Study shows increase in obesity among California school children slowed

March 1 2012

After years of increases in the rates of childhood obesity, a new UC Davis study shows that the increase slowed from 2003 to 2008 among California school children.

While encouraged by the results, the authors expressed concern about a group of youngsters currently driving the increase in obesity: children under age 10.

"Children who were obese entering the fifth grade remained obese in subsequent years as well, despite improvements in school nutrition and fitness standards," said William Bommer, professor of cardiovascular medicine at UC Davis and senior author of the study. "And we suspect that this trend begins before kindergarten."

Published in the February 2012 issue of the American Heart Journal, the results indicate a major turning point in efforts to reduce the impact of a chronic condition linked with a host of serious adult health issues that can begin in childhood, including heart disease, diabetes, breathing issues and some cancers.

Bommer served on a state task force that recommended standards to help protect K-12 children and teens from diseases related to sedentary living and unhealthy eating. As a result, new laws in 2005 expanded fitness programs, nutrition education and alternatives to high-fat, high-sugar foods and beverages in California schools.

Since 1996, California schools have reported to the state Department of Education the results of a variety of fitness and body composition evaluations for fifth, seventh and ninth graders. Body composition evaluations included body mass index -- or BMI -- measures, which determine if a child has a healthy weight or is overweight or obese. Data on all students from 2003 to 2008 were provided to Bommer to evaluate and gauge the success of the new standards. For the current study, he and his colleagues included data on a total of 6.3 million students for whom complete fitness test results and body composition evaluations were available.

There were some encouraging results. While childhood obesity is still on the rise (2 percent more children were overweight and obese in 2008 than in 2003), the rate of increase is slowing. National studies in prior decades showed annual increases in obesity among children and teens between 0.8 percent and 1.7 percent each year. For the current study, the rate of increase in California was an average of 0.33 percent per year.

In addition, while the results of fitness tests varied (abdominal strength and trunk extensor strength worsened overall, while upper body strength and flexibility improved overall), there was a significant increase in the percent of children with healthy aerobic capacity.

"This was particularly heartening, because cardiovascular and respiratory endurance directly correlate with reduced risks of heart disease and diabetes later in life, especially if it is maintained over time," said Bommer.

One concern, however, was that students with lower aerobic capacity and upper body strength fitness scores and higher BMIs tended to live in counties with lower median household incomes (less than $40,000 per year) or with higher unemployment.

"We clearly need to do more to ensure that children, regardless of where they go to school, are benefiting from the recommended health standards," said study lead author Melanie Aryana, a UC Davis researcher in cardiovascular medicine. "Expanding efforts to ensure that all California schools have the resources they need to make healthy changes will help."

The team's strongest recommendation related to reducing the trend toward early onset, persistent obesity among younger school children. This generation could eventually reverse recent advances in reducing heart disease risks and mortality, according to Bommer. He advises earlier fitness testing, including during preschool, to better monitor this increase together with interventions that specifically address unhealthy weight prior to age 10.

"Our study proves that nutrition and physical activity standards can help fewer children become obese during a critical time in their lives for establishing long-term healthy habits," said Bommer. "But just imagine how much more we can do to reduce the impact of obesity if we are just as successful much earlier in children's lives."

Provided by University of California - Davis

Citation: Study shows increase in obesity among California school children slowed (2012, March 1) retrieved 9 April 2024 from https://medicalxpress.com/news/2012-03-obesity-california-school-children.html