

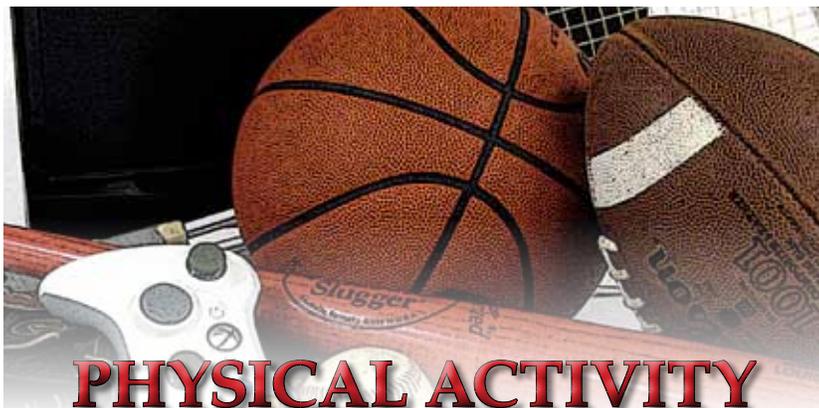
PANTA Plus

Physical Activity



For the latest
Kentucky Youth Risk Behavior Survey data:





PHYSICAL ACTIVITY

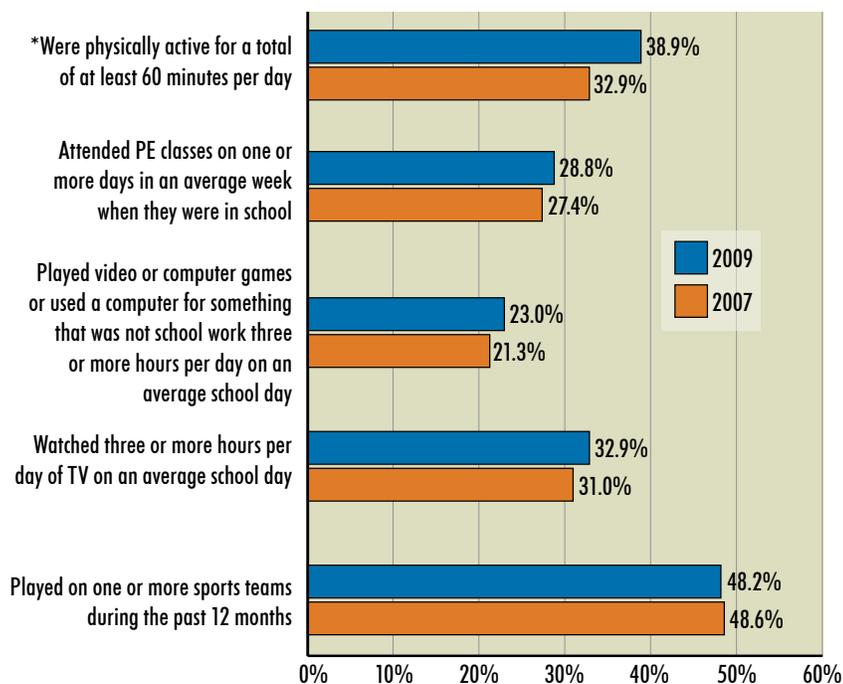
High School Fact Sheet

Physical activity reduces the risk of coronary heart disease, hypertension, colon cancer, and diabetes. Regular physical activity in childhood and adolescence improves strength and endurance, helps build healthy bones and muscles, helps control weight, reduces anxiety and stress, increases self-esteem, and may improve blood pressure and cholesterol levels. The U.S. Departments of Health and Human Services and Agriculture recommend that young people (ages 6–17) engage in at least 60 minutes of physical activity daily.¹

¹ Centers for Disease Control and Prevention. <http://www.cdc.gov/HealthyYouth/physicalactivity/>. Retrieved 7/09/09.

Physical Activity Trends in Kentucky

The following graph represents the physical activity behaviors of high school students in 2007 and 2009. **Please note there was only one statistically significant change: the % of students active for 60 minutes on five or more of the past seven days.*



The YRBS is a nationwide survey produced by the Centers for Disease Control and Prevention (CDC) Division of Adolescent and School Health (DASH) to monitor the six priority health-risk behaviors of adolescents: alcohol and drug use, injury and violence (including suicide), tobacco use, nutrition, physical activity, and sexual risk behaviors. The data is collected from students in 9th through 12th grades every two years.

Youth in Kentucky Disproportionately at Risk

- Males (49.2%) were more likely than females (28.2%) to have been physically active for a total of at least 60 minutes per day on five or more of the past seven days
- Whites (40.8%) were more likely than blacks (26.2%) to have been physically active for a total of at least 60 minutes per day on five or more of the past seven days
- Blacks (45.1%) were more likely than whites (26.7%) to have watched three or more hours per day of TV on an average school day
- Males (41.8%) were more likely than females (23.7%) to have attended PE classes on one or more days in an average week when they were in school

For More Information

For additional KY YRBS data and other YRBS fact sheets, visit the KDE website at: <http://www.education.ky.gov/KDE/Administrative+Resources/School+Health/Youth+Risk+Behavior+Survey.htm>

For national data or more information on the YRBS, visit the CDC website at: <http://www.cdc.gov/HealthyYouth/yrbs/index.htm>





PHYSICAL ACTIVITY

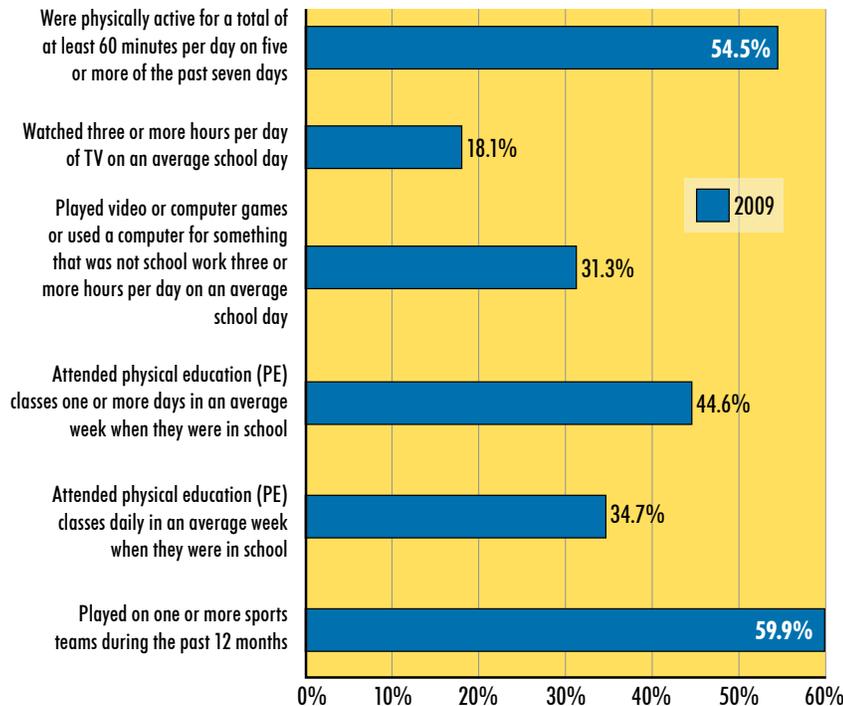
Middle School Fact Sheet

Physical activity reduces the risk of coronary heart disease, hypertension, colon cancer, and diabetes. Regular physical activity in childhood and adolescence improves strength and endurance, helps build healthy bones and muscles, helps control weight, reduces anxiety and stress, increases self-esteem, and may improve blood pressure and cholesterol levels. The U.S. Departments of Health and Human Services and Agriculture recommend that young people (ages 6–17) engage in at least 60 minutes of physical activity daily.¹

¹ Centers for Disease Control and Prevention. <http://www.cdc.gov/HealthyYouth/physicalactivity/>. Retrieved 7/09/09.

Physical Activity in Kentucky

The following graph represents the physical activity behaviors of middle school students in 2009. No comparison data is available.



The YRBS is a nationwide survey produced by the Centers for Disease Control and Prevention (CDC) Division of Adolescent and School Health (DASH) to monitor the six priority health-risk behaviors of adolescents: alcohol and drug use, injury and violence (including suicide), tobacco use, nutrition, physical activity, and sexual risk behaviors. In 2009, Kentucky was one of 14 states who administered a middle school YRBS to students in grades 6th through 8th.

Youth in Kentucky Disproportionately at Risk

- Males (59.1%) were more likely than females (49.2%) to have been physically active for a total of at least 60 minutes per day on five or more of the past seven days
- Blacks (53.9%) were more likely than whites (36.1%) to have watched three or more hours per day of TV on an average school day
- Males (38.2%) were more likely than females (36.1%) to have played video or computer games or used a computer for something that was not school work three or more hours per day on an average school day
- Blacks (39.7%) were more likely than whites (30.0%) to have played video or computer games or used a computer for something that was not school work three or more hours per day on an average school day

For More Information

For additional KY YRBS data and other YRBS fact sheets, visit the KDE website at: <http://www.education.ky.gov/KDE/Administrative+Resources/School+Health/Youth+Risk+Behavior+Survey.htm>

For national data or more information on the YRBS, visit the CDC website at: <http://www.cdc.gov/HealthyYouth/yrbs/index.htm>



Emerging, Promising and Best Practices

A Comprehensive School Physical Activity Program A comprehensive school physical activity program encompasses physical activity programming before, during, and after the school day. The National Association for Sport and Physical Education recommends that a comprehensive school physical activity program include: quality physical education; school-based physical activity opportunities; school employee wellness and involvement; and family and community involvement. <http://www.aahperd.org/naspe/publications/teachingTools/cspa.cfm> and www.letsmoveinschool.org.

Coordinated Approach To Child Health (CATCH) CATCH is an evidence-based, coordinated school health program designed to promote physical activity and healthy food choices, and prevent tobacco use in children from preschool through grade 8. Coordinated School Health is a process which brings a school and community together to teach children to be healthy for a lifetime. Effective coordinated school programs reinforce positive healthy behaviors throughout the day and make clear that good health and learning go hand in hand.

CATCH builds an alliance of children, parents, teachers, and school staff to teach skills and behaviors associated with maintaining healthy lifestyles. CATCH coordinates four component areas, including classroom curricula, food service modifications, physical education changes, and family enforcement, targeting both children's behaviors and the schools environment. www.catchinfo.org

Eat Well & Keep Moving was developed by the Harvard School of Public Health as an upper elementary school interdisciplinary nutrition and physical activity curriculum for grades K-5. It is a complete curriculum that helps academic, physical education, and health education teachers guide upper elementary school students in these areas: 1) learning about nutrition and physical activity while building skills in language arts, math, science, and social studies; 2) understanding how health behaviors are interrelated and 3) choosing healthy foods, increasing physical activity, and limiting TV and other screen time. It involves collaboration among food services, physical education, and parent/community involvement. www.eatwellandkeepmoving.org



Exemplary Physical Education Curriculum (EPEC) This curriculum is a chronic disease (obesity) prevention program for grades K-12 that is aligned to the National Association for Sport and Physical Education standards for physical education. An easy-to-use curriculum that is strong on assessment, Exemplary Physical Education Curriculum promotes life-long skills in students and is being used by teachers to strengthen both the practice as well as the perception of physical education in their schools. www.michiganfitness.org/EPEC

Fuel Up to Play 60 The National Dairy Council and your local Dairy Council have huddled up with the National Football League to help America's students eat right and stay active with Fuel Up to Play 60. This free, student-led program focuses on empowering kids to make smart choices about their nutrition and physical activity. Fuel Up to Play 60 inspires kids in grades 4-10 to "get up and play" for 60 minutes a day and to "fuel up" with the food groups kids don't get enough of - low-fat and nonfat dairy, fruits, vegetables, and whole grains. www.fueluptoplay60.com

Healthy Kids Challenge A step-by-step guide that involves school administrators and board members, teachers, school food service directors, family, children and community partners to build healthy communities. The majority of activities are written for grades K-5, yet can be adapted to any age group. You can receive free information at www.healthykidschallenge.com There are several support documents available including: "Letter to Administrators," "Benefits to Schools," "Need for HKC Statistics," and "The Challenge Starter Tool".

Lifestyle Education for Activity Program (LEAP)

LEAP is a comprehensive school based intervention on physical activity for high school girls. Grounded in social cognitive theory, it involves changes to physical and health education instructional practices and the school environment. Six components of coordinated school health are addressed: physical education, health education, school environment, school health services, faculty/staff health promotion, and family/community involvement. http://cbpp-pcpe.phac-aspc.gc.ca/intervention_pdf/en/283.pdf

Powerful Girls, Powerful Bones A program designed to teach young girls how to eat right, be physically active and achieve their best when it comes to the health of their bones. It is aimed at teaching healthy and fun ways to learn weight bearing activities and the nutrition needed in order to avoid osteoporosis. For more information go to: www.cdc.gov/powerfulbones/

President's Challenge This community-based program encourages youth from ages 6 through 17 to begin and continue daily exercise and activity, to reach healthy levels of cardiovascular endurance, body composition, muscular strength/endurance, and flexibility. There are currently three different programs offered with the President's Challenge: Active Lifestyle Program, Physical Fitness Program, and Health Fitness Program. Any of the above programs may be selected to be promoted in your community.

www.presidentschallenge.org

Recharge This is an after school program for grades 2-6. Students learn about practicing good nutrition and physical activity habits through fun, team-based after-school strategies. It is available from Action for Healthy Kids and the National Football League.

www.actionforhealthykids.org/recharge/

Safe Routes to Schools The Safe Routes to School Program (SRTS) is designed to enable and encourage children, including those with disabilities, to walk and bicycle to school; to make bicycling and walking to school a safer and more appealing transportation alternative; and to facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption and air pollution in the vicinity of schools.

The Safe Routes to School Program is a Federal-Aid program of the U.S. Department of Transportation's Federal Highway Administration, but managed and



administered by each State Department of Transportation. The Program makes funding available for a wide variety of programs and projects, from building safer street crossings to establishing programs that encourage children and their parents to walk and bicycle safely to school. www.saferoutes.ky.gov

Sports, Play and Active Recreation for Kids (SPARK)

This is for K-8 and after school: the focus of SPARK is the development of healthy life-styles, motor skills and movement knowledge, and social and personal skills. Each SPARK program fosters environmental and behavioral change by providing a coordinated package of highly active curriculum, on-site teacher training, extensive follow-up support, and content-matched equipment. www.sparkpe.org

Take 10! A classroom-based physical activity program that maintains a focus on academics for grades K-5. It includes 10-minute periods of varied activity and movement in all academic areas that requires minimal teacher preparation. www.take10.net

Walking School Bus What is a Walking School Bus? It is a small group of students accompanied by one or more adults on their walks to and from school. Typically, the students live near one another. Chances are, they already walk to school, with or without adult supervision. The benefit of the Walking School Bus is that it provides a consistent, supervised system in which children can walk under the watchful eye of an adult— usually a parent or caregiver. <http://www.walkingschoolbus.org>



Policy and Environmental Change

Policy and environmental change interventions are population-based approaches that complement and strengthen other public health programs and activities that traditionally have focused on individual behavior change.

Policies include laws, regulations, and formal and informal rules. Examples include all schools offering physical education during school hours; laws and regulations for what should be included in vending machines at schools; laws and regulations to restrict smoking on school campuses; or regulations permitting students to carry and administer their own asthma medications.

Environmental changes are implemented to improve the economic, social, or physical environments of the school. Examples include incorporating walking paths or recreation areas into school campuses; offering low-fat foods in school cafeterias; removing designated smoking areas from school campuses; or reducing exposure to asthma triggers, such as secondhand smoke in schools.

Value and Benefits of Physical Activity Policies

- Two studies demonstrated that providing more time for physical activity—by reducing class time—can lead to increased test scores, particularly in the area of mathematics. (Shephard, R. (1997). Curricular physical activity and academic performance. *Pediatric Exercise Science*, 9, 113–126. And Shephard, R., Volle, M., Lavalee, M., LaBarre, R., Jequier, J., & Rajic, M. (1984). Required physical activity and academic grades: A controlled longitudinal study. In J. Limarinen & I. Valimaki (Eds.), *Children and sport* (pp. 58–63). Berlin, Germany: Springer Verlag.)
- Another study linked physical activity programs to stronger academic achievement; increased concentration; and improved math, reading, and writing test scores. (Symons, C., Cinelli, B., James, T., & Groff, P. (1997). Bridging student health risks and academic achievement through comprehensive school health programs. *Journal of School Health*, 67, 220–227.)

Model Policies

Suggested school health policies for schools to adapt and implement to provide physical activity opportunities for students and staff include²⁷:

- The school district will engage students, parents, teachers, food service professionals, health professionals, and other interested community members in developing, implementing, monitoring, and reviewing district-wide nutrition and physical activity policies.
- All students in grades K-12 will have opportunities, support, and encouragement to be physically active on a regular basis.
- Schools will provide nutrition education and physical education to foster lifelong habits of healthy eating and physical activity, and will establish linkages between health education and school meal programs, and with related community services.

Movement in School

There are many opportunities to move in school. In order to help facilitate this occurring in your school, it's important to develop a comprehensive school physical activity program. This is the best way to incorporate all of the benefits of a movement program as supported through the National Association of Sport and Physical Education (NASPE) position statement.²⁸

The components of a comprehensive school physical activity program include:

- Quality Physical Education
- Physical Activity Integrated into Classroom Learning
- Physical Activity Breaks
- Recess (NASPE position statement Recess for Elementary School Students <http://www.aahperd.org/naspe/standards/upload/Recess-for-Elementary-School-Students-2006.pdf>)
- Before-and-After School Programs
- Intramural Sports (NASPE position statement Guidelines for After-School Physical Activity and Intramural Sport Programs <http://www.aahperd.org/naspe/standards/upload/Guidelines-for-After-School-PA-Intramural-Sport-Programs-2001.pdf>)
- Interscholastic Sports
- Walk- and Bike-to-School Programs



Implement a comprehensive school physical activity plan in your school by following these steps:

1. Appoint a committee to develop and oversee the comprehensive school physical activity program. This committee, perhaps a sub-committee of the Coordinated School Health/School Wellness Committee, should be comprised of (but not limited to) physical educators, health teachers, other teachers, administrators, parents, students, community members, and other stakeholders who can help facilitate the school's plan.
2. Conduct a baseline assessment of the comprehensive school physical activity programs as they currently exist in the school.
3. Create a vision statement and action plan appropriate to the specific school, addressing each of the components of a comprehensive school physical activity program. The action plan should include the baseline assessment, objectives, and activities to meet each objective, defined outcomes, timelines, and persons responsible for each comprehensive school physical activity program component area.
4. Implement the Action Plan

American Academy of Pediatrics Policy Statement

The incidence of obesity and overweight among American children has tripled since the 1960's, according to the National Health Nutrition Examination Survey (2000). To address this issue the American Academy of Pediatrics (AAP) issued a policy statement in May 2006, *Active Healthy Living: Prevention of Childhood Obesity through Increased Physical Activity*. A statement of reaffirmation for this policy was published on February 1, 2010.²⁹

This policy statement encourages all doctors and health care professionals to promote better nutrition and more physical activity among children by working with families and communities, especially through in-school programs.

This policy statement also advised doctors to check children's weight, diet and level of physical activity more regularly. It encourages doctors to work with

families at identifying what impedes healthy living and to suggest positive moves when needed.

The statement stresses the importance of parental example—parents who eat well and adopt a healthy lifestyle serve as excellent role models for their children.

The policy statement also asks that doctors encourage:

- Bringing back compulsory, quality physical education programs
- Community and school programs aimed at getting children active
- Provision of a variety of physical activity programs before, during and after school hours including the protection of children's recess time.
- More research into the prevention of childhood obesity – and more funding for it
- More safe recreational facilities which can allow children to become more active, such as parks, playgrounds, cycling paths, etc.
- School programs aimed at good nutrition
- School Wellness Councils on which a local physician representation is encouraged

State and Federal Laws

State Laws

KRS 160.345 (11) – Schools containing grades K-5, (kindergarten through fifth grade) or any combination thereof, must adopt and implement a “local wellness policy” providing for daily moderate to vigorous physical activity for students and encouraging healthy choices. If they desire, schools may use up to 30 minutes of the instructional day to provide for physical activity. Principals in these schools must annually assess each student's level of physical activity.

KRS 158.856 – Requires an annual evaluation and report on the nutrition program at all schools, and requires local school boards to discuss the findings of the nutrition report and solicit public comments. The law also requires that boards annually present a plan to improve the nutrition environment in the district. It must be presented on or before January 31 of each year.

Federal Laws

In 2010 the Child Nutrition Reauthorization Healthy,



Hunger-Free Kids Act was passed by congress and signed into law. The 2010 Healthy, Hunger-Free Kids Act builds upon the framework of the 2004 Child Nutrition and WIC Reauthorization Act, which required each district to have local school wellness policies for the schools in the district that include goals for nutrition education, physical activity, and other school-based activities. The 2010 Act continues to set basic standards for school wellness policies including goals for nutrition promotion and education and physical activity, while still permitting local flexibility to tailor the policies to their particular needs.³⁰ Future updates as this law becomes common practice in schools can be found at the USDA Food and Nutrition Service: <http://www.fns.usda.gov/fns/>

Assessment and Planning

Physical Education Curriculum Analysis Tool (PECAT) PECAT will help school districts conduct a clear, complete, and consistent analysis of written physical education curricula, based upon national physical education standards. The PECAT is customizable to include local standards. The results from the analysis can help school districts enhance existing curricula, develop their own curricula, or select a published curriculum, for the delivery of quality physical education in schools.

Download or order print copies: <http://www.cdc.gov/healthyyouth/PECAT/index.htm>

Schools may request technical assistance and training on the PECAT by the Department of Education's Coordinated School Health Program by calling 502-564-2706.

Action for Healthy Kids Includes resources to improve the quality of food in schools; enhance nutrition education; improve physical education; and increase opportunities for kids to be active. Programs, resources and state information are available. <http://www.actionforhealthykids.org>

A searchable database was developed by Action for Healthy Kids in partnership with CDC to compliment the USDA's local wellness policy Web site <http://www.fns.usda.gov/tn/Healthy/wellnesspolicy.html>

This site helps districts identify policy options and



write their own policies. Users can adapt or copy sample language from un-reviewed policies gathered from across the country.

Connect with your state's Action for Healthy Kids team – **Kentucky Action for Healthy Kids** at: http://take.actionforhealthykids.org/site/Clubs?club_id=1125&pg=main

Alliance for a Healthier Generation Find tools and strategies to promote physical activity and healthy eating before, during, and after school. Schools and individuals can join the Healthy Schools Program. Benefits for individuals include: bi-monthly e-newsletter, database of school health grants and resources and school health webinars. Benefits for schools: individual benefits, and free technical assistance, toolkits for implementing best practices, school health assessment and action planning tools, resource database for practical information, grant opportunities and more; networking opportunities with other schools across the country, national recognition awards and bulletin board materials. <http://www.healthiergeneration.org/schools.aspx> and <http://www.healthiergeneration.org/schools.aspx?id=3277>

School Health Index Centers for Disease Control and Prevention – Division of Adolescent School Health. Easy-to-use self-assessment and planning tool that enable school health councils and others to analyze the strengths and weaknesses of their school health policies, curricula and services. It is available free to download or request a hard copy. An interac-



tive web version is also available at: <http://www.cdc.gov/healthyyouth/shi/index.htm>. Schools may request technical assistance on the School Health Index by the Department of Education's Coordinated School Health Program by calling 502-564-2706.

The Health Education Curriculum Analysis Tool (HECAT) can help school districts, schools, and others conduct a clear, complete, and consistent analysis of health education curricula based on the [National Health Education Standards](#) and CDC's [Characteristics of Effective Health Education Curricula](#). The HECAT results can help schools select or develop appropriate and effective health education curricula and improve the delivery of health education. The HECAT can be customized to meet local community needs and conform to the curriculum requirements of the state or school district.

The following HECAT health topic modules are currently available:

- Alcohol and Other Drugs
- Healthy Eating
- Mental and Emotional Health
- Personal Health and Wellness
- Physical Activity
- Safety
- Sexual Health
- Tobacco
- Violence Prevention

<http://www.cdc.gov/HealthyYouth/HECAT/index.htm>

Students Taking Charge Students Taking Charge is a national movement of youth advocates putting their passion for eating right, being active and living healthy into making their schools healthier places. With Students Taking Charge, students have the tools to assess their school nutrition and physical activity environment which supports local initiation of policy change and program development. Students Taking Charge is a place where students can: develop leadership and advocacy skills, gain knowledge about school health issues, educate school leaders, media, and the general public about important issues; make new friends and provide peer-to-peer education, share their creativity, ideas, and talents. www.studentstakingcharge.org/ Group leader/student sponsor information: http://studentstakingcharge.org/index.php/group_leader_center/

Kentucky Action for Healthy Kids (KYAFHK) and

Coordinated School Health (CSH) through the Department for Public Health and the Department of Education provide support for this program through training and technical assistance. KYAFHK: http://take.actionforhealthykids.org/site/Clubs?club_id=1125&pg=main CSH: <http://chfs.ky.gov/dph/mch/cfhi/Coordinated%20School%20Health.htm>

Promoting Healthy Youth, Schools, and Communities: A Guide to Community-School Health Councils American Cancer Society. This guide is designed to assist school districts in developing new school health councils, strengthening existing councils, and maintaining them as effective entities that can support and guide school health practices, programs and policies. The guide includes a CD-ROM that aids in customizing worksheets and other materials. Visit the American Cancer Society Web site at www.cancer.org, http://www.cancer.org/docroot/PED/content/PED_13_4x_Guide_to_Community_School_Health_Councils_pdf.asp

Promoting Physical Activity: A Guide for Community Action U.S. Department of Health and Human Services, Public Health Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition and Physical Activity. Champaign, IL: Human Kinetics, 1999. A guide promoting and explaining ways communities can mobilize to provide easy, inexpensive and readily available ways to promote physical activity for all ages. <http://www.cdc.gov/physicalactivity/professionals/promotion/communityguide.html>

Fit, Healthy, and Ready to Learn: A School Health Policy Guide National Association of State Boards of Education. Is designed to help state and local decision makers establish effective policies that promote high academic achievement and lifelong health habits. It provides guidance on general school health policies and program development, as well as specific information on physical education program design, safety requirements, food service programs, smoking cessation services, and lifelong sun safety habits. Chapter D – Policies to Encourage Physical Activity: <http://www.nasbe.org/index.php/component/remository/Education-Issues/Safe-and-Healthy-Schools/Policy-Guides/Fit-Healthy-and-Ready-to-Learn-Chapter-D---Policies-to-Encourage-Physical-Activity>



Frequently Asked Questions

What is the difference between physical activity, physical exercise, and physical fitness?

- **Physical Activity** is any bodily movement produced by skeletal muscles that result in an expenditure of energy.
- **Physical Exercise** is physical activity that is planned or structured. It involves repetitive bodily movement to improve or maintain one or more of the components of physical fitness—cardio respiratory endurance (aerobic fitness), muscular strength, muscular endurance, flexibility, and body composition.
- **Physical fitness** is a set of attributes a person has in regards to their ability to perform physical activities that require aerobic fitness, endurance, strength, or flexibility and is determined by a combination of regular activity and genetically inherited ability.

How can physical activity help prevent overweight and obesity?

Physical activity, along with a healthy diet, plays an important role in the prevention of overweight and obesity. In order to maintain a stable weight, a person needs to balance the amount of calories consumed and the number of calories expended. Although the body burns calories for everyday functions such as breathing, digestion and routine daily activities, people can consume more calories than they need for these functions. A good way to burn off extra calories and prevent weight gain is to engage in regular physical activity beyond routine activities.

- **Intake** - Calories from food and drink
- **Output** - Calories Used during Physical activity

The energy balance is like a scale. To remain in balance the calories consumed (from food and drink) must be balanced by the calories used (in physical activity).

The Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans 2010 offers the following example of the balance between consuming and using calories: <http://www.cnpp.usda.gov/dgas2010-dgacreport.htm>

Consuming 100 more calories each day than you burn results in 10 additional pounds in one year.

For more information on the role of physical activity in preventing overweight and obesity, visit: Dietary Guidelines for Americans, Department of Agriculture, Center for Nutrition Policy and Promotion, <http://www.health.gov/dietaryguidelines/> and <http://www.cnpp.usda.gov/DGAs2010-DGACReport.htm>

How does being physically inactive, overweight or obese affect a person's health?

When people have a sedentary lifestyle, it poses risks of health problems such as the following:

- Coronary artery disease
- Hypertension
- Type 2 Diabetes
- Overweight and obesity
- Osteoporosis
- Certain types of cancers
- Depression
- Decreased health-related quality of life
- Decreased cardio respiratory, metabolic and musculoskeletal fitness

When people are overweight or obese, they are more likely to develop health problems such as the following:

- Hypertension
- Dyslipidemia (for example, high total cholesterol or high levels of triglycerides)
- Type 2 Diabetes
- Cardiovascular Disease
- Stroke
- Gallbladder Disease
- Osteoarthritis
- Sleep apnea and respiratory problems
- Certain types of cancers

The more sedentary or overweight a person is, the more likely they will have health problems. Among people who are overweight and obese, weight loss can help reduce the chances of developing these health problems. Studies show that if a person is overweight or obese, reducing body weight by 5 to 10 percent can improve one's health.

To read more about how being overweight or obese can affect health, visit: Do You Know the Health Risks of Being Overweight? National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK): http://win.niddk.nih.gov/publications/health_risks.htm.



What are some of the factors that contribute to overweight and obesity?

Researchers have found that several factors can contribute to the likelihood of someone's becoming overweight or obese.

- **Behaviors:** What people eat and their level of physical activity help determine whether they will gain weight. A number of factors can influence diet and physical activity, including personal characteristics of the individual, the individual's environment, cultural attitudes, and financial situation.
- **Genetics:** Heredity plays a role in determining how susceptible people are to becoming overweight or obese. Genes can influence how the body burns calories for energy and how the body stores fat.
- **Obesity and Genetics:** A Public Health Perspective. CDC, Office of Genomics and Disease Prevention <http://www.cdc.gov/genomics/resources/diseases/obesity/index.htm>

How much physical activity should our children receive for proper development?

The Centers for Disease Control and Prevention recommend that children and adolescents participate in at least 60 minutes of physical activity daily. The 2008 physical activity guidelines for Americans³¹ recommend children and adolescents incorporating physical activity as follows:

- **Aerobic:** Most of the 60 or more minutes a day should be either moderate- or vigorous- intensity aerobic physical activity and should include vigorous-intensity physical activity at least 3 days a week.

Age Group		
Type of Physical Activity	Children	Adolescents
Moderate-intensity aerobic	<ul style="list-style-type: none"> • Active recreation such as hiking, skateboarding, rollerblading • Bicycle riding • Walking to school 	<ul style="list-style-type: none"> • Active recreation, such as canoeing, hiking, cross-country skiing, skateboarding, rollerblading • Brisk walking • Bicycle riding (stationary or road bike) • House and yard work such as sweeping or pushing a lawn mower • Playing games that require catching and throwing, such as baseball, softball, basketball and volleyball
Vigorous-intensity aerobic	<ul style="list-style-type: none"> • Active games involving running and chasing, such as tag • Bicycle riding • Jumping rope • Martial arts, such as karate • Running • Sports such as ice or field hockey, basketball, swimming, tennis or gymnastics 	<ul style="list-style-type: none"> • Active games involving running and chasing, such as flag football, soccer • Bicycle riding • Jumping rope • Martial arts such as karate • Running • Sports such as tennis, ice or field hockey, basketball, swimming • Vigorous dancing • Aerobics • Cheerleading or gymnastics



- **Muscle-strengthening:** As part of their 60 or more minutes of daily physical activity, children and adolescents should include muscle-strengthening physical activity on at least 3 days of the week.

Age Group		
Type of Physical Activity	Children	Adolescents
Muscle-strengthening	<ul style="list-style-type: none"> • Games such as tug of war • Modified push-ups (with knees on the floor) • Resistance exercises using body weight or resistance bands • Rope or tree climbing • Sit-ups • Swinging on playground equipment/bars • Gymnastics 	<ul style="list-style-type: none"> • Games such as tug of war • Push-ups • Resistance exercises with exercise bands, weight machines, hand-held weights • Rock climbing • Sit-ups • Cheerleading or Gymnastics

- **Bone-strengthening:** As part of their 60 or more minutes of daily physical activity, children and adolescents should include bone-strengthening physical activity on at least 3 days of the week.

Age Group		
Type of Physical Activity	Children	Adolescents
Bone-strengthening	<ul style="list-style-type: none"> • Games such as hop-scotch • Hopping, skipping, jumping • Jumping rope • Running • Sports such as gymnastics, basketball, volleyball, tennis 	<ul style="list-style-type: none"> • Hopping, skipping, jumping • Jumping rope • Running • Sports such as gymnastics, basketball, volleyball, tennis

Children and adolescents can choose any type of moderate or higher intensity physical activity, such as brisk walking, playing tag, jumping rope, or swimming, as long as it adds up to at least one hour a day.

For children and adolescents, regular physical activity has beneficial effects on the following aspects of health:

- Healthy weight
- Increased muscular strength
- Improved cardio respiratory (aerobic) fitness
- Increased bone mass (through weight-bearing physical activities)
- Healthy blood pressure (for hypertensive youth)
- Lower levels of anxiety and stress
- Improved self-esteem and sleep patterns leading to increased capacity for learning
- Relief from the symptoms of depression

Children and adolescents who are just beginning to be physically active should start out slowly, gradually building to a higher level in order to prevent the risk of injury or feeling defeated from unrealistic goals. It is important that children and adolescents are encouraged to be physically active by doing things that interest them. This will help them establish an active lifestyle.



Resources

The Association Between School-Based Physical Activity, Including Physical Education, and Academic Performance Centers for Disease Control and Prevention – Division of Adolescent School Health. Student physical activity may help improve academic performance including academic achievement (e.g., grades, standardized test scores); academic behavior (e.g., on-task behavior, attendance); and factors that can positively influence academic achievement (e.g. concentration, attention, improved classroom behavior). This report is a literature review that examines the existing research on the relationship between school-based physical activity, including physical education, and academic performance. It spans 23 years of research and includes 50 studies. The majority of the studies in this review report that physical activity was positively related to academic performance. Most importantly, adding time during the school day for physical activity does not appear to take away from academic performance. Schools should continue to offer and/or increase opportunities for student physical activity.

Executive Summary: http://www.cdc.gov/healthyyouth/health_and_academics/pdf/pape_executive_summary.pdf

Report: http://www.cdc.gov/healthyyouth/health_and_academics/pdf/pa-pe_paper.pdf

Working with Schools to Increase Physical Activity Among Children and Adolescents in Physical Education Classes This action guide, developed by Partnership for Prevention, provides information on the resources and key steps to work with schools to increase physical activity among children and adolescents in physical education classes. It translates a specific recommendation from *The Guide to Community Preventive Services* into “how to” guidance. Physical education (PE) classes can be enhanced through policy, systems, and environmental changes that address curricula, teaching practices, and facilities/equipment to increase levels of physical activity and improve physical fitness. PE classes are important in helping students develop the knowledge, attitudes, motor and behavioral skills, and confidence to adopt and maintain physically active lifestyles. The childhood overweight epidemic is helping to shift the focus of PE classes from traditional sports toward health and physical activity, particularly moderate-to-vigorous physical activity. <http://www.cdc.gov/healthycommunitiesprogram/tools/>

Dynamic Physical Education for Elementary School Children The evidence-based practices and activities presented in this book have been used by over a half-million teachers around the country and world for over 30 years. Teaching strategies, developmentally appropriate activities, as well as research supporting the need for quality physical education programs are provided. Research suggests that using the strategies and practices presented in this book will provide a sustainable physical education program that allows for high levels of accountability for physical educators. http://wps.aw.com/bc_pangrazi_physed_14

Promoting Physical Activity and Health in the Classroom The integration of physical activity into the classroom is become more and more prevalent. This book and the accompanying activity cards respond to this trend by providing classroom teachers with user-friendly, developmentally appropriate activities. Activities that integrate academic content are included as well as activities for recess, health integration, and multicultural integration. The index size cards are evidence based with research showing they are effective in increasing the physical activity levels of students. http://wps.aw.com/bc_pangrazi_classroom_1/97/24889/6371694.cw/index.html

Increasing Physical Activity Centers for Disease Control and Prevention – Division of Adolescent School Health. Informative fact sheets on the goal of increasing physical activity among young people by increasing the capacity of the nation’s schools to promote lifelong physical activity through coordinated school health programs. http://www.cdc.gov/healthyyouth/physicalactivity/pdf/Addressing_Phys_Activity.pdf

Physical Activity Guidelines for Americans: Children and Adolescents In 2008, the U.S. Department of Health and Human Services (HHS) issued *Physical Activity Guidelines for Americans*, which provide science-based recommendations to help persons aged 6 years or older improve their health through physical activity. Included in



these national guidelines is a chapter dedicated to physical activity recommendations for children and adolescents aged 6-17 years. These guidelines reflect the most up-to-date research about youth physical activity and associated health benefits. <http://www.cdc.gov/physicalactivity/everyone/guidelines/children.html>

To promote the guidelines and support youth physical activity, CDC and several partner organizations developed the **Youth Physical Activity Guidelines Toolkit**, which highlights specific strategies that schools, families, and communities can use to support youth physical activity. The toolkit can be used by anyone who promotes youth physical activity, including community leaders; physical education and health education teachers; physical activity coordinators at the school, district, and state levels; and physical activity practitioners working in health or community-based organizations. <http://www.cdc.gov/healthyyouth/physicalactivity/guidelines.htm#1>

Let's Move First Lady Michelle Obama has launched the Let's Move campaign to combat the epidemic of childhood obesity through a comprehensive approach that builds on effective strategies, and mobilizes public and private sector resources. Let's Move will engage every sector impacting the health of children to achieve the national goal, and will provide schools, families and communities simple tools to help kids be more active, eat better, and get healthy.

<http://www.letsmove.gov/index.html>

Role of Schools in Addressing Childhood

Obesity This document outlines 10 evidence-based strategies for schools to implement in addressing childhood obesity. http://www.cdc.gov/healthyyouth/physicalactivity/pdf/roleofschools_obesity.pdf



2010 Shape of the Nation Report The purpose of this *Shape of the Nation Report* is to provide current information about the status of physical education in each of the 50 states and the District of Columbia

<http://www.aahperd.org/naspe/publications/upload/Shape-of-the-Nation-2010-Final.pdf>

Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People

These guidelines identify strategies most likely to be effective in helping young people adopt and maintain a physically active lifestyle. The guidelines were developed by CDC in collaboration with experts from other federal agencies, state agencies, universities, national organizations, and professional associations.

<http://www.cdc.gov/HealthyYouth/physicalactivity/guidelines>

Increasing Physical Activity Through Community Design: A Guide for Public Health Practitioners This guide focuses on helping to create an active community environment, looking at the broader scope of where there are and aren't opportunities to safely walk and bicycle. It involves land use design, retrofitting the transportation infrastructure, funding, and much more. This step-by-step guide discusses how health professionals, community leaders, local planners, transportation agency officials, and citizens can work together to develop active community environments. http://www.bikewalk.org/pdfs/IPA_full.pdf

Kentucky's Nutrition and Physical Activity State Action Plan This document includes Kentucky specific data, which will provide a basic understanding of the severity of the problem facing Kentucky, describes structural changes in society that have contributed to the problem, describes the CDC framework for addressing the problem and lists the goals, objectives and strategies Kentucky has set to address these issues. www.fitky.org.



Move More After-School Standards The Move More North Carolina: Recommended Standards for After-School Physical Activity can be used as a guide to create practices, policies and environments supportive of physical activity After-School programs. <http://www.movemoreafterschoolnc.com/index.html>

Pennyrile Allied Community Services – Nutritional Outreach and Wholeness (PACS-NOW) A program that operates in all 120 counties in Kentucky with one focus of working with schools and students in the area of nutrition. In this program, children learn proper food choices, how to take care of their bodies with physical activity and exercise and personal hygiene through hand washing. <http://www.pacs-ky.org/>

ADA EVIDENCE LIBRARY

www.adaevidencelibrary.com

Alliance for a Healthier Generation

<http://www.healthiergeneration.org/>

American Academy of Pediatrics

www.aap.org

American Heart Association

<http://www.heart.org/HEARTORG/>

Body and Mind Teachers Corner

www.bam.gov/teachers/index.htm

CDC Division of Adolescent and School Health <http://www.cdc.gov/HealthyYouth/>

CDC Division of Nutrition and Physical Activity <http://www.cdc.gov/nccdphp/dnpao/index.html>

Fit’N Active Kids www.safetylca.org/i/200406.asp?loc=i&tag=i2&pg=newsletters.asp&page=200406childsafety.htm

Health Education through Extension Leadership <http://www.ca.uky.edu/hes/?p=6>

Kentucky Association for Health, Physical Education, Recreation and Dance (KAHPERD)

http://www.kahperd.com/index_main.asp

Kentucky Action for Healthy Kids http://take.actionforhealthykids.org/site/Clubs?club_id=1125&pg=main

Kentucky Cooperative Extension Service <http://ces.ca.uky.edu/ces/>

Kentucky Department of Education Coordinated School Health

<http://www.education.ky.gov/KDE/Administrative%2BResources/Coordinated%2BSchool%2BHealth/>

Kentucky Department for Public Health Coordinated School Health

<http://chfs.ky.gov/dph/mch/cfhi/Coordinated%20School%20Health.htm>

Local Health Departments <http://chfs.ky.gov/dph/Local+Health+Department.htm>

National Association for Sport and Physical Education <http://www.aahperd.org/naspe/>

National Coalition for Promoting Physical Activity <http://www.ncppa.org/>

Partnership for a Fit Kentucky <http://www.fitky.org/>

