

Improve Academic Success Through Nutrition and Physical Activity Policy and Practice

Childhood Obesity is an epidemic with real risks to our children

- Obesity is “the single greatest threat to public health in this century.”¹
- The single most powerful public health approach to combating and reversing America’s obesity epidemic is to focus on childhood obesity prevention.²
- A third of our children, and 1 in 4 teens are overweight or obese.³
- Overweight levels have doubled in children and tripled for teens over the past 20 years.⁴
- If no action is taken, 1 in 2 children of color born in the year 2000 are likely to develop type 2 diabetes in their lifetime.⁵
- Obesity-related health care costs California over \$41 billion annually.⁶
- Severely overweight students miss four times as much school as do normal-weight students.⁷
- Research links overweight/obesity, poor nutrition, and lack of physical activity with negative physical, academic, social, and psychological outcomes.⁸

Research links physical activity and academic performance

- Students who are more physically active have better test scores and grades.⁹
- Increased physical activity leads to consistently higher mathematics scores.¹⁰
- Exercise improves our ability to learn and in fact makes us smarter.¹¹
- Nearly a dozen studies have demonstrated that regular participation in physical activity is associated with improved academic performance, including better concentration and classroom behavior.¹²
- Physical activity contributes to higher reading, writing and mathematics test scores—even when physical activity leaves less time for academic instruction.¹³
- From 1999-2001, schools with the greatest percentage of students who engaged in physical activity had the highest API scores.¹⁴
- Physical activity reduces disruptive behavior and improves students’ ability to focus and concentrate.¹⁵
- Physical activity increases academic achievement by improving emotional health.¹⁶

Research links nutrition and academic performance

- A 2009 study of fifth-grade students showed a positive association between both overall diet quality and academic performance. Students with higher overall diet quality were less likely to fail standardized reading and writing assessments.¹⁷
- School breakfast programs positively impact academic performance and reduce absenteeism and tardiness among low-income elementary students.¹⁸
- School breakfast programs decrease behavioral problems.¹⁹
- Food-insufficient children (ages 6-11) are more likely to visit a psychologist, be suspended, and have difficulty getting along with others.²⁰
- Food-insufficient teens (ages 12-16) are more likely to be suspended and have difficulty getting along with others.²¹

Environmental approaches are more successful than student-by-student interventions

- Local environments profoundly influence the choices individuals make about eating and exercise.²²
- Community environments affect people's eating and exercise habits. Scientists and medical professionals agree that lack of easy access to healthy food and safe outdoor areas for physical activity are key contributors to obesity.²³

Afterschool programs provide the platform to:

- ✓ Support and expand school wellness policies
- ✓ Create healthy environments where healthy choices are easier
- ✓ Ensure staff model healthy behaviors
- ✓ Offer healthy food, teach students how to make healthy choices through nutrition education, and provide opportunities for daily physical activity
- ✓ Link closely with parents and help them improve nutrition and physical activity at home
- ✓ Partner with schools to expand healthy school environments
- ✓ Strengthen community partnerships to expand healthy environments even further
- ✓ Provide additional leadership and expertise for quality physical activity

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- ¹ USDA. (2010). *Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans. Setting the Stage.*
<http://www.cnpp.usda.gov/Publications/DietaryGuidelines/2010/DGAC/Report/B-SettingTheStage.pdf>
- ² USDA. (2010). *Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans. Executive Summary.*
<http://www.cnpp.usda.gov/Publications/DietaryGuidelines/2010/DGAC/Report/A-ExecSummary.pdf>
- ³ Centers for Disease Control and Prevention. Prevalence of Overweight Among U.S. Children and Adolescents. *National Health and Nutrition Examination Survey, 1976-80 and 1999-2000.*
- ⁴ Ibid.
- ⁵ K. M. Venkat Narayan, James P. Boyle, Theodore J. Thompson, Stephen W. Sorensen, & David F. Williamson. (2003). *Lifetime Risk for Diabetes Mellitus in the United States.* JAMA. 2003;290:1884-1890.
- ⁶ Chenoweth & Associates, Inc. (July 2009). A Study for the California Center for Public Health Advocacy. *The Economic Costs of Overweight, Obesity, and Physical Inactivity among California Adults—2006.*
- ⁷ Schwimmer, J., Burwinkle, T., & Varni, J. (2003). Health-related quality of life of severely obese children and adolescents. *Journal of the American Medical Association*, 289, 1818.
- ⁸ California School Boards Association, & Project LEAN. (2003). *Successful Students through Healthy Food and Fitness Policies, Student Wellness: A Healthy Food and Physical Activity Policy Resource Guide.* Also, *Prevention of Pediatric Overweight and Obesity, American Academy of Pediatrics Policy Statement, Committee on Nutrition, Pediatrics Vol. 112 No. 2, August 2003.*
- ⁹ Dwyer, T., Blizzard, L., & Dean, K. (1996). *Physical activity and performance in children.* *Nutrition Reviews*, 54 (4), S27-S31.
- ¹⁰ Symons, CW, et al. (1997). Bridging student health risks and academic achievement through comprehensive school health programs. *Journal of School Health* 1997;67(6):220-227
- ¹¹ Ratey, J.J. (2008). *Spark: The revolutionary new science of exercise and the brain.* Little, Brown and Company.
- ¹² *Fostering Physical Activity for Children and Youth: Opportunities for a Lifetime of Health,* Active Living Research conducted five controlled experimental studies in the United

States, Canada, and Australia. Active Living Research, Robert Wood Johnson Foundation, *Active Education: Physical Education, Physical Activity, and Academic Performance*, (2007)., http://activelivingresearch.org/files/Active_Ed.pdf (accessed August 4, 2008)

¹³ California Department of Education, ed. *California After School Physical Activity Guidelines*. Sacramento: California Department of Education, (2009). Print.
<http://www.cde.ca.gov/ls/ba/as/documents/paguidelines.pdf>

¹⁴ WestEd. Hanson. T., Austin. G., & Lee-Bayha. J. *Student Health Risks, Resilience, and Academic Performance: Health and Human Development Program*.

¹⁵ California Department of Education, ed. *California After School Physical Activity Guidelines*. Sacramento: California Department of Education, 2009. Print.
<http://www.cde.ca.gov/ls/ba/as/documents/paguidelines.pdf>

¹⁶ Ibid.

¹⁷ Florence MD, Asbridge M, & Veugelers, PJ. *Diet quality and academic performance. Journal of School Health*. 2008;78: 209-215

¹⁸ Meyers, A., Sampson, A., Weitzman, M., Rogers, B., & Kayne, H. (1989). *School breakfast program and school performance. American Journal of Diseases of Children*, 143, 1234-1239.

¹⁹ Murphy, et al., *Archives of Pediatric Adolescent Medicine*, cited by California After School Resource Center.

²⁰ Alaimo, K, Olson, CM, & Frongillo, EA, Jr. *Food insufficiency and American school-aged children's cognitive, academic and psycho-social development. Pediatrics*. 2001;108:44-53.

²¹ Ibid.

²² Bell, Judith and Standish, Marion. *Building Healthy Communities through Equitable Food Access*. Web.
http://www.frbsf.org/publications/community/review/vol5_issue3/bell_standish.pdf

²³ *Healthy Food, Healthy Communities*, PolicyLink. Web.
http://www.policylink.org/atf/cf/%7B97c6d565-bb43-406d-a6d5-eca3bbf35af0%7D/HFHC_SHORT_FINAL.PDF