

Heart healthy lessons plus better food offerings lower heart disease risk factors in sixth-graders

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Sixth-graders taking part in a 10-week program that included interactive lessons to get heart smart coupled with healthier food and beverage options in the cafeteria and vending machines had marked reductions across all cardiovascular risk factors, according to research presented today at the American College of Cardiology's 61st Annual Scientific Session. The Scientific Session, the premier cardiovascular medical meeting, brings cardiovascular professionals together to further advances in the field.

"To see this kind of an impact in such a short period of time is pretty encouraging, and something that distinguishes it from other [childhood obesity](#) programs," said Taylor Eagle, pre-medical student, University of Michigan at Ann Arbor, Mich., and the study's lead investigator.

"Teaching these kids heart-healthy lessons clearly makes a real difference, and it could affect their lives forever. It's also important for controlling [health care costs](#) down the road because children who are obese in childhood are much more likely to be obese in their adulthood."

In addition to favorable physiologic changes in systolic and diastolic blood pressure, total cholesterol, LDL or "bad" cholesterol, [triglycerides](#) and random glucose ($p \leq 0.001$), pre-/post- analyses showed the program also supported better dietary and exercise habits. Students reportedly consumed more fruits and vegetables and became more physically active, spent less time in front of the TV and/or computer and more time

playing intramural sports.

The messages and activities promoted throughout the 10-week intervention centered around five goals: eat more fruits and vegetables; make better beverage choices; perform at least 150 minutes of physical activity each week; eat less fats and fatty food, and spend less mindless time in front of the TV and computer. Volunteers and program staff were trained to implement the program consistently in the 20-plus participating schools. The intervention included 10 interactive lessons that reinforced the five goals, related to changes to nutritional offerings and other activities to promote healthy eating and exercise.

"We are not just teaching lessons to the students, but we are also altering the environments to make it easier to make healthier food choices," Eagle said.

Researchers used standardized questionnaires to collect information about health behaviors from 2,048 sixth-graders in middle schools in four Southeast Michigan communities participating in Project Healthy Schools (PHS). Baseline physiological markers were also assessed; these and health behaviors were compared before and after students were exposed to the program. Participating schools also have the freedom to adopt other activities to boost healthy behaviors; for example, walking programs after school, buses to YMCAs to exercise in a safe environment, and starting farms to be grow their own vegetables.

"We are not going to solve childhood obesity epidemic without raising awareness and engaging communities," said Elizabeth Jackson, MD, MPH, assistant professor of medicine, Division of Cardiovascular Medicine, University of Michigan Systems, Ann Arbor, Mich. "This program could be implemented in any middle school in the U.S. – at the very least it gives every child basic skills which can be used to make improvements in key health behaviors, and may result in long-term

healthier lifestyles."

Researchers say further studies are needed to understand which aspects of middle-school based interventions are most successful in improving students' health. PHS is supported by a broad community partnership.

Provided by American College of Cardiology

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