Youth Physical Fitness
Research Review

(Compiled by Missouri 4-H Youth Development Programs)

How Physically Fit Are American Youth?

Physical inactivity has become a serious concern in the United States. More than half of U.S. adults do not meet the recommended levels of moderate physical activity and one-fourth engage in no leisure time physical activity (Physical Activity, 1996). Inactivity is more prevalent among those with lower income and education and, beginning in adolescence, affects females more than males (NIH, 1995; Physical Activity, 1996). A pattern of inactivity begins early in life, making the promotion of physical activity among children and youth imperative (Summerfield, 1999).

Young people can build healthy bodies and establish healthy lifestyles by including physical activity in their daily lives. However, many young people are not physically active on a regular basis and physical activity declines dramatically during adolescence. Healthy People 2010, an initiative by the Department of Health and Human Services, presents a comprehensive, nationwide health promotion and disease prevention agenda. It is designed to serve as a roadmap for improving the health of all people in the United States during the first decade of the 21st century. Healthy People 2010 identifies ten indicators reflective of the major health concerns in the United States (i.e., tobacco use, injury and violence, immunization). At the top of the list, however, is physical activity.

Though national health goals call for daily physical education for all school children, many youth are not enrolled in any type of physical education program. Surgeon General Dr. David Satcher called physical inactivity in the United States a "major epidemic" in the United States and stated, "I think we've made a serious error by not requiring physical education in grades K-12".

Young children are among the most active of all segments of the population. By the teen years activity levels begin to decline, continuing into adulthood. This result is more dramatic among teenage girls than boys. At age 13 only about 6 to 7% of all teens report no physical activity while that number is nearly 25% of all girls and 20% of all boys by the age of 19 (Morrow, 1999).

Data from the national Youth Risk Behavior Survey (YRBS, 1998) reveals that less than 2 in 3 students in grades 9 through 12 participate in vigorous physical activity and less than 1 in 5 participates in moderate physical activity. According to the Center for Disease Control (2000), 56% of high school students are enrolled in a physical education class. In addition, CDC found that daily participation in physical education classes by high school students dropped from 42% in 1991 to 29% in 1999.

In 1999, 65% of adolescents engaged in the recommended amount of physical activity. The trend gets worse for adults: in 1997, only 15 % of adults performed the recommended amount of physical activity, and 40 % of adults engaged in no leisure-time

physical activity (Healthy People 2010, 2000). The activity trends in youth suggest that it is important to develop an appreciation for physical activity and develop lifestyle behaviors in children and youth that can be adopted and maintained into adulthood. As Rowland (1999) notes, "adolescence appears to be a risk factor for inactivity". Other evidence supports the notion of "tracking" or the continuation of behaviors in adulthood that were initiated in childhood and adolescence (Talama, Yang, Laakso, Viikari, 1997; Vanruesel et al., 1993).

What Are the Benefits of Physical Activity?

Regular physical activity in childhood and adolescence promotes a number of positive health indicators:

- Improves strength and endurance
- Helps build healthy bones and muscles
- Helps control weight
- Reduces anxiety and stress and increases self-esteem
- May improve blood pressure and cholesterol levels

(Center for Disease Control (CDC), 2000)

In addition, young people say they like physical activity because it is fun; they do it with friends; and it helps them learn skills, stay in shape, and look better (CDC, 2000)

Physical Activity and Nutrition: The Connection

YRBS (1998) data suggest that 60% of high school females and 23% of high school males are attempting to lose weight. Students report their most commonly used method when attempting to lose or control weight is exercise (51.5%), followed by dieting (30.4%). Integrating the teaching of nutrition and physical activity makes good sense and could be an important contributor to maintaining healthy weight and helping youth who are attempting to lose weight using ineffective techniques.

Other Facts About Physical Activity and Nutrition

1. Only tobacco contributes to more deaths than diet and physical inactivity
2. Diet and inactivity are related to a variety of chronic conditions including heart disease, cancer, stroke, diabetes, hypertension, and osteoporosis
3. Early indicators of atherosclerosis start in childhood and adolescence
4. Obese children and adolescents are more likely to become obese adults and incur increased risk for disease

(Nutrition and the Health of Young People, 1997)

How Much Physical Activity is Enough For Youth?

The Children's Lifetime Physical Activity Model provides the basis for the Physical Activity Guidelines for Children (Corbin & Pangrazi, 1998). These guidelines indicate the need for at least 60 minutes of physical activity and up to several hours per day for pre-adolescents. These guidelines note that children are typically active intermittently rather than continuously. It is important that these differences be considered when developing physical activities for youth of different ages.

Sallis and Patrick (1994) summarize physical activity recommendations for adolescents indicating that they need daily moderate activity and more vigorous activity at least 20 minutes per day for a minimum of three days per week.

Guildelines for Promoting Lifelong Physical Activity

Research by James Prochaska points out that improving any lifestyle habit, including increasing one's physical activity level, requires moving from a state of being unaware of needing to increase activity to becoming aware, to preparing to do something, and then finally to taking some action. Prochaska's research shows that people need a tremendous amount of support to move to the action state.

Further, CDC (2000) emphasizes that physical activity programs for young people are most likely to be effective when they:

- Emphasize enjoyable participation in physical activities that are easily done throughout life
- Offer a diverse range of noncompetitive and competitive activities appropriate for different ages and abilities.
- Give young people the skills and confidence they need to be physically active
- Promote physical activity through all components of a coordinated school health program and develop links between school and community programs.

Conclusions

With all of the evidence supporting physical activity and its relationship to health and the quality of life, why is physical education enrollment decreasing? The reasons are many: financial concerns in school districts, back to "basics" movements, failure for professionals to influence decision makers, and failure to successfully disseminate the important messages about physical activity to decision makers. In an era where schools are less able to offer physical education, community programs can help bridge the gap by promoting fitness activities.

Physical education and physical activity can be an investment in the future. In the U.S., yearly health care costs associated with diseases related to a physically inactive lifestyle include cardiovascular diseases ($270 billion), cancers ($100 billion), diabetes ($100 billion), obesity ($100 billion), psychological health ($150 billion), arthritis ($65 billion), and osteoporosis ($10 billion). The development of physically active lifestyle behaviors can lower the risk of these chronic diseases and have a great impact on individual health and financial status, and the health care costs of the nation (Morrow, 1999).

Herophilus, the father of scientific anatomy, in 300 B.C.E. said "Without health and fitness, wealth is without value, knowledge is useless, art cannot become manifest, and music cannot be played." Collectively, we can develop, maintain, and offer programs that will help youth adopt and maintain healthy lifestyles that will benefit individuals and society.

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