

Students' physical fitness associated with academic achievement; organized physical activity

March 2 2010

Physical fitness is associated with academic performance in young people, according to a report presented at the American Heart Association's 2010 Conference on Nutrition, Physical Activity and Metabolism.

"As children's health continues to be a concern — especially when it comes to [obesity](#) — some have suggested that children's [physical fitness](#) is associated with their [academic performance](#)," said Lesley A. Cottrell, Ph.D., study presenting author and associate professor of pediatrics at West Virginia University in Morgantown, W.Va. "The research, however, had not developed enough to define the nature of that relationship."

To study the association between children's physical fitness and academic performance, Cottrell and colleagues analyzed the [body mass index](#) percentiles, fitness levels and standardized academic test scores of 725 fifth grade students in Wood County, W.Va. The researchers focused more on the children's fitness level than their weight. They then compared that data to students' fitness and academic performance two years later, in the seventh grade.

They separated the participants into four groups of students who were:

- in high physical fitness levels in fifth grade and remained so in seventh grade;
- fit in fifth grade but had lost their fitness by seventh grade;
- not fit in fifth grade but were physically fit by seventh grade;
- not physically fit at the beginning of the study, in fifth grade, nor at the end of the study, in seventh grade.

Children who had the best average scores in standardized tests in reading, math, science and social studies were fit at the start and end of the study, researchers found. The next best group, academically, in all four subjects, was made up of children who were not fit in fifth grade but had become fit by seventh grade. The children who had lost their fitness levels between fifth and seventh grades were third in academic performance. Children who were not physically fit in either the fifth or seventh grades had the lowest academic performance.

"The take-home message from this study is that we want our kids to be fit as long as possible and it will show in their academic performance," Cottrell said. "But if we can intervene on those children who are not necessarily fit and get them to physically fit levels, we may also see their academic performance increase."

Youth who are regularly active also have a better chance of a healthy adulthood. The American Heart Association recommends that children and adolescents should do 60 minutes or more of [physical activity](#) daily and they participate in physical activities that are appropriate for their age and enjoyable.

The study suggests that focusing more on physical fitness and physical education in school would result in healthier, happier and smarter

children, Cottrell said.

Provided by American Heart Association

Citation: Students' physical fitness associated with academic achievement; organized physical activity (2010, March 2) retrieved 16 May 2023 from

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