

Physical Fitness and the Schools

During the last decade our concept of what "physical fitness" means has undergone a major change. Traditionally the "physically fit" child was one who had obvious motor (or athletic) abilities, ordinarily defined by such parameters as muscle strength, agility, speed, and power. But the high levels of power, speed, and agility necessary for success in most competitive sports have little or no relevance in the daily lives of most adults. Today, the words "physical fitness" imply optimal functioning of all physiologic systems of the body, particularly the cardiovascular, pulmonary, and musculoskeletal systems.¹

DEFINING PHYSICAL FITNESS

Physical fitness is now considered to include five components: muscle strength and endurance, flexibility, body composition (ie, degree of fatness), and cardiorespiratory endurance. Good cardiorespiratory endurance may be associated with a lessened chance of disability or death due to cardiovascular disease. Schools in the United States have traditionally emphasized sports such as football and baseball, both of which require agility and skill but are not particularly fitness enhancing. Aerobic activities (eg, activities requiring maintenance of 75% of maximal heart rate for 20 to 25 minutes), if performed at least three times a week, can lead to enhanced cardiorespiratory endurance. This improvement in fitness can be achieved by swimming, running, bicycling, field hockey, aerobic dancing, fast walking, etc.

SCHOOL PROGRAMS

Unfortunately, just as the understanding of the importance of health-related physical fitness has

become widespread, our ability to direct youth activities toward fitness is being countered by several new pressures: (1) Financial strains may lead public school systems to reduce physical education budgets. (2) Widespread disenchantment with the results of several decades of "progressive education experiments" has resulted in pressures on school administrators to do away with "frills" and to return to the "basics"; this might lead to deemphasis of physical education classes. (3) Children and adolescents are lured to watch television in their spare time. (4) Finally, most aerobic activities (eg, running, swimming laps) are not perceived to be pleasurable, and it is extremely difficult to motivate children to begin a lifelong habit of maintaining a high degree of physical fitness if this involves repeated endurance physical activities.

American children do not perform well on standardized tests of fitness.^{2,3} In one 1985 study, 40% of boys 6 to 12 years of age could not do more than one pull-up, nor could 70% of girls of all ages.² In this 1985 study, general levels of physical fitness were compared with levels found in a 1975 study of randomly selected students; in general, there had been no improvement in physical fitness levels. The National Children and Youth Fitness Study of the US Department of Health and Human Services compared body composition values for children in 1985 with values for a group of children tested in the 1960s; it was concluded that on the average children are fatter now.³

ROLE OF PEDIATRICIAN

Because financial support for fitness programs in the schools is unlikely to increase in the foreseeable future, and television is unlikely to become less attractive, we must anticipate the probability that our children's degree of physical fitness will decline. Pediatricians must acquaint themselves with this problem and appeal to their local school boards to maintain, if not increase, the school's physical education program of physical fitness. School programs should emphasize the so-called lifetime athletic activities such as cycling, swimming, and ten-

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nis. Schools should decrease time spent teaching the skills used in team sports such as football, basketball, and baseball. Physical fitness activities at school should promote a lifelong habit of aerobic exercise. During anticipatory guidance sessions, pediatricians should encourage parents to see that all family members are involved in fitness-enhancing physical activities, so that these activities become an integral part of the family's life-style.

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