literacy and how to integrate exercise into their lives in order to establish a lifetime of healthy living. Regular physical activity is associated with a healthier, longer life and with a lower risk of heart disease, high blood pressure, diabetes, obesity, and some cancers.¹ The *2008 Physical Activity Guidelines for Americans*² and national public health organizations, including the American Cancer Society,³ AHA,⁴ and ADA, recommend that children engage in at least 60 minutes of physical activity each day. The Institute of Medicine recommends that children have adequate opportunities to get 60 minutes of physical activity every school day.⁵ Physical education should be an important part of that physical activity time.

The Current Landscape

The current obesity rate for youth in the United States is nearly 20% compared to 7% in 1980.⁶ Unfortunately, many youth are increasingly sedentary throughout their day, meeting neither physical education nor national physical activity recommendations. Physical education in schools has been decreasing in recent years.⁷ Only 3.8% of elementary, 7.9% of middle, and 2.1% of high schools provide daily physical education or its equivalent for the entire school year.⁸ Twenty-two percent of schools do not require students to take any physical education at all.² Nationwide, only 51.8% of high school students attend at least some physical education (PE) classes and 31.5% of those students have daily physical education.⁹ Recent analysis shows that physical education continues to decline in schools while opportunities for school-based sports programs have increased for some students.¹⁰

Although school districts are required to include goals for physical activity in their local school wellness policies (as mandated by the federal Child Nutrition and WIC Reauthorization Act of 2004 and Healthy, Hunger-Free Kids Act of 2010), they are not required to address physical education specifically. Despite the lack of this requirement, more than 90 percent of students are in school districts with wellness policies that address physical education. However, only 10 percent of students are enrolled in a district with a wellness policy that requires students to engage in moderate to vigorous physical activity for at least half of physical education class time.¹¹ Only 6 percent of elementary school students and 2 percent of middle and high school students are in a district with a wellness policy that requires 150 minutes per week of physical education at the elementary level and 225 minutes per week of physical education at the middle and high school levels.¹²

Public support exists for increasing physical education in schools. The vast majority of parents of children under 18 (95%) think physical education should be part of a school curriculum for all students in grades K-12.¹³ The majority of parents believe that physical education is at least as important as other academic subjects ranging from 54% to 84%, depending on the subject being compared.¹⁴ Numerous professional associations, medical societies, and government agencies formally support the need for physical activity for youth and for quality physical education in schools.¹⁵

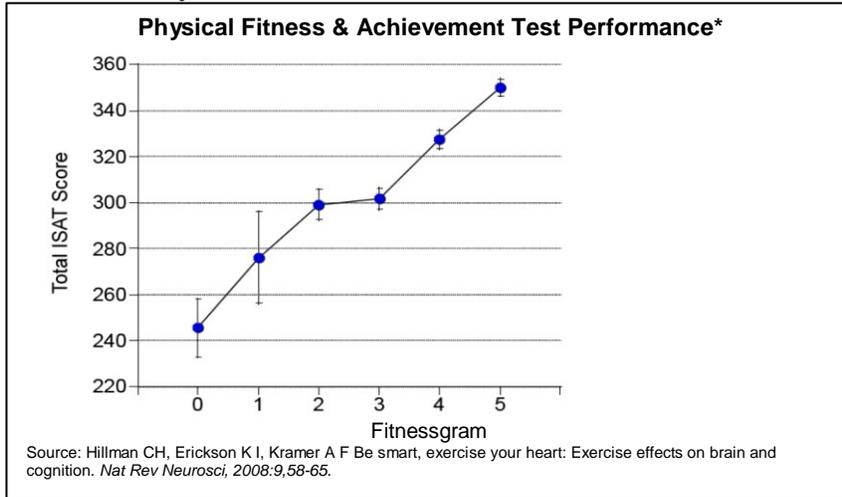
Overview of the Evidence

A large number of studies have focused on the impact of improving physical education in schools by updating physical education curricula, increasing the number of classes offered, and improving teacher training, often in coordination with additional educational or home-based components.^{16,17,18,19,20,21} In a systematic review of physical education programs that increased the amount of time that students were physically active, students' aerobic and physical fitness increased.^{22,23} Compliance with state physical education laws or regulations regarding time requirements for physical education is critical for seeing improvement in student fitness.²² The benefits of modifying the school physical education curricula are experienced across diverse racial, ethnic, and socioeconomic groups, among boys and girls, elementary- and high-school students, and in urban and rural settings.²¹ A six-month exercise program among obese children and adolescents reduced body mass index, diabetes risk factors and low-degree inflammation and demonstrated that regular exercise can restore blood vessel function and improve cardiovascular risk factors.²⁴ Evidence from the Early Childhood Longitudinal Study showed that physical education programs do have an impact on improving risk factors in young overweight girls.²⁵

Improved coordinated school health programs, of which physical education is a central component, will augment prevention efforts and help improve fitness, academic performance, mental health, physical health and well-being across the school environment. A growing body of evidence demonstrates that the benefits of physical education are beyond the classroom. Physical fitness can have a positive impact on cognitive ability, avoiding tobacco use, and reducing insomnia, depression, and anxiety.²⁶ Physically fit children have higher scholastic achievement, better classroom behavior, greater ability to focus, and less absenteeism than their unfit counterparts.^{27,28,29} The relationship between physical fitness and academic achievement is

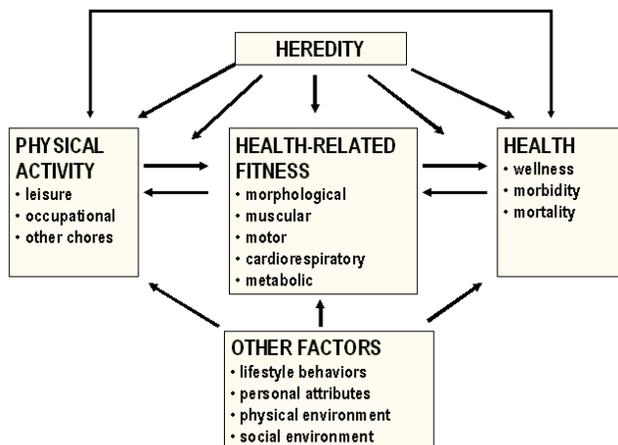
illustrated in Chart 1. School-based physical activity also correlates with improved academic performance.^{30,31,32} Several large-scale studies found improvements in students' academic performance and cognitive ability with increased time spent in physical education.³³ Additionally, children who spent time in physical education in place of a classroom activity performed no worse academically than students not enrolled in physical education.³⁴

Chart 1: Physical Fitness & Achievement Test Performance*



As depicted in Figure 1, the relationship between physical activity, physical fitness and health is complex and also impacted by the physical and social environments where children spend a majority of their time. In general, as children increase the intensity and duration of their physical activity, their physical fitness will increase. Physical fitness is the outcome measure of more frequent, and more intense physical activity. A higher level of physical fitness is associated with lower all-cause mortality, coronary heart disease, and risk factors for cardiovascular disease, whereas a low level of fitness is associated with obesity, high blood pressure, colon cancer, diabetes, osteoporosis, and depression.³⁵ Physical fitness is the correlate with academic achievement and better classroom behavior.

Figure 1. The relationships between physical activity, health-related fitness and health³⁶



Quality and Quantity of Physical Education

Our organizations and other national groups including the National Association for Sport and Physical Education (NASPE), the National Association of State Boards of Education (NASBE), the Centers for Disease Control and Prevention and the Institute of Medicine recommend 150 minutes of physical education each week for children in elementary school and 225 minutes per week for middle school and high school. At least 50 percent of physical education class time should be spent in moderate to vigorous physical activity. Additionally, high schools should make physical education a graduation requirement.

Physical education benefits all students -- including students with disabilities. Under the Individuals with Disabilities Education Act (IDEA) and Rehabilitation Act regulations, schools must generally provide a free and appropriate public education that enables students to participate in physical education in the least restrictive environment. Adapted physical education must be provided when a student's Individualized Education Plan or Section 504 Plan includes it.

Physical education policy should prioritize quality while, simultaneously and/or subsequently, trying to increase the amount of time physical education is offered in schools. According to NASPE, a high quality physical education program should enhance the physical, mental, and social/emotional development of every child and incorporate fitness education and assessment to help children understand, improve and/or maintain their physical well-being.

The core components of quality physical education are a curriculum that meets the National Standards for Physical Education taught by a certified physical education teacher in a setting with adequate equipment and facilities where the pupil-teacher ratio is equivalent to that in other classrooms. Quality physical education helps students acquire the knowledge and skills necessary to engage in a lifetime of physical activity.³⁷ Certified physical educators should also serve as school-site physical activity leaders that promote physical activity both within and beyond the regular school day.

A comprehensive self-assessment of physical education programs, such as the Physical Education Curriculum Analysis Tool (PECAT), can provide schools with important information about their alignment with national standards for curriculum content and student assessment. Robust assessments and evaluations help identify curriculum changes designed to deliver high-quality physical education to students.

Increasing School-based Physical Activity

In addition to quality physical education, other opportunities exist to increase the level of physical activity at school. Classroom-based physical activity, recess, walking or biking to school, and before and after school physical activity should supplement physical activity provided through physical education. Increasing other school-based physical activity should not be an excuse to cut or substitute for the quantity of physical education. Physical activity is neither an equivalent to nor substitute for physical education, but both can contribute meaningfully to the development of healthy, active children.³⁸ According to NASPE, –physical

activity is bodily movement of any type and may include recreational, fitness, and sport activities such as jumping rope, playing soccer, lifting weights, as well as daily activities such as walking to the store, taking the stairs, or raking leaves.³⁹

In addition to its health benefits, physical activity breaks can improve children's cognitive functioning and attention and behavior in the classroom.^{40,41,42} Structured physical activity during recess can also reduce bullying.⁴³

Physical activity must be moderate to vigorous and occur for a duration of at least 10 minutes to provide health benefits.⁴⁴ Walking between classes and occasional field trips should not count toward meeting regular physical activity requirements. We recommend that school-age children, including those with disabilities, accumulate at least 60 minutes per day of physical activity and avoid prolonged periods of inactivity.

Specific Policy Recommendations:

Legislation and/or regulation to promote physical education should:

- Require all school districts to develop and implement a planned, K-12 sequential physical education curriculum that adheres to national and state standards for health and physical education.
- Require all schools districts to provide all students with 150 minutes per week of physical education in elementary schools and 225 minutes per week in middle schools and high schools.
- Encourage school districts and schools to provide school-age children with numerous opportunities to accumulate at least 60 minutes per day of physical activity and avoid prolonged periods of inactivity. The key method for achieving this goal is physical education supplemented by additional opportunities for physical activity before, during, and after the regular school day.⁴⁵ Require physical education credit(s) for graduation from high school with appropriate accommodations and considerations for children with disabilities and medical conditions.
- Require that students be active in moderate to vigorous physical activity for at least 50% of physical education class time.
- Require school districts and schools to complete comprehensive self-assessments of their physical education programs using existing tools. The results of the assessment should be integrated into the district's or school's long-term strategic planning, School Improvement Plan, or school wellness policy, to address the quality and quantity of physical education offered.
- Require school districts and schools to report the findings of their assessment to parents and members of the community through typical communication channels such as websites, school newsletters, school board reports, and presentations.
- Support the hiring of a physical education coordinator at the state level to provide resources and offer support to school districts across the state, and support the hiring of a physical education coordinator in the school district to provide support to physical educators in the school district.

- Provide regular professional development opportunities to physical education teachers that are specific to their field and require teachers to keep current on emerging technologies, model programs, and improved teaching methods.
- Require physical education teachers to be highly-qualified* and certified (as per state requirements).
- Add requirements for fitness, cognitive, and affective assessment in physical education that are based on student improvement and knowledge gain. Student assessments should be aligned with state/national physical education standards and the written physical education curriculum.
- Assure that physical education programs have appropriate equipment and adequate facilities. Require class size consistent with other subject areas.
- Disallow automatic waivers or substitutions for physical education. Disallow the ability of states and school districts to assign or withhold physical activity as punishment.
- Disallow waivers for students with disabilities, but rather allow modifications or adaptations that allow physical education courses to meet the needs of disabled students.
- Disallow students to opt out of physical education to prepare for other classes or standardized tests.

Conclusion

The American Cancer Society Cancer Action Network, the American Diabetes Association, and the American Heart Association will continue to support robust, more frequent physical education in schools. By addressing the quality, quantity and intensity of physical education across the country—the educational component as well as the amount of activity and time spent—policymakers, decision makers, and teachers will maximize children’s potential for a lifetime of physical activity, health and wellness.

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* –Highly-qualified is defined by the No Child Left Behind Act as fully certified and/or licensed by the state, holding at least a bachelor's degree from a four-year institution, and demonstrating competence in each core academic subject area in which the teacher teaches.

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