

Center for Physical Activity and Health in Youth

Promoting Healthy Lifestyles in Young People

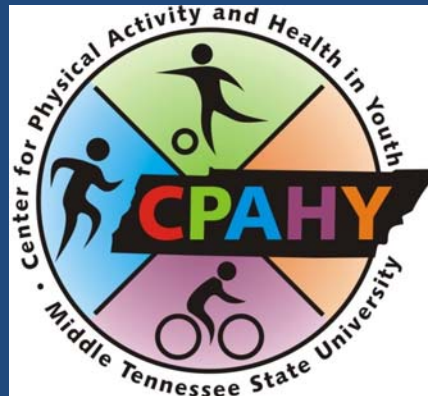
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Mission of the Center



Promote childhood physical activity and
improve the physical fitness of youth in Tennessee

Specific Aim

- Provide financial support to MTSU faculty and community partners to conduct innovative research and programmatic initiatives aimed at raising physical activity and fitness levels in youth



Examples of Funded Projects

- *A-B-C-1-2-3, Healthy Kids in Tennessee:* Collaboration among MTSU, Tennessee Early Childhood Training Alliance, Tennessee Comprehensive Cancer Coalition, and Meharry Medical College to develop and implement curriculum and education materials to promote physically-active lifestyles and healthy eating habits in preschool children

Examples of Funded Projects

- *New Urbanist Public Housing and Its Impact on Active Living Among Low-Income Urban Children and Youth*: Collaboration between MTSU and UT-Chattanooga to determine how the built environment influences physical activity patterns of low-income children and youth in the Southside neighborhood of Chattanooga

Examples of Funded Projects

- *Get Fit Kids*: Improve the physical activity and eating habits of children attending two elementary schools in Murfreesboro with a high participation in the free- and reduced-lunch program; the study features health coaching of parents to emphasize family involvement in promoting healthy behaviors

Specific Aim

- Create a “Distinguished Lecture Series for Youth Fitness and Sport”
- Recent Talks
 - “The Professionalization of Youth Sports”
 - “The Biological Basis of Physical Activity in Youth”
 - “The Identity Crisis: What is Physical Education?”
 - “Physical Activity and the Built Environment”
 - “Social and Moral Education of Youth: Can Sport Really Build Character?”
 - “Obesity and Physical Inactivity Among Youth with Disabilities”

Fall, 2010 Speaker Dr. Steven Hooker

- Director, Prevention Research Center, Arnold School of Public Health, University of South Carolina
- “Partnering with Communities to Promote Active Living: Accomplishments, Challenges, and Lessons Learned”
- Thursday, November 18, State Farm Lecture Hall S102, Business and Aerospace Building, MTSU



Fall, 2010 Speaker Dr. David Bassett

- Professor, Department of Exercise, Sport, and Leisure Studies and Co-Director, University of Tennessee Obesity Research Center
“Packing on the Pounds: Time Trends in Physical Activity and Diet in American Children”
- Thursday, November 4, State Farm Lecture Hall S102, Business and Aerospace Building, MTSU



Specific Aim

- Establish “Camp ENRGY” (“Excellence ‘N’ Recreation and Games for Youth”), a summer sports camp for youth with physical disabilities



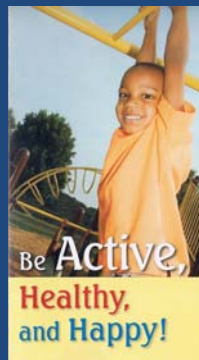


Specific Aim

- Create a multimedia campaign promoting the health benefits of physical activity for youth and families
- We are collaborating with faculty affiliated with the MTSU College of Mass Communication and media professionals to develop a campaign that features the use of print, radio, television, and social media to publicize an active lifestyle message to youth and families

Specific Aim

- **Develop a physical activity monitoring program (“KIDSTEP”) that can be used by local family physicians, pediatricians, and teachers**
- The primary objectives of KIDSTEP are to 1) disseminate information and provide guidance to children, parents, physicians, and teachers regarding the types and amounts of physical activity that can result in substantial health benefits, and 2) quantify physical activity levels using validated pedometers





Be Active, Healthy, and Happy: Exploring Fitness as a Family Affair

Families that Play Together Stay Together

- Set a good example by involving a physically active lifestyle for your children. Make time to participate in physical activities everyone in the family can enjoy.
- Learn what your children want from physical activity programs. Help them choose activities that are fun and age appropriate.
- Consider enrolling your child in structured physical activities that have reasonable time commitments.
- Explore new opportunities for physical activity through your local parks and recreation department.
- Volunteer to help with your child's sports teams and recreation programs.
- Reduce television and computer use and increase "outside time."
- Assign active household duties to all family members (e.g., vacuuming, washing the car, mowing the lawn).

Linking Physical Activity and Health

Although health conditions such as heart disease, osteoporosis, and diabetes typically appear during adulthood, clinical evidence suggests that their genesis occurs in childhood.^{1,2} Public health efforts aimed at promoting healthy lifestyles in youth can lower the risk of premature mortality and mortality later in life. Since regular physical activity has been shown to decrease many chronic disease risk factors in children,³ developing and maintaining adequate levels of physical activity and fitness early in life may play a key role in the development and maintenance of good health.

Physical Activity in Youth

Data contained in the 2007 Tennessee Coordinated School Health Report⁴ indicate that 50% and 60% of Tennessee middle school and high school students, respectively, failed to attain the daily recommended levels of vigorous physical activity. Even more discouraging is that about 78% of all middle and high school students in Tennessee reported that they did not attend physical education classes daily. From a national perspective, the lack of physical activity in American youth has contributed to higher rates of obesity in U.S. children. Since the mid-1970s, the prevalence of childhood obesity has increased from 3% to 10.4% for children aged 2 to 5 years, from 6.3% to 19.0% for youth aged 6 to 11 years, and from 5% to 18.1% for adolescents aged 12 to 19 years.⁵ In Tennessee, two out of five students are either overweight or obese and about one in five is obese.⁶ The physical consequences of obesity in youth include increased risk for pediatric diabetes, hypertension, sleep apnea, menstrual abnormalities, and orthopedic problems. Factors such as low self-esteem and negative body image can also accompany obesity in children and adolescents.



"I have fun when I exercise with my family. We like to walk our dog, Charley—and Charley likes it, too!" Seth, age 6

In partnership with the U.S. Department of Health and Human Services, www.health.gov/page/fitness



RESEARCH BRIEF

The KIDSTEP Initiative: A Step in the Right Direction

While the current prevalence of overweight and obesity among American youth is startling, the projected outcome of a lifetime of unhealthy body weight is even more disheartening. For the first time in history, a generation of youth is not expected to outlive their parents. Since the 1970s, the prevalence of obesity in American youth has increased from 5.0% to 12.4% for children aged 2-5 years, from 6.5% to 17.0% for youth aged 6-11 years, and from 5.0% to 17.6% among adolescents aged 12 to 19 years.¹ In Tennessee, two out of five students are either overweight or obese and about one in every four students is obese.² It is believed that a substantial reduction in childhood physical activity has occurred during the previous decade (due in part to cutbacks in physical education and increased participation in sedentary activities), leading to an escalation in the overweight status of youth.³ While health-related benefits of performing moderate-to-vigorous physical activity for persons of all ages include improved cardiovascular and metabolic function, better blood pressure control, and weight management,⁴ 56% of young boys and 74% of young girls do not engage in daily physical activity.⁵ The long-term consequences of high levels of body weight and physical inactivity include an increased risk of premature death and debilitating health conditions.⁶ Because individuals who are overweight during childhood or adolescence are more likely to be overweight as an adult,⁷ the promotion of physical activity among youth at an early age can help to decrease the occurrence of unhealthy body weight gain,⁸ thereby reducing the likelihood of developing chronic health problems as children move into adolescence and adulthood.

In 2008, the U.S. Department of Health and Human Services released the *Physical Activity Guidelines for Americans* to provide information and guidance on the types and amounts of physical activity that result in substantial health benefits for Americans aged 6 years and older.⁹ In concert with the publication of these guidelines, the American College of Sports Medicine (ACSM) has developed an initiative to combat childhood obesity by encouraging physicians to promote the *Physical Activity Guidelines for Youth* and provide physical activity-based counseling to their patients. This program, entitled "Exercise is Medicine", also encourages physicians and health care personnel to monitor childhood physical activity in the same manner that they would assess vital signs and growth markers. The purpose of the KIDSTEP program is to implement the "Exercise is Medicine" initiative by providing clinicians and researchers with



November 15, 2009

KIDSTEP Program
 Center for Physical Activity and Health in Youth

Dear Parent or Guardian,

Thank you for participating in the MTSU KIDSTEP Program. Your child's daily step activity and body composition profiles are summarized below. A copy of this report has also been sent to your doctor or health-care provider.

Daily Step Activity

Daily step activity levels associated with healthy body weight in boys range from 13,000 to 16,000 steps per day. **Jonathan took an average of 7,000 steps per day** during the time period that he wore his pedometer. It is recommended that Jonathan engage in physical activities that are fun and enjoyable and gradually increase the number of days and time spent being active on a daily basis to improve his overall health and well-being.

Body Mass Index-for-Age Percentile

Body mass index (BMI) is calculated based on a person's weight and height and can be used to classify individuals in terms of weight status. When expressed as a percentage, your child's BMI can be compared to other children of the same age and sex. For example, a BMI-for-age percentile of 65% means that a child's weight is greater than 65% of other children of the same age and sex.

Jonathan's BMI-for-age value of 23.7 kilograms per meter squared places him at the **88th** percentile for boys aged 14 years, 5 months. This means that Jonathan's BMI-for-age value is in the **overweight weight range**. Youth who are overweight during childhood or adolescence are more likely to be overweight as adults.

What Can You Do?

Regardless of your child's current BMI-for-age percentile, you can help him develop and maintain healthy weight habits by promoting good physical activity practices. Current evidence suggests that all youth should engage in at least 60 minutes of daily physical activity. While the primary emphasis should be on performing moderate-to-vigorous physical activity, it is also important to participate in physical activities which strengthen the muscles and bones. The enclosed materials provide information, tips, and local resources to help your child meet these guidelines and become more physically active.



KIDSTEP Update

- Pilot testing has been completed at two family physician practices; looking to expand to many more clinical and educational sites
- Elements of KIDSTEP are currently used in two preschools and two elementary schools as part of Center-funded projects
- Large numbers of fitness flyers, brochures, and bookmarks have been distributed to Murfreesboro City and Rutherford County schools
- Contact me at dmorgan@mtsu.edu for more information about the KIDSTEP program or other Center-sponsored activities, or if you would like to receive fitness promotional materials

