

Youth Physical Activity:

The Role of Schools



Being physically active is one of the most important steps to being healthy. Schools are an ideal setting for teaching youth how to adopt and maintain a healthy, active lifestyle. Schools can help youth learn how to be physically active for a lifetime.

Why Should Schools Provide Physical Activity Programs?

- Youth who are physically active get physical and mental health benefits.
- Comprehensive school-based physical activity programs can help youth meet most of their physical activity needs.
- School-based physical activity programs benefit communities as well as students and schools.

How Does Physical Activity Help?

- Builds strong bones and muscles.¹
- Decreases the likelihood of developing obesity and risk factors for diseases like type 2 diabetes and heart disease.¹
- May reduce anxiety and depression and promote positive mental health.¹

How Much Physical Activity Do Youth Need?

- **Children and adolescents should do 60 minutes (1 hour) or more of physical activity daily.²**
 - **Aerobic Activities:** Most of the 60 or more minutes per day should be either moderate- or vigorous-intensity aerobic physical activity. Vigorous-intensity physical activity should be included at least 3 days per week.
 - Examples of aerobic activities include bike riding, walking, running, dancing, and playing active games like tag, soccer, and basketball.
 - **Muscle-strengthening Activities:** Include muscle-strengthening physical activity on at least 3 days of the week as part of the 60 or more minutes.
 - Examples of muscle-strengthening activities for younger children include gymnastics, playing on a jungle gym, and climbing a tree.
 - Examples of muscle-strengthening activities for adolescents include push-ups, pull-ups, and weightlifting exercises.
 - **Bone-strengthening Activities:** Include bone-strengthening physical activity on at least 3 days of the week as part of the 60 or more minutes.
 - Examples of bone-strengthening activities include hopping, skipping, jumping, running, and sports like gymnastics, basketball, and tennis.
- Some activities may address more than one category at a time. For example, gymnastics is both muscle-strengthening and bone-strengthening while running is aerobic and bone-strengthening.
- Activities should be age-appropriate, enjoyable, and offer variety.²

How Physically Active Are Youth?

- In 2007, only 17% of 9th–12th grade students said they were physically active at least 60 minutes per day.³
- Among 9–13 year olds, only 39% said they participated in organized physical activity.⁴
- In 2007, only 30% of 9th–12th grade students said they attended physical education classes every day.⁵
- In 1969, 41% of students walked or biked to school; by 2001, only 13% of students walked or biked to school.⁶



How Does Physical Activity Affect Academic Achievement?

- Physical activity can help youth improve their concentration, memory, and classroom behavior.⁷
- Youth who spend more time in physical education class do not have lower test scores than youth who spend less time in physical education class.⁸
- Elementary school girls who participated in more physical education had better math and reading tests scores than girls who had less time in physical education.⁹

What Can Schools Do To Promote Physical Activity for Youth?

- Have policies that provide time for organized physical activity and free play.
- Provide information to parents about the benefits of physical activity in messages sent home and at school events.
- Encourage staff to be active. School staff and school leadership are role models for students.
- Encourage families and local groups to be involved in school-based physical activities and events.

How Can Schools Help Youth Be More Physically Active?

A large percentage of youth physical activity can be provided through a comprehensive school-based physical activity program with quality physical education as the cornerstone. All of the parts of a physical activity program (listed below) help youth explore different physical activities and give them the chance to learn and practice the skills to establish physically active lifestyles. A comprehensive physical activity program includes the following:



Quality Physical Education

- Gives students the knowledge and skills to participate in a lifetime of physical activity.
- Teaches movement skills and how to assess physical activity.
- Uses materials that are appropriate for the age and skill level of the students.
- Uses activities that keep students active for most of class time (more than 50% of class time).
- Meets the needs of all students.
- Is an enjoyable experience for all students.

Policy Recommendation: Schools should require daily physical education for students in kindergarten through grade 12 (150 minutes per week for elementary schools and 225 minutes per week for secondary schools).¹⁰



Recess

- Gives students the chance to have unstructured physical activity and to practice what they learn in physical education class.
- Helps youth learn how to play together and handle conflict.¹¹⁻¹²
- Improves attention and concentration in the classroom.¹³⁻¹⁴

Policy Recommendation: Schools should incorporate at least 20 minutes of recess per day in addition to physical education classes.¹⁵



Physical Activity Breaks

- Build activity into classroom lessons.
- Enhance on-task classroom behavior of students.¹⁶

Physical Activity Break Ideas: Take a walk outside as part of a science class or ask students to name and act out action words from a story through physical activity.¹⁶



Intramural Sports

- Offer physical activity opportunities before, during or after school hours.
- Provide students with a choice of activities like walking, running, hiking, swimming, tennis, dancing, and bicycling.
- Offer students of all skill levels an equal chance to participate.



Interscholastic Sports

- Help students work together and engage in friendly competition.¹⁷
- Help students learn sport-specific and general motor skills.¹⁷
- May improve mental health and reduce some risky health behaviors such as cigarette smoking, illegal drug use, and having sexual intercourse.^{18–19}



Walk- and Bike-to-School Programs

- Can increase student levels of physical activity.²⁰
- Promote partnerships among students, parents, and community organizations and members.
- Improve the safety of those walking and biking around schools.
- Decrease traffic near schools.

Activity Recommendation: Schools should participate in International Walk to School Week and support ongoing walk and bike to school programs (e.g., create safer routes to school, provide access to secure bike racks).

How Can Schools Partner with Families and Community Groups?

- Let families know about physical activity programs at school and in the community. To make sure everyone receives the information, use different formats such as flyers, newsletters, telephone calls, e-mails, conversations at school, Internet, and media coverage.
- Include families and community members on the school health advisory council.
- Offer chances for families to participate in physical activity programs. This could include family homework assignments, activity newsletters, or family nights.
- Provide physical activity programs or workshops to students, families, and school staff. Schools can work with community organizations to allow public use of school gyms and playing fields after school hours and on weekends. Local businesses, community groups and health organizations may be able to sponsor or fund physical activity programs and events.
- Programs and messages should reflect the culture of the community and the local physical activity opportunities.

Where Can I Find Additional Information about School-Based Physical Activity?

- U.S. Department of Health and Human Services. 2008 Physical Activity Guidelines for Americans. Washington, DC: U.S. Department of Health and Human Services; 2008. Available at: <http://www.health.gov/paguidelines>.
- Centers for Disease Control and Prevention. Healthy Youth! Physical Activity. Available at: <http://www.cdc.gov/HealthyYouth/physicalactivity/>.
- Centers for Disease Control and Prevention. Division of Nutrition, Physical Activity, and Obesity. Available at: <http://www.cdc.gov/physicalactivity>.
- Centers for Disease Control and Prevention. Physical Education Curriculum Analysis Tool. Atlanta, GA: U.S. Department of Health and Human Services; 2006. Available at: <http://www.cdc.gov/HealthyYouth/PECAT/index.htm>.
- Centers for Disease Control and Prevention. Kids Walk-to-School: A Guide to Promote Walking to School. Available at: <http://www.cdc.gov/nccdphp/dnpa/kidswalk>.
- National Association for Sports and Physical Activity. Comprehensive School Physical Activity Programs Package. Available at: http://iweb.aahperd.org/naspe/pdf_files/CSPAP_Package.pdf.
- National Association for Sports and Physical Activity. Integrating physical activity into the complete school day. Available at: http://www.aahperd.org/Naspe/pdf_files/integratingPA.pdf.
- The President's Council on Physical Fitness and Sports. President's Challenge Presidential Champions Program. Available at: <http://www.presidentschallenge.org/index.aspx>.



Be Active and Play, 60 minutes, every day!

References

1. U.S. Department of Health and Human Services. Physical activity guidelines advisory committee report. Washington, DC: U.S. Department of Health and Human Services; 2008.
2. U.S. Department of Health and Human Services. 2008 Physical activity guidelines for Americans. Washington, DC: U.S. Department of Health and Human Services; 2008
3. Centers for Disease Control and Prevention's National Youth Risk Behavior Surveillance—United States, 2007. Unpublished data.
4. Centers for Disease Control and Prevention. Youth Media Campaign Longitudinal Survey, 2002. *MMWR* 2003;52(33):785-8.
5. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance—United States, 2007. *MMWR*. 2008;57(No. SS-4):1-131.
6. McDonald MC. Active transport to school: trends among U.S. schoolchildren, 1969-2001. *American Journal of Preventive Medicine* 2007;32(6):509-16.
7. Strong WB, Malina RM, Blimkie CJ, Daniels SR, Dishman RK, Gutin B, et al. Evidence-based physical activity for school-aged youth. *Journal of Pediatrics* 2005;146(6):732-7.
8. Sallis JF, McKenzie TL, Kolody B, Lewis M, Marshall S, Rosengard P. Effects of health-related physical education on academic achievement: Project SPARK. *Research Quarterly for Exercise and Sport* 1999;70(2):127-34.
9. Carlson SA, Fulton JE, Lee SM, Maynard LM, Brown DR, Kohl HW, et al. Physical education and academic achievement in elementary school: data from the early childhood longitudinal study. *American Journal of Public Health* 2008;98(4):721-7.
10. National Association for Sport and Physical Education. Moving into the future: national standards for physical education, 2nd ed. Reston, VA: National Association for Sport and Physical Education; 2004.
11. Burdette HL, Whitaker RC. Resurrecting free play in young children: looking beyond fitness and fatness to attention, affiliation, and affect. *Archives of Pediatrics and Adolescent Medicine* 2005;159(1):46-50.
12. Jarrett OS, Maxwell DM, Dickerson C, Hoge P, Davies G, Yetley A. Impact of recess on classroom behavior: group effects and individual differences. *Journal of Educational Research* 1998;92:121-6.
13. Pellegrini AD, Davis PD. Relations between children's playground and classroom behaviors. *British Journal of Educational Psychology* 1993;63(Pt 1):88-95.
14. Sluckin A. *Growing up in the playground: the social development of children*. London: Routledge & Kegan Paul; 1981.
15. National Association for Sport and Physical Education. Recess in elementary schools. Reston, VA: National Association for Sport and Physical Education; 2006.
16. Mahar MT, Murphy SK, Rowe DA, Golden J, Shields A, Raedeke TD. Effects of a classroom-based program on physical activity and on-task behavior. *Medicine and Science in Sports and Exercise* 2006;38(12):2086-94.
17. National Association for Sport and Physical Education. Eight domains of coaching competencies. Reston, VA: National Association for Sport and Physical Education; 2006.
18. Pate RR, Trost ST, Levin S, Dowda M. Sports participation and health-related behaviors among US youth. *Archives of Pediatrics and Adolescent Medicine* 2000;154(9):904-11.
19. Seefeldt V, Ewing ME. Youth Sports in America. *The President's Council on Physical Fitness and Sports Research Digest* 1997;2:1-12.
20. Cooper AR. Physical activity levels of children who walk, cycle, or are driven to school. *American Journal of Preventive Medicine* 2005;29:179-84.

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion
Division of Adolescent and School Health
www.cdc.gov/HealthyYouth

August 2009