

D. Policies to Encourage Physical Activity

Schools can and do play a powerful role in influencing students' physical activity behaviors. Challenging physical education and health education classes give students the knowledge, motivation, and skills needed for lifelong physical activity. In addition, schools provide multiple opportunities for students to practice physical activity through participation in physical education class, recess, intramural programs, sports and recreation clubs, interscholastic athletics, and links with community-based sports and recreation programs.

This chapter provides guidance on developing a comprehensive, integrated policy aimed at promoting lifelong physical activity among children, adolescents, and school staff. The sample policy in this chapter addresses all aspects of the school setting that influence a person's physical activity patterns. The policy:

- defines the purpose and goals of physical activity programs;
- offers principles to direct the physical education program, extracurricular physical activity programs, and other school-based opportunities for physical activity; and

- establishes safety guidelines for physical activity programs.

The sample physical activity policy incorporates statements of recommended practice. What is reasonable, feasible, and acceptable in a given state, school district, or school depends on local circumstances and the results of the policymaking process.

Adopting sound policy is just a start. A comprehensive policy is more likely to be smoothly implemented and consistently enforced if it receives strong administrative support, and if all staff, not just physical education teachers, receive an orientation that describes the policy and the rationale behind it. These actions can increase the importance with

which staff view physical activity issues and encourage them to promote a physically active lifestyle in their interactions with students.

The sample physical activity policy is divided into five parts, as listed on the following page. A discussion section that provides supportive information and a concise list of key resources follow each part of the policy.

A Broad and Firm Foundation

In the great work of education, our physical condition, if not the first step in point of importance, is the first in order of time. On the broad and firm foundation of health alone can the loftiest and most enduring structures of the intellect be reared.

—Horace Mann

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1. Purpose and Goals

A strong statement of purpose and goals provides a firm foundation for a sound policy. It justifies the policy to staff and the public,

communicates policymakers' priorities, and helps guide program implementation.

Physical Activity Sample Policy, Part One:

INTENT. Every student shall be physically educated—that is, shall develop the knowledge and skills necessary to perform a variety of physical activities, maintain physical fitness, regularly participate in physical activity, understand the short- and long-term benefits of physical activity, and value and enjoy physical activity as an ongoing part of a healthful lifestyle. In addition, staff are encouraged to participate in and model physical activity as a valuable part of daily life.

School leaders shall develop and implement a comprehensive plan to encourage physical activity that includes the following:

- a sequential program of physical education that involves moderate to vigorous physical activity on a daily basis; teaches knowledge, motor skills, self-management skills, and positive attitudes; promotes activities and sports that students enjoy and can pursue throughout their lives; is taught by well-prepared and well-supported staff; and is coordinated with the health education curriculum;
- time in the elementary school day for supervised recess;
- opportunities and encouragement for students to voluntarily participate in before- and after-school physical activity programs, such as intramurals, clubs, and, at the high school level, interscholastic athletics;
- joint school and community recreation activities;
- opportunities and encouragement for staff to be physically active; and
- strategies to involve family members in program development and implementation.

The program shall make effective use of school and community resources and equitably serve the needs and interests of all students and staff, taking into consideration differences of gender, cultural norms, physical and cognitive abilities, and fitness levels.

RATIONALE. Schools have a responsibility to help students and staff establish and maintain lifelong habits of being physically active. According to the U.S. Surgeon General, regular physical activity is one of the most important things people can do to maintain and improve their physical health, mental health, and overall well-being. Regular physical activity reduces the risk of premature death in general and of heart disease, high blood pressure, colon cancer, and diabetes in particular. Promoting a physically active lifestyle among young people is important because:

- through its effects on mental health, physical activity can help increase students' capacity for learning;
- physical activity has substantial health benefits for children and adolescents, including favorable effects on endurance capacity, muscular strength, body weight, and blood pressure; and
- positive experiences with physical activity at a young age help lay the basis for being regularly active throughout life.

DEFINITIONS. For the purposes of this policy:

“Extracurricular activities” refers to school-sponsored voluntary programs that supplement regular education and contribute to the educational objectives of the school.

“Health-related physical fitness” refers to cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition.

“Interscholastic athletics” refers to organized individual and team sports that involve more than one school.

“Intramurals” refers to physical activity programs that provide opportunities for all students to participate in sport, fitness, and recreational activities within their own school.

“Moderate physical activities” refers to activities that are equivalent in intensity to brisk walking.

“Physical education” refers to a planned, sequential program of curricula and instruction that helps students develop the knowledge, attitudes, motor skills, self-management skills, and confidence needed to adopt and maintain physically active lifestyles.

“Recess” refers to regularly scheduled periods within the school day for unstructured physical activity and play.

“Regular physical activity” refers to participation in moderate to vigorous physical activity for at least 30 minutes per day on most, if not all, days of the week.

“Skill-related physical fitness” refers to balance, agility, power, reaction time, speed, and coordination.

“Vigorous physical activity” refers to exertion that makes a person sweat and breathe hard, such as basketball, soccer, running, swimming laps, fast bicycling, fast dancing, and similar aerobic activities.

Discussion

Schools should play an active role in promoting physical activity for three important reasons:

1. Increasing students' capacity for learning

Throughout human history—in ancient China, India, Africa, the Americas, ancient Greece, and Western civilization—people have recognized that strong bodies and strong minds go together.² Although research has not been conducted that conclusively demonstrates a direct link between physical activity and improved academic performance, such a link can be inferred. Studies among adolescents find that physical activity is consistently related to higher self-esteem and to less anxiety and stress.³ These benefits are likely to have a positive effect on student achievement.

Physical Education and Learning

In the same way that exercise shapes up the muscles, heart, lungs, and bones, it also strengthens the basal ganglia, cerebellum, and corpus callosum, all key areas of the brain. We know exercise fuels the brain with oxygen, but it also feeds it neurotrophins (high-energy food) to enhance growth and greater connections between neurons. Aerobic conditioning also has been known to assist in memory.

—Eric Jensen⁵

To Do Their Best

From the time of the ancient Greeks and the early Chinese philosophers, educators have recognized that children and youth need physical activity as well as mental pursuits to do their best. Physical education has long been part of the K–12 school curriculum in the United States because of the belief that physical activity is essential for healthy growth and development.

—Vernon Seefeldt¹

In addition, analysis of a national survey of high school students found that low levels of physical activity were associated with high-risk behaviors such as cigarette smoking and marijuana use.⁴

2. Promoting good physical health and development during childhood and adolescence

Regular physical activity offers young people many health benefits,^{2,3} including the following:

- improves aerobic endurance and muscular strength;
- helps control weight, build lean muscle, and reduce fat;
- helps build greater bone mass, which may help prevent osteoporosis in adulthood;

- helps build and maintain healthy joints;
- prevents or delays the development of high blood pressure;
- helps reduce blood pressure in some adolescents with hypertension; and
- may favorably affect blood lipid profiles.

Inadequate participation in physical activity is presumed to be a major contributor to the “epidemic of obesity” that has plagued the nation’s young people during the past two decades. The percentage of young people who are overweight in the United States—14 percent of children ages 6–11 and 12 percent of adolescents ages 12–17—has more than doubled in the past 30 years.⁶

Obesity in young persons is related to elevated blood cholesterol levels, high blood pressure, psychological stress, and increased adult mortality.³ Increasing rates of obesity might be contributing to the sharp increase in the number of cases of Type 2 diabetes (commonly known as “adult-onset” diabetes) among young people that doctors have reported in recent years.^{7,8} Increasing the physical activity levels of young people is key to slowing and eventually reversing this epidemic.

3. Preventing premature deaths

Physical inactivity and a poor diet together account for at least 300,000 deaths among adults in the United States each year—only tobacco use contributes to

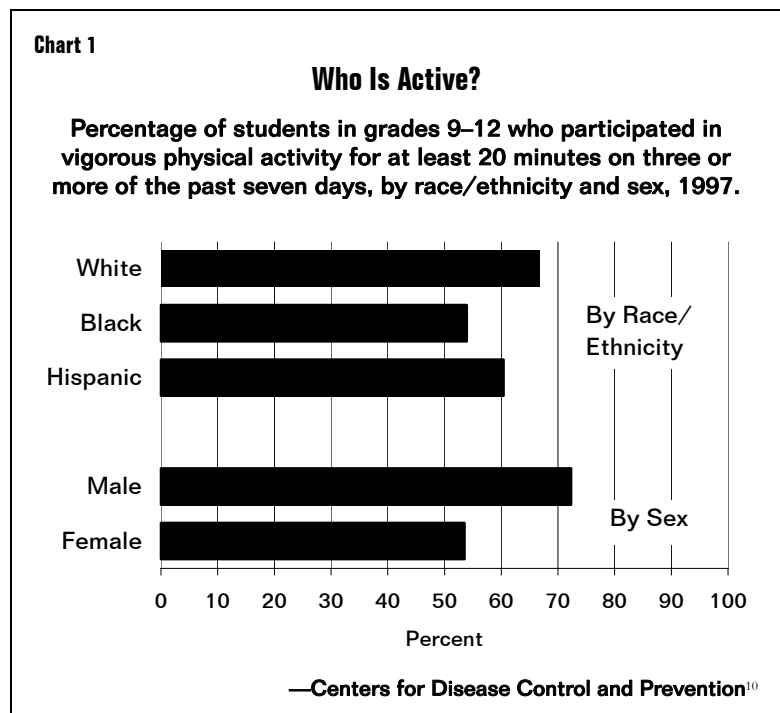
Crisis Proportions

No [health] problem needs our attention more than the growing epidemic of obesity in America. In sheer numbers and its toll in death and disability, obesity has reached crisis proportions in the United States.

—Dr. C. Everett Koop⁹

more deaths.¹¹ The landmark 1996 report of the Surgeon General, *Physical Activity and Health*,² concludes that higher levels of regular physical activity are associated with lower mortality rates for adults and that even those who are moderately active on a regular basis have lower mortality rates than those who are least active. The report documents how regular physical activity reduces the risk of dying from heart disease and of developing diabetes, high blood pressure, and colon cancer.

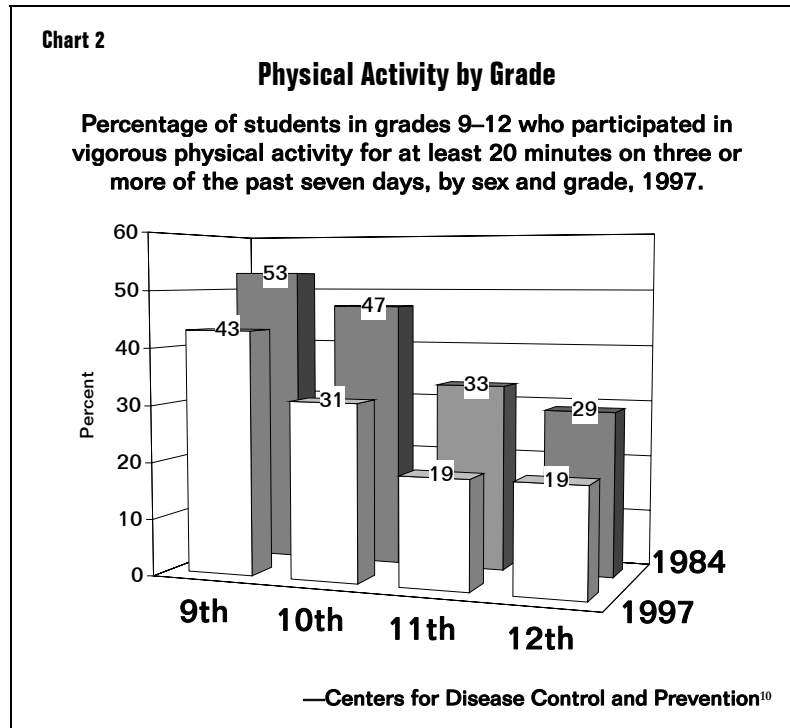
It is during their youth when people begin to acquire and establish patterns of health-



related behaviors that can influence their chances of dying prematurely in adulthood.³ Indeed, some of the physiological processes that lead to chronic diseases related to lack of physical activity begin in childhood. For example, early indicators of atherosclerosis, the hardening of the arteries that is the most common cause of coronary heart disease, begin in youth.¹²

Youth activity patterns

Surveys of youth physical activity patterns have found that 1) a substantial proportion of children and adolescents are not sufficiently active; 2) a considerably smaller portion of girls than boys are sufficiently active; 3) African-American and Hispanic high school students are less likely to be active than their white peers; and 4) activity participation declines with age during adolescence¹⁴ (see Chart 1, “Who is Active?” on the preceding page and Chart 2, “Physical Activity by Grade,” above). Specifically:



- nearly half of young people aged 12–21 do not engage in vigorous physical activity on a regular basis;¹⁵
- among high school students, 72 percent of boys but only 54 percent of girls participate in vigorous physical activity on a regular basis, and 58 percent of boys but only 43 percent of girls participate in strengthening exercises on a regular basis.¹⁰ This gender gap is of major

The Importance of Exercise to Young Women

Unique to females is the effect of exercise on reproductive functioning and menarche [the onset of menstruation]. There are many anecdotal reports of more regular menstrual cycles and less physical distress associated with moderate physical activity....

[In addition,] in later life women are especially at risk of osteoporosis. One major advantage of physical activity for girls is that it increases “peak bone mass.” Peak bone mass is the level of bone mass at its highest point—usually occurring in the teens or early 20s. High peak bone mass can be viewed much as a bank savings account where withdrawals can be made later in life when needed. The higher the peak mass, the less likely that losses later in life will result in low bone mass or osteoporosis.

—President’s Council on Physical Fitness and Sports¹³

Guidelines from CDC

CDC's *Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People* were developed in collaboration with experts from universities and national, federal, and voluntary agencies and organizations. They are based on an in-depth review of research, theory, and current practice in physical education, exercise science, health education, and public health. The guidelines below include recommendations regarding 10 aspects of school and community programs to promote lifelong physical activity among young people. This policy guide is explicitly based on these guidelines:

POLICY: Establish policies that promote enjoyable, lifelong physical activity among young people.

ENVIRONMENT: Provide physical and social environments that encourage and enable safe and enjoyable physical activity.

PHYSICAL EDUCATION: Implement physical education curricula and instruction that emphasize enjoyable participation in physical activity and that help students develop the knowledge, attitudes, motor skills, behavioral skills, and confidence needed to adopt and maintain physically active lifestyles.

HEALTH EDUCATION: Implement health education curricula and instruction that help students develop the knowledge, attitudes, behavioral skills, and confidence needed to adopt and maintain physically active lifestyles.

EXTRACURRICULAR ACTIVITIES: Provide extracurricular physical activity programs that meet the needs and interests of all students.

PARENTAL INVOLVEMENT: Include parents and guardians in physical activity instruction and in extracurricular and community physical activity programs and encourage them to support their children's participation in enjoyable physical activities.

PERSONNEL TRAINING: Provide training for education, coaching, recreation, health care, and other school and community personnel that imparts the knowledge and skills needed to effectively promote enjoyable, lifelong physical activity among young people.

HEALTH SERVICES: Assess physical activity patterns among young people, counsel them about physical activity, refer them to appropriate programs, and advocate for physical activity instruction and programs for young people.

COMMUNITY PROGRAMS: Provide a range of developmentally appropriate community sports and recreation programs that are attractive to all young people.

EVALUATION: Regularly evaluate school and community physical activity instruction, programs, and facilities.

—Centers for Disease Control and Prevention³

How Much Physical Activity Is Enough?

For elementary school-aged children:

- **[At a minimum,] elementary school-aged children should accumulate at least 30 to 60 minutes of age and developmentally appropriate physical activity from a variety of activities on all, or most, days of the week.**
- **[Ideally,] an accumulation of more than 60 minutes, and up to several hours per day, of age and developmentally appropriate activity is encouraged for elementary school-aged children.**
- **Some of the child’s activity each day should be in periods lasting 10 to 15 minutes or more and include moderate to vigorous activity. This activity will typically be intermittent in nature, involving alternating moderate to vigorous activity with brief periods of rest and recovery.**
- **Extended periods of inactivity are inappropriate for children.**

—National Association for Sport and Physical Education¹⁶

For adolescents:

- **All adolescents should be physically active daily, or nearly every day, as part of play, games, sports, work, transportation, recreation, physical education, or planned exercise, in the context of family, school, and community activities.**
- **Adolescents should engage in three or more sessions per week of activities that last 20 minutes or more at a time and that require moderate to vigorous levels of exertion.**

—International Consensus Conference on Physical Activity Guidelines for Adolescents¹⁷

concern because physical activity in youth is particularly critical to two aspects of women’s healthy growth and lifelong health: maintaining a fit reproductive system and preventing low bone density and osteoporosis (see box, “The Importance of Exercise to Young Women,” on page D-7);

- regular participation in vigorous physical activity has been reported by 69 percent of young people aged 12–13 but by only 38 percent of those aged 18–21;¹⁵ and
- seventy-three percent of ninth graders but only 58 percent of twelfth graders regularly participate in vigorous physical activity (see Chart 2).¹⁰

Resources

- Your state or local departments of education, public health, and/or recreation might have data to assist in program planning or offer other resources.
- The **National Association of State Boards of Education** (NASBE) and the **National Schools Boards Association** (NSBA) each operate school health resource databases that contain many sample policies. NASBE’s database focuses on state-level policies, whereas NSBA has collected a large number of school district policies and support

documents. NSBA has compiled excerpts from key documents and sample district policies in a *Physical Activity 101* packet. Both organizations can also provide up-to-date information on policy topics, information on people’s experiences in implementing policies, consultation on specific policy issues, and referrals to other experts in the field.

- Contact NASBE at (703) 684-4000 or boards@nasbe.org.
- Contact NSBA at (703) 838-6722 or schoolhealth@nsba.org.

- The CDC **Division of Adolescent and School Health** (DASH) offers a variety of support services for schools. The materials and services available include:
 - the *Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People*, which this policy guide is based on;
 - the *School Health Index for Physical Activity and Healthy Eating: A Self-Assessment and Planning Guide*, a companion document to this policy guide that provides a practical, detailed checklist of the elements of exemplary physical activity and nutrition programs that schools and districts can use for self-diagnosis; and
 - assistance in implementing the Youth Risk Behavior Survey (YRBS), a nationwide system for collecting data on youth behaviors. An easy-to-use CD-ROM of national and state summary data is available to examine youth risk behaviors and trends over time in six risk categories.

Write to: 4770 Buford Highway, NE, Mail Stop K-32, Atlanta, GA 30341-3717; telephone: (770) 488-3168; FAX: (770) 488-3111; e-mail: cdcinfo@cdc.gov; or go to www.cdc.gov/nccdphp/dash.

- Another companion book to this policy guide is *Active Youth: Ideas for Implementing CDC's Physical Activity Promotion Guidelines* (1998). It explains CDC's guidelines in clear terms and provides detailed descriptions of 20 successful physical activity programs across the country that represent a wide range of settings and target audiences. It is available from **Human Kinetics** at (800) 747-4457 or go to www.humankinetics.com.

- The 1996 **U.S. Surgeon General's** report, *Physical Activity and Health*, summarizes a tremendous amount of scientific research and makes specific recommendations. The document is available from the U.S. Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954 (#S/N 017-023-00196-5), or go to www.cdc.gov/nccdphp/sgr/contents.htm.

- *Physical Activity and Sport in the Lives of Girls: Physical and Mental Health Dimensions from an Interdisciplinary Approach* (1997) is a report of the **President's Council on Physical Fitness and Sports**. Call (202) 690-9000 to order.

The President's Council has also sponsored series of in-depth *Research Digests* on additional topics that are available on the Internet at www.indiana.edu/~preschal/digests/digest.html.

- The **American Heart Association** has information and advice on physical activity in daily life. Contact your local chapter, call the national office at (800) AHA-USA1, or go to www.americanheart.org.
- The **American Cancer Society** has information on how physical activity can help prevent cancer. Call (800) ACS-2345 or go to www.cancer.org.

Note

The organizations included as resources in this guide offer a broad range of assistance, have a national scope, are easily accessed, have materials available at low or no cost, and/or have specialized expertise. The lists are not exhaustive. Scores of other organizations provide high-quality assistance and advice to educators; hundreds of informative books and articles are also available. Consider the resources listed here as starting points.

2. Physical Education

A sound policy on physical education emphasizes that physical education is an essential part of every student's preparation for adult life. The physical education program

needs to be consistent with national standards and foster habits of lifelong, enjoyable physical activity.

Physical Activity Sample Policy, Part Two:

ALL STUDENTS ENROLLED. Every student in each grade, pre-kindergarten through twelfth, shall participate in daily physical education for the entire school year, including students with disabling conditions and those in alternative education programs. Students in the elementary grades shall participate in physical education for at least 150 minutes during each school week, and students in middle schools and high schools shall participate for at least 225 minutes per week.

INSTRUCTIONAL PROGRAM DESIGN. Schools shall establish specific learning goals and objectives for physical education. A sequential, developmentally appropriate curriculum shall be designed, implemented, and evaluated to help students develop the knowledge, motor skills, self-management skills, attitudes, and confidence needed to adopt and maintain physical activity throughout their lives. The physical education program shall:

1. emphasize knowledge and skills for a lifetime of regular physical activity;
2. be consistent with *state/district's standards/guidelines/framework* for physical education and with national standards that define what students should know and be able to do;
3. devote at least 50 percent of class time to actual physical activity in each week, with as much time as possible spent in moderate to vigorous physical activity;
4. provide many different physical activity choices;
5. feature cooperative as well as competitive games;
6. meet the needs of all students, especially those who are not athletically gifted;
7. take into account gender and cultural differences in students' interests;
8. teach self-management skills as well as movement skills;

9. actively teach cooperation, fair play, and responsible participation in physical activity;
10. have student/teacher ratios comparable to those in other curricular areas;
11. promote participation in physical activity outside of school;
12. focus, at the high school level, on helping adolescents make the transition to an active adult lifestyle; and
13. be an enjoyable experience for students.

Teachers shall aim to develop students' self-confidence and maintain a safe psychological environment free of embarrassment, humiliation, shaming, taunting, or harassment of any kind. Physical education staff shall not order performance of physical activity as a form of discipline or punishment.

Suitably adapted physical education shall be included as part of individual education plans for students with chronic health problems, other disabling conditions, or other special needs that preclude such students' participation in regular physical education instruction or activities.

ASSESSMENT. All students shall be regularly assessed for attainment of the physical education learning objectives. Course grades shall be awarded in the same way grades are awarded in other subject areas and shall be included in calculations of grade point average, class rank, and academic recognition programs such as honor roll.

HEALTH-RELATED FITNESS TESTING. Health-related physical fitness testing shall be integrated into the curriculum as an instructional tool, except in the early elementary grades. Tests shall be appropriate to students' developmental levels and physical abilities. Such testing shall be used to teach students how to assess their fitness levels, set goals for improvement, and monitor progress in reaching their goals. Staff will maintain the confidentiality of fitness test results, which will be made available only to students and their parents/guardians.

As health-related physical fitness is influenced by factors beyond the control of students and teachers (such as genetics, physical maturation, disabling conditions, and body composition), test results shall not be used to determine course grades or to assess the performance of individual teachers.

EXEMPTIONS. Physical education teaches students essential knowledge and skills; for this reason, exemptions from physical education courses shall not be permitted on the basis of participation on an athletic team,

community recreation program, ROTC, marching band, or other school or community activity. A student may be excused from participation in physical education only if: 1) a physician states in writing that specific physical activities will jeopardize the student's health and well-being or 2) a parent/guardian requests exemption from specific physical activities on religious grounds.

TEACHING STAFF. Physical education shall be taught by well-prepared specialists who are certified by the state to teach physical education. All physical education teachers shall be adequately prepared and regularly participate in professional development activities to effectively deliver the physical education program. Preparation and professional development activities shall provide basic knowledge of the physical development of children and adolescents combined with skill practice in program-specific activities and other appropriate instructional techniques and strategies designed to promote lifelong habits of physical activity.

ADEQUATE FACILITIES. School leaders shall endeavor to ensure the cost-efficient provision of adequate spaces, facilities, equipment, supplies, and operational budgets that are necessary to achieve the objectives of the physical education program.

School authorities shall minimize the use of physical education facilities for noninstructional purposes, such as using the gymnasium for school assemblies during times scheduled for physical education classes.

EDUCATIONAL REINFORCEMENT. The physical education program shall be closely coordinated with the other components of the overall school health program. Physical education topics shall be integrated within other curricular areas. In particular, the benefits of being physically active shall be linked with instruction about human growth, development, and physiology in science classes and with instruction about personal health behaviors in health education class.

The physical education program shall actively engage families as partners in their children's education and collaborate with community agencies and organizations to provide ample opportunities for students to participate in physical activity beyond the school day.

Discussion

Physical education is an integral part of the total education of a child. Well-planned, well-implemented physical education programs can provide many important benefits for young people (see box, "Why Children Need

Physical Education," on the next page). A good physical education program includes:

- instruction about how physical activity improves personal health and well-being;

Why Children Need Physical Education

Benefits of well-planned, well-implemented physical education programs include:

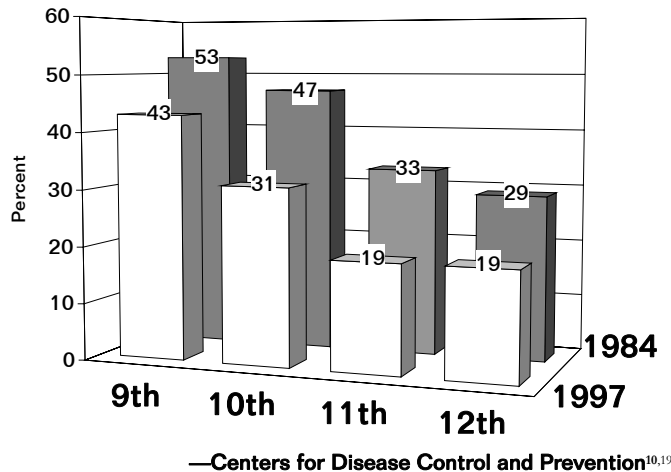
- **IMPROVED PHYSICAL FITNESS:** Improves children's muscular strength, flexibility, muscular endurance, body composition, and cardiovascular endurance.
- **REINFORCES KNOWLEDGE LEARNED IN OTHER SUBJECT AREAS:** Serves as lab for application of content from science, math, and social studies courses.
- **SELF-DISCIPLINE:** Facilitates development of student responsibility for health and fitness.
- **SKILL DEVELOPMENT:** Develops motor skills that allow for safe, successful, and satisfying participation in physical activities.
- **EXPERIENCE SETTING GOALS:** Gives children the opportunity to set and strive for personal, achievable goals.
- **IMPROVED JUDGMENT:** Influences moral development by providing students with opportunities to assume leadership, cooperate with others, and accept responsibility for their own behavior.
- **IMPROVED SELF-CONFIDENCE AND SELF-ESTEEM:** Helps children become more confident, assertive, independent, and self-controlled.
- **STRESS REDUCTION:** Provides an outlet for releasing tension and anxiety.
- **STRENGTHENS PEER RELATIONSHIPS:** Helps children socialize with others more successfully.

—National Association for Sport and Physical Education¹⁸

Chart 3

Declining Participation

Percentage of students in grades 9–12 who attended physical education class every day in an average week, 1984 and 1997, by grade.



- activities designed to improve strength and flexibility on three to four days of the week;
- development of motor skills through instruction in a variety of movement forms, such as specific sports, dance, gymnastics, and aquatics; and
- development of self-management skills, such as self-monitoring, self-evaluation, and self-reinforcement.

- aerobic activities designed to improve cardiovascular fitness on most, if not all, days of the week;

Physical education needs to be offered every day to adequately address the necessary

Daily physical education

State or Local?

In its work with state education policymakers, NASBE recommends that minimum time requirements and student/teacher ratios should be local decisions and should not be decided at the state level. Today’s education reform movement is based on the principle that states should focus on establishing education goals and defining the results expected of students and schools, and then allow local schools and districts the flexibility to determine for themselves the best means of reaching those goals. Every state must determine for itself, through state law and the policymaking process, the most appropriate policy levels at which to establish physical education program requirements.

instructional components and provide opportunities for adequate practice and health-enhancing physical activity. Yet participation in daily physical education has dropped precipitously in recent years, from 42 percent of high school students in 1991 to only 27 percent in 1997.²⁰

A 1994 national survey found that only 17 percent of middle/junior high schools and two percent of high schools required physical education five days per week each year.^{21,22} As of 1997, 47 states and nearly all local school districts required *some* physical education, but Illinois is the only state that currently requires *daily* physical education in every grade K–12.²³ Chart 3, “Declining Participation” (on the preceding page), illustrates how attendance in daily physical education declines dramatically as students pass through high school and how attendance has declined substantially over time.

Physical education sessions for elementary school children should last at least 30 minutes and sessions for middle and high school students should last at least 45 minutes.

Recognizing that schools that use block scheduling might not be able to offer physical education on a daily basis, the National Association for Sport and Physical Education (NASPE) recommends minimum weekly amounts of instructional time: 150 minutes for elementary school students and 225 minutes for middle and high school students. Schools should not meet this target by counting time students spend in unstructured free-play activities such as recess.

Physical education standards

At least 28 states have developed standards and/or curriculum frameworks for physical education. Some states have directly based their standards or frameworks on the national standards for physical education produced by NASPE. The standards, which should form the foundation of any physical education program, are intended to help students become “a physically educated person.”

Today’s state-of-the-art physical education program is considerably different than the physical education that most of today’s adults experienced in school. Although traditional physical education classes stressed the knowledge and skills needed to excel in competitive sports, today’s exemplary programs emphasize teaching the types of knowledge and skills necessary for a lifetime of regular physical activity. The “new physical education”:

- is based on national standards—just like other academic subjects—that define what students should know and be able to

National Standards for Physical Education

A physically educated person...

- **Demonstrates competency in many movement forms and proficiency in a few movement forms.**
- **Applies movement concepts and principles to the learning and development of motor skills.**
- **Exhibits a physically active lifestyle.**
- **Achieves and maintains a health-enhancing level of physical fitness.**
- **Demonstrates responsible personal and social behavior in physical activity settings.**
- **Demonstrates understanding and respect for differences among people in physical activity settings.**
- **Understands that physical activity provides opportunities for enjoyment, challenge, self-expression, and social interaction.**

—National Association for Sport and Physical Education²⁴

- do as well as the levels of achievement that students are expected to attain;
- provides students with physical activity choices so they can select activities that appeal to them;
 - features cooperative as well as competitive activities;
 - meets the needs of all students, especially those who are not athletically gifted;
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 - features cooperative as well as competitive activities;
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Suggested Instructional Themes in Physical Education

- **Physical, social, and mental health benefits of lifelong physical activity and physical fitness;**
- **development of motor skills;**
- **competency in movement forms;**
- **components of health-related fitness;**
- **phases of a workout;**
- **how much physical activity is enough;**
- **safe and unsafe weight management and conditioning practices;**
- **balancing food intake and physical activity;**
- **personal assessment of one's own health-related fitness;**
- **development of safe and effective personal activity plans;**
- **monitoring progress toward achieving personal activity goals;**
- **social aspects of physical activity, including practicing responsible behaviors;**
- **overcoming barriers to physical activity;**
- **how to find valid information or services related to physical activity and fitness;**
- **opportunities for physical activity in the community;**
- **dangers of using performance-enhancing drugs such as steroids;**
- **weather-related safety; and**
- **disease and injury prevention and proper emergency response.**

- develops in all students self-confidence in their physical activity abilities;
- eliminates practices that humiliate students, such as having student captains choose team members;
- assesses students on their progress in reaching personal physical activity and

fitness goals and not on whether they meet an absolute standard;

- uses strategies to keep students active for a large part of class time (e.g., not playing games of elimination, reducing time spent waiting in line to use equipment);
- teaches self-management skills to help students learn how to overcome barriers to physical activity during childhood and adulthood; and

- makes physical education an enjoyable experience for students.

Unfortunately, a 1994 nationwide survey found that traditional sports activities still tend to dominate physical education classes and teacher programs.²⁶ This is not to say that competitive team sports do not belong in a sound physical education program: what matters is *how* the sports are organized and taught. California's *Physical Education Framework*

Clearing up Misunderstandings

Myth—Physical education is intended to help students achieve excellence in games and sports.

Framework vision—Physical education is a multi-faceted process that teaches a wide range of skills and activities with the aim of the students becoming physically educated, physically fit, able to enjoy a variety of physical activities, and committed to lifelong health and physical well-being. It is a continuing process of articulated, sequential development of skills, talents, attitudes, and behaviors.

Myth—Physical education is not an integral part of the school's curriculum. It is a frill.

Framework vision—Physical education is closely connected to and supports the other disciplines. Physical education is an integral component of the school curriculum. It involves students directly in thinking, creating meaning, and learning how to learn.

Myth—Physical education focuses on the more athletically gifted.

Framework vision—All children have the potential to become physically educated, and an effective physical education program will reach all children regardless of their talents, skills, or limitations.

Myth—Physical education should be similar to training: highly skill- and drill-oriented. It should be mainly a mechanical process.

Framework vision—In physical education emphasis must be placed on a broad spectrum of learning and personal development. Learning involves thinking and feeling, being active and processing information, not just using skills. Education encompasses much more than training.

Myth—Children should carry out a variety of physical fitness activities but do not need to understand why they are doing so.

Framework vision—Learning cognitively is as important to physical education as learning specific movement skills. Students need to know why they are learning skills in physical education and how they are benefiting personally. Then they will be more likely to accept responsibility for improving skills on their own and enjoying the benefits of physical education over the long term.

Myth—Because there are always winners and losers in games and sports, physical education must emphasize competition to prepare children for participation in the real world.

Framework vision—Although teachers are aware of the nature of competition, they do not require higher levels of competition from children before they are ready. Further, competition can take different forms. Activities in physical education may emphasize self-improvement, participation, and cooperation instead of winning or losing.

—California Department of Education²⁵

In the News

Fun Physical Education Classes Lead to Active Kids

Kids who enjoy gym class are more likely to have physically active lives outside of school than those who dread P.E., according to a report in *Health Psychology*.²⁸

Children are also more likely to exercise if their free time in the afternoon is spent outdoors or playing sports, and if their family encourages physical activity.

"This is the first national study to examine the explanations for why some kids are exercising, and some kids are not," said lead author James Sallis, a psychology professor at San Diego State University....

Sallis and his colleagues interviewed 1,504 pairs of parents and children in grades four through twelve. They looked at a number of potential factors, such as time barriers, fees for activity, and body mass index, a calculated number that compares weight to height.

Only three factors—enjoying gym class, afternoon activities, and family support of physical activity—consistently influenced both sexes and all age groups.

—Reuters Health News²⁹

Eliminating Humiliation

At Crimson Elementary School in Mesa, Arizona, physical education teacher James Roberts tries to minimize the polarization between natural athletes and students who struggle with athletic skills. Relays, where youngsters spend 80 percent of the time waiting for their turn and have the opportunity to make fun of awkward children, have been eliminated. So has the often humiliating practice of "picking" team members.

—The Washington Post³⁰

document helps to explain the new instructional approach (see box, "Clearing up Misunderstandings").

Rationale Statement for Physical Activity Standards

A wealth of information has been accumulated to point to the importance of physical activity in promoting health and wellness. Evidence also indicates that habits (lifestyles) established in youth are likely to influence adult lifestyles and associated health and wellness. Physical activity, a primary [protective] factor for many chronic health conditions, is an integral part of comprehensive school health education but also must be promoted as an important educational goal. Meeting physical activity standards includes both promotion of physical activity among youth and promotion of lifelong physical activity that will enhance workplace skills, fitness, and wellness associated with quality of life. Achieving lifetime physical activity standards results in learning real life skills. Higher-order skills include decision making and problem solving required to become informed, lifetime physical activity consumers.

—Arizona Department of Education²⁷

The resources listed at the end of this section point to professional associations that can provide practical guidance on successfully implementing proven strategies and methods that reflect the lifelong health approach to physical education.

Program design

Physical education classes typically devote much less than half of class time to physical activity, with considerable amounts of time spent on administrative tasks and waiting for a turn at an activity.^{31,32,33} A 1997 national survey found that, among high school students enrolled in physical education, only 74 percent reported being physically active for 20 minutes or more in an average class.¹⁰

Studies have found that improved curriculum and teacher professional development can

Avoiding Failure

We never put kids in situations where they'll fail and won't want to remain active. We want all students to have the knowledge and skills to engage in a physically active lifestyle throughout life. Not just the gifted athlete.

—Bobbie Harris, Project Director for Physical Dimensions, the Kansas high school physical activity/wellness curriculum³⁵

substantially increase the time spent by students on moderate to vigorous physical activity in class and that the target of 50 percent of time spent in activity is feasible.³⁴ Being active for at least half of physical education class would provide a substantial portion of the overall physical activity time recommended for children and adolescents.

Physical education teachers should have the same teaching loads and class sizes as teachers of other subjects. Physical education teachers have a great deal of content to teach and, like other teachers, they cannot do their jobs effectively or have enough time to work with individual students if classes are overcrowded. As Dr. Joanne Owens-Nausler of the American School Health Association once said, “Try teaching English with 72 kids.”

If students are to learn to enjoy physical activity, program planners must try to take into account their expressed interests. To the extent possible, students should look forward to physical education as a fun and important part of their day. Physical educators should also actively promote the participation of students' families in physical activity at home.

Assessment

Some school administrators, other staff, students, and parents might not consider physical education important unless student

progress toward achieving course learning objectives figures into the assignment of course grades just as for any other subject.

Assessment of student performance in physical education is also essential for informing teachers about the effectiveness of specific instructional strategies used and to measure the overall success of the physical education program in attaining its instructional goals. Without program accountability, education decision makers are not likely to accept the importance of physical education, especially in the context of education reform.

Assessment needs to focus on the key content that should be addressed by physical education: knowledge about physical activity and movement, motor skills, and self-management skills. Assessment can be a combination of measuring students' achievement levels according to reasonable criteria, and appraising their degree of improvement over time.

As suggested earlier in the sample policy language, testing of health-related physical fitness (cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition) can have tremendous value as a diagnostic and instructional tool. However, it should not be used for grading individual students, assessing the performance of individual teachers, or measuring the effectiveness of a program because many factors that are beyond the control of schools and students—such as genetics, physical maturation, disabilities, and body composition—powerfully influence fitness test scores.

Considerable work has been done lately to develop state-of-the-art assessment practices

Brain-Compatible Learning

Today's brain, mind, and body research establishes significant links between movement and learning. Educators ought to be purposeful about integrating movement activities into everyday learning.... Brain-compatible learning means that educators should weave math, movement, geography, social skills, role play, science, and physical education together.

—Eric Jensen⁵

for physical education. Materials to help schools design their assessment processes are available from NASPE.

Exemptions from physical education

In a 1994 national survey, 23 percent of secondary schools reported that they exempt students from enrolling in physical education if they participate in school activities such as marching band, chorus, and cheerleading.²⁶ The sample policy in this document allows no substitutions based on participation in these kinds of school activities, even if the activities include physical exertion.

The reasoning for limiting exemptions is simple—instruction in physical education is an essential element of each student's learning and has education value beyond mere bodily movement; therefore, no one should be exempt from it. Consider an analogy: Should student members of debate clubs be granted exemptions from English language arts requirements? Should astronomy club members be exempted from science education?

Staff preparation

Studies have found that well-prepared physical education specialists teach longer and higher quality lessons.³ Effective teaching of physical

education requires a body of knowledge and instructional skills different from the skills that are necessary to teach other subject areas, including knowledge about motor development, exercise physiology, and motivating behavior change. It is essential for all teachers assigned to teach physical education to be ready and able to apply this body of knowledge and skills in ways appropriate to the age and developmental level of their students.

Yet for a number of reasons this imperative is not fully reflected in states' teacher certification requirements. Although 43 states require certification for teachers who teach physical education at the secondary school level, only eight states require that teachers who teach it at the elementary school level be certified.²⁶

Even if certification is a state requirement, in reality many schools are not fully in compliance: a nationwide survey in 1994 found that one in four practicing physical education teachers in middle and high schools were not certified to teach the subject.²⁶

If it is not possible to require that only teachers certified to teach physical education be assigned to teach it at the elementary school level, a less desirable alternative is to employ at least one certified physical education instructor per elementary school who is responsible for advising and mentoring others who teach physical education.

Physical education teachers need ongoing support and continuous professional development, but only 66 percent of lead secondary school physical education teachers reported receiving four or more hours of inservice training in 1992–94.²⁶ The most common topic of the training they received

was “teaching sports or activities.” In contrast, the topics listed most often by teachers as desired content for future training programs were how to develop individualized fitness programs for students, how to increase students’ physical activity during physical education class, and how to involve families in physical activity.²⁶ These findings suggest that a great deal more professional development opportunities are needed if all schools’ physical education programs are to be successfully reoriented to emphasize lifelong physical activity.

Physical activity topics in other curricular areas

Physical education should be closely coordinated with the overall school health program. In particular, physical education needs to be well coordinated with health education so that students thoroughly understand the benefits of being physically active and master the self-management skills needed to stay active for a lifetime. A good health education program will help students acquire important information, positive attitudes, and skills that reinforce lessons taught in physical education class.

Physical education topics can also be infused into other subjects such as math, science, and social studies. For example, the effects of television and computer games on people’s

daily physical activity habits might be a good social studies topic. Trajectories of students performing track-and-field activities could be analyzed in physics class.

Additional policy issues

Following are other policies that need to be in place for a successful physical education program that emphasizes lifelong physical activity:

- the overall learning climate of the school needs to consistently promote physical activity as positive and desirable;
- staff should never punish students for bad behavior by requiring physical activity, such as doing push-ups or running laps;
- general school policies that prohibit name calling or other forms of shaming, whether done by staff or by other students, must be consistently enforced in physical education settings; and
- sexual harassment, either between the genders or among students of the same gender, must never be condoned in physical education class—or at any other time at school.

Resources

- The **National Association for Sport and Physical Education** (NASPE) has developed the *National Standards for Physical Education: A Guide to Content and Assessment*. An extensive listing of other useful resources are also offered, including:
 - *Adapted Physical Education National Standards*;
 - *National Standards for Beginning Physical Education Teachers*;
 - *Physical Education Program Guideline and Appraisal Checklist for Elementary School*;
 - *Physical Education Program Improvement and Self-Study Guide: Middle School*;
 - *Physical Education Program Improvement and Self-Study Guide: High School*;
 - *Including Students with Disabilities in Regular Physical Education*;
 - *Substitution for Instructional Physical Education Programs*;
 - *Title IX Tool Box, Volumes I and II*;
 - *An Ethical Creed for Sport and Physical Educators*; and
 - *Liability and Safety in Physical Education and Sport: A Practitioner's Guide to the Legal Aspects of Teaching and Coaching in the Elementary and Secondary Schools*.

To order resources call (800) 321-0789. For information call (703) 476-3410 or (800) 213-7193 x410, or go to www.aahperd.org/naspe.

NASPE also sponsors NASPE-L, a listserv for K–12 physical educators.
- The **Putnam Valley School District** in New York State maintains Internet links to the standards documents of many states at <http://putwest.boces.org/StSu/PE.html>.
- Physical education curriculum materials for grades 3–5, developed for the Child and Adolescent Trial for Cardiovascular Health (CATCH), are available from the **National Heart, Lung, and Blood Institute** Information Center. Call (301) 251-1222 or go to www.nhlbi.nih.gov/nhlbi/cardio/other/prof/catchfly.htm.
- Asthma is a prevalent chronic health condition that affects many children's ability to participate in physical activity. The **National Asthma Education and Prevention Program** of the National Heart, Lung, and Blood Institute has produced a useful guide entitled *Asthma and Physical Activity in the School: Making a Difference*. Call (301) 251-1222.
- **Human Kinetics** offers a wide variety of materials that address all aspects of physical activity and sports. Call (800) 747-4457. Their Internet site at www.humankinetics.com includes an information center devoted to adaptive physical education.
- The **American Association for Active Lifestyles and Fitness** (AAALF) has published *The New Adapted Physical Education*, which can be used to plan activities for students included in regular physical education as well as in separate adapted physical education classes. Also available is *Guidelines for the Development of Fitness, Physical Activity, Recreation, and Sports Facilities* (1999). For information, call (800) 213-7193 or go to www.aahperd.org/aaalf. To order resources, call (800) 321-0789.
- **P.E. Central** bills itself as “the ultimate Web site for physical education teachers, students, and interested parents and adults.” Go to <http://pe.central.vt.edu>.
- The **PELINKS4U** web site at www.cwu.edu/~jefferis/jeff_prorg.html is another Internet-based source for locating physical education teaching resources.

3. Extracurricular Physical Activity Programs

Schools should offer many opportunities for students to participate in enjoyable physical activity. Extracurricular physical activity

programs can be vital supplements to students' educations as well as adding to their health and fitness.

Physical Activity Sample Policy, Part Three:

EXTRACURRICULAR PHYSICAL ACTIVITIES. Intramural programs, physical activity clubs, and interscholastic athletics are valuable supplements to a student's education. Schools shall endeavor to provide every student with opportunities to voluntarily participate in extracurricular physical activities that meet his or her needs, interests, and abilities. A diverse selection of competitive and noncompetitive, structured and unstructured activities shall be offered to the extent that staffing permits. The primary focus of extracurricular physical activity programs will be on facilitating participation by all interested students, regardless of their athletic ability. Equal opportunity on the basis of gender shall permeate all aspects of program design and implementation. School leaders shall endeavor to accommodate home-schooled children in extracurricular activities on a budget-neutral basis.

Each extracurricular physical activity program sponsored by in-school and non-school organizations shall be approved by *whom* and be supervised by a faculty advisor. The integrity and purpose of the physical education program shall not be compromised by such extracurricular activities, nor shall they interfere with the regular school schedule.

EXTRACURRICULAR PROGRAM ELIGIBILITY. School authorities should encourage and support the participation of all students in extracurricular activities, yet such participation is a privilege and not a right. *Schools/districts* may establish and equitably enforce reasonable eligibility requirements and probationary periods for participation in extracurricular activities. Such requirements may be based on:

- appropriate age;
- enrollment status or residency;
- satisfactory academic performance;
- acceptable attendance record;

- good conduct, including abstinence from the use of tobacco, alcohol, and other harmful drugs;
- agreement to testing for substance abuse;
- suitable health status or physical condition;
- other criteria essential to safety and fairness; or
- the specific requirements of particular activities or sports.

Eligibility requirements and appeal procedures shall be published in a regularly updated student activities handbook that is distributed to students and families annually. Students denied permission to participate in an extracurricular activity shall receive a prompt explanation of the reasons, have an opportunity to respond, and be provided with opportunities to reestablish their eligibility.

A student with a chronic health problem or other disabling condition shall be permitted to participate in any extracurricular activity, including interscholastic athletics, if the student's skills and physical condition meet the same qualifications that all other students must satisfy. The school shall make reasonable accommodations to allow the student to participate.

INTRAMURAL PROGRAMS. Elementary, middle, and high schools shall offer intramural physical activity programs that feature a broad range of competitive and cooperative activities and meet the following criteria:

- students have a choice of activities in which they can participate;
- every student has an opportunity to participate regardless of physical ability; and
- students have the opportunity to be involved in the planning, organization, and administration of the program.

INTERSCHOLASTIC ATHLETICS. High schools shall offer interscholastic athletic programs that shall adhere to the rules and regulations of appropriate state or local leagues, associations, or conferences. All coaches, whether volunteer or employed by school/district, shall comply with the policies, regulations, rules, and enforcement measures codified in a regularly updated coach's handbook.

Administrators, coaches, and other staff shall model sportsmanlike attitudes and behaviors. Student athletes shall be taught good sportsmanship, such as treating opponents with fairness, courtesy, and respect, and shall be held accountable for their actions. School authorities should evict spectators who do not handle themselves in a sportsmanlike way.

Partnerships between schools and businesses are encouraged, and business sponsorship of athletic teams shall be duly acknowledged. Nevertheless, advertising or other promotional activities supported by commercial interests are not permitted on public school grounds.

REQUIRED RECORDS. The parents or legal guardians of students who choose to participate in intramural programs, interscholastic athletics, or school-linked community recreation programs shall be informed in writing of potential risks associated with a given activity. Schools must keep documentation on file for each participating student that includes:

1. a statement signed by the student's parent/guardian granting permission for the student's participation;
2. emergency contact information for the student's parents/guardians and health care providers;
3. a thorough health appraisal (physical examination) certifying the student's fitness to participate that is appropriate to the activity or sport, conducted within the past 12 months, and signed by a licensed physician;
4. proof of current accident or health insurance coverage; and
5. a release signed by a parent/guardian that absolves the school or district from liability for injuries that may result from participation in school-sponsored physical activities unless negligence on the part of staff or coaches is proven.

FEES. Schools may establish reasonable fees for extracurricular activities and/or interscholastic athletic programs. Students from families who are documented to be financially disadvantaged shall be promptly granted waivers on a confidential basis upon written parental request.

STAFFING. All intramural programs, physical activity clubs, and athletic teams shall be supervised by qualified staff, who may or may not be certified teachers.

Intramural and athletic program staff shall satisfactorily complete courses or other professional development programs that address:

- child and adolescent physical development;
- sports-related injury prevention and safety guidelines;
- infection control procedures;
- first aid and cardiopulmonary resuscitation techniques;
- promotion of healthy student behaviors;

- safe and unsafe methods for youth weight management and conditioning; and
- how to provide students with experiences that emphasize enjoyment, sportsmanship, skill development, confidence building, and self-knowledge.

Intramural and athletic program staff shall also have satisfactorily completed a supervised probationary period and must regularly participate in relevant staff development programs.

VOLUNTEER ATHLETIC AIDES. Family members and other adult volunteers are encouraged to become involved with extramural or athletic activities. All volunteers shall receive orientation about relevant state, district, and school policies, procedures, and standards of conduct and may be subject to background and reference checks. Volunteer athletic aides shall satisfactorily complete training that addresses, at a minimum:

- basic child and adolescent physical development;
- sports-related injury prevention and safety; and
- first aid and cardiopulmonary resuscitation.

Discussion

Extracurricular activities can enrich the school experience for students, teach valuable lifelong lessons, and add to students' physical and emotional development. Studies have found that students who participate in extracurricular programs such as sports, music, and debate tend to have higher grade point averages, better attendance records, lower dropout rates, and fewer discipline problems than students generally³⁷ (see box, "A Case for Extracurricular Activities," on the next page). With sound planning, extracurricular activities can be a worthy extension of a good education program.

Intramural Programs

Interscholastic sports programs have been much more firmly established as part of the American educational system than intramural

A Vital Part of the Educational Program

The Board believes that student activities at school are a vital part of the total educational program and should be used as a means for developing wholesome attitudes and good human relations, as well as knowledge and skills. The Board believes that school citizenship, as reflected in student activities, is a measure of the achievement of important school goals. The Board recognizes that the greatest values to be derived from both curricular and extracurricular student school activities occur when such activities are developed and encouraged through participation among, or the knowledge of, the student body, interested members in the community, and school staff.

—Horseheads Central School District, New York³⁶

programs. In 1994, 82 percent of middle/junior high schools and 94 percent of senior high schools offered interscholastic sports programs, but only 51 percent of the former and 38 percent of the latter offered intramural sports programs.²¹ However, it is through intramural programs, rather than interscholastic sports programs, that

substantial improvements are likely to be made in the rates of youth participation in physical activity.

Participation in interscholastic sports is often limited to those students who have demonstrated athletic proficiency. In contrast, the focus of intramural programs is on

A Case for Extracurricular Activities

At a cost of only one to three percent (or less in many cases) of a school's overall budget, high school activity programs are one of the best bargains around.... Following are some of [the documented] benefits:

The Role of Sports in Youth Development from the Carnegie Corporation of New York, a report of a meeting in March 1996, found that...at their best, sports programs promote responsible social behaviors and greater academic success, confidence in one's physical abilities, an appreciation of personal health and fitness, and strong social bonds with individuals and institutions. Teachers attribute these results to the discipline and work ethic that sports require.

Adolescent Time Use, Risky Behavior, and Outcomes: An Analysis of National Data, issued in September 1995 by the U.S. Department of Health and Human Services, found that students who spend no time in extracurricular activities are 57 percent more likely to have dropped out of school by the time they would have been seniors; 49 percent more likely to have used drugs; 37 percent more likely to have become teen parents; 35 percent more likely to have smoked cigarettes; and 27 percent more likely to have been arrested than those who spend one to four hours per week in extracurricular activities.

School-age children and teens who are unsupervised during the hours after school are far more likely to use alcohol, drugs, and tobacco; engage in criminal and other high-risk behaviors; receive poor grades; and drop out of school than those children who have the opportunity to benefit from constructive activities supervised by responsible adults. In a 1994 Harris poll, more than one-half of teachers singled out "children who are left on their own after school" as the primary explanation for students' difficulties in class. This information comes from the National Education Commission on Time and Learning.

A 1989 nationwide study by the Women's Sport Foundation indicated that athletes do better in the classroom, are more involved in school activity programs, and stay involved in the community after graduation. The study also revealed that high school athletic participation has a positive educational and social effect on many minority and female students. The study, based on an analysis of data collected by the U.S. Department of Education's High School and Beyond Study, indicated that: 1) Girls receive as many benefits from sports as boys. 2) The "dumb jock" stereotype is a myth. 3) Sports involvement was significantly related to a lower dropout rate in some school settings. 4) Minority athletes are more socially involved than minority non-athletes.

Findings from the National Center for Education Statistics, *Extracurricular Participation and Student Engagement*, June 1995, revealed that during the first semester of their senior year, participants reported better attendance than their non-participating classmates. Half of them had no unexcused absences from school and half had never skipped a class, compared with one-third and two-fifths of non-participants, respectively. Students who participated were three times as likely to perform in the top quartile on a composite math and reading assessment compared with non-participants. Participants also were more likely than non-participants to aspire to higher education; two-thirds of participants expected to complete at least a bachelor's degree, while about half of non-participants expected to do so.

—National Federation of State High School Associations³⁷

creating opportunities to increase *all* students' participation in physical activity. Whereas interscholastic sports emphasize competition and winning, intramurals emphasize participation and enjoyment without pressure. Intramural programs, therefore, are particularly beneficial for those who could benefit most from increased participation in physical activity: the large number of students who lack the skills or confidence to play interscholastic sports, as well as those who dislike competitive sports altogether.

The types of activities available to students in intramural programs can vary tremendously and can include:³⁸

- leagues and tournaments for sports such as flag football, basketball, softball, and tennis;
- clubs for fitness and recreational activities such as weightlifting, hiking, dancing, and aerobic workouts; and
- self-directed activities such as walking, jogging, and stretching.

Intramural programs provide more flexibility than interscholastic programs in meeting the physical activity needs of female students. Girls are less likely than boys to participate regularly in vigorous physical activity and to participate in interscholastic sports programs.^{10,39} In 1997, 56 percent of male high school students reported that they played on sports teams run by their school, compared with only 42 percent of female high school students.¹⁰ School intramural programs can offer a variety of noncompetitive physical activity options and can be custom designed at the school level to meet specific interests of girls.

Lack of funding is probably the largest barrier to implementation of intramural physical activity programs, but some schools have developed creative approaches for overcoming this barrier. For example, the West Des Moines School District collaborated with the Walnut Creek YMCA and their local parks and recreation department to create an intramural program for middle and high school students who do not participate on interscholastic teams. Activities include flag football, wrestling, volleyball, dance, fishing, and a year-round fitness club. The school board pays for staff salaries, program equipment, facilities, and transportation; the YMCA and the park district help school-based intramural directors with program development, provide trained adults to serve as coaches, and manage program finances for each of the participating schools.⁴⁰

Eligibility requirements

Eligibility requirements for student participation in extracurricular activities can vary widely from one school to another. Many schools and districts follow the guidance of the National Federation of State High School Associations (NFHS) or its state affiliates. Some also cite the rules of the National Collegiate Athletic Association (NCAA) regarding eligibility standards for college-bound student athletes (see the list of resources at the end of this section). Sixteen states have established minimum academic requirements for students' participation in athletics, often referred to as "no-pass, no-play" rules.⁴¹

Each community must find its own balance between competing perspectives about eligibility requirements. On the one hand, schools' primary mission is education. Strict

One State’s Experience with “No-Pass, No Play”

In 1993 Arkansas instituted a minimum 2.0 grade point average (GPA) requirement for students to participate in extracurricular activities. The result was a dramatic increase in the number of students not allowed to participate: 22 percent of the state’s entire high school enrollment in the 1995–96 school year. Minority students were especially affected.

In response, the Arkansas State Board of Education amended its policy in January 1998 to de-emphasize the strictly punitive nature of the rule. The board established a set of eligibility rules that are more flexible and provide incentives for poorly performing students to seek remedial and additional instruction in order to maintain their eligibility.

**—National Association of State
Boards of Education⁴¹**

academic requirements for eligibility appear to effectively motivate some students to study harder. On the other hand, sports and other extracurricular activities play a valuable role in the lives of some students who might drop out of school if they are not permitted to participate.

This dilemma can be softened by ensuring that students’ academic shortcomings are identified and addressed at an early stage; that remedial help is available to students deemed ineligible; and that ineligible students are shown a feasible path for quickly restoring their privileges if they study hard.

Many families of home-schooled students request the opportunity for their children to partake in extracurricular activities offered at public schools. At least six states now have laws to specifically allow this.⁴¹

Agreement to possible testing for substance abuse is a reasonable condition for a student’s eligibility to participate in extracurricular activities, as long as all students are requested to satisfy the condition and not just some individuals who are targeted for special attention. The NFHS provides useful information on how to legally establish a drug-testing program at www.nfhs.org/drug_testing.html.

Federal laws prohibiting discrimination

According to federal law—specifically, Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA)—schools must allow a student with any kind of disabling condition to participate in extracurricular activities, including joining

Sportsmanship Defined

Sportsmanship involves:

- **Taking a loss or defeat without complaint.**
- **Taking victory without gloating.**
- **Treating opponents with fairness, courtesy, and respect.**

The following behavior [by an athlete or spectator] is unacceptable at all school contests:

- **Berating an opponent’s school or mascot.**
- **Berating opposing players.**
- **Obscene cheers or gestures.**
- **Negative signs.**
- **Words or gestures of complaint about officials’ calls.**

At the start of all athletic competitions, the announcer shall explain and promote sportsmanship expectations.

—California School Boards Association⁴²

an athletic team, if the student is “otherwise qualified” (that is, if the student’s skills and physical condition satisfy the same qualifications that everyone else must satisfy). Schools also have to make “reasonable accommodations” to allow the student to participate (phrases in quotation marks have precise legal definitions).⁴³

Another federal law, Title IX of the Education Amendments of 1972, has had far-reaching effects on young women’s participation in school athletic programs. The law states that, “No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance....” In 1996, 2.4 million high school girls represented 39 percent of all high school athletes, compared with only 300,000 or 7.5 percent in 1971.⁴⁴

Title IX applies to nearly all public and most private schools. The regulations enforced by the Office for Civil Rights (OCR) of the U.S. Department of Education list 10 factors that should be considered in determining whether equal opportunities are available:⁴⁵

1. whether the selection of sports and levels of competition effectively accommodate the interests and abilities of members of both sexes;
2. provision of equipment and supplies;
3. scheduling of games and practice;
4. travel and per diem allowance;
5. opportunity to receive coaching and academic tutoring;
6. assignment and compensation of coaches and tutors;

On Separating Students by Sex

With certain exceptions, elementary and secondary schools may not assign students to separate classrooms or activities, or prevent them from enrolling in a course of their choice, on the basis of sex.... Exceptions [pertaining to physical activity] are:

- **Students may be separated by sex when participating in sports where the major purpose or activity involves bodily contact (for example, wrestling, boxing, rugby, ice hockey, football, and basketball).**
- **Students may be grouped in physical education classes by ability, if objective standards of individual performance are applied. This may result in all-male or all-female ability groups.**
- **If the use of a single standard to measure skill or progress in a physical education class has an adverse effect on members of one sex, schools must use appropriate standards that do not have such an effect. For example, if the ability to lift a certain weight is used as a standard for assignment to a swimming class, application of this standard may exclude some girls. The school would have to use other appropriate standards to make the selection for that class.**

A school system that operates separate educational programs or activities for members of each sex in accordance with the mentioned exceptions must ensure that the separate courses, services, and facilities are comparable.

An exemption from these requirements may be requested by educational institutions controlled by religious organizations whose tenets conflict with requirements of Title IX.

—Office for Civil Rights, U.S. Department of Education⁴⁶

7. provision of locker rooms, practice, and competitive facilities;
8. provision of medical and training facilities and services;
9. provision of housing and dining facilities and services; and
10. publicity.

In practice, courts tend to analyze the first factor concerning equal accommodations separately; the remaining nine are generally considered together in determining whether there is equivalence.⁴⁵ The first factor tends to be the most litigated. It is also widely misunderstood. The regulation does not require a school to fully integrate all its athletic teams, nor does it require that exactly the same choice of sports be available for young men and women. Rather, courts tend to focus on overall athletic opportunities and spending as they relate to enrollments and students' interests and abilities.

Coaching qualifications

Qualifications of coaches are determined state by state and district by district. Traditionally, the major requirement has been that coaches have teaching certificates, but the recent trend has been to mandate that individuals complete coaching education programs. As of 1996, 27 states required coaching education.⁴⁷

As most injuries occur during practice when physicians and trainers are less likely to be present, it is imperative that coaches know how to prevent and treat injuries. Guidance on establishing qualifications can be obtained from NASPE, which has published national standards for athletic coaches, and NFHS, which offers an interscholastic coaches education program (see the resources list).

Many schools and districts maintain a regularly updated coach's handbook of policies and procedures regarding intramural and interscholastic athletic programs for reference by school athletic staff and volunteer athletic aides. Some legal experts recommend that, before a school or district uses volunteers in athletic programs, position descriptions be developed that detail the functions expected to be performed by the volunteer, the required qualifications, the scope of the volunteer's authority, and any benefits or expense reimbursements provided.⁴⁷

Resources

- Your state education department or state school boards association might be able to provide detailed guidance and assistance about eligibility requirements for athletic and other extracurricular activities.
 - The **National Association for Sport and Physical Education** (NASPE) offers an extensive number of useful resources, including:
 - *National Standards for Athletic Coaches*;
 - *Checklist for Safety in Sports*;
 - *Certified Athletic Trainers in the High School*; and
 - *Exploitation of the Interscholastic Athlete*.
- For information call (703) 476-3410 or (800) 213-7193 x410 or go to www.aahperd.org/naspe. To order resources call (800) 321-0789.
- The **National Intramural Sports Council**, a joint structure of NASPE and the National Association for Girls and Women in Sport (NAGWS), addresses policies and issues related to intramural sports programs and offers a brochure, *Guidelines for School Intramural Programs*, that outlines indicators of a good program. NAGWS also published *Title IX Tool Box, Volumes I and II*. Call NAGWS at (800) 213-7193 or (703) 476-3400.
 - The **National Intramural and Recreational Sports Association** (NIRSA) is a nonprofit professional association whose mission is to foster quality recreational programs, facilities, and services for diverse populations. NIRSA is developing a manual for implementing intramural programs for students in grades K–12. Go to www.nirsa.org.
 - The **National Federation of State High School Associations** (NFHS) has a large number of resources concerning interscholastic sports issues. Contact (816) 464-5400 or www.nfhs.org.
 - *The NCAA Guide for the College Bound Student-Athlete* is a summary of the rules and regulations of the **National Collegiate Athletic Association** (NCAA) related to recruiting, eligibility, financial aid, and college freshman eligibility requirements. The entire guide is available on the Internet at www.ncaa.org/eligibility/cbsa. Eligibility information is also available at (800) 638-3731.
 - The School Health Resource Database of the **National Schools Boards Association** (NSBA) contains a large number of school district policies and support documents on topics such as eligibility rules for interscholastic athletics. Call (703) 838-6722 or send an e-mail request to schoolhealth@nsba.org.
 - The *Legal Handbook on School Athletics* from the **National School Boards Association** (NSBA) addresses a broad range of legal issues including discipline of school athletes, eligibility rules, participation of non-public school children, testing for substance abuse, Title IX, prayer at athletic events, liability for spectators, and athletic personnel and volunteers. Call (703) 838-6722.
 - See the article from the **ERIC Clearinghouse on Teaching and Teacher Education** entitled “Promoting Gender Equity in Middle and Secondary School Sports Programs” online at www.ed.gov/databases/ERIC_Digests/ed367660.html.
 - The **Office for Civil Rights** of the U.S. Department of Education offers an eight-page pamphlet on *Student Assignment in Elementary and Secondary Schools & Title IX* (1988, Code No. 17) to assist educators in their efforts to comply voluntarily with federal regulations. Single copies are available by mail from the U.S. Department of Education Office for Civil Rights, Customer Service Team, 330 C Street, SW, Washington, DC 20202. Additional guidance is available at www.ed.gov/OCR.
 - Guidance on religious expression in the public schools and school athletic programs is available from the **U.S. Department of Education**. Call (800) USA-LEARN or go to www.ed.gov/Speeches/08-1995/religion.html.

4. Other Opportunities for Physical Activity

All schools need to offer convenient opportunities for students and staff to participate in enjoyable physical activity, and this imperative should be enshrined in policy. Recess in elementary schools is particularly

important. In addition, policymakers can help build partnerships between schools and their communities by addressing issues that concern community use of school physical activity facilities.

Physical Activity Sample Policy, Part Four:

RECESS IN ELEMENTARY SCHOOLS. Recess provides opportunities for physical activity, which helps students stay alert and attentive in class and provides other educational and social benefits. School authorities shall encourage and develop schedules that provide time within every school day for preschool, kindergarten, and elementary school students to enjoy supervised recess. Every school shall have playgrounds, other facilities, and equipment available for free play. Recess shall complement, not substitute for, physical education classes. Staff shall not deny a student’s participation in recess or other physical activity as a form of discipline or punishment, nor should they cancel it for instructional makeup time.

SCHOOL/COMMUNITY COLLABORATION. Schools shall work with recreation agencies and other community organizations to coordinate and enhance opportunities available to students and staff for physical activity during their out-of-school time.

Schools are encouraged to negotiate mutually acceptable, fiscally responsible arrangements with community agencies and organizations to keep school- or district-owned facilities open for use by students, staff, and community members during non-school hours and vacations. School policies concerning safety shall apply at all times.

STAFF PHYSICAL ACTIVITY. The *school/district* shall plan, establish, and implement activities to promote physical activity among staff and provide opportunities for staff to conveniently engage in regular physical activity.

Discussion

Regularly scheduled periods within the school day for unstructured physical activity and play, commonly referred to as “recess” periods, have long been a staple of the elementary

school schedule. A 1986 national study found that students in grades one through four spent, on average, 30.1 minutes per day in recess.⁴⁸ However, in recent years, an

increasing number of elementary schools have cut back on time allocated for recess.⁴⁹ In fact, some large school districts have eliminated recess altogether because of concerns about student safety and/or a desire to increase the amount of time devoted to academic instruction.⁵⁰ Yet, encouragingly, parent protests have put a halt to administrators' plans to eliminate recess in some school districts.⁵⁰

In 1998 the National Association for Sport and Physical Education (NASPE) issued physical activity guidelines for children ages 6–11, which recommend that children accumulate *at least* one hour and *up to* several hours of physical activity each day.¹⁶ This could occur appropriately in multiple periods of moderate to vigorous activity lasting 10 minutes or more. NASPE argues that recess is “a critical part of the school day” and that “extended periods of inactivity are not

appropriate for normal, healthy children or adults.”⁵¹

The National Association of Elementary School Principals (NAESP) continues to support recess: at its 1999 convention, NAESP endorsed recess as “an important component in a child’s physical and social development” and encouraged principals to “develop and maintain appropriately supervised, unstructured free play for children during the school day.”⁵² A 1991 survey conducted by NAESP found that most of the 383 principals surveyed believed recess has educational and social value and is worthwhile.⁵³

Recess promotes physical activity, in part, by simply getting children outdoors; studies have shown that the time young children spend outdoors is positively associated with their levels of physical activity.^{55,56} Schools might

The Case for Recess

Recess contributes to the child's cognitive and intellectual needs...

- **Students who do not get a break are much more fidgety in the classroom and are deprived from interacting with different peers and watching and learning from other children.**
- **Unstructured play gives the child an opportunity to exercise a sense of wonder, which leads to exploration, which leads to creativity.**

Recess responds to the child's social and emotional needs...

- **Recess can serve as an outlet for reducing or lowering the child's anxiety... a means for the child to manage stress.**
- **If we eliminate recess, we are ignoring the fact that for many children the opportunity to play with friends is an important reason for coming to school.**
- **A vital aspect of play is the non-threatening way children of different cultures learn from each other.**
- **Some children need the opportunity to break away from their classmates to collect their thoughts in solitary play.**
- **Recess provides opportunities for children to explore many types of active play regardless of the stereotypical expectations associated with gender.**
- **Traditional recess activities like jump rope, kickball, and hopscotch encourage children to take turns, negotiate or modify rules, and interact cooperatively.**

—American Association for the Child's Right to Play⁵⁴

be able to facilitate increased physical activity during recess periods by having staff encourage students to be active and by providing students with space, facilities, equipment, and supplies that can make participation in physical activity appealing to them. To have enough time for classroom lessons, physical education courses, and recess, NASPE suggests that school systems consider extending the length of the school day.⁵¹

In addition to its contribution to physical activity time, recess has also been valued for its social and cognitive benefits. Recess offers students one of their few opportunities during the school day to interact and develop social skills, such as negotiating and cooperating, with minimal adult interference. Studies have found that students who do not participate in recess become fidgety and less able to concentrate on tasks and that the longer children sit in classrooms without a recess break, the less attentive they become.^{57,58,59}

Researchers have found that students are more likely to learn social skills when recess play is left unstructured—that is, when children are allowed to decide for themselves how to spend their recess time.⁵⁷ Unstructured should not be confused with unsupervised: schools need to have an appropriate number of adults on hand to enforce safety rules and prevent aggressive, bullying behavior.

School equipment and supplies used during recess must be developmentally appropriate and meet established safety standards (see the following section on “Safety Guidelines”). In addition, schools need to work with police

Attentiveness

Every study shows that children are more attentive after recess—as the kids would say, “Well, duh!”

—Tony Pellegrini⁴⁹

departments and community agencies to address concerns that educators and parents might have about taking children to play outdoors in high-crime neighborhoods.

Schools that schedule recess time around the school lunch period are advised to have recess before lunch, as opposed to after lunch. Studies have found that students eat more and waste less of their lunch food when they have recess before lunch.^{60,61} Perhaps this is because they develop a greater appetite after the expenditure of time and energy in recess, or because many of those who eat lunch before recess rush through their meals in order to get outside to play.

School/community collaboration

Community organizations—such as parks and recreation departments, YWCAs and YMCAs, Boys and Girls Clubs, golf courses, tennis courts, swimming pools, and private health clubs—are all candidates for collaboration to supplement the school physical activity program. Schools often have good facilities that remain closed in the evenings, on weekends, and during school breaks, and community-based programs often have organized activities that suffer from a lack of space and equipment.

Schools’ legitimate concerns about liability, maintenance costs, and supervision are not insurmountable obstacles. Negotiations conducted in a cooperative spirit and focused on mutual goals can usually result in “win-win” solutions. These solutions might involve collaborative funding and staffing arrangements.

For instance, West Virginia’s Clay County, which formed a school/community coalition named “Clay Organized for Wellness” (COW) with technical assistance from NASBE, demonstrated that a good first step is to jointly conduct a community needs assessment.⁶² With a common action plan, special funding was then jointly sought from foundations and government agencies.

Schools also might find that providing the community with greater access to school physical activity facilities could lead to enhanced community support for the public financing of school facilities.⁶³ In addition, schools might be able to obtain access to community facilities for school physical activity programs.

Resources

- Your state or local departments of education, public health, or recreation or your state’s school boards association might be able to provide assistance with program planning or offer other resources.
- The **American Association for the Child’s Right to Play** provides a fact sheet and other information on the benefits of recess. Go to www.ipausa.org.

Physical activity opportunities for staff

Providing staff with health promotion services, including opportunities to participate in physical activity, is a key component of a coordinated school health program for several reasons:

- evaluations have found that participation in school health promotion programs for staff can increase morale, increase participation in vigorous activity, improve physical fitness, facilitate weight loss, lower blood pressure, and improve stress management skills;^{64,65}
- teachers who become interested in their own health tend to take a greater interest in the health of their students and become more effective teachers of health;⁶⁶ and
- teachers can influence student behaviors by being powerful role models for a physically active lifestyle.

- *Active Youth: Ideas for Implementing CDC’s Physical Activity Promotion Guidelines* (1998) describes several successful physical activity programs that have built bridges between schools and communities. It is available from **Human Kinetics** at (800) 747-4457 or go to www.humankinetics.com.

5. Safety Guidelines

Policymakers need to send a clear message that safety and health are priority policy areas. Of particular importance is establishing and enforcing health and safety rules for students

and staff, safety standards for facilities and equipment, and policies on substance abuse that address performance-enhancing drugs.

Physical Activity Sample Policy, Part Five:

RESPONSIBILITY FOR SAFETY. Minimizing injuries and illnesses related to physical activity is the joint responsibility of everyone: district and school leaders, school staff, students, and their families.

HEALTH AND SAFETY RULES. Schools shall establish rules and procedures concerning safety, infection control, provision of first aid, and the reporting of injuries and illnesses to students' families and appropriate school and community authorities. School administrators shall strictly and consistently enforce compliance with these rules and procedures by all students, school personnel, volunteers, and community members who use school facilities. Students and their families shall be informed of their school's health and safety rules at least annually.

Schools shall require students to use protective clothing and equipment appropriate to the activity and the environment, which will be maintained in good condition. Physical education teachers, coaches, and other athletic personnel and volunteers shall protect students from the effects of extreme weather conditions and endeavor to minimize the amount of exposure to the sun students receive during physical activities.

SAFE FACILITIES. Play areas, facilities, and equipment used for physical activity on school grounds shall meet accepted safety standards for design, installation, and maintenance. Spaces and facilities shall be kept free from violence and exposure to environmental hazards. All spaces, facilities, and equipment used by students and spectators to athletic events shall be thoroughly inspected for health and safety hazards on a regularly scheduled basis, at least twice per year. Written inspection reports shall be kept on file for 10 years. Schools shall correct any hazards before the facilities or equipment may be used by students, staff, or community members.

SUPERVISION. Student physical activity on school grounds during school hours shall be supervised to enforce safety rules and prevent injuries. Supervision shall be by adults trained in first aid, cardiopulmonary resuscitation, and infection control who have easy access to appropriate first aid supplies. Records shall be kept of all injuries and analyzed at

least annually so that patterns of causes can be determined and steps can be taken to prevent further injuries.

Supervising adults shall be informed of any relevant medical guidance on file with the school concerning limits on the participation of individual students in physical activity. Such information will be treated with strict confidentiality.

SUBSTANCE USE. School staff and other athletic personnel shall never condone, and must actively discourage, any student use of drugs, steroids, or hormones to enhance appearance or athletic performance. Coaches and athletic trainers shall encourage young people to maintain a healthy diet; practice healthy weight management techniques; and abstain from using tobacco, alcohol, and other drugs.

Existing policies that prohibit drug possession and use shall fully apply to the use or possession of steroids, hormone treatments, and other performance-enhancing drugs. Established policies on student medications shall apply to student consumption or possession of dietary supplements while on school grounds.

Discussion

Public school districts have a legal duty to exercise reasonable care in operating physical activity programs, or they may incur liability for injuries. Grounds for liability suits that have been successfully advanced against schools include:

- failure to provide adequate supervision;
- failure to instruct or warn;
- failure to provide proper safety equipment;
- negligently allowing unfit students to participate in athletic activities;
- failure to exercise reasonable care in matching participants in athletic activities;
- failure to exercise reasonable care in selection of athletic personnel;
- failure to properly maintain premises;

- failure to provide safe transportation; and
- failure to provide adequate post-injury health care.⁶⁸

Policy on Athletic Injuries

No student should be allowed to practice or play in an athletic contest if he/she is suffering from an injury. The diagnosis of and prescription of treatment for injuries is strictly a medical problem and should, under no circumstances, be considered a province of the coach. A coach's responsibility is to see that an injured player is given prompt and competent medical attention and that all details of a doctor's instructions concerning a student's functioning as a team member are carried out. No student will be allowed to practice or compete if there is a question that he/she is not in adequate physical condition.

—Bannock School District, Idaho⁶⁷

Liability for Spectators

The standard of care imposed on schools by the courts generally is that schools have a duty to protect spectators from all *foreseeable and unreasonable risks* of harm. While at first glance this duty may seem very broad, it is important to note that the courts have held that schools are not the insurers of spectators. The duty is not to protect against *all possible* harm, no matter how remote, but only to protect against all reasonable harm based on common sense and past experience with the particular game.

—National School Boards Association⁶⁹

In addition to the possibility of students' injuries sustained during physical education or other physical activity programs, schools also must be sensitive to possible injuries to spectators who are watching extracurricular athletic activities.

One way schools can guard against liability suits is to collect data on all injuries, analyze the data regularly, and correct hazards associated with injuries as they are identified.

Facilities and equipment

According to CDC's National Center for Injury Prevention and Control, each year more than 200,000 children go to hospital emergency rooms with injuries associated with playground equipment—about one injury every 2½ minutes.⁷¹ Most injuries occur when children fall off swings, monkey bars, climbers, or slides. Each year, anywhere from 9 to 17 children die from playground injuries.⁷¹ Experts say that many deaths and injuries could be prevented if playgrounds—from equipment to surfacing to layout—were designed with safety in mind (see box, “Public Playground Safety Checklist”).

Safety Hotline

If you want to report an unsafe consumer product or have a product-related inquiry, call the toll-free hotline of the U.S. Consumer Product Safety Commission at (800) 638-2772, or (800) 638-8270 for the hearing and speech impaired.

Public Playground Safety Checklist

- Make sure *surfaces* around playground equipment have at least 12 inches of wood chips, mulch, sand or pea gravel or are mats made of safety-tested rubber or rubber-like materials.
- Check that protective *surfacing extends* at least six feet in all directions from play equipment. For swings, be sure surfacing extends, in back and in front, twice the height of the suspending bar.
- Make sure play structures more than 30 inches high are *spaced* at least nine feet apart.
- Check for *dangerous hardware*, like open “S” hooks or protruding bolt ends.
- Make sure *spaces* that could trap children, such as openings in guardrails or between ladder rungs, measure less than 3.5 inches or more than 9 inches.
- Check for *sharp points or edges* in equipment.
- Look out for *tripping hazards*, like exposed concrete footings, tree stumps, and rocks.
- Make sure elevated surfaces, like platforms and ramps, have *guardrails* to prevent falls.
- *Check playgrounds regularly* to see that equipment and surfacing are in good condition.
- *Carefully supervise* children on playgrounds to make sure they're safe.

—U.S. Consumer Product Safety Commission⁷⁰

Whereas more elementary school-aged children are injured on playgrounds than anywhere else at school, middle and high school students sustain most injuries while involved in sports.⁷² Actions to be taken to prevent sports injuries include maintaining athletic fields for smooth, flat surfaces; securing and padding football goalposts; making sure that baseball bases break away; and padding gymnasium walls.

The resource list at the end of this section includes many organizations that have developed safety standards and inspection protocols for a wide range of physical activity facilities and equipment.

Sun exposure

A commonly overlooked safety issue is prevention of skin cancer. Skin cancer is among the most common types of cancer and the incidence of melanoma, the deadliest form of skin cancer, has been rising in the United States.⁷³ Medical professionals are concerned that young people who are overexposed to sunlight are more likely to develop skin cancer later in life. Scientists have found that even a few serious burns can increase the risk of skin cancer.⁷⁴

The amount of harmful sun exposure depends on the strength of the light, the length of exposure, and whether a person's skin is protected. To the extent feasible, school leaders should:

- schedule physical activity programs to minimize students' sun exposure, especially during the midday;
- plant shade trees, construct shaded walkways, and use grass as a ground cover rather than sand or concrete that reflects sunlight;

- insist that students wear protective clothing, broad-rimmed hats, and sunglasses on sunny days; and
- encourage students, particularly fair-skinned students, to apply sunscreen to all exposed areas of the body. The sunscreen should have a sun protective factor (SPF) of 15 or higher with UVA and UVB protection.

Although rates of skin cancer are highest among individuals with fair skin, some individuals with dark skin also burn easily. It is important for *all* children and adolescents to protect themselves from the sun.

Infection control

Although the risk that cuts and abrasions might transmit a blood-borne virus such as hepatitis or HIV is extremely low⁴³ (see the appendix at the end of this section, "HIV, AIDS, and School Athletics"), prudence dictates that schools establish infection control guidelines and rigorously enforce them.

All students, school staff, and athletic staff must learn and routinely apply infection control procedures for handling blood and other body fluids that might contain blood. The similar but more exacting guidelines used in clinical health care settings are called "universal precautions" because they are based on the principle that the procedures must apply *to all persons* and *at all times*, whether or not a disease threat is known to exist. A student or staff member might be carrying a harmful pathogen and not realize it. A chart of infection control guidelines adapted specifically for schools appears on the following page.

Performance-Enhancing Supplements

Use of any drug, medication, or food supplement in a way not prescribed by the manufacturer should not be authorized or encouraged by school personnel and coaches. Even natural substances in unnatural amounts may have short-term or long-term negative health effects.

In order to minimize health and safety risks to student-athletes, maintain ethical standards, and reduce liability risks, school personnel and coaches should never supply, recommend, or permit the use of any drug, medication, or food supplement solely for performance-enhancing purposes.

—NFHS Sports Medicine
Advisory Committee⁷⁵

All school staff, particularly physical education teachers and athletic program staff, should be required to complete a first aid and injury prevention course that includes implementation of infection control guidelines. Students' health education classes and sports orientations need to cover the guidelines as well.

In addition, equipment and supplies required to apply the infection control guidelines need to be maintained and kept reasonably accessible. First aid kits must be on hand during recess, physical education classes, and extracurricular activities.

If a situation occurs at school in which a person could have been exposed to an infectious agent, such as an instance of blood-to-blood contact, school authorities should counsel that person (or, if a minor, alert a

parent or guardian) to seek an appropriate medical evaluation. It is not necessary for school authorities to request confidential health information about the other person, because the medical evaluation should consider the possible transmission of a variety of pathogens including HIV, hepatitis, and others.

Drugs and food supplements

Anabolic steroids are drugs that effectively build muscle mass and are therefore attractive to some athletes and other young people who want to enhance their physical appearance. Although it is derived from a male sex hormone, the drug can shut down the healthy functioning of the male reproductive system.⁷⁶ Females may experience “masculinization” as well as other problems. Continued use of anabolic steroids may lead to health conditions ranging from merely irritating to life threatening, and they can halt growth prematurely in adolescents. In addition, if needles are shared, users run the risk of transmitting or contracting a blood-borne pathogen such as HIV. School staff, and coaches in particular, need to send a strong and consistent message against the use of these powerful and dangerous drugs.

Although the case against legal dietary supplements is not as clear cut, both NFHS and the NCAA urge that coaches and other school staff refrain from advising students to use dietary supplements. Possession of these substances on school grounds should be treated like medications that require written parental approval.

Nutritional Supplements

Nutritional supplements are marketed to athletes to improve performance, recovery time required after a workout, or to build muscles. Many athletes use nutritional supplements despite their having been proven ineffective. In addition such substances are expensive and may be harmful to health or performance.

- Protein and amino acid supplements are popular with body-builders and strength-training athletes. Although protein is needed to repair and build muscles after strenuous training, most studies have shown that athletes ingest a sufficient amount without supplements.
- Although selected amino acid supplements are purported to increase growth hormone, studies using manufacturer-recommended amounts have not found an increase in growth hormone and muscle mass. Ingesting high amounts of single amino acids is contraindicated because they can affect the absorption of other essential amino acids and produce nausea or impair both training and performance.
- Other commonly advertised supplements are vitamins and minerals. Most scientific evidence shows that selected vitamins and minerals will not enhance performance. Other substances naturally occurring in foods, such as carnitine, herbal extracts, and special enzyme formulations, do not provide any benefit to performance.
- Creatine has been found in some laboratory studies to enhance short-term, high-intensity exercise capability, delay fatigue on repeated bouts of such exercise, and increase strength. Several studies have contradicted these claims, and, moreover, the safety of creatine supplements has not been verified.

Ultimately, most nutritional supplements are ineffective, costly, and unnecessary. A high-carbohydrate diet consisting of complex carbohydrates, five servings of fruits and vegetables a day, low-fat dairy products, adequate protein, and whole grains is the optimal diet for peak performance.

Athletics departments and athletes also should be concerned about “nutritional” supplements from another perspective. Many compounds obtained from specialty “nutrition” stores and from mail order businesses may not be subject to the strict regulations set by the U.S. Food and Drug Administration (FDA). Therefore, contents of many of these compounds are not represented accurately on the list of ingredients and may contain impurities or banned substances which may cause a student-athlete to test positive.

Athletes depend on coaches and athletic trainers to supply them with accurate and sound information on sports nutrition and help them discern media hype from fact about supplements. Given the above information, athletics administrators should evaluate the appropriateness of athletics department staff distributing or endorsing “nutritional” supplements.

—National Collegiate Athletic Association⁷⁷

Resources

- Policymakers and administrators may want to consult with legal counselors who are familiar with education law concerning liability for athletic and other co-curricular activities. Your state education department, state school boards association, and state high school activities association might be able to provide detailed guidance and assistance.
- The **National Association for Sport and Physical Education** (NASPE) offers a number of useful resources, including:
 - *Principles of Safety in Physical Education and Sport*;
 - *Checklist for Safety in Sports*; and
 - *Liability and Safety in Physical Education and Sport: A Practitioner's Guide to the Legal Aspects of Teaching and Coaching in the Elementary and Secondary Schools*.

For information call (703) 476-3410, (800) 213-7193 x410, or go to www.aahperd.org/naspe. To order resources call (800) 321-0789.
- The **National Program for Playground Safety** (NPPS) serves as a national clearinghouse for playground safety information; conducts ongoing research in the area of injury prevention; and houses a large compilation of playground-related publications and documents, including an inspection guide and state-by-state report cards. NPPS also has developed a national action plan that outlines specific steps that state and local officials can implement. Call (800) 554-PLAY or go to www.uni.edu/playground.
- The **Children's Safety Network**, a group of four resource centers funded by the U.S. Maternal and Child Health Bureau, publishes *Injuries in the School Environment: A Resource Guide* and provides other information, training, and technical assistance on injury prevention and how to teach basic emergency
- life support skills to students. Call the Education Development Center at (617) 969-7100 or go to www.edc.org/HHD/csn.
- The **U.S. Consumer Products Safety Commission** (CPSC) has issued guidelines for inspection and maintenance of playgrounds and their equipment. CPSC's publications, available on the Internet at www.cpsc.gov, include the *Handbook for Public Playground Safety*, the *Public Playground Safety Checklist*, and *Tips for Public Playground Safety*. They also operate a site oriented toward young people at www.cpsc.gov/kids/kidsafety.
- *Playing It Safe: A Fourth Nationwide Safety Survey of Public Playgrounds* was released in June 1998 by the **U.S. Public Interest Research Group** (PIRG) and the **Consumer Federation of America** (CFA). Copies of the report can be ordered by calling PIRG at (202) 546-9707. Much of it is on the Internet at www.pirg.org. Also available is a "Model law on public play equipment and areas" that states, school districts, and schools might want to consider.
- Current injury statistics are available from the **National Center for Injury Prevention and Control** (NCIPC), part of the CDC, at www.cdc.gov/ncipc/osp/data.htm.
- The **National Playground Safety Institute** (NPSI) at the National Recreation and Park Association (NRPA) has a number of publications concerning playground safety and offers a course to become a Certified Playground Safety Inspector. Call (703) 858-2190 or go to www.nrpa.org/playsafe/playsafe.htm.
- The *Yearbook of Youth Sports Safety* is a collection of reports compiled by the **National Youth Sports Safety Foundation**. The reports were submitted from national medical and sports organizations and feature their efforts to address areas of concern in youth sports safety. Included are position

papers or official statements, injury and participation statistics, rule changes, participation requirements and recommendations, safety equipment and facility recommendations, conference proceedings, publications and resources, educational safety programs and campaigns, and coaching education programs or requirements. Phone (617) 277-1171 or order at www.nyssf.org.

- The *Legal Handbook on School Athletics* from the **National School Boards Association** addresses legal issues concerning tort liability, insurance, and various ways of minimizing a school district's liability for injuries. Call (703) 838-6722.
- *Occupational Exposure to Blood-Borne Pathogens: Implementing OSHA Standards in School Settings* is available from the **National Association of School Nurses** (NASN) at (207) 883-2117. This guide includes sample policies, forms, and checklists.

- Your local chapter of the **American Red Cross** is a good resource for training in first aid and infection control.
- Infection control personnel in local hospitals or emergency medical services programs also might be able to offer assistance in policy development and/or training.
- The **American Cancer Society** has information on skin cancer prevention at www2.cancer.org/skinGuide.
- The **Office of Dietary Supplements** at the National Institutes of Health offers public access to credible, scientific literature on vitamins, minerals, and herbal and botanical supplements. Call (301) 435-2920 or go to <http://odp.od.nih.gov/ods>.
- The *1998–99 NCAA Sports Medicine Handbook* from the **National Collegiate Athletic Association** can be downloaded at www.ncaa.org/sports_sciences/sports_med_handbook.

Appendix: HIV, AIDS, and School Athletics

This appendix is adapted from *Someone at School has AIDS: A Complete Guide to Education Policies Concerning HIV Infection* (1996) by the National Association of State Boards of Education.

To date, there has been no known case of HIV transmission in a school, day care center, or school athletic setting. The evidence is strong that the risk of HIV infection is extremely low when current guidelines are followed.

Many people are particularly worried about HIV transmission in school sports programs. Although cuts, abrasions, and nosebleeds can be fairly common on the mat or playing field, rigorous studies consistently conclude that the potential risk of infection during competition is extremely low.⁷⁸ Nearly 20 years into the epidemic, there is still no confirmed case of HIV transmission during an athletic activity.

Healthy skin is a trustworthy barrier against infection by HIV, the virus that causes AIDS. A wound, abrasion, or seriously chapped area could theoretically allow HIV transmission, but only if an adequate amount of infected blood succeeds in passing through the skin break. The necessary amount of an infected person's blood is not likely to enter another person's body during competition, even during a hard-charging contact sport.

Furthermore, everyday casual contact with a person with HIV infection carries no risk of viral transmission. Sweat does not contain HIV, nor is it expelled in a cough or sneeze. Minute quantities of virus particles are sometimes detected in tears or saliva, but

contact with these fluids has never been shown to result in HIV transmission.

Participation must be allowed

There is no medical reason to automatically disallow a student or school staff member with HIV infection to participate in recess, physical education, or a school athletic program if he or she wants and is able to do so. Doctors often recommend moderate exercise for people with HIV infection. Professional athletes have demonstrated that people infected with HIV can perform at full capacity. With the help of a physician and family members, a person living with HIV infection should be the one to decide whether his or her health status allows participation in athletic activities.

In fact, disallowing participation in any school-sponsored activity primarily on the basis of HIV infection violates federal civil rights laws, notably the Americans with Disabilities Act (ADA). This includes physical education classes, intramural programs, competitive sports, and recess. School authorities should determine how to satisfy the individual needs of a student on a case-by-case basis by following established policies and procedures for students with chronic health problems or other disabling conditions, processes that have long been required by federal law.

A special procedure to assess the situation of each student with HIV infection, ill or not, is not necessary. There is nothing unique about HIV infection that existing procedures cannot address.

Similarly, the right of an athletic staff member who is living with HIV infection or AIDS to keep his or her job is also protected by the ADA, as long as the employee can continue to fulfill the “essential functions” of the job with “reasonable accommodations.” This also applies to volunteer athletic aides.

Athletic program guidelines

NFHS offers specific model rules about bleeding for 12 common school sports, including timeouts, substitutions, reintroduction, etc. These should be added to rulebooks everywhere. Teams should practice an “infection control game plan” so that

Resources

- *Someone at School has AIDS: A Complete Guide to Education Policies Concerning HIV Infection* (1996) can be ordered from the **National Association of State Boards of Education** at (800) 220-5183.
- The **CDC National Prevention Information Network** (incorporating the former CDC National AIDS Clearinghouse) has a number of resources available that address HIV infection and athletics. Call (800) 458-5231 or go to www.cdcnpin.org.
- *Pediatric HIV Infection: A Compendium of AAP Guidelines* from the **American Academy of Pediatrics** includes policy statements developed by an ongoing task force on HIV and athletics. Call (800) 433-9016.
- Your state high school activities association should be a good source of information on athletic programs and training programs for athletic department staff.
- Call the **National Federation of State High School Associations** (NFHS) at (816) 464-5400 for information on revising sports rules to incorporate infection control guidelines.

On Testing Athletes for HIV

Routine HIV testing of all athletes is unnecessary, impractical, unmanageable, and costly for many reasons.

—CDC National AIDS Clearinghouse

There is no medical or public health justification for testing or screening for HIV infection prior to participation in sports activities.

—World Health Organization

procedures, roles, and responsibilities are clear to one and all.

Most state school athletic associations do not allow game cancellations due to fear of AIDS—a team that refuses to play another team for this reason forfeits the contest. The principal risks faced by athletes are related to their *off-the-field* activities.

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