Choose to **Move More** Every Day

SCHOOL-AGE CHILDREN & YOUTH:

Trends, Effects, Solutions

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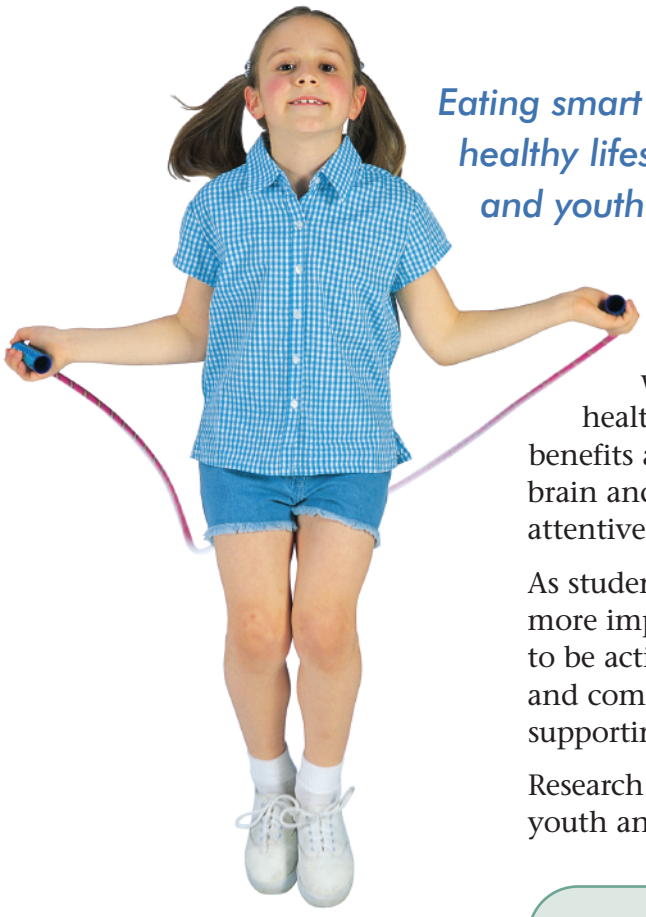


Eating smart and moving more are the cornerstone of a healthy lifestyle and provide a solid foundation for children and youth to succeed in school and in life.

There are many health benefits associated with good nutrition and physical activity. Eating smart and moving more help children and youth maintain a healthy weight, feel better and have more energy. These positive health benefits have the potential to translate into academic benefits at school. Good nutrition and physical activity nourish the brain and body, resulting in students who are present, on-time, attentive in class, on-task and possibly earning better grades.

As students work hard to achieve high academic standards, it is more important than ever that we provide opportunities for them to be active and eat healthy throughout the day. Families, schools and communities must share the responsibility of promoting and supporting children and youth to eat smart and move more.

Research points to seven key behaviors that can help children, youth and adults eat healthier and be more active:

1. Prepare and eat more meals at home
2. Tame the tube
3. Choose to move more every day
4. Right-size your portions
5. Re-think your drink
6. Enjoy more fruits and veggies
7. Breastfeed your baby

This paper will examine trends in and effects of physical activity. It will also offer solutions for schools, government, communities and families to support children and youth in moving more.

Trends in Physical Activity

Children and youth need 60 minutes to several hours daily of moderate to vigorous physical activity.[1] This activity should be age- and skill-appropriate, fun and varied.[1,2] The physical activity does not have to occur at one time. It can occur in several 10-15 minute sessions throughout the day.[2]

Many children and youth do not get the recommended amount of physical activity. One survey showed that less than half of North Carolina high school students and just over half of middle school students got at least 60 minutes of physical activity on at least five of seven days.[3] According to a survey of North Carolina parents, 21.5 percent of children ages 5-10 do not participate in physically active play for at least 60 minutes a day.[4] Ethnic minorities, especially girls, children in poverty, children with disabilities, children living in public housing or apartments, and children living in unsafe areas or areas that lack parks and playgrounds are at increased risk of not getting enough physical activity.[5]

During the school day, there are numerous opportunities for children and youth to get more physical activity. Classroom activities, recess, walking or biking to school, physical education courses, and recreational sport and play all provide students options to be more active. However, changes in policies, practices and environments have reduced or eliminated many of these opportunities.

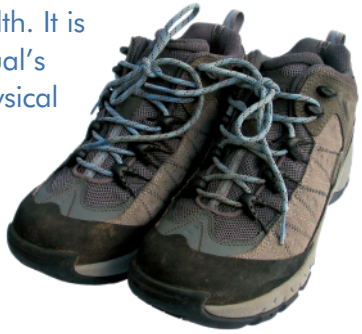
Physical education and recess can help students meet physical activity recommendations without compromising academic performance.[1] Physical education teaches students the skills they need to be physically active for life and to practice those skills under the watchful eye of a qualified physical educator. The National Association of Sports and Physical Education (NASPE) recommends that schools provide 150 minutes of physical education for elementary school children, and 225 minutes of physical education for middle and high school students weekly.[6]

Physical activity: Any bodily movement that results from moving muscles. Physical activity may include planned activity such as walking, running, basketball or other sports. It may also include other activities such as yard work, walking the dog or taking the stairs instead of the elevator.

Exercise: Physical activity that is planned or structured. It is done to improve or maintain one or more of the components of physical fitness—cardio-respiratory endurance (aerobic fitness), muscular strength, muscular endurance and flexibility. Examples of exercise include running, lifting weights and stretching.

Physical education: Physical education is a planned instructional program with specific objectives. An essential part of the total curriculum, physical education programs increase the physical competence, health-related fitness, self-responsibility and enjoyment of physical activity for all students so that they can establish physical activity as a natural part of everyday life.

Physical fitness: An outcome considered an ideal form of health. It is related to an individual's ability to perform physical activities that require aerobic fitness, endurance, strength or flexibility.



Nationally the percent of students who attended a daily physical education class has dropped from 42 percent in 1991 to 28 percent in 2003.[7] The percentage of schools that require physical education in each grade declined from about 50 percent in grades one through five to 25 percent in grade eight, to only 5 percent in grade 12.[7]

Recess is part of a child's physical, social and academic development.[8] NASPE recommends that all elementary school children get at least one 20-minute recess period daily.[8] However, opportunities

for daily recess are decreasing.[9,10] One survey of public schools found that the proportion of schools that had no scheduled recess ranged from 7 percent to 13 percent across elementary grades.[10]

Walking to school, once a daily activity for many children, has also decreased. In 1969 about half (49 percent) of children and youth ages 5-18 who lived less than two miles from school walked or biked to school. By 2001, that number had decreased to 18 percent.[11] A survey of North Carolina parents found that about one in ten children and youth ages 5-17 live between one to two miles from school, yet just over 2 percent walk to school at least four days a week.[4]

The decreasing opportunities for physical activity have been accompanied by increasing opportunities for physical inactivity. Today, virtually all U.S. households have at least one television with many having multiple sets.[12] The average time spent in various media (television, computer, videos games) is more than five hours per day.[13] Almost half (44 percent) of North Carolina parents surveyed reported that their children watched an average of two to four hours of television a day.[4]

Effects of Physical Activity

Physical activity plays an important role in maintaining good physical and mental health, as well as a healthy body weight. It reduces the risk for certain cancers, diabetes and high blood pressure, and contributes to healthy bones and muscles.[14,15] It also plays a role in the physical and behavioral growth and development of children and youth.[1]

The benefits of physical activity are not just related to reducing risk for chronic disease and helping maintain a healthy weight. Physical activity has also been shown to have positive effects on learning. Evidence suggests that students in elementary through high school perform better academically when they are physically active.[16] A summary of the research found a favorable effect on academic achievement even when academic instruction time was reduced.[16]

Benefits of Physical Activity

- Reduces the risk for overweight, diabetes and other chronic diseases.
- Is associated with improved academic performance.
- Helps children feel better about themselves.
- Reduces the risk for depression and the effects of stress.
- Helps children prepare to be productive, healthy members of society.
- Improves overall quality of life.

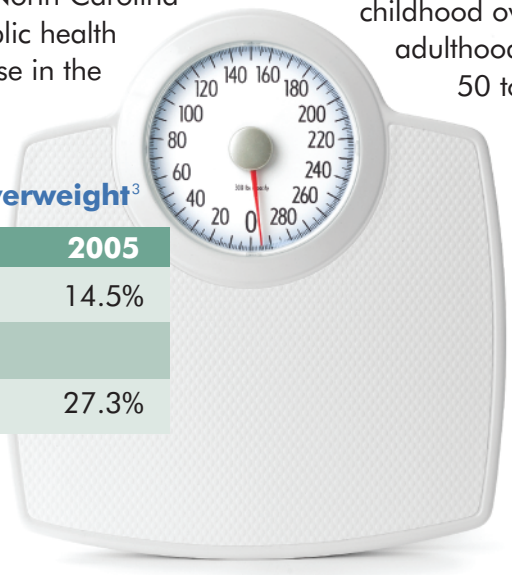
Overweight in Children and Youth

According to the 2001 Surgeon General's *Call to Action to Prevent and Decrease Obesity*, today there are nearly twice as many overweight children and almost three times as many overweight adolescents as there were in 1980.[17] Results from the 2003-04 National Health and Nutrition Examination Survey (NHANES), using Body Mass Index (BMI), indicate that an estimated 13.9 percent of children ages 2-5 years, 18.8 percent of children ages 6-11 years and 17.4 percent of adolescents ages 12-19 years are overweight.[18] North Carolina 2005 data from children seen in public health settings show an even greater increase in the number of overweight children.[19]

Percent of North Carolina Children and Youth Who Are Overweight[3]

	1995	2000	2005
Ages 2-4	9.0%	12.2%	14.5%
Ages 12-18	22.7%	26.0%	27.3%

BMI, an index of a person's weight in relation to height, is commonly used to classify overweight and obesity among adults and is also recommended to identify children who are overweight or at risk of becoming overweight. Children with a BMI ≥ 85th percentile but <95th percentile are overweight (formerly considered at risk for being overweight) and children with a BMI ≥ 95th percentile are obese (formerly considered overweight).[20]



Studies have indicated that overweight children (especially adolescents) are at higher risk of becoming obese adults.[21] The likelihood that childhood overweight will persist into adulthood ranges from approximately 50 to 70 percent, increasing to 80 percent if one parent is overweight.[22,23] Obesity is no longer a concern for adults only. Signs of chronic disease associated with obesity are showing up in overweight children. These include atherosclerotic plaques,[24] hypertension,[25,26,27] increased triglycerides,[25,26] increased insulin resistance and Type 2 diabetes.[24,28]

Solutions for Increasing Physical Activity for Children and Youth

Ensuring that children and adolescents are physically active each day is one way to improve their physical and mental health, as well as their ability to learn. Many factors affect the ability of children and youth to be physically active. These factors include the physical and social environments of schools, government, communities and families. School personnel, community leaders, families and policy makers all have an important role to play in continuing to develop policies, practices and environments that promote and support physical activity.

Schools

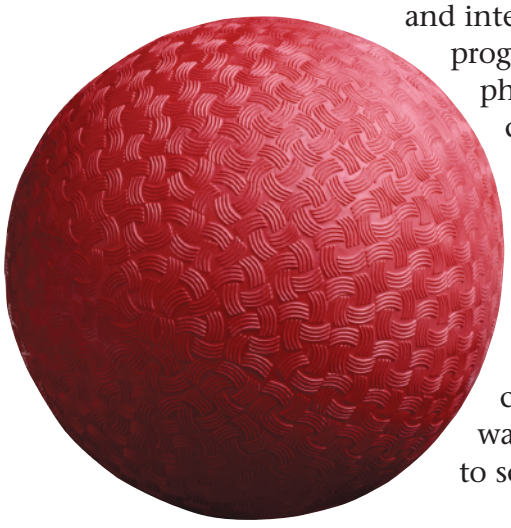
In 2005, the North Carolina State Board of Education passed the amended Healthy Active Children Policy. This policy requires that schools provide a minimum of 30 minutes of moderate to vigorous physical activity for all K-8 students daily.[29] This requirement can be achieved through a regular physical education class and/or through activities such as recess, dance, classroom-based activities such as *Energizers*, or other curriculum-based physical education programs.[29]

Also in 2005, a partnership effort of the N.C. Department of Public Instruction, N.C. Division of Public Health and N.C. Cooperative Extension Service published *Move More: North Carolina's Recommended Standards For Physical Activity in School*.[30] The *Move More School Standards* serve as a tool for educators, parents, community leaders, industry representatives and policy makers to begin to create school environments that support physical activity.[30]

Nationally, the Child Nutrition Reauthorization Act of 2004 required that every U.S. school district participating in the National School Lunch and/or School Breakfast Program develop and implement a Local Wellness Policy by the beginning of the school year 2006-2007.[31] The intent of the mandate is to help protect and improve child health through adequate levels of physical activity and good nutrition during the school day.[31]

The amended Healthy Active Children Policy, *Move More School Standards* and Local Wellness Policy work together to promote and support physical activity for North Carolina children and youth. However, there are additional changes that schools can make to increase physical activity.

- Increase the availability of quality, daily physical activity and physical education in schools for all children.
- Develop, implement and evaluate innovative programs for both staffing and teaching about physical activity.
- Provide fun physical activity in after-school programs.
- Expand opportunities for physical activity through physical education classes, intramural and interscholastic sports programs and other physical activity clubs, programs and lessons.
- Encourage after-school use of facilities, use of schools as community centers, and walking and biking to school programs.



Government

- Expand and promote opportunities for physical activity in the community through changes to ordinances, capital improvement programs, and other planning practices.

Communities

City or county parks and recreation departments, local health departments, hospitals, civic groups and community policy makers, all share an interest in increasing physical activity and improving the health of the community. In addition to providing community opportunities for children and youth to be physically active, these stakeholders have many opportunities to work directly with schools to complement efforts to increase the physical activity of children and youth.

- Provide opportunities for physical activity in existing and new community programs, particularly for high-risk populations.
- Expand opportunities for physical activity including recreational facilities, parks, playgrounds, sidewalks, bike paths and safe streets in neighborhoods.
- Build new bike paths, sidewalks, accessible walking trails and parks where the need exists.
- Engage community leaders as role models to promote healthy eating and physical activity.
- Compile and publicize a listing of existing facilities that provide safe, inclusive and affordable opportunities for physical activity in the community.

Families

- Advocate for increased physical activity in schools and the community.
- Establish physical activity as a routine part of everyday life for all family members.
- Learn about and use public facilities and community programs for physical activity in your neighborhood.
- Encourage active play as an alternative to TV watching and video games.

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Developed by the North Carolina School Nutrition Action Committee (SNAC), a partnership of the N.C. Department of Public Instruction, the N.C. Division of Public Health and the N.C. Cooperative Extension Service. The goal of SNAC is to coordinate school nutrition activities that link the cafeteria, classroom and community to eating smart and moving more.

These institutions are equal opportunity providers.

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